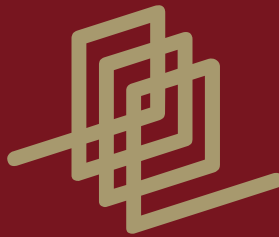

20 Years of Entrepreneurship Research

- From small business dynamics to entrepreneurial
growth and societal prosperity



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Swedish Entrepreneurship Forum is an independent research foundation and the leading network organization for initiating and communicating policy relevant research on entrepreneurship, innovation and SMEs.

The foundation's activities are financed by public funding, private research foundations, business and other membership organizations, private sector and individual philanthropists.

Contributing authors are responsible for the selection of research problem, analysis and conclusions in each chapter. The editor has, in consultation with the authors, devised summary and policy conclusions.

For more information, <http://eng.entreprenorskapsforum.se>

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Preface

At the time when The Swedish Entrepreneurship Forum was founded, the idea that small businesses and entrepreneurship constituted a crucial part of industrial dynamism and economic growth was at best viewed with scepticism and more often regarded as quite obscure. Such an allegation certainly challenged traditional findings at the time, even though a modest but growing empirical literature seemingly gave it some support. In addition, theoretical advances purported the idea of innovation being key to economic growth.

This book marks the 20th anniversary of The Swedish Entrepreneurship Forum. During that period research on entrepreneurship and small businesses, and how these phenomena links to employment, innovation and growth, has exploded. So has the interest from policy-makers and almost every country has introduced policies directed towards small and new firms.

The contributors to this book have all been at the forefront when it comes to initiating and undertaking research in the field of entrepreneurship research. The authors responsible for the respective chapters share one thread; they have all been awarded one of the most prestigious international research prizes, The Global Award for Entrepreneurship Research, initiated by the Swedish Entrepreneurship Forum in 1996.

The chapters stretches over several topics, ranging from overviews of what has been accomplished in this research field to current research issues and the questions that remain to be answered. Hence, it is up to the reader whether she or he prefers to go straight to a chapter of specific interest, choose a few or enjoy the entire volume.

The policy recommendations presented in the book represents the respective author and may not necessarily be shared by the Swedish Entrepreneurship Forum. Lisa Silver, Executive Assistant, being responsible for this project at Swedish Entrepreneurship Forum, has made an excellent job in making this book possible.

Pontus Braunerhjelm
Managing Director and Professor
Swedish Entrepreneurship Forum

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CHAPTER 1

The Swedish Entrepreneurship Forum 1994-2014

From small business dynamics to entrepreneurial
growth and societal prosperity

PONTUS BRAUNERHJELM

1994

The societal changes in the last twenty years are staggering and spans political, technological and economic areas: in 1994 Internet existed but its usage was limited, mobile phones were still devices for voice communications while digital music, apps and digitalized social networks were basically unimaginable. Technologically 1994 was still the era of the fax machine, the Sony Walkman and video games!

1994 was a time when a number of countries were on the verge of getting out of one of the most serious economic crisis since World War II, propelled by tumbling real estate prices, excessive lending and shaky financial markets. Sweden were among those countries most severely hit, experiencing negative GDP growth during 1991-1993 and suffering from a budget deficit that peaked just over 13 percent in relation to GDP. The crisis did, however, not reach the global level and cannot be compared to the financial market crisis that started 2008. One likely reason is the lower integration of financial markets in the 1990s, which the technological progress yet to come made possible.

At the political scene a number of important and far-reaching events occurred. Foremost among them was perhaps the development in South Africa where the first free elections were held and Nelson Mandela rose to become its first black president. In Europe the integration of the enlarged European Community

gathered momentum and the first election to the European Parliament took place. In addition, Europe found itself entangled in an ugly war in the Balkans, echoing of sentiments and political traits that most Europeans thought of as belonging to the past. NATO intervened and the conflict attained an international scale involving not only Europe but most of the western world. In China the tragic events at the Tiananmen Square 1989 gradually tended to be forgotten as living standards kept rising after the market oriented reforms initiated by Deng Xiaoping in the late 1970s ("socialism with Chinese characteristics"). The ongoing Middle East crisis seemed to approach some sort of a stable solution and Yassir Arafat, Shimon Peres and Yitzhak Rabin were honored with the Alfred Nobel Peace Prize.

In the Economics discipline Professors John Nash, John Harsanyi and Reinhard Selten shared the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel. Their research had nothing or very little to do with small businesses, entrepreneurship and innovation. In fact, this area of research was completely dwarfed compared to more traditional fields, albeit game theory had made its way into the economic sciences on a broader scale.

Hence, it was a turbulent time characterized by hope as well as concerns. In that respect it shared some of the features of our present time: there are encouraging signs that the deep global crisis finally has come to an end, although the global political scene continues to be a mixture of progress, backlashes and increased extremism.

Yet, one distinct difference between then and now is the academic and political interest in small and medium sized enterprises (SME:s). Even though interest in SME:s and entrepreneurship had been on the rise since the 1980s, it still constituted a tiny part of most universities curricula. However, at the beginning of the 1990s an increasingly convincing empirical literature suggested that not only was small and medium-sized enterprises the genuine job machine in most economies, but also that SME:s were contributing to an un-proportionately large share of innovations, particularly more radical innovations.

The idea that entrepreneurship could play an important role in economic development and growth challenged the conventional wisdom. According to for instance Gailbraith (1967), Williamson (1968) and Chandler (1977) it seemed inevitable that exploitation of economies of scale by large corporations would be the drivers of innovation. But also the "late" Joseph Schumpeter (1942) shared these views, albeit he was considerably more skeptical about the beneficial outcome than his colleagues. Rather, Schumpeter feared that the replacement of small and medium sized enterprise by large firms would negatively influence entrepreneurial values, innovation and technological change.

Despite these early prophecies of prominent scholars, the empirical evidence suggested that the development had actually reversed since the early 1970s for most industrialized countries. The tide has turned; the risk prone entrepreneur entered a virtual renaissance and has since then increasingly been seen as indispensable to economic development.

The empirical findings regarding SME:s role in employment and innovation in the late 1970s coincided with a development in the more macro-oriented growth models in the 1980s, which allotted a new and critical role to entrepreneurship and innovations (Romer 1986; 1990; Aghion and Howitt, 1992). Gradually those insights were also picked up by policy circles and the interest in how policies could be designed to foster entrepreneurship and SME:s kept rising.

Those were the prerequisites when The Swedish Entrepreneurship Forum was established in 1994. Encouraged by the gradual and embryotic insights regarding the importance and role of SME:s and entrepreneurs in promoting employment, innovation and growth, a few enthusiasts were determined to set up an institute with the mission to initiate, communicate and diffuse research in this field of economics. Foremost among them was the previous Managing Director of the Swedish Entrepreneurship Forum, Professor Anders Lundström. But also Professor Christer Olofsson together with the head of Örebro University, Vice-Chancellor Ingemar Lind, played a pivotal role in bringing the institute into existence. The then Minister for Employment, Börje Hörnlund, supported the idea and made sure that funding was secured.¹

20 years later research on SME:s, innovation and entrepreneurship have exploded and the view that the entrepreneur is indeed the agent of change is firmly established. Several scientific journals have been established in this field, a large number of universities teach and conduct research on SME:s, entrepreneurship and innovation. Policy-wise these issues have been among the most high-prioritized in the last decade.

Even though policy-relevant research has been on the agenda of the Swedish Entrepreneurship Forum since the very start, emphasis was much more on generally initiating and diffusing research on particularly SME:s in 1994-2004. Subsequently there has been more focus on the link between entrepreneurship and small businesses on the one hand, and innovation, growth and economic development on the other, taking into account not only the national level, but the local and regional as well. Thus, the first 10 years were mainly preoccupied by introducing and setting this research agenda into motion in Sweden, while the last 10 years has been more normative and policy-oriented in examining why and how these issues are important.

The tremendous shift that has occurred in the last 20 years with regard to the views on - and the understanding of – the entrepreneurial role should be credited a large number of actors and institutions in this field. The Swedish Entrepreneurship Forum has been one important voice in that choir. Despite the advances made there is still a need to further excavate into the role and contributions of the entrepreneurs and how the institutional set-up should be designed to promote entrepreneurship. In addition, the ways of organizing entrepreneurial endeavours

1. Other influential individuals in this process were Professor Clas Wahlbin and Thomas Henningson Director, Almi.

and innovation processes keep changing, and are likely to do so even more in the future due to access to 'Big Data', Cloud Computing and Internet-based connectivity, impacting industrial dynamics. Hence, there are still ample room for improving our understanding of the microeconomic foundations of industrial dynamism and economic growth. The Swedish Entrepreneurship Forum intends to continue to play an active role in addressing these issues in the decades to come.

2014: The entrepreneur - transforming the society

When depicting the modern economic history of today's wealthiest countries, the entrepreneur cannot be ignored. The emerging US economic hegemony in the last century is closely linked to its entrepreneurs, e.g. Dale Carnegie, Henry Ford, Thomas Edison and Alexander Graham Bell, which were all instrumental in accumulating wealth and prompting growth. In the US of today we see a very similar story with names like Bill Gates (Microsoft), Steve Jobs (Apple) and Sam Walton (Walmart), to mention a few. Similarly, the Swedish economic development is strongly associated with names like Lars Magnus Ericsson (Ericsson), Gustaf de Laval (Alfa Laval) and the Nobel brothers who were involved in numerous influential companies (e.g. Bofors). More contemporary counterparts would be the Rausing brothers (Tetrapak), Ingvar Kamprad (Ikea) and Erling Persson (H&M).

A characteristic feature of entrepreneurs is that they often try novel paths, testing and experimenting with new products and services, contemporaneously as they strive to expand their ongoing businesses. Examples of today's super-entrepreneurs include Sergey Brin, one of the co-founders of Google, who has embarked on a project to produce lab-grown meat. Jeff Bezos (Amazon) and Richard Branson (Virgin Group) are launching projects related to space tourism while Elon Musk (Paypal, Tesla) has presented plans on a so called ground based 'hyperloop' that is supposed to transport people at the speed of 700 km per hours at a much cheaper price than conventional air transports. Peter Diamandis (Planetary resources) is aiming to extract natural resources from asteroids and planets.² These entrepreneurs have already, through their previous endeavours, shown that they have the capacity to radically change the way societies work.

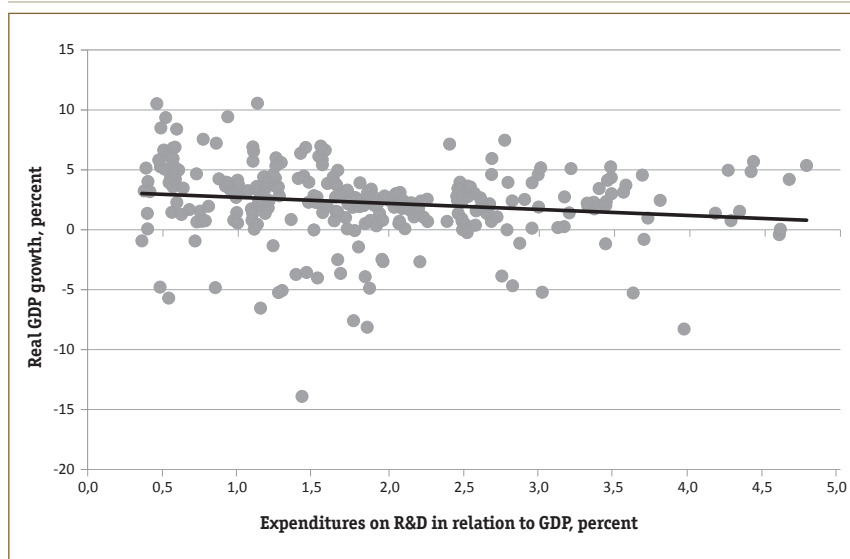
Some of these projects will surely fail, while others will succeed. What should be stressed is that the unique combination of successful entrepreneurs that mobilizes both financial and knowledge resources in order to solve complex problem, can be a very powerful tool. By combining, exploiting and developing new knowledge, the entrepreneur is the key to encounter both local and global future challenges. It is therefore of utmost importance that entrepreneurial competence is utilized and that the institutional framework allows experiment and innovation, as well as failure.

2. Se Financial Times, 14 August 2013 p. 5.

Institutions drive the entrepreneurial economy

Following the seminal contributions by Lucas (1988) and Romer (1986, 1990) knowledge investment—measured as R&D and education expenditure as a share of GDP—was customarily seen as the prime driver of economic growth. The knowledge-based growth model has also greatly influenced policymaking. No doubt, the great leaps in prosperity since the Industrial Revolution are largely contingent on new knowledge, new technology and radical innovations. Still, empirical studies of the effect of investments in new knowledge—as measured by spending on R&D—spending or education—do not unequivocally indicate that the effect is positive (Bergman 2012). A simple correlation between relative R&D-spending and economic growth for the OECD-countries since 2001 reveals no relationship between these two variables (Figure 1).

FIGURE 1: R&D-EXPENDITURES RELATIVE TO GDP AND ANNUAL GROWTH IN 33 OECD COUNTRIES, 2001–2009.



Source: Braunerhjelm (2012).

Figure 1 does not depict a causal relationship but obviously the creation of new knowledge through R&D per se does not seem sufficient to achieve economic growth. There are several conceivable explanations as to why this may be the case.³ First, a large part of new knowledge is not of potential economic value.

3. Obvious explanations, such as elaborating with different lag structures or averaging the data, does not change the picture.

Second, and more importantly, some agent(s) - the entrepreneur - must distinguish the subset of economically relevant knowledge, while filtering out the rest, and use the new knowledge in combination with other inputs to efficiently produce valuable goods and services (Braunerhjelm et al., 2010). Third, there may be a considerable time lag before knowledge is converted into growth, and data does not cover periods long enough. In addition, the development of a successful firm also requires a number of other key actors with complementary competencies who interact in order to generate, identify, select, expand and exploit entrepreneurial ideas such that consumer preferences are satisfied more efficiently (Braunerhjelm and Henrekson 2013).

In order to promote both knowledge investment and the conversion of knowledge into societal useful purposes, the institutional design is critical (Baumol 1990; North 1990; Rodrik et al. 2004; Acemoglu et al. 2005; Rodrik 2008; 2012; Acemoglu and Robinson, 2012). The accumulation of factors of production are just proximate causes of growth, the ultimate causes reside in the incentive structure that encourages individual effort, entrepreneurship, and investment in physical and human capital and in new technology (Acs et al., 2009). Hence, if institutions are such that it is beneficial for the individual to spend entrepreneurial effort on circumventing them, the individual will do so, rather than benefiting from given institutions to reduce uncertainty and enhance contract and product quality. The outcome in this case is expected to be one where corruption and predatory activities prevail over socially productive entrepreneurship.

Increasingly, the entrepreneurial function has been viewed as a factor of production (Baumol 2010; Holcombe 1998; Lazear 2005; Carree and Thurik, 2010). The entrepreneur often “creates” the capital of the firm by investing in tangible and non-tangible assets that in time create a return, such as developing a product and building firm structures. This capital requires a continuous commitment on the part of the entrepreneur. Therefore the entrepreneur should be rewarded for both his/her effort as well as postponing the consumption of firm equity into an uncertain future. The accumulation of factors of production, i.e., knowledge, human and/or physical capital, cannot alone explain economic development. Innovation and entrepreneurship are needed to transform these inputs in profitable ways, an insight put forward already by Adam Smith (Andersson and Tollison 1982).

Successful entrepreneurship and firm growth is a function of how well these actors—with their differing skills and competencies—acquire and use their competencies in ways that make it possible to reap the benefits of the complementarities. Again, this brings us back to appropriate institutions that harmonize the incentives of the different types of actors.

An entrepreneurial economy consequently rests on the ability to design institutions in a way that also allows these complementary competencies to prosper. Focusing too narrowly on entrepreneurship thus abstracts from other factors necessary to create the entrepreneurial economy. It is also noteworthy, that the introduction of new ideas into the economy and the subsequent development of

the original innovations into large-scale businesses, generally require two separate competencies (Baumol 2004). Sometimes the original entrepreneur evolves into an industrialist and continues to head his/her firm as it becomes larger, but more often the entrepreneur will cede the top executive position to somebody with the requisite experience and competence to manage a large firm.

The changing perception of the entrepreneur

The way we think about how economies develop and how individual welfare is augmented, has thus changed considerably over the last decades. One factor, however, seems to be fixed: knowledge is a necessary condition for societal prosperity, though not sufficient in itself. Notwithstanding considerable advances in the last decades in our understanding of the relationship between knowledge and growth, the discussions and disagreements among economists have centered on the mechanisms needed to convert knowledge into viable societal utility. Knowledge investments – and growth – was previously viewed as something that could be planned by states and governments and accomplished through instruments such as taxes and subsidies, while nowadays the importance of variability, heterogeneity, experiment and selection is often stressed. This implies putting the entrepreneur back into the picture.

Yet, a comprehensive understanding is still lacking concerning the interface of the variables knowledge, innovation, entrepreneurship and growth. The knowledge-innovation-entrepreneurship-growth nexus is intricate and influenced by complex feed-back, non-routine processes and interaction mechanisms. The link between the micro-economic origin of growth and the macro-economic outcome is still too rudimentary modeled to grasp the full width of these complex and intersecting forces.

Far from the text-book version of the entrepreneur, most entrepreneurs operate on thin margins, their focus is on short term survival and their actions are reactive to immediate problems. Entrepreneurial activity is complex and adaptive. That contrasts the picture of entrepreneurial activities as being based on wisely and far-sighted considerations. Moreover, the solutions entrepreneurs adopt are more likely to come from local sources – either by tapping into networks of people working on similar things or through serendipitous encounters. Solutions that appear to work are diffused, repeated, and fine-tuned, gradually evolving into accepted routines and operating procedures. These routines are adopted by institutions and defined as common practices. Over time, a repertoire of actions develops, orchestrated by a common vision of the industry. This encourages further experimentation and adaptation. It is the nature of this process that makes it hard to design the proper institutions from start or to copy institutions from other countries and regions. There is no guarantee that new knowledge with commercial potential is immediately transformed into entrepreneurial initiatives; these effects could fail to show up at all, or appear with a time lag (Feldman and Braunerhjelm 2006).

At the individual level, processes such as learning-by doing, cognitive abilities, networking, combinatorial insights, etc., tend to fuse both firm capacities and societal knowledge. The knowledge generating activities of entrepreneurs and small firms have been shown to be spread across a number of different functional areas, not only R&D.

The lack of detailed insight into these issues implies that our knowledge concerning the microeconomic foundations of growth is at best partial, but could potentially also be quite flawed. Without accurate microeconomic specification of the growth model there is also an obvious risk that the derived policy implications will be incorrect. In addition, there is no guarantee that the recipes for growth will be consistent over time and they may also vary over different stages of economic development. Today's developing countries may learn from policies previously pursued by the developed countries, while developed countries themselves confront a more difficult task in carving out growth policies for the future.

The challenge remains

As this short essay has tried to describe, there are still a number of questions that remains unanswered: How can we capture entrepreneurial dynamics in today's growth models? To what extent are lagged effects, feed-backs and interaction effects included in an appropriate way? What is actually endogenized through knowledge accumulation and do knowledge spillover substantiate through entrepreneurs? How should knowledge be defined? Is it a better metaphor to view knowledge as fuel rather than the engine - e.g. entrepreneurs, innovation and labor mobility - that converts knowledge into growth? How should policies be designed to enhance the quality rather than the quantity of entrepreneurs?

Hence, even if we do know that a society's ability to increase its wealth and welfare over time critically hinges on its potential to develop, exploit and diffuse knowledge, thereby influencing growth, we still need to sharpen our understanding of the "how". The more pronounced step in the evolution of mankind has surely been preceded by discontinuous, or lumpy, augmentations of knowledge and technical progress. As our knowledge has advanced and reached new levels, periods followed of economic development characterized by uncertainty, market experiments, redistribution of wealth, and the generation of new structures and industries. This pattern mirrors the evolution during the first and second industrial revolution in the 18th and 19th centuries, and is also a conspicuous feature of the "third" and still ongoing revolution that we are in the midst of.

To conclude, the economic variables knowledge, entrepreneurship, innovation are linked together in a complex manner but are often treated as different and separate entities, or reduced to a constant or a stochastic process. It is not until the last 20-25 years that a literature has emerged that aims at integrating these economic concepts into a coherent framework. Thus, despite considerable progress, there are still substantial uncertainties and puzzles in need to be addressed in the fields of SME:s

and entrepreneurship. To paraphrase Voltaire, doubt is not a pleasant condition but certainty is absurd, and to dig into unexplored territory is what triggers research.

Outline of the book

As the past 20 years has shown, the research issues related to entrepreneurship, SME:s and innovation, are both complex and multifold, spanning several disciplines. This is also mirrored in the contributions to this book, written by some of the most distinguished scholars in this field of research. Even though they address a number of different topics, they share the common feature that the main authors all been awarded the Global Award for Entrepreneurship Research, set up by The Swedish Entrepreneurship Forum in 1996.⁴ The introduction of the following chapters are ordered chronologically based on the year that the main author received the Global Award for Entrepreneurship Research.

First out is David J. Storey who received the prize in 1998 “For the increased focus on unbiased, large-scale and high-quality research, and for the initiation and coordination of extensive national and cross-national research programs on the central small business issues”. He provides a critical reflection upon the developments in the field of entrepreneurship research since then. How has our understanding of entrepreneurship and SME:s been improved, to what extent have the changes in the field been for better or for worse, which areas remain that requires a more thorough analyses and, most importantly, to what extent does “academic” knowledge actually influence public policymakers?

In the subsequent Chapter 3, Howard E. Aldrich, awarded in 2000 “For integrating the most central research questions of the field, examining the formation and evolution of new and small firms within a broader sociological research context”, together with co-author Tiantian Yang focuses on the paradox of the almost universal celebration of the entrepreneurship, despite the low likelihood of success in the entrepreneurial endeavour. Most start-ups fail and there are obvious uncertainties and risks in setting up a new firm. What triggers individuals to actually take the step and become entrepreneurs? Drawing on recent sociological theory, the authors focus on the gap between an “entrepreneur” as a socially desirable identity and the tools actually available to aspiring entrepreneurs. They draw attention to the potential negative consequences of too much celebration and not enough education concerning entrepreneurship in modern societies.

In 2001 David B. Audretsch, together with Zoltan Acs, received the Global Award “For their research on the role of small firms in the economy, especially the role of small firms in innovation”. In Chapter 4, Professor Audretsch elaborates on the rapid emergence of entrepreneurship as a scholarly field and how it has evolved

4. Up until 2009 the prize was denoted the International Award for Entrepreneurship and Small Business Research. Since 2009 the prize is jointly organized by the Swedish Entrepreneurship Forum and the Research Institute of Industrial Economics (IFN).

to entail a myriad of approaches, methods and insights. Issues related to entrepreneurship and small businesses have almost developed into a discipline of its own in the last 20 years. The chapter provides an account of the most important contributions in the last decades and puts it in a historical perspective.

Chapter 5 is written by William J. Baumol, whose seminal contribution covers several areas in the economics discipline, including the the field of entrepreneurship research. He was given the Global Award in 2003 “For his persistent effort to give the entrepreneur a key role in mainstream economic theory, for his theoretical and empirical studies of the nature of entrepreneurship, and for his analysis of the importance of institutions and incentives for the allocation of entrepreneurship”. Professor Baumol elaborates on an empirical observation that has been noted in previous studies. Why and how may a recession become a possible driver of innovation? He argues on the basis of evidence already available in the literature, that recession—even depression—encourages the entry of small enterprising firms. A substantial proportion of the companies go on to become actual “giants of industry”. This adds nuance to previous findings that have shown how recessions primarily results in “necessity” entrepreneurship. In fact, periods of recession also spur innovative activities that promote much of global economic growth.

Paul D. Reynolds, who received the prize in 2004 “For organizing several exemplary innovative and large-scale empirical investigations into the nature of entrepreneurship and its role in economic development”, examines the link between national values and business creation in Chapter 6. His chapter explores why indigenous entrepreneurship tend to be so stable over time and why political measures aimed at raising entrepreneurial activity often have only a minor impact. The reason, Professor Reynolds argues, is that a population’s entrepreneurial readiness – reflected in the perception of opportunity, confidence in the ability to start a firm, and knowing other entrepreneurs – depends on national values and that these value structures are extremely stable over time. Reynolds tests this hypothesis empirically and finds that entrepreneurial readiness is greater in countries that emphasize traditional, rather than secular-rational, and self-expressive, rather than survival, values.

In 2007 the Diana Group, here represented by Professors Elisabeth Gatewood and Patricia Greene, was granted the Global Award “For having investigated the supply- and demand-side of venture capital for women entrepreneurs. By studying women entrepreneurs who want to grow their businesses, they demonstrate the positive potential of female entrepreneurship”. In Chapter 7, which is co-written with Per Thulin, they compare entrepreneurship in Sweden and the US, focusing on women entrepreneurship. Moreover, they also put forward recommendations as to how policies can be crafted to boost women’s entrepreneurship. They claim that there are two crucial reasons why this is important. First, entrepreneurs are among the happiest individuals across the globe when it comes to individual well-being and satisfaction with their work conditions. Second, too low participation of female

entrepreneurs can be viewed as a suboptimal use of a society's entrepreneurial talents.

Chapter 8 is written by the only Swedish prize recipient, Professor Bengt Johansson. The motivation for the 2008 awardee was: "For furthering our understanding of the importance of social networks of the entrepreneur in a regional context, and for his key role in the development of the European entrepreneurship and small business research tradition." Embarking from the observation that entrepreneurship should be viewed as a means of creatively organizing individuals and resources to exploit opportunities, the chapter looks into how entrepreneurs organize their activities. Previous findings suggests that entrepreneurs are more concerned with hands-on action and social interaction that is aimed at envisaging and enacting new realities, than on rational decision making. Thus, for theoretical and practical reasons, it is important to learn why entrepreneurs are concerned with detail-oriented action and associated interactions and how this conduct results in innovative ventures. The chapter also contains a novel and somewhat philosophically oriented presentation on 'cunning intelligence' as a key concept to understanding entrepreneurship.

In 2010 Professor Josh Lerner, one of the internationally most prominent researchers on venture capital, received the prize for "For his pioneering research into venture capital (VC) and VC-backed entrepreneurship. Among his most important contributions is the synthesis of the fields of finance and entrepreneurship in the form of entrepreneurial finance. He has also made several important contributions in the area of entrepreneurial innovation, spanning issues relating to alliances, patents and open-source project development". He sets off in Chapter 9 with the observation that there is still a considerable interest from policy-makers regarding the role of venture capital and entrepreneurial finance in propelling growth. Simultaneously, performance by the venture capital industry has been rather lacklustre, which, according to Professor Lerner, can be explained by a number of constraints that limit venture capitalists' ability to promote true innovation. The reasons for these constraints, such as shorter innovation cycles and entering into an increasingly narrower range of technologies, are discussed. Moreover, a number of policy conclusions, relevant to the Swedish context, are presented. In general, rather than adding "fuel to the fire," it is far better for policymakers to act when and where market conditions are difficult.

Finally, Chapter 10 is written by Professor Kathleen Eisenhardt, who received the prize in 2012 "For her work on strategy, strategic decision making, and innovation in rapidly changing and highly competitive markets". Together with her co-authors Robert N. Eberhart and Charles E. Eesley, she examines the role that changes in institutional environment, such as "barriers to success" and "barriers to failure", play in the formation, exit, and performance of ventures. They do so by taking advantage of two natural experiments in Japan that relates to the exit of a venture: successful IPO, and failure in bankruptcy. Preliminary results suggest that policies for entrepreneurship should give more importance to the quality rather than the

quantity of entrepreneurs, as well as to the second order effects of reforms and not just their direct effects.

Together these contributions give a broad indication of the development in research in this area, and also points at future avenues for analyses of entrepreneurship and how to bridge entrepreneurship with knowledge, innovation, industrial dynamism and growth. There is still a long way to go before we fully comprehend the interdependencies between these variables, and how they shape economic performance.

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CHAPTER 2

Understanding the Small Business Sector: Reflections and Confessions

DAVID J. STOREY

Introduction

I am delighted to have been given this opportunity to reflect on issues relating to my chosen area of research. I am particularly fortunate because, as the third winner of the International Award for Entrepreneurship and Small Business Research after David Birch and Arnold Cooper, I have the longest period of any of the current contributors over which to conduct my reflections –nearly 20 years.

Few, if any, prize-winners really know why they get chosen, although my commendation refers to both “impact on policy-makers” and to the “policy-relevance of the research.” Without mentioning it specifically, I suspect the award was influenced by my book, *Understanding the Small Business Sector*, published in 1994.

Making an award on these grounds was, with hindsight, a brave decision for three reasons. The first was that the book had only been published four years previously, so its impact was hard to assess. A second risk was that it was primarily about the United Kingdom. Thirdly, it had a strong focus upon a topic of peripheral interest to most entrepreneurship scholars – public policy.

To some extent that decision may now be vindicated by the evidence provided by Hans Landstrom et al. (2012). They show *Understanding the Small Business Sector* to be the 10th core contributor to Entrepreneurship studies. However, the risk of it being a “European” contribution is reflected in their unpublished data. This shows its impact is almost entirely European, with less than 7 percent of its’ cites being from US-located Scholars – compared with 79 percent of those from Europe. This

compares with an average of 44 percent and 37 percent respectively for the Top Cited 20 works in Entrepreneurship.⁵ The work therefore has had its impact, but it is primarily outside the academic heartland of entrepreneurship. This is important context for the reflections that follow.

The Public Policy Recommendations in Understanding the Small Business Sector (1994)

In the early to mid-1990s the UK government had about 15 years of experience in delivering both SME and Entrepreneurship Policy. Drawing upon that experience the core recommendations in Understanding the Small Business Sector were:

- It is vitally important that the government produces a White Paper on this topic which sets out the objectives and targets of policy in measurable terms.
- Three areas of public policy where the “returns” were open to question were identified:
 - » Deregulation and administrative simplification.
 - » Training.
 - » Information and Advice.
- Policy should place a greater emphasis upon:
 - » Setting the appropriate macro-environment.
 - » Technology policy.
 - » Grants.
 - » Targeting policies towards firms with growth potential.

What Has Changed Since 1994 and Why?

It is a challenge, even half-objectively, to sit back and ask yourself to what extent have the changes in your field been for better or for worse. It is even more tricky to speculate on the role your work has played in these changes but, if conducted, such speculation might pose a series of questions.

For example, did you get it right in 1994? Since then, have you changed your mind on key issues? If so, is that based either on new evidence, or because of changed circumstances or because, quite simply, you were wrong at the time?

There is, of course, no shame in changing your mind. There may even be honour through association, since it places you in the same group as the most influential-ever scholar in entrepreneurship – Joseph Schumpeter⁶.

5. All other works in the list have at least 30 percent of cites from US-based academics.

6. Landstrom et al. (2012).

Even so, self-assessing your own contribution is, in my view, an invidious task, and particularly so for someone who has always been deeply suspicious of any form of self-report data relating to entrepreneurs!

So, instead, I shall limit myself to a more restricted agenda comprising the extent to which I believe our knowledge-base has been improved; to highlight areas where knowledge improvement is still needed and to conclude by musing about the extent to which this “academic” knowledge is actually influential amongst the group of users of greatest interest to me – public policymakers. I’ll leave the judgements to others.

Context

Virtually all high and middle income countries use taxpayer monies to provide support for either new firms or small firms. This support can be in the form of, for example, information/advice or tax-breaks or access to subsidised/guaranteed funds to established small firms. This is referred to by Lundstrom and Stevenson (2005) as SME Policy [SMEP]. Alternatively, public funds may be used to provide advice or funding to individuals to begin a business. This is called Entrepreneurship Policy [EP].

The monies used for these purposes are normally considerable. In the UK, in 2002, public funding to small firms [SMEP] exceeded that given to either the Universities or to the police-force. A recent careful study of Sweden suggested a broadly similar pro rata scale of support [Lundstrom et al. 2014] with expenditure on SMEP also dwarfing EP in that country.

The underpinning justification for such a scale of expenditure is to address the market failure that, without this expenditure, the level of enterprise/entrepreneurship in the country would be socially sub-optimal. By this we mean that without such funding there would be fewer and worse-paid jobs, a lower level of income or wealth, less innovation, more unemployment etc.

However there are many other competing claims for public funds –particularly in recessionary times – so it is vital for those making claims for the effectiveness of such funds to be able to demonstrate that these yield the benefits claimed for them.

My research contributes to assessing whether the taxpayer gets value for money from the funds used for SMEP and EP. Hopefully it then also assists policy-makers in making cost-effective decisions in these policy areas. It is not about helping individual new and small firms to perform better – although the expectation is that, if the policy framework is appropriate, this improves the performance of new and small firms *as a group*.⁷

7. It is for this reason that the title of the 1994 book was not *Understanding Small Business* but *Understanding the Small Business Sector*.

Changes Over 20 Years

During the last twenty years our knowledge-base about the impact of both EP and SMEP has increased considerably for two main reasons.

The first is that, as noted above, virtually every middle and high income country in the world now has some component of SMEP and EP and most countries have an extensive suite of such policies. It is therefore, in principle, possible to examine policy effectiveness in a wide range of countries, under very different macro- economic regimes and in very different political contexts. It is also the case that, even what appears to be the same policy initiative – such as the provision of advice or a financial guarantee provided by the state – is in practice very different in each country because the “small print” of the terms and conditions often varies considerably.⁸ In principle this diversity is helpful since it enables a judgement to be reached on whether some policy regimes look to be broadly more successful than others. In practice, however, as we shall show later, this judgement is clouded by the patchy assessment procedures adopted by governments to assess impact.

The second major change over 20 years is the advance in statistical methods – the science has improved very considerably. So, for example, we might wish to assess whether providing advice and networking assistance to new or small firms improves their survival rate or enhances their growth rate. There are now a range of statistical techniques that enable such assessments to be made with considerably greater accuracy than was the case in the past [Imbens and Wooldridge (2008)]. Broadly what these techniques do is to enable the performance of firms that benefit from a policy [called the treatment group] to be validly compared with otherwise similar firms that did not benefit [the non-treatment group]. This is equivalent to drug-trials for new pharmaceutical products since it tests whether the drug/advice makes an improvement to the patient/business.

These statistical techniques, however, require considerable data comprising “panels” of firms over a number of years. This is vital for new and small firms since so many firms have a very short “life” and some have periods of rapid growth followed by collapse. The panels therefore have to capture this volatility amongst both the treated and the non-treated groups in order to assess whether there is a better performance amongst the treated group and whether any better performance is because of the assistance provided.

Statisticians are therefore fortunate that there has been a third change over time –with more of such databases having been established – even if though they continue to remain the exception rather than the rule.

8. For example Loan Guarantee programmes differ significantly in Mexico, Canada, Netherlands [OECD 2007].

Have The 1994 Recommendations Stood The Test Of Time?

We now examine the extent to which the 1994 recommendations are supported or rejected by the changed circumstances of improved statistical methods and better data. It is not possible, given the space constraints to adequately cover all the recommendations noted earlier, so this text will focus on two:

1. The impact of advice/ training and attitudinal change on the owners of new and small firms.
2. Targeting policies towards firms with growth potential.

The impact of advice/ training and attitudinal change: A review of the results of using advanced statistical approaches, usually drawing on large databases, is provided in Table 1. It is taken from Rigby and Ramoglan (2013). It reports the results of studies examining the impact of programmes that provide training, advice and finance to new and small firms. It also covers programmes seeking to promote an entrepreneurial mindset amongst college students in the expectation that, perhaps some years hence, these individuals will be more likely to become a (successful) entrepreneur/ business-owner than an otherwise similar individual who did not participate in such a programme.

Unfortunately, for many policy-makers wishing to demonstrate the impact of the considerable public expenditure in this area, the results have proven disappointing in several cases, and even embarrassing in others. Rigby and Ramoglan (2013) say:

“While policies and programmes for entrepreneurship can be simplistically modelled as a series of inputs beginning with cultural change followed by general and then more specific skill development, it is hard nevertheless to assess impact or trace causality because of the difficulty of defining discrete units of input, the presence of confounding factors and the length of time over which effects can build.”

Examples of this difficulty linking items of EP and SMEP to tangible impact on individual firm performance include the exemplar Swedish study by Norrman and Bager-Sjögren (2011). They conclude:

“The evidence of an impact of the support to early stages ventures given by the public programme is weak or non-existent. The higher number of outliers in the supported groups could be an indication of prospective success if the time span is prolonged over seven years. Our test of the projects that programme officials considered to be most promising did not support their belief” p.615

TABLE 1: Statistical Studies of the Impact of Entrepreneurship and SME Policies on Enterprises

| Country/ Region | Measure | Study | Period | Evaluation Method | Outcome Variables | Impacts |
|--------------------|---------------------------------------|-----------------------------------|-----------|----------------------|---|---|
| Denmark | North Jutland Entrepreneurial Network | Rotger et al. (2012) | 2002-2005 | PSM; DiD | Survival Employment Output | +ve +ve +ve |
| Germany | Germany | Caliendo and Kunn (2011) | 2003-2008 | PSM; DiD | Not Unemployed In paid/Self Employment Personal Income | +ve +ve +ve |
| Germany | Germany | Oberschachtsiek and Scioch (2011) | | PSM; DiD | Training: Exit Employment Exit Unemployment Coaching: Exit Employment Exit Unemployment | Either negative or non-significant for most metrics |
| Netherlands | Netherlands | Oosterbeek et al. (2010) | 2005-2006 | IV; DiD | Entrepreneurial Intention | -ve |
| New Zealand | New Zealand | Slavtchev et al. (2012) | 2006-2008 | DiD | Entrepreneurial intention | -ve |
| Sweden | Sweden | Norrman and Bager-Sjögren (2010) | 1994-2003 | Case matching | Sales Employment | n.s. n.s. |
| UK | UK | Wren and Storey (2002) | 1988-1996 | Two stage probit | Survival Turnover Employment | +ve(med) +ve +ve |
| UK | UK | Roper and Hart (2005) | 1996-1998 | IV | Sales Employment Productivity | n.s. n.s. n.s. |
| UK | UK | Mole et al. (2008) | 2003 | DiD; Probit | Participation Employment Sales | +ve (young) +ve -ve |
| US | US | Fairlie et al. (2012) | | RCT | Ownership Employment | +ve (SR) +ve (SR) |

Source: Rigby and Ramoglan (2013)

Notes: IV=instrumental variables DiD=difference in difference PSM=Propensity Score Matching RCT=randomised controlled trial Med= medium term effect SR=short run effect

Indeed the overall impression derived from the Table is that the findings are “mixed” and, even where the findings are positive – such as those in Pons Rotger et al. (2011) or Storey and Wren (2002), the magnitude of the impact is normally less than 5 per cent and often is only clearly applicable to some, but not all, groups of firms.

In short, the 1994 conclusion that the impact on new and small firm performance of business advice remains “unproven” has changed little over twenty years despite virtually every developed country spending considerable sums providing such advice. Broadly, the same conclusion applies to programmes seeking to provide management training to the owners of small enterprises. Quite simply, the jury continues to be out for policy in this area.

Disconcertingly, the same conclusion has to be reached over the myriad of studies that have examined the impact of enterprise education. This area of research was recently summarised by Rideout and Gray (2013). Having reviewed studies of University Entrepreneurship education world-wide between 1997 and 2011 they concluded that only 11 had used “some minimal counter-factual comparison”.

Targeting policies towards firms with growth potential: If the 1994 reservations over public expenditure on SME training and advice continue to be supported by more recent statistical evidence, the same cannot be said for the recommendation that policies should “target firms with growth potential”. This is because the statistical tests on large-scale data bases have convinced me, at least, that being able to predict the performance – growth and survival – of new enterprises is extremely difficult.

The reason why this recommendation was made in 1994 was that cohort analysis showed that, out of every 100 new enterprises only 40 survived for a decade. Of these, the largest 4 provided half the jobs in the surviving firms, implying that 4 percent of those that started ended up creating half the jobs. This continues to be verified in recent work. For example Anyadike-Danes et al. (2013) say:

“There is widespread acceptance of the proposition that a relatively small proportion of firms are responsible for a disproportionate share of job creation”.
p.29

This concentration of job creation amongst a tiny proportion of new firms points to the potential “returns” in avoiding providing assistance to the vast bulk of new firms which had negligible economic impact and focussing instead upon those with “growth potential”.

However in recent years I have been fortunate to undertake work with colleagues such as Julian Frankish, Richard Roberts and Alex Coad. We have spent much of that time analysing a panel, or cohort, of 6247 new enterprises that began to trade for the first time in the first quarter of 2004⁹. They constitute the closest pos-

9. There are other panels of start-up firms – again often in the Nordic countries. For example Dahl and Sorenson (2012) have a panel of Danish start-ups that come from government registers collected in the Integrated Database for Labor Market Research (referred to by its Danish acronym, IDA) and the Entrepreneurship Database, both maintained by Statistics Denmark. The latter contains annual information on the identities of the primary founders of new firms in Denmark from 1995 to 2004. Their sample comprises 15,884 new ventures all of which have at least one employee in the first year.

sible representation of new firms in England. These new businesses are customers of Barclays Bank and (all of) their anonymised financial transactions have been tracked over six years. Their basic characteristics are:

- After six years only 1,2 percent of those starting have 10 employees or annual sales of £1m.
- During their first six years annual closure rates vary from 8 to 14 percent.
- The volatility of sales in each six month period is considerable, meaning our ability to predict future growth is very low indeed.

Analysing this panel has persuaded me that, whilst it is possible to formulate models that predict new firm survival with acceptable levels of accuracy, the sales volatility of new firms is so great and subject to random fluctuations that public policy makers would be unwise to frame public support on these grounds. Even simple “rules” such as providing support for firms that have performed well in the last 6 months or 12 months would not lead to “better” firms being selected.¹⁰

For these reasons I have concluded that, although there is arithmetic merit in providing support for a tiny minority of new and small firms, this is operationally difficult or impossible to deliver.

Political Reservations Over the Conduct Of Evaluations

Although the last 20 years have seen a considerable increase in the confidence with which analysts are able to assess the impact of EP and SMEP, progress towards incorporating these evaluations into the policy process has been slow. Perhaps part of the reason for this was captured in the finding by Bager-Sjögren and Norrman (2011). They pointed not only to the lack of impact of business support, but also to the divergence between the views of the programme officials and the results from the statistical analysis. This may go a long way to explaining why it is that project officials are, in almost all cases, robustly opposed to statistical analysis being conducted on “their” programmes. My contentious casual observation is that, in the areas of SMEP and EP, the more sophisticated the statistical analysis the weaker is the reported programme impact.

OECD (2007) captured this point. They acknowledged that statistical analysis had three deficiencies for the policy maker. The first was that it was considerably more expensive than obtaining “happy sheets” from programme participants. The second was that the analysis often took a long time to deliver – by which time the programme had frequently been abandoned, modified or even expanded in scale,

10. See Frankish et al. (2013); Coad et al.(2013).

so the results of the evaluation constituted “economic history” and could therefore be set aside. Finally, Ministers and senior public servants were rarely personally comfortable with this approach. A photograph of a happy small business owner who had received funding was worth much more than a thousand equations!

For all these reasons, although it is now much easier to undertake reliable analysis of programmes in SMEP and EP there remains a considerable reluctance to undertake them and, even if they are undertaken, for them to directly feed into current policy. There are of course some notable exceptions, most notably several countries in Northern Europe – Denmark, Sweden, UK and Germany. Unfortunately, despite its massive spending in this area, we are unable to point to a single European Union programme that has been subject to the form of statistical analysis used by the studies in Table 1.

So why is it that the statistical analysis of panels of new and small firms over time generates such different results from either the views of programme officials or those who seek the views of the recipients of policy?

Four reasons can be proposed: The first is that only panels can reliably identify the businesses that cease. Over, for example, a five year period at least 50 percent of SMEs cease trading – with this percentage being even higher for new firms. But, since interviews are generally only conducted with surviving firms this constitutes a hugely biased sample. Secondly, new and small business owners are unrealistically optimistic about both their judgements and the future prospects for their enterprise. Questions therefore asking them about whether it was a good idea to join a programme and about the future impact on the business induce many to provide a positive reaction on the “happy sheet” or to argue that any improvement in their firm reflected their skills and not those learnt from others. Thirdly the firms that put themselves forward for receiving advice/assistance are more aware, or more knowledgeable, than the more typical firm and so are likely to have performed well - even in the absence of the assistance. Fourthly some programmes select the firms to participate so, if the selectors are effective, then they only select the better firms.¹¹ Any better performance on the part of firms in the programme may therefore reflect the skill of the selectors as well as the value of the knowledge generated.

Going Forward

If our objective is to provide an environment in which new businesses can be created [EP] and in which existing small enterprises can thrive [SMEP], and to do so in a cost-effective manner, then the type of analyses described above has to become

11. This we suspect has the least impact. This is because our suspicions are that the selectors are NOT good – or bad – at selecting, but there has yet to be an evaluation funded that would enable the merit of the selectors to be assessed!

commonplace. This requires a change in approach from two groups – the policy makers and the entrepreneurship research community.

Unfortunately, as noted in the paragraphs above, although the science is available there appears to be, in many countries, unwillingness on the part of policy-makers to commit the necessary resources to reliably evaluate EP and SMEP policy initiatives. Sometimes this is reflected in an unwillingness to create the datasets required, but more frequently it is reflected in an unwillingness to engage in any form of policy assessment beyond that of confirming that the monies were distributed in accordance with the law.

The naïve might be tempted to believe that, because evaluation requires resources, it is an option available only to policy-makers in high income countries. To some extent this is the case with some – but not all – the wealthy Nordic countries providing examples of well-conducted evaluations.

However another high income country – the US – appears to have almost no record of evaluating SMEP and EP programmes. The Government Accountability Office (GAO) report for 2012 reviewed “Support for Entrepreneurs”. It identified 53 programmes in four different government departments with an aggregate budget of 2.6 billion USDs. The views of the GAO on the absence of evaluation were scathing. They say:

“For 39 of the 53 programs, the four agencies have either never conducted a performance evaluation or have conducted only one in the past decade. For example, while SBA has conducted recent periodic reviews of 3 of its 10 programs that provide technical assistance, the agency has not reviewed its other 9 financial assistance and government contracting programs on any regular basis. Without results from program evaluations and performance measurement data, agencies lack the ability to measure the overall impact of these programs, and decision makers lack information that could help them to identify programs that could be better structured and improve the efficiency with which the government provides these services”.

As OECD (2007) noted, there is evidence of a “mindset” amongst SMEP and EP policy-makers in some countries that favours evaluation, whereas in others there appears to be no appetite whatever for this approach.¹² However the emphasis placed on programme evaluation by international organisations such as OECD and the World Bank [Lopez Acevedo and Tan 2010] are important in slowly changing this mindset. There may therefore be some cause for optimism in the future.

The final change required – and perhaps the most difficult to bring about – is amongst scholars of entrepreneurship, entrepreneurs and small business owners.

12. The curiosity in the US is that it has a long and distinguished history of conducting evaluations of labour market programmes [Heckman et al. 1999].

Obtaining a better understanding of the cost-effective delivery of SMEP and EP requires a comprehensive picture of how this highly diverse and disparate group changes and evolves over time. In my judgement far too much influential academic research is conducted on groups of [frequently highly successful] business owners leading the naïve to believe that such individuals are the norm. The nasty, brutish and short life of most new ventures is less accessible, and considerably less glamorous, than the born-global, VC-backed, high-tech, strongly networked media-friendly entrepreneur who is only too prepared to share their experience with researchers.

Of course researchers have the right to examine any group of entrepreneurs they choose. However, as Yang and Aldrich (2012) point out, even when studying those businesses that close, the samples of business owners favoured by academics are subject to serious size-based bias. Even where they seek comprehensive coverage these tend to be drawn from official registration/employment records when many new enterprises never reach the threshold required for registration or providing employment for others. Once identified, it is then vital that such individuals and enterprises are tracked over time. Thirdly the panel has to be of sufficient size to conduct statistical analysis.

The challenge then is for the gatekeepers in the academic community to be reluctant to accept work which fails to satisfy these requirements. What this means is that the Editors of the top academic journals in the field need to be more open to novel ideas when these are based on large scale panel datasets. My personal view is that asking a set of college students or modest numbers of business owners about their views is not scholarship for publication in the better journals.

It is therefore as important for academia to put its own house in order as it is to lecture the policy community about using appropriate tools for assessing the elements enterprise policy that are effective from a taxpayer viewpoint.

Traditionally one is expected to end by pointing to new areas where research is required. In my chosen area this is not the priority. What is required now is to do better research using better data and better analytical methods. It is a tough message but the squeezing out of poor research is both desirable in its own right and serves to send a message to policy-makers about the importance of funding rigorous policy evaluations.

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CHAPTER 3

Entrepreneurship: Easy to Celebrate but Hard to Execute

HOWARD E. ALDRICH AND TIAN TIAN YANG

The appeal of business ownership seems nearly universal, but most nascent businesses fail before they become fully operational. We observe a never-ending wave of hopeful entrepreneurs who are attracted to entrepreneurship despite their low likelihood of success. How can we understand this apparently contradictory set of observations? We believe that whereas institutional support from many sources contributes to the popularity of entrepreneurship in modern societies, the vast majority of people attempting to start new businesses have not acquired the knowledge and skills they need to build organizations. Lacking such knowledge and skills costs them, and society, a great deal.

In this essay, we will first describe the widespread celebration of entrepreneurship and its consequences and identify institutional supports for entrepreneurship. Then, drawing on recent sociological theory, we focus on the gap between an “entrepreneur” as a socially desirable identity and the tools actually available to aspiring entrepreneurs. Our argument is meant to provoke discussion about the potential negative consequences of too much celebration and not enough education concerning entrepreneurship in modern societies. As such, we do not test any research propositions but rather make informed speculations, based on our reading of the extensive literature that has grown up around these questions over the past decade.

The Celebration of Entrepreneurship

Many modern social institutions – including public opinion, educational systems, governmental policies, and media coverage – bolster the cultural appeal of entrepreneurship. In this section, we briefly review some evidence supporting this idea

and then turn to the issue of what consequences such celebrations might have for aspiring entrepreneurs.

Cultural values

Today, large-scale surveys provide solid evidence of the extent to which people positively value “entrepreneurship” and “self-employment.” Representative national surveys have consistently shown that people in most nations express a strong desire to be self-employed. Similar appreciation of entrepreneurship as a career choice and as a sought after status was confirmed in the 2010 the Global Entrepreneurship Monitor Project (GEM) which surveyed about 175,000 respondents in 59 countries, asking people about their feelings about entrepreneurs and entrepreneurship (Kelley et al. 2011).

Educational institutions

Educational institutions have placed great emphases on the value of entrepreneurship, indicated by the worldwide expansion of business schools and growing interest in entrepreneurship courses. For example, beginning in the mid-1960s, the American university system began an unprecedented expansion, with business schools growing along with the rest of the system. In addition to universities and four-year colleges, many regional technical colleges offer a broad spectrum of courses in the skills and knowledge needed for starting and running businesses, often with the support of local economic development councils and agencies. In the United States, such educational activities rarely reach below the high school level, but in some Western European nations, particularly the Nordic ones, education in economic literacy and the capitalist system starts at much younger ages.

Governments

After a series of reports from Birch (1979; 1987), the U.S. and European governments began to reformulate their industrial policies, moving away from protecting established industries and toward fostering higher rates of business start-ups. Governments began collecting information on rates of business creation, particularly on the number of jobs generated by start-ups. Governmental efforts to inject more market-like mechanisms into the provision of public services have often involved infusing political discourse with references to “enterprise” and “entrepreneurship.” Politicians stress autonomy, responsibility and individuals’ obligations to make choices for themselves. Just as governments are concerned with fostering entrepreneurial business start-ups to generate more jobs and thus more tax revenues, so too are they interested in citizens becoming more entrepreneurial in managing their own problems, rather than turning to government services.

Media coverage

Support for the principles of entrepreneurship, autonomy, and personal responsibility has been diffused by coverage in the popular media: newspapers, magazines,

Web sites, books, films, and other sources. As Radu and Redien-Collot (2008:261) noted, ‘through framing, exposure, and interpretation, the media may render entrepreneurship more or less desirable, due to their impact on the acceptability and legitimacy of beliefs about entrepreneurs and their day-to-day actions.’ They argued that the French press increased the social legitimacy of entrepreneurship, fostered positive social norms regarding entrepreneurship’s typicality and representativeness, and made entrepreneurship seem more desirable and feasible. Major newspapers now run columns on entrepreneurship (rather than just small business), and film and television coverage is mostly positive. The GEM project found that 56 percent of respondents across all nations felt entrepreneurs were receiving positive attention in the media (Kelley et al. 2011).

Consequences of the institutional celebration of entrepreneurship

The celebration of entrepreneurship and the veneration of entrepreneurs in modern societies seem to have contributed to the increasing number of aspiring entrepreneurs as well as the high failure rate of business start-ups. Although the evidence is indirect, it does seem that many people entering into entrepreneurship are ill-prepared.

Business start-ups

The GEM project asked people about their entrepreneurial intentions and found that across 59 nations, a little more than 8 percent of the people interviewed expressed positive interest in starting a business (Kelley et al. 2011). Clearly, most of the people expressing entrepreneurial intentions could not carry through on them, so the actual nascent entrepreneur and new business ownership rates were lower. However, the cumulative impact of these activities was substantial, as the GEM researchers estimated that ‘across the sample of 59 economies, we estimate that some 110 million people between 18-64 years old were actively engaged in starting a business. Another 140 million were running new businesses they started less than 3 1/2 years earlier’ (Kelley et al. 2011:22).

Business failures

Offsetting this large number of business start-ups is an equally large number of business closings and failures. Since Stinchcombe’s (1965) classic paper introduced the concept of the liability of newness, organization and entrepreneurship theorists have been aware that many attempts to create new businesses do not succeed. A comparison of enterprises’ survival probabilities in 21 OECD countries was provided in Levie, Gavin, and Leleux (2011). They showed that in 2005 the average fifth-year survival probability of new organizations from all the 21 countries was about 0.52, meaning that half of new organizations were terminated by the fifth year after their founding date. For the United States, the BED series reports establishment death rates, rather than firm death rates, but it is still possible to get a sense of the

volatility of the business population from their reports. ‘During the fourth quarter of 2006...195,428 establishments went permanently out of business, losing 824,254 jobs’ (Sadeghi 2008:10). Results from the Kauffman Firm Survey (KFS) showed that about 62 percent of new ventures started in 2005 in the US still existed in the fourth year (Coleman et al. 2010). However, the KFS data sampled firms that had been registered in Dun and Bradstreet and, thus, new firms’ survival probabilities were probably overestimated. The Panel Study of Entrepreneurial Dynamics II (PSED II), which has a nationally representative sample of emerging organizations, reported a much lower survival probability rate than the KFS (Yang and Aldrich 2012). Thus, research shows that hundreds of thousands of establishments are being created each year and hundreds of thousands are permanently closing.

Citizens in nearly all advanced capitalist societies strongly value self-employment, business ownership, and entrepreneurship. The positive assessment is particularly strong among young people, who have yet to actually experience life as employees. We have noted the forces providing strong institutional support for such optimistic appraisals of entrepreneurship. But, why, with so much interest in being an entrepreneur, do so few actually succeed?

New Ventures as an Organizational Form

To understand the gap between the positive cultural valuation of entrepreneurship and the actual execution of start-up activities, we draw on two perspectives concerning organizational forms: cultural codes and blueprints (Aldrich and Ruef 2006). Organizational forms can be seen as taken-for-granted templates implied in generic cultural codes, and they can also be characterized as blueprints used by entrepreneurs in constructing organizations. In using the two concepts—cultural codes and blueprints—we attempt to understand both the templates and the routines that entrepreneurs use in carrying out start-up activities.

Focusing on the processes outside the boundaries of individual organizations, we define organizational forms in terms of cultural codes that allow an audience to classify organizations using their default expectations about organizational properties (Hsu and Hannan 2005:475). From this perspective, nascent entrepreneurs must find ways of differentiating their organizations from others, while ensuring that outsiders recognize them as legitimate organizations of their type. Cultural codes provide sets of rules for organizational identity, and founders must align their organizations with the “common knowledge” that outsiders have of the legitimate characteristics of such organizations.

An alternative perspective emphasizes processes that occur within the boundaries of organizations, with organizational forms defined in terms of basic blueprints for transforming inputs into organizational products or responses. The blueprint conception of forms implies that the fundamental features of organizations are specified a priori, rather than emerging as organizations interact with their environments. From this perspective, nascent entrepreneurs must discover such blueprints and then put

them into action by executing the instructions they find. If, however, they cannot locate such blueprints, they face the task of developing the required instructions on their own. And, we argue that blueprints are, indeed, hard to find.

Cultural Codes Are Not Enough

Multiple institutional forces in modern capitalist societies create, sustain, and diffuse positive conceptions of “entrepreneur” and “entrepreneurship.” Thus, many opportunities exist for people to encounter such views and to have such views reinforced through repeated exposures. From a cultural perspective, entrepreneurship is not a question of motives, but rather one of identity. Globalizing forces entice humans into constructing themselves as actors: ‘in an expanding and globalizing world society, people and groups everywhere seem to be eager to be actors—this often takes precedence over other goals, and can produce assertions of actor identity far from any actual actor capability. People, in short, may put more effort into being actors than into acting’ (Meyer 2008:803). Thus, asking people why they want to become entrepreneurs is ultimately futile: they don’t really “decide” to become entrepreneurs. Instead, in capitalist economies, they are caught up in institutional scripts that have them playing the role of entrepreneurs. Becoming an aspiring entrepreneur may require no more than a commitment to using the entrepreneurial resources provided by favorable institutional environments. This approach—positing that the cultural appeal of entrepreneurship “produces” entrepreneurs—implicitly treats organizational forms as cultural codes, as it claims that just about everyone can naturally recognize an organizational form embedded in the social landscape.

A cultural view does not address what entrepreneurs actually do to build organizations, nor does it explain whether abstract organizational forms perceived by entrepreneurs can actually provide effective guidance for start-up practices. In their classic essay, Meyer and Rowan (1977:145) essentially argued that because of strong institutional forces, people could find all they needed for their new ventures by simply looking around, finding the necessary building blocks everywhere they looked. We disagree. Although it may be true that knowledgeable individuals could name the abstract concepts and principles for such building blocks, it is not at all clear that they would be competent to seek out the resources, develop the routines, and actually assemble such organizations.

We can think of new venture creation as a process in which entrepreneurs interpret opportunities while embedded in a system of cultural understandings, drawing upon and conditioned by their (learned) habitual responses to the situations they encounter. An emphasis on entrepreneurs as actors and their social practices, embedded in particular times and places, recognizes the incomplete nature of abstract cultural codes for guiding actual entrepreneurial activities. At the abstract level, people are attracted to the identity of entrepreneurs by the strong cultural appeal of owning their new businesses. They are probably aware of and attempt to follow generic templates when creating their new businesses. At the concrete level, entrepreneurs recruit members, seek resources, develop routines, and protect

boundaries. However, as we have argued, specific guidance for such practices might not be fully spelled out within the generic templates. Cultural codes, roles, and general knowledge are incomplete guides for entrepreneurs if they wish to actually construct organizations and ensure effective performance. We believe that new venture failures stem, in part, from the gap between (abstract) cultural codes and the (incomplete) blueprints used by entrepreneurs. Thus, we turn now to an examination of the specific actions that nascent entrepreneurs take in constructing business organizations. Our examination will illustrate how wide the gulf is between aspiring to be an entrepreneur and actually being prepared to carry out the necessary activities to ensure success.

Blueprints: How Do Entrepreneurs Know What to Do?

Entrepreneurial success depends, in part, on what entrepreneurs know and how they use what they know. In this section, we take up the questions of what it is that entrepreneurs actually know, how they learn it, and how consequential it is for the success of business start-ups. We emphasize the difficulty of the journey.

We begin with the assumption that one or more nascent entrepreneurs have embarked on the process of trying to organize a new business. We have pointed out that widespread social and cultural support for being an “entrepreneurial actor” gives people the sense that creating a business is a feasible and desirable goal. General templates and generic social mechanisms exist for “organizing,” but they are not specific enough to serve as organizational blueprints. Instead, nascent entrepreneurs must fill in the gaps between the cultural codes and the blueprints with their own knowledge, habits, and heuristics, as well as possibly elicit the cooperation of others. What are the possible sources of entrepreneurial knowledge concerning routines they might bring to the task? To what extent does prior experience prepare nascent entrepreneurs for the work they need to do?

We think of this process in terms of following someone's work career over time. The process can be framed in terms of the extent to which they had opportunities to learn knowledge and skills relevant to organizing a start-up over their life course (Elder et al. 2006). We will examine three possible sources that researchers have identified as important. First, we will consider the importance of socialization and training within families, especially where parents own businesses. Second, we will examine the potential impact of formal education and training, looking not only at schools and colleges, but also at specialized courses focusing on entrepreneurship. Third, we will consider other important spells during peoples' working careers when they have been employees, managers, and business owners. We question whether any of these sources is sufficient to prepare people for what they must accomplish as nascent entrepreneurs.

What nascent entrepreneurs learn from their families

International and comparative studies have strongly established that the children of self-employed parents are about twice as likely to themselves become self-employed as others (Arum and Mueller 2004), but there is much less evidence regarding whether parents actually can do anything to improve how well their children perform as entrepreneurs. From a life course perspective, parent-to-child transmission of entrepreneurial knowledge is not a very promising route. Spells of self-employment and business ownership are quite short for most people and the chances that such spells coincide with opportunities for their children to take advantage of them are low. Unless their children are teenagers who are able to work in the business or adults without other careers of their own, gaining direct hands-on experience is unlikely.

Let us consider how this might occasionally occur for children and adolescents: learning routines that are specific to particular types of business and learning routines that are general enough to apply across a broad spectrum of businesses. In either case, the most likely family-based avenue for such learning would be through employment in parents' businesses. A study of entrepreneurs in Vancouver found that a little more than half had parents who had been self-employed at some point and about 61 percent of the children had actually worked in the business (Aldrich et al. 1998). The majority of the children began working in the business at a fairly young age, but the work was short term and most left for other jobs before they turned 21. Using the nationally representative PSED data set, Aldrich and Kim (2007) reported that for families in which businesses were not jointly owned by both parents, most children did not work at all in the business. Full-time work was also rare. Only about one in 20 respondents in their sample spent at least part of their working lives in a traditionally family-owned business. These results indicate that opportunities for learning either industry-specific or general routines in family-owned businesses are quite limited for most people.

Education and training

In reviewing the importance of knowledge acquisition for entrepreneurs, Chrisman, McMullen, and Hall (2005) argued that entrepreneurial knowledge can come from many sources, including formal education and experience gained previously as a manager or in start-ups, particularly in relevant industries. They also noted that knowledge alone is not sufficient, because entrepreneurs must also know how to interpret the knowledge and recognize conditions under which it should be used. Almost all the articles that make claims for the impact of knowledge and skills presume that they improve a firm's performance.

What does the evidence show regarding whether education and training can increase nascent entrepreneurs' knowledge to the extent that they do better in building their businesses than people without such education and training? Empirically, the question actually has two parts. First, what is the evidence that education and training do, in fact, create more knowledgeable entrepreneurs? Second, what is

the evidence that this knowledge makes entrepreneurs more effective in creating viable businesses? Many commentators have pointed out that research on these two questions has been plagued with methodological difficulties, particularly with respect to research design (Gu et al. 2008; Shane 2010a).

We focus on programs specifically designed to educate potential entrepreneurs, as it is in such programs that we would expect to see the likely impact of education and training. Gu, Karoly, and Zissimopoulos (2008), after noting that there were 16 major small business assistance programs in the United States, conducted a highly critical analysis of research on their effectiveness. They found 22 peer-reviewed studies that evaluated assistance programs, focusing on a heterogeneous set of outcomes, with few actually looking at post-assistance business performance. They concluded that ‘with so few reliable studies, it is hard to be definitive about the effects of small business assistance programs on relevant outcomes’ (Gu et al. 2008:26). Several authors have looked more closely at US programs designed from the start to be evaluated, using rigorous standards: random assignment of people to treatment and control conditions. One of the most well-known was the Growing America through Entrepreneurship (GATE) program, a five-year project funded by the Department of Labor, enrolled people who were interested in starting or growing a business. The program had a very broad outreach campaign designed to reach as many potential entrepreneurs as possible. Shane (2010a) noted that compared to the control group, the recipients of the entrepreneurship training and assistance did not differ in terms of self-employment income, sales, employees, receiving unemployment benefits, or receiving public assistance benefits.

Work throughout the life course

Consider the possible effects on entrepreneurial knowledge of three events of varying duration in the life course of entrepreneurs, some of which can be repeated: working as employees, managers, and founders of businesses. Skills that require frequent practice with repeated applications will take a long time to fully mature. With more years of practice, the skills can become habits and implicit, carried out without thinking. However, they might be somewhat narrow and useful only in a small range of applications. If the skills are task specific, then returns to experience are probably important, whereas if skills are fairly general and applicable across many tasks, then repeated applications are less important. Gathmann and Schoenberg (2007) noted that the concept of task-specific skills is different from that of occupation-specific skills and implies that highly skilled workers retain their advantages only if they move into new positions making use of such skills. Their view suggests that nascent entrepreneurs benefit the most when they attempt to start businesses in industries where they already have a substantial depth of experience.

In contrast, one could argue that metacognitive skills that require people to recognize the appropriate contexts for specific skills will not accumulate if people simply engage in repeated applications of the same skills. Instead, the

'skill' required is what Simon and Chase (1973) called 'expertise'—an idea made famous by Gladwell's (2008) assertion that true expertise in a field requires at least 10,000 hours of practice. Thus, long spells of employment in the same kind of organizations, and perhaps even the same industry, would yield only limited returns to experience.

Entrepreneurship scholars have examined the phenomena of employee entrepreneurship for several decades, studying what happens to employees who leave their employers to start a new firm (Brittain and Freeman 1980; Klepper 2001; Franco 2005). Some authors have argued that working in small firms gives entrepreneurial advantages to employees because they get to work on a wider variety of tasks, broadening their skill sets and perhaps becoming more 'jacks of all trades' (Lazear 2005). They might also become more involved in external networks (Shane 2003; Gompers et al. 2005; Sorensen 2007). For example, using panel data on job moves by scientists and engineers covering 1995 to 2001, Elfenbein, Hamilton, and Zenger (2010) found that small firms not only generated a disproportionate number of entrepreneurs, but also ones who became successful.

Several studies suggest that knowledge from previous work in the same industry can increase the likelihood of a start-up's survival. In their study of unemployed people in Germany who founded firms with government assistance, Dencker, Gruber, and Shah (2009) found that pre-entry knowledge from prior work experiences lowered the hazard rate of failure for new ventures, whereas general work experience had no effect. Similarly, using the PSEDII to study the liability of newness among U.S. firms, Yang and Aldrich (2011) found that years of work experience in the same industry as the start-up substantially lowered the hazard of failure, whereas years of general managerial experience had no effect. Yang and Aldrich (2011) also found that the number of previous start-ups created by founders lowered failure rates in their current businesses. From these two studies, we infer that significant work experience in the same industry as their new venture relieves founders of having to adapt what they have previously learned in other industries to a new context, thus increasing their survival chances.

Summary of what the research shows with regard to how entrepreneurs know what to do

In our review, we examined three possible sources of entrepreneurial knowledge and skills that have been identified as important in the literature: socialization and training within families, formal education and training, and significant spells during peoples' working careers when they have been employees, managers, and business owners. With regard to families as sources of the habits and routines that might prove useful for nascent entrepreneurs, we found strong arguments that the genetic endowments of children, as expressed in a family context, shape personality traits that might affect the likelihood of someone attempting entrepreneurship as well as the kinds of activities they would undertake (Shane et al. 2010; Caliendo et al. 2011). Habits often identified as important to entrepreneurial success—such

as discipline and a preference for autonomous working conditions—are nurtured in the crucible of the family. However, research to test these ideas is just in its infancy and so we cannot make strong claims for them. Finally, regarding routines (either general or industry specific), we argued that the odds are slight that children acquire much from their families, given how few of them actually work at family businesses and the sizable gap in time between when they enter the workforce and when they actually attempt to start their own businesses.

With regard to education and training, we found only a small number of well-designed studies that have examined the impact of such programs on starting and running businesses. We note that one study designed according to the gold standard of treatment and control groups, the GATE project, found little support for the impact of counseling and classroom training on subsequent entrepreneurial success. However, we found some evidence from studies in developing nations that training and counseling can enhance the chances of success for impoverished people beginning from a low baseline of knowledge about business practices. Finally, with respect to work careers, we noted the proliferation of studies that link the success of former employees to what they gained in parent firms, but many of these studies suffer from some of the same design flaws plaguing studies of education and training.

Conclusions and Policy Implications

We began our essay by noting the widespread appeal of entrepreneurship in nearly all capitalist nations and asked what accounts for the positive valuation placed on business ownership. To explain entrepreneurship's popularity, we identified many sources of institutional support. Then, we noted the great difficulties most people have in actually turning their entrepreneurial dreams into reality, and we asked what accounts for the relatively low likelihood of success. To explain entrepreneurial failures, we pointed to the gap between 'entrepreneur' as a socially desirable role and the tools actually available to aspiring entrepreneurs to build organizations. We drew ideas from the life course perspective to explore nascent entrepreneurs' opportunities for learning about start-up processes. As we reviewed the literature in search of evidence concerning our inferences and propositions, we discovered there is still much to learn about the nature of entrepreneurial work. In this final section, we offer suggestions for further theory building and empirical investigation.

We suggest that future research should focus on two different periods: nascent entrepreneurs' experiences and activities prior to initiating start-ups and then nascent entrepreneurs' experiences and activities during the early phases of the organizing process.

Life-long learning

Habits, knowledge, and experience accumulated from family, education, and employment can either be directly applied or modified and adapted to fit new

ventures. With regard to work and employment, the extent to which previous knowledge and experience will be effective depends on the level of generality of previous knowledge and the degree of similarity between those social contexts where nascent entrepreneurs acquired knowledge and the new ventures' settings. Knowledge and skills vary substantially across contexts and thus we suspect that little general knowledge will directly transfer to a new context, especially in situations where specific knowledge is required to cope with customers, investors, and suppliers. Even previous work experience in a managerial or supervisory position may not benefit nascent entrepreneurs if they attempt to create ventures in unfamiliar territories. Indeed, we reviewed studies suggesting that emergent organizations are more likely to survive if nascent entrepreneurs have previous work experience in precisely the same industry as the start-up. To the extent that tacit knowledge is difficult to acquire without direct experience in an industry, entrepreneurs relying only on vicarious learning will be disadvantaged.

Learning on the job

Although many start-ups succumb very quickly to the challenges they face, many others survive long enough to give nascent entrepreneurs a chance to learn by doing. We think it is probable that building on their prior knowledge, some nascent entrepreneurs can develop effective routines by learning from feedback during their early organizing efforts. For example, Yang and Aldrich (2011) identified a number of activities—such as investing more resources and getting professional help—that nascent entrepreneurs could undertake to enhance their survival chances. However, to gain the cushion of time needed to benefit from learning by doing, start-ups need to be favorably situated with regard to such factors as a strong time commitment by the founding team and favorable environmental conditions. Moreover, simply developing effective routines in the short run will not be sufficient to sustain new organizations. Founders must find ways of making the routines replicable and, as many investigators studying routines have pointed out, often a sizable gap exists between the ostensive and performative aspects of routines (Feldman and Pentland 2003; Pentland and Feldman 2005). Argote and her colleagues, in a series of studies, have shown that without continual efforts to ensure that routines are being faithfully replicated, they can decay in a matter of months (Argote et al. 1990; Darr et al. 1995). Thus, creating effective new routines is not sufficient to ensure success—entrepreneurs must build sustainable organizations to keep routines alive.

The celebration of entrepreneurship certainly contributes to a large number of start-ups, but the cultural codes embedded in social institutions do not give nascent entrepreneurs very much on which to base their actions. Flushing out the shell provided by cultural codes requires the right habits, heuristics, and routines. Using the perspective of organizational forms as 'blueprints,' we would argue that imperfect, fragmented, and otherwise incomplete sets of routines produce high variability across start-ups. From an evolutionary viewpoint, such heterogeneity

constitutes the raw materials on which evolutionary selection processes operate. Variability lies at the heart of evolution and innovation. To some extent, then, innovative organizational forms result from the lack of definitive organizational blueprints. Indeed, the gap between the “celebration” and the “blueprints” may well be a major contributor to the ongoing creative ferment in human societies and the particular realizations of it in new organizations.

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CHAPTER 4

Small Business and Entrepreneurship: The Emergence of a Scholarly Field

DAVID B. AUDRETSCH

Small business could not be considered to constitute anything approaching an academic discipline, field of inquiry, or even a viable topic for undertaking research when I was a student in the 1970s. Even though I studied economics and specialized in the field of industrial economics, small business was barely a topic. Entrepreneurship was even more non-existent. I do not recall ever hearing or reading the word as a graduate student of economics. I do not believe that this reflected any deficiency in my alma mater, the University of Wisconsin. Rather, I'm sure that my colleagues at other Ph.D. programs, not just in the United States, but also around the world, would also have confirmed the total absence of attention to small business and entrepreneurship. As Baumol (1968) pointed out at that time, "The theoretical firm is entrepreneurless — the Prince of Denmark has been expunged from the discussion of Hamlet". According to Baumol (1968), "There is one residual and rather curious role left to the entrepreneur in the neoclassical model. He is the invisible and non-replicable input that accounts for the U-shaped cost curve of a firm whose production function is linear and homogeneous."

The paucity of attention devoted to small business and entrepreneurship in the latter half of the last century simply reflects the fact that economics, like its other social science brethren, is driven by the demand for understanding and providing insights and solutions to society's most pressing and compelling problems and challenges. While the most theoretical aspirations of economics and the other social sciences may be driven by the virtue made possible by Humboldt, *knowledge for its own sakes*, most of the social sciences, and certainly the various fields found in

business schools and schools of public policy are mandated by knowledge because it can contribute to solutions in society.

At that time there was no reason to think that entrepreneurship and small business mattered much in shaping economic performance. At the macroeconomic level, Robert Solow showed in a compelling manner that economic growth was influenced by physical capital and labor. However, the macroeconomic growth models of Solow and others provided no insights about how that physical capital should be organized at the more microeconomic levels of industries and firms. Scholars of industrial organization, such as Chandler (1990), provided compelling empirical evidence showing that physical capital was more productive and effective when it was deployed in large-scale production in many industries. Thus, bigger was better, at least in terms of productivity, efficiency and growth.

In the physical capital driven economy, small business and entrepreneurship seemingly posed an efficiency drain on economic growth, productivity and efficiency. Thus, the focus of scholars remained fixated on the largest corporations and how policy could best reap the rewards accruing from large scale production while at the same time avoiding abuses resulting from market power.

In *Capitalism, Socialism and Democracy*, Schumpeter had rescinded his earlier view about the innovative efficiency of the small enterprise. Schumpeter (1942, p. 132) concluded that, due to scale economies in the production of new economic knowledge, large corporations would not only have the innovative advantage over small and new enterprises, but that ultimately the economic landscape would consist only of giant corporations, "Innovation itself is being reduced to routine. Technological progress is increasingly becoming the business of teams of trained specialists who turn out what is required and make it work in predictable ways."

Schumpeter (1942, p. 106) believed the large corporation to be the engine of technological change and innovative activity, "What we have got to accept is that (the large-scale establishment or unit of control) has come to be the most powerful engine of...progress and in particular of the long-run expansion of output not only in spite of, but to a considerable extent through, this strategy which looks so restrictive."

Similarly, Galbraith (1979, p. 61), concluded that the entrepreneur "...is a diminishing figure in the planning system. Apart from access to capital, his principal qualifications were imagination, capacity for decision and courage in risking money, including, not infrequently, his own. None of these qualifications is especially important for organizing intelligence or effective in competing with it." As Galbraith (1979, p. 61) argued, "power" has shifted from entrepreneurs to the large organization, "So it is with organization – organized competence – that the power now lies."

Galbraith (1956, p. 87) viewed the large corporation as having an inherent innovative advantage, "Because development is costly, it follows that it can be carried on only by a firm that has the resources which are associated with considerable size." In unequivocally rejecting the Schumpeter of 1911 while endorsing

the Schumpeter of 1942, Galbraith (1956, pp. 86-87) concluded that, “There is no more pleasant fiction than that technical change is the product of the matchless ingenuity of the small man forced by competition to employ his wits to better his neighbor. Unhappily, it is a fiction. Technical development has long since become the preserve of the scientist and engineer. Most of the cheap and simple inventions have, to put in bluntly and unpersuasively, been made.”

Thus, Galbraith, in *The New Industrial State* (1979, p. IX), concurred with Schumpeter’s view in *Capitalism, Socialism and Democracy* that the large corporation was the most efficient form of organization. In describing the economy as he saw it, “This was the world of great corporations – a world in which people increasingly served the convenience of those organizations which was meant to serve them. It was a world in which the motivation of those involved did not fit the standard textbook mold. Nor did the relationship between corporation and state. Nor did markets. So far from being the controlling power in the economy, markets were more and more accommodated to the needs and convenience of the great business organizations.”

In this sense, both the later Schumpeter and Galbraith echoed the fatalistic prognosis of Karl Marx (1912, p. 836) that capitalism would ultimately bear the seeds of its own self-destruction because of “a constantly diminishing number of the magnates of capital, who usurp and monopolise all advantages of this process of transformation.” Thus, perhaps the most compelling issue of the post-war generation of economics scholars revolved around the issue of the sustainability of capitalism.

More recently, however, entrepreneurship has emerged as one of the most dynamic fields. As Wiklund et al. (2011) point out, entrepreneurship has grown to rank among the larger divisions of the Academy of Management:

“The field has emerged as one of the most vital, dynamic and relevant in management and the social sciences. The Entrepreneurship Division increased its membership by 230 percent – more than any other established division – and with over 2,700 members it now ranks among the largest in the Academy of Management. Entrepreneurship research has gained considerable prominence in leading disciplinary and mainstream management journals. As a case in point, the best cited – by far – article of the decade in the Academy of Management Review was the agenda-setting (and debated) piece by Shane and Venkataraman (2001). At the same time the number of dedicated entrepreneurship journals listed by the Social Science Citation Index increased from one to more than half a dozen; the leading among them achieving impact factors in the same range as highly respected management and social science journals. Most importantly, entrepreneurship research has become more theory-driven and coalesced around a central core of themes, issues, methodologies and debates.”

How could entrepreneurship as a scholarly field evolve from an obscure and virtually unresearched field to one of the most dynamic research areas within the span of a generation of scholars? The answer is not that the driving force of scholarship and research changed in some way as to shift the focus towards extraneous and less relevant aspects of the economy. Rather, what did change was the driving force underlying economic performance.

David Birch (1979) startled many scholars and policy makers by showing that it was small firms and not large companies that contributed the most to job creation and employment growth. Birch's findings provided a stark challenge to the conventional wisdom prevalent in the field of industrial organization that large firms were the key to a strong economic performance and that small business was largely extraneous.

Thus, my first exposure to what subsequently became known as the field of entrepreneurship had a focus on entrepreneurship on the basis of the organizational context. When Zoltan Acs and I began to analyze the relative role of large and small firms, the distinguishing feature of analysis was the size of the firm. It was the organization context that defined economic activity as being *entrepreneurial*. The behavior of the individuals involved with the firm was generally irrelevant in identifying what constituted entrepreneurship. Rather, the sole criterion of whether the organization is entrepreneurial had an organizational basis – size.

In fact, size was not the only organizational characteristic used to distinguish entrepreneurship. Studies were undertaken using a number of different organizational criteria to define entrepreneurship. The organizational approach to measuring entrepreneurship has been based on organizational criteria such as the size of the organization (small business or small and medium-sized enterprises), its age, whether it is owned by an individual (self-employment or nascent) or a family (family ownership), or whether it has the status of constituting a legal status. These different measures of what constitutes entrepreneurship based on organizational characteristics are not necessarily consistent across measures. It is certainly possible, for example, for a firm to be classified as entrepreneurial based on the size criterion, but not in terms of the age criterion. Similarly, a firm could be classified as being entrepreneurial based on the organizational criterion of being self-employed, but at the same time not being established for too long of a time to meet the criterion based on the age of the firm.

While each particular organizational characteristic prevalent in the literature that has been used to identify and distinguish entrepreneurship is unique, what each of these organizational characteristics has in common with the other organizational criteria is that what distinguishes entrepreneurial activity from non-entrepreneurial activity is decided on the basis of characteristics of the firm or organization.

Certainly the pioneering studies by David Birch used the size of the organization to classify and distinguish what constitutes entrepreneurship. Similarly, a plethora of other studies classify entrepreneurship based on the criterion of size of the firm

or enterprise. According to the size criterion, a firm that falls below a specific measure in terms of employment, sales or assets is considered to be small, as distinct from large, and therefore entrepreneurial (Acs and Audretsch, 1990).

Schumpeter (1911) provided the theoretical basis for applying size as the criterion for identifying and distinguishing what constitutes entrepreneurship. In particular, Schumpeter (1911), identified small firms as they type of enterprise that would trigger the process of creative destruction which is the basis for linking the entrepreneurial function to economic performance. As Schumpeter emphasized, the entrepreneur, serves as an agent of change and therefore is the key to innovative activity and a superior economic performance.

Using the organizational characteristic of size to identify and distinguish entrepreneurship is highly influenced by measurement issues. An empirical advantage of the size criterion is the ease and prevalence of measurement, lending measures of firm size as the distinguishing organizational characteristic to be used in the systematic analysis of large and comprehensive data bases. For example, in his pioneering study linking job creation to the size of the firm, Birch (1981) used the organizational criterion to entrepreneurship in defining small business as having fewer than 500 employees and large firms as having at least five hundred employees and found that small firms account for four out of five jobs created in the United States.

Birch's startling findings that small firms create most of the new jobs generated an explosion of related studies attempting to verify or replicate his findings. While the context varied considerably among these studies, in terms of country, time period, or sector analyzed, what they had in common was their use of the organizational criterion of size. While the focus of this literature was on comparing the employment performance, it should be emphasized that the criterion for distinguishing between different types of firms was based on the size. Use of the size criterion to define and measure entrepreneurial activity has not been restricted to studies of job creation. For example, Acs and Audretsch (1988 and 1990) use the same criterion to distinguish between the innovative activity of large and small firms.

A considerably different organizational criterion for classifying entrepreneurship involves the age of the firm or enterprise. Use of the age of the firm or organization requires the application of an age based threshold distinguishing new or young enterprises from mature enterprises (Audretsch et al. 2006; Audretsch and Keilbach, 2007).

As for the size criterion, the organizational criterion of ages the criterion for what constitutes entrepreneurship is grounded in Schumpeter's view of entrepreneurship. In *Theorie der wirtschaftlichen Entwicklung*, Schumpeter (1911) introduced his concept of creative destruction, where entrepreneurs would start new firms which would displace the less innovative incumbent firms, leading to more vigorous economic growth.

As is the case for the size criterion, the ease of measurement in applying age criterion is conducive both to measurement and the analysis of large comprehensive

data bases. An example of how the age criterion has been used to categorize entrepreneurial activity is provided by the Panel Study of Entrepreneurial Dynamics (PSED). The PSED tracks individuals as they move from being nascent to actual entrepreneurs, based on the age criterion. A particularly unique feature of the data base is information provided identifying both the entrepreneurial opportunity and founding of the new firm (Gartner, Carter and Reynolds 2010). The PSED has been used by Aldrich and Martinez (2010) to test the theory that the decision to become an entrepreneur is influenced by access to resources, in the form of financial resources, such as household income and wealth, and human capital, in the form of education, prior work experience, entrepreneurial experience, and influence from family and friends.

A very different organizational criterion involves an individual who is classified, most typically for tax reasons, as being self-employed. A slight variant of the self-employment criterion involves business ownership, where entrepreneurship is considered as having the organizational status as legally owning a business (Parker, 2009; Thurik et al., 2008).

The organizational context of self-employment and business ownership do not reflect the age of the organization. Rather, the status of being an entrepreneur comes solely from the legal status of being self-employed or being a business owner.

The theoretical basis for this organizational criterion comes from labor economics, where the model of entrepreneurial choice has formulated the decision by individuals whether to work for a wage in an incumbent organization or start their own new firm. The decision is framed around the wage that the individual would earn as an employee compared to the expected profits she would earn as an entrepreneur.

Measures of self-employment and business ownership are conducive to the analysis of large comprehensive data bases over long periods of time, since they have been a part of official government statistics for decades in most (OECD) countries. A particular focus of much of the literature has been to link the propensity of an individual to be self-employed or a business owner to the personal characteristics of that individual, such as age, gender, experience, educational attainment, and occupation of parents. Thus, much of this literature has tried to shed light on what differentiates entrepreneurs from non-entrepreneurs, or people who work for wages in companies.

In his comprehensive review of the literature, Parker (2009) explains how the more general theoretical model of income choice has been applied to develop what is known as the model of entrepreneurial choice. The starting point for this framework analyzing how individuals make the decision to become an entrepreneur is the work of Knight (1921). As Parker (2009) explains, the model of entrepreneurial choice provides a framework in which an individual maximizes either profits or, more generally, utility, by deciding between the wages that could be earned from

employment in an incumbent compared to the profits that could be earned from starting a new business.

Another organizational criterion used to identify and distinguish entrepreneurship involves the organizational context. In particular, businesses that are legally categorized as being self-employment, or alternatively owned by an individual, are classified as constituting an entrepreneurial business. In addition, the organizational context of what is referred to as nascent entrepreneurship also has a focus on the individual. While self-employment and business ownership refers to individuals who have already started a business, nascent entrepreneurship classifies individuals who are considering becoming entrepreneurs but have not yet actually done so as entrepreneurial.

Nascent entrepreneurship also differs from both self-employment and business organization in that the classification of being entrepreneurial does not involve a tax or legal status. By contrast, the organizational criteria of business ownership and self-employed are made on the basis of either a legal status or a tax status.

By contrast, the classification of entrepreneurship based on the status of an individual being a nascent entrepreneur is also related to the approach defining entrepreneurship based on the age of the firm. However, unlike the self-employed and business owners, the intentions of individuals classified as being nascent entrepreneurs are crucial to the classification. Thus, the inability to identify nascent entrepreneurs on the basis of tax or legal status makes it virtually impossible to identify and measure nascent entrepreneurship on the basis of large, comprehensive data bases. Rather, the intent to become an entrepreneur can only be ascertained directly by posing the question on a survey. Because it does not involve a legal, tax status or externally visible characteristic, it can be ascertained only through surveys and interviews. The Global Entrepreneurship Monitor (GEM) has gained widespread attention by providing measures enabling the analyses of entrepreneurial activity in a cross-national context (van Stel, Storey and Thurik, 2007).

A very different strand of the entrepreneurship does not use characteristics of the organization to distinguish entrepreneurial from non-entrepreneurial activities. Instead, the performance of the firm is the key to identifying whether or not the firm is entrepreneurial. The performance criteria emphasize the outcomes emanating from the activities of the firm. If those outcomes go beyond a certain threshold, or if the firm's performance is sufficiently strong, the firm is then considered to be entrepreneurial.

The entrepreneurship literature using a performance basis for classifying entrepreneurship has generally considered two main types of outcomes to be important – innovation and growth. Firms, other organizations, and individuals are considered to be entrepreneurial to the extent that they are able to generate a strong economic performance, measured principally, although not exclusively, in terms of innovation and growth.

The central concern with the performance of the firm as constituting entrepreneurial activity draws directly on Schumpeter (1911 and 1942). In his emphasis

on innovation as the outcome of entrepreneurial activity, Schumpeter (1942, p. 13) pointed out that what distinguished the entrepreneur different from other agents in the economy was his willingness to engage in innovative activity, “The function of entrepreneurs is to reform or revolutionize the pattern of production by exploiting an invention, or more generally, an untried technological possibility for producing a new commodity or producing an old one in a new way..To undertake such new things is difficult and constitutes a distinct economic function, first because they lie outside of the routine tasks which everybody understands, and secondly, because the environment resists in many ways. “ Schumpeter emphasized that an absence of entrepreneurship would result in preserving the status quo. There would be a commensurate absence of innovative activity, resulting in general economic stagnation.

Application of the performance criterion in defining entrepreneurship has a broad appeal to public policy. The focus of public policy is ultimately on economic performance rather than on any singular type of organization or set of intentions. It is not the type of organization that matters, but rather the performance ensuring from any type of organization, as long as it delivers in terms of the performance criterion.

A large body of empirical work has identified innovation as being the key characteristic in definition entrepreneurship (Acs and Audretsch, 1988 and 1990; Baumol, 2009). Such studies tend to measure innovation in terms of research and development expenditures, inventions registered at a patent office, new products and processes introduced, and the share of sales accounted for by innovative products. The firm has to have exceeded a performance threshold, in terms of innovative activity, in order to be considered as constituting an entrepreneurial firm.

The growth of the firm represents a different outcome which has been used to classify firms as being entrepreneurial. While measuring innovation is fraught with ambiguities and poses considerable challenges to researchers, measuring firm growth is relatively straightforward and unambiguous. While growth is relatively easy to measure, it also reflects, if not mirrors, innovative activity. Measures of firm growth are typically based on changes over time in employment, sales, or assets. An example of studies using the firm performance criterion, based on firm growth, as the measure of entrepreneurship is the literature identifying gazelles, or high growth firms. While only a very small share of firms account for these high growth firms, they make a very strong contribution to employment growth.

Innovation and growth are not, in fact, the sole two outcomes of a firm that are used to classify a firm as being entrepreneurial. For example, a large literature has emerged which classifies a firm as being entrepreneurial based on the source of finance by which the firm is funded. In particular, if the firm is financed by venture capital it is then considered to be entrepreneurial. Such studies seemingly classify firms not on their actual performance but on their expected performance. While venture-capital financed firms have a high propensity to fail, those that do actually survive tend to exhibit greater rates of growth and more robust innovative

activity, both of which are the main criteria used to classify performance based entrepreneurship.

Firms that have an output that makes a social contribution are generally considered to be engaged in social entrepreneurship. Adding a social component into the firm's performance suggests that social entrepreneurship is also classified on the basis of firm performance. While the intent to make a social contribution also plays a role, the major focus is the outcome from the entrepreneurial activities, which must have a social dimension to be considered to constitute social entrepreneurship.

When I wrote *The Entrepreneurial Society*, it was clear that what constituted an entrepreneurial society was not a society where everyone started a business or owned a small business. That is, I did not have the organizational definition of entrepreneurship in mind, but rather, a behavioral definition, where entrepreneurship is not just defined by particular organizational characteristics, but rather by the behavior of people.

There are two defining dimensions inherent in what constitutes entrepreneurial behavior. Recognizing or creating an opportunity is the first dimension (Alvarez, Barney and Young, 2010). The exploitation or commercialization of that opportunity constitutes the second dimension. The ability to recognize and create opportunities along with the capacity to act on those opportunities by commercializing constitutes entrepreneurial behavior (Venkataraman, 1997).

For example, Kruger and Day (2010) considers the cognitive process associated with opportunity identification and the decision to undertake entrepreneurial action to be central to the entrepreneurial decision and the most central question confronting entrepreneurship scholars. According to Kruger, the cognitive process identifying the entrepreneurial opportunity along with the decision to start a new firm are the defining issues of the field, "The heart of entrepreneurship is an orientation toward seeing opportunities," which frames the research questions, "What is the nature of entrepreneurial thinking and What cognitive phenomena are associated with seeing and acting on opportunities?" The traditional approach to entrepreneurship essentially holds the context constant and then asks how the cognitive process inherent in the entrepreneurial decision varies across different individual characteristics and attributes (McClelland, 1961). As Shane and Eckhardt (2010, p. 187) summarize this literature in introducing the individual-opportunity nexus, "We discussed the process of opportunity discovery and explained why some actors are more likely to discover a given opportunity than others." Some of these differences involve the willingness to incur risk, others involve the preference for autonomy and self-direction, while still others involve differential access to scarce and expensive resources, such as financial capital, human capital, social capital and experiential capital. This approach focusing on individual cognition in the entrepreneurial process has generated a number of important and valuable insights, such as the contribution made by social networks, education and training, and familial influence.

Much of the research analysing entrepreneurial behavior focuses on the role of personal attitudes and characteristics, such as self-efficacy (the individual's sense of competence), collective efficacy, and social norms. For example, Shane (2000) has identified how the perception of future opportunities is shaped by prior experience and the ability to apply specific skills.

The behavioral approach to entrepreneurship has a particular focus on the cognitive process by which individuals reach the decision to launch a new venture. Dew, Sarasvathy, Velamuri and Venkataraman (2003, p. 142) have concluded that, "An entrepreneurial opportunity consists of a set of ideas, beliefs and actions that enable the creation of future goods and services in the absence of current markets for them".

Some entrepreneurship scholars respond to the three divergent views and literature about what actually constitutes and defines entrepreneurship with confusion and bewilderment. Complaints about the lack of a singular methodology, let alone a common definition of entrepreneurship are prevalent.

I however, find that evolution of the field of entrepreneurship, from organizational characteristics, to performance, and then to behavior, has infused the field with a rich diversity of approaches, methods and insights. At this point in its development, the rapidly evolving field of entrepreneurship seems to have the virtue of borrowing the best aspects of the various social science disciplines without becoming bogged down in the worst aspects of disciplinary rigidity.

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CHAPTER 5

Small Entrepreneurial Firms And Recession-Stimulated Growth

WILLIAM J. BAUMOL

Introduction

Recession is evidently no blessing for humanity, but since it does recur at regrettably frequent intervals, it is surely appropriate for society to make the best of these bad situations by deriving whatever benefits can be extracted from them. The purpose of this chapter is to show that there are, indeed, potential gains offered by these periods of economic failure, that markets automatically do provide inducements for the realization of these benefits, and that such gains are apt to be substantial, as they have been at least on some occasions in the past.

More specifically, I argue, on the basis of evidence already available in the literature, that recession—even depression—encourages the entry of small enterprising firms. From among these ranks, a substantial proportion of the companies that go on to become “giants of industry” emerge. Moreover, as I explain later in this discussion, as a result of incentives inherent in the situation, such periods of recession also provide powerful encouragement for those innovative activities that underlie the historically unparalleled global economic growth that has been under way for several centuries in much of the world.

The discussion here recapitulates some of the evidence showing that recession, and even depression, invite the birth of uncommonly successful entrepreneurial firms and spur innovation—both of which have contributed mightily to the prosperity of the economy. Although such claims may be considered remarkable and may even invite incredulity, the evidence for these assertions, which I summarize here, appears to be solid. Moreover, I suggest several explanations for this phenomenon

and show that this pattern of growth born of economic failure is a natural and expectable pattern in a well-functioning market economy.

My argument here should not, however, be taken as a call for encouragement of those devastating periods of economic malaise, like the one that currently has much of the developed world in a strangle hold. Rather, it is my intent to identify the means of making the best of such bad situations—for instance, ideas for incentives that would induce entrepreneurs to take advantage of the investment opportunities and the enhanced prospects for innovative activity provided by an era of malign business conditions.¹³

Amid Economic Failure, the Emergence of Giant Enterprises

Next, I will summarize evidence (provided by others) that some of the largest and most prosperous firms of the American economy were born during periods of economic failure. For this, let us turn to a remarkable 2009 report by Dane Stangler of the Kauffman Foundation, which examines how many of the most prosperous firms in the United States originated during periods of poor business conditions.¹⁴ Stangler (2009) reports that at least 51 percent of the 2009 *Fortune* 500 firms included in his analysis¹⁵ were founded during a recession or a bear market or both. Among the companies included in Inc.'s 2008 list of the 500 fastest-growing firms, Stangler found that 48 percent originated in a recession or a bear market.

We must surely agree with Stangler that these findings are “somewhat surprising, to say the least” (2009, p. 4). And the implication of this study for our discussion is clear. Earlier recessions have encouraged the inauguration of what now have become some of the world’s largest and most rapidly growing firms.

Economic Depression, Entrepreneurial Activity, and Invention for the Future

The evidence is at least as direct and remarkable for the second key observation in this paper: the association between poor business conditions and the larger

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13. The discussion that follows has something in common with a most illuminating recent paper by Carl Schramm (2010). There the focus is on the role of entrepreneurship in rescuing societies from the damages inflicted by military conflicts and disasters. In contrast, the present paper does not only focus on means to undo the damage caused by recessions and depressions. Rather, it argues that they can (and historically have) facilitated the future growth and prosperity of the affected economies.
 14. Stangler (2009) bases the portion of his analysis that I report here on two primary sources: the list of the 500 largest American business firms reported regularly by *Fortune* magazine, and the Inc. magazine list of the 500 most rapidly growing firms in the United States. The dates on which the firms were founded are taken from a 1996 survey by *Fortune*, supplemented by information from some of the firms’ websites.
 15. The founding dates for 12 of the *Fortune* 500 firms were not found, leaving a sample of 488 enterprises.

magnitude of innovation yielded by enhanced research and development (R&D) activity. Perhaps the earliest contribution to this literature was that of Ester Fano (1987), the noted Italian economic historian. She reports that during the Great Depression in the United States, when the overall unemployment rate hovered between 15 and 25 percent for nearly a decade, the employment of scientists and technicians grew markedly. Such employment growth, Fano notes, is just one indication of the dramatic R&D growth that took place during the Depression era in the United States.

“Between 1921 and 1938 industrial research personnel rose by 300 percent. In 1927 approximately 25 percent of its employees reportedly worked on a part-time basis; by 1938 this proportion had fallen to 3 percent. Laboratories rose from fewer than 300 in 1920 to over 1,600 in 1931 and more than 2,000 in 1938; the personnel employed increased from about 6,000 in 1920 to over 30,000 in 1931 and over 40,000 in 1938. The annual expenditure rose, from about \$25,000,000 in 1920 to over \$120,000,000 in 1931, to about \$175,000,000 in 1938. In 1937, industrial research on an organized basis in the United States ranked among the 45 manufacturing industries, which provided the largest number of jobs” (Fano, 1987, pp. 262-263).

Fano’s conclusions have been confirmed and extended by subsequent studies, perhaps most notably by Alexander J. Field in his fine paper, “The Most Technologically Progressive Decade of the Century” (2003), which refers to the decade of the Great Depression. Field reports that the average number of research labs founded each year in the United States actually grew from 66 R&D labs per year between 1919 and 1928 and to an average of 73 labs per year between 1929 and 1936—some of the worst years of the Depression. Moreover, during the 1930s, Field notes, expenditures on industry R&D “more than doubled in real terms” (Field, 2003, p. 819, citing Mowery and Rosenberg, 1989, p. 69; see also Fano, 1987, p. 262), and R&D employment in U.S. manufacturing “almost tripled, from 10,918 to 27,777” between 1933 and 1940 (Field, 2003, p. 819).

Clearly there is something about a period of recession or depression that stimulates investment in the innovation process. In the next section, I will discuss what this influence may be and how it can be put to use to enhance the general welfare.

Toward Explanation of These Phenomena

The evidence summarized here should convince the reader of the central contention of this paper – that recessions and depressions have given birth to new entrepreneurial firms that have grown to become giants in their industries. Such eras of economic failure also have seen dramatic expansion of the R&D activity that underlies the economy’s future growth long after a recession has entered the

annals of history. But why should this be so? Why should recession and depression not drag down such activities as part of the overall collapse of the economy?

As with most economic activity, no single answer will suffice to explain this phenomenon. There are influences other than those about to be noted that also play significant roles. However, the three-pronged explanation that I offer here represents my best attempt at drawing self-evident and highly plausible conclusions, based on the data discussed in the prior section and my own work in the area of entrepreneurship.

1. When unemployment is high during a depression or recession, many people without jobs turn, in desperation, to founding their own small firms. At least some of these new enterprises are apt to prove highly successful.
2. In periods of recession, the purchase prices of plant and equipment are apt to be in sharp decline, if not in collapse. This is bound to attract savvy entrepreneurs who understand that such investments are likely to be profitable when prosperity returns and the outputs resulting from these relatively inexpensive investments increase substantially in value. Paradoxically, it is during periods of strong economic performance that investment in the founding of a new firm is a questionable activity. For surely it is obvious that good business calls for purchase when prices are low and sale when they are high.
3. A recession or depression is a financially attractive time to invest in scientists and engineers because their wage levels are low, relative to the salaries they can command in prosperous times. Such investments enhance R&D activity, which, in turn, helps to fuel the economic growth that enables a return to prosperity.

I also will offer a fourth possible explanation, derived from the work of colleagues.¹⁶ If we (artificially) divide the population of potential investors into two groups, “risk avoiders” and “gamblers”, the bulk of the former can be expected to attain moderate earnings, while the latter can be expected to end up predominantly with a set of outright losers, as well as the bulk of the small subgroup of spectacular winners. Entrepreneurs have been shown in various studies to be more willing than most people to undertake risks (Astebro, 2003), and we may expect them to be more likely to take such risks so during periods of economic decline, when they can hope to get more for the money that they gamble on innovative ideas. When such gambles succeed, they provide huge long-term payoffs for everyone via the potentially huge “spillover” benefits derived at least in considerable part from an innovation’s contribution to economic growth.

16. For more details, see Denrell and Fang (2010). As Dr. Fang noted in a personal message to me, “[t]he paper shows a nice paradox—those who correctly forecasted extreme events are likely to be poor forecasters on average.”

Most of the preceding explanations of the association of future growth and innovation with periods of recession and depression surely seem self-evident. However, some discussion of these assertions is necessary in order to bring out some less obvious observations about these ideas. For instance, it would appear that during a recession or in an era of disappointing economic growth, jobs are almost always scarce, so many individuals are driven into entrepreneurial activity (replicative or innovative) – predominantly the creation of small firms. The proliferation of traveling peddlers in the United States during the period of economic decline following the Civil War is an excellent example of this.¹⁷

In the course of these activities, however, opportunities for innovation were recognized, and several empires were built upon such humble foundations. Perhaps the most widely recognized example of this is the creation of blue jeans by Levi Strauss, who reportedly first introduced the garments as extraordinarily durable trousers that met the needs of hard-riding cowboys. Strauss's invention later captured markets throughout the world when jeans became popular as a fashionable and utilitarian item of clothing. Surely, this scenario is not only a piece of ancient history. In today's serious recession, unemployment is again a primary problem, and we can be confident that among the unemployed, entrepreneurship will again be stimulated by the scarcity of alternatives.

The second point is even more self-evident. It takes no great insight to recognize that the most effective road to riches is to buy cheap and sell dear. There are plentiful examples of activities that worked out that way during past recessions and subsequent eras of prosperity. Private investors constructed skyscrapers in New York City that later became (at least, for a while) the envy of the world, and municipalities built great bridges at a fraction of the cost that construction in a later, more prosperous era would have entailed. Indeed, as we have already noted, the Depression-born Fortune 500 firms of today are all examples of investments whose timing was just right.

Third, it is clear that during a period of depression or even recession, jobs for the skilled and highly educated become scarce, as has happened recently. With that, the wages of this group fall, along with the wages of those working in less educationally demanding occupations. In such an environment, when researchers and engineers, as well as factory workers, can be employed at significantly lower wages, investment in R&D is a prime example of an opportunity to buy cheap in the hope of subsequently selling dear. I suggest that this led (no doubt along with other influences) to the huge increase in the employment of scientists and engineers and

17. Here it is important to note that there are two pertinent kinds of poverty. One type occurs temporarily during depressions and recessions, while the other is the result of an economy that is poor in the long run. Innovative entrepreneurs can help to mitigate long-run poverty, but it is replicative entrepreneurs who provide jobs and growth during periods of economic failure.

the expansion of R&D activity during earlier recessions and depressions, which Fano (1987) and Field (2003) reported.¹⁸

Finally, I turn to the fourth in the list of possible explanations: the likelihood that the subgroup of individuals with a propensity to gamble can be expected to end up with a profuse set of failures, as well as almost all of the total group's billionaire super successes. Here it is important to emphasize the substantial evidence that entrepreneurs tend to be far more optimistic than the general population about the probability that they will be successful, despite the great risks that may be involved (Astebro, 2003). This implies that society is highly dependent on its entrepreneurs to undertake the risky ventures that can yield important innovative breakthroughs that are the foundation of an economy's future prosperity. It is the bravest of these entrepreneurs who can be expected to invest in times of economic failure, when most investors are racing for the exit.

A simple numerical example will bring out the logic of this argument. Suppose that a group of individuals is choosing between two investments, one of which—call it “investment A”—has a 50-50 chance of earning either 10 percent or 5 percent returns. In contrast, “investment B” has a one percent chance of yielding a return of one billion dollars, and a 99 percent chance of total failure. If there are 1,000 investors in each of these two subgroups of investors, all of the members of the risk-averse subgroup will come out with reasonable but unimpressive gains—half of them will do modestly better than the other members of that subgroup, as the principles of probability demand. In contrast, most of the members of the gambling-prone subgroup will lose the money they invested. However, among the members of this subgroup, there will be, perhaps, 10 spectacular winners—newly minted billionaires—who thereafter popularly will be judged to be wise men and women, whose insights will be sought assiduously and who will be treated as prophets.

It is tempting to conclude that the investors in the risk-prone subgroup are fools and that their admirers are even greater fools, but that is a misjudgment. As has been argued by Romer (1994), Nordhaus (2004), and the present author (2002, pp. 133-135), the bulk of the benefits of such breakthrough inventions—probably well in excess of 90 percent—go to society as a whole, rather than to the individual inventors, their entrepreneur partners and financial backers, and the many others who contribute directly to bringing an invention to market. If we think back to the 18th century, when unspeakable poverty and regular periods of literal starvation were prevalent even in today's wealthy European economies, and compare those conditions with the luxuries many of us now take for granted (e.g., heated water, refrigerated food storage, and easy transportation across great distances, among many others), it is easy to understand how enormously the spillovers of

18. I still remember from my childhood during the Great Depression the extraordinarily qualified instructors with whom I was provided in secondary school. An instructor of mathematics with a doctorate in the field, for example, was hardly extraordinary.

breakthrough innovations already have helped to improve the general welfare.¹⁹ In short, it is those who gamble their economic status on the innovation process—notably, the innovative entrepreneurs, who undertake the risk of investment during periods of economic depression when the costs of investment in new firms and in R&D are greatly reduced—who arguably have contributed the most to the unprecedented, long-run prosperity of so many countries today.

Some Implications for Policy: Concluding Comment

My perhaps initially implausible central proposition—that recession and depression are opportunities for entrepreneurial enhancement of future economic growth—is curious juxtaposed with the banality of the explanations for this phenomenon. Moreover, these very explanations may suggest what should be done to take advantage of the resulting opportunity to enhance our long-term economic well-being. Of course, this is not meant to imply that the route to economic nirvana has been revealed here. Still, it is possible to offer a few observations that may prove illuminating and helpful.

The first of these is in line with the familiar observation that those who ignore history are condemned to relive it. There are many perils that this approach calls to our attention. First, it reveals the folly of the “this time is different” philosophy that has appeared again and again as justification for investment during periods of investor overconfidence, before the economic downturns that inevitably follow. Investors taken in by this philosophy ignore the lessons of history and time and again are led to manifest what rightly has come to be called “herd behaviour,” investing when others do, so that prices are high and rising, and then selling when they are low and in decline. Today the folly of such a propensity is evident, but will the historically repeated willingness to ignore this lesson recur once again? Surely, there is room in our basic secondary curriculum for instruction that disabuses students of this persistent folly. Is the validity of the injunction to buy low and sell high so difficult to impart?

Once inculcated, it seems clear that this lesson can most effectively be put to use by entrepreneurs—particularly those who focus on innovation—via the creation of the small firms that are primary providers of new jobs and are apt to constitute the sinews of future economic growth (and thereby make important contributions toward the containment of poverty). This, in turn, calls for a number of policy changes. First, we must eliminate the road blocks that needlessly delay the formation

19. Although stunning progress has been made toward the alleviation of extreme poverty, an estimated 1.4 billion people still live in such horrifying poverty (defined here as an income of \$1.25 per person per day, or less (Chen and Ravallion, 2008). Without further economic growth, it is difficult to see how this situation can be alleviated.

and impede the survival and expansion of small firms in many countries.²⁰ Second, we must make it easier for entrepreneurs to create promising new enterprises by expansion of the available financing sources for such ventures. However, such funding should be given only after the presentation of compelling evidence of a new enterprise's viability and ultimate promise, an injunction that all too often has been ignored. Finally, we must investigate how to train prospective entrepreneurs more effectively.²¹ In particular, we in the academy must learn to balance the need for technical knowledge with the danger that such knowledge may be imparted in ways that undermine students' creativity and imagination.

This discussion has outlined the hidden opportunities for growth via entrepreneurship and innovation that are inherent in economic failure. The fact remains that such periods of recession and depression hardly can be considered a blessing. However, they can result in long-term economic growth and a more rapid return to prosperity—with obvious benefits for everyone—if entrepreneurs take advantage of the opportunities for low-cost investment in innovation, which are more plentiful during recessions and depressions.

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20. Here, however, the United States is among the nations with a relatively commendable performance. For more on this, see The World Bank's Doing Business 2010 report, which ranks the ease of doing business in 183 economies throughout the world: <http://www.doingbusiness.org/economyrankings/>.
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CHAPTER 6

National Values and Business Creation: Why it is so difficult to increase indigenous entrepreneurship²²

PAUL DAVIDSON REYNOLDS

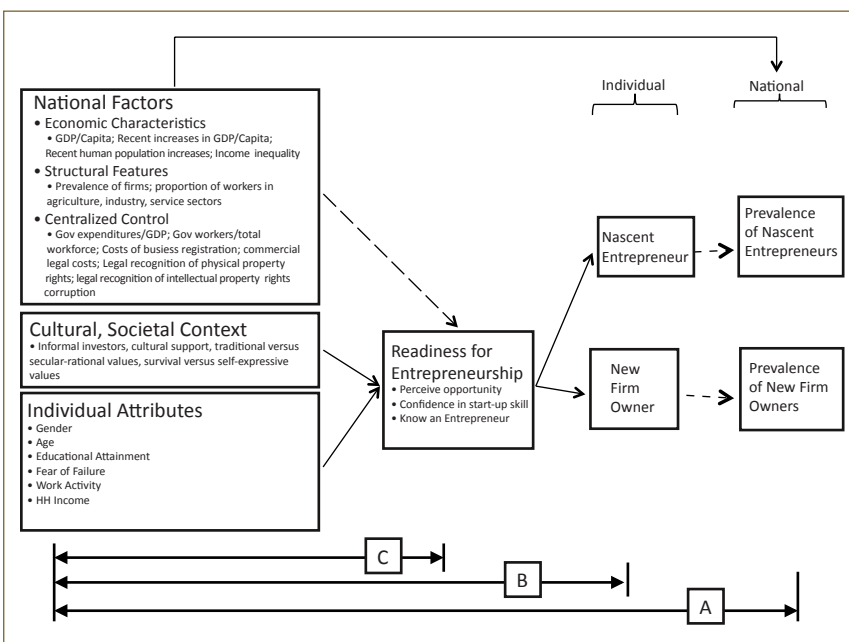
National values represent collective agreements on the appropriate orientation toward work and the relationship between individuals and their government. While there is considerable variation among countries in their value structures, they are extremely stable and the basis of national economic, political, and educational institutions; countries also vary dramatically in the amount of business creation. These national tendencies are also extremely stable; the amount of activity is very similar from year to year. Policy initiatives to increase business creation seldom have a measurable effect. Measures of entrepreneurial readiness—reflected in the perception of opportunity, confidence in the ability to start a firm, and knowing other entrepreneurs—have a major role in predicting which individuals will be involved. Entrepreneurial readiness is greater in countries that emphasize traditional, rather than secular-rational, and self-expressive, rather than survival, values. These enduring cultural features account for much of the stability in the amount of business creation.

22. Much of the presentation based on development of comprehensive data sets described in detail in the text and appendices of Reynolds (2011, 2012). Most of the analysis related to national values is taken from Reynolds (2012).

Countries vary dramatically in the amount of business creation. The level of activity is also very stable over time. There is also considerable variation in the structure of national values, shared assumptions about how one should conduct their lives and the most appropriate relationship to the state. Is it possible that these two stable national features are related? The following assessment considers this issue from several perspectives and finds that national values have a major role in affecting individual readiness for entrepreneurship, one the major factors affecting the amount of business creation activity.

The conceptual model is presented in Figure 1. It is designed to present the factors that would lead to the national prevalence of nascent entrepreneurs, those working on start-up ventures that have not achieved profitability, and new firm owners, those managing firms that have been profitable for up to three and a half years. These are indicated on the far right of Figure 1.

FIGURE 1: NATIONAL AND INDIVIDUAL FACTORS AFFECTING PARTICIPATION IN BUSINESS CREATION



National prevalence rates reflect the activities of individuals, those that choose to become involved in firm creation or as owners of new firms. This is represented in the third column of Figure 1. These career choices are assumed to be affected by individual readiness for entrepreneurship, presented in the second column. Readiness for entrepreneurship is, in turn, considered to reflect three types of

influences. First are national factors that include economic characteristics, structural features, and the extent of centralized control. Second are cultural and social factors that make up the individual's context. Third are individual attributes, such as age, gender education, household income, work experience, and, perhaps, a fear of failure.

There is no single analysis that can address all the relationships in Figure 1. But three different assessments cover different relationships. One assessment, identified as linkage A, is related to the association between the factors on the left and the measures of national prevalence on the right. A second assessment considers the impact of national and individual factors on individual reports of behavior, identified as linkage B. A third focuses on the relationship between national and individual factors and readiness for entrepreneurship, identified as linkage C.

Following a discussion of two relatively stable national features, value structure and participation in new firm creation, assessments related to each of these linkages will be presented. The final section discusses some of the implications.

National Values: The First Stable Feature

The World Values Survey has tracked broad perspectives on national values in a series of harmonized assessments of adults in a wide range of countries.²³ Two dimensions have been found to represent a majority of the personal values.²⁴ One dimension represents a choice between an emphasis on traditional versus secular-rational values. The other reflects an emphasis on personal survival versus self-expression. The interview schedule itself is quite comprehensive and these two dimensions represent the reaction to a large number of specific items. These dimensions also provide a useful summary of the values emphasized in different countries.

Major items associated with the traditional versus secular-rational dimension are summarized in Table 1. The first five items at the top of Table 1 are emphasized in the discussions of "World Values." Traditional values emphasize deference to authority, absolute standards, strong religious commitments, traditional family values, national pride and a nationalistic outlook. Secular rational values are represented by a greater emphasis on open, collective decision making, emphasis on relationships outside the family, and a more global orientation.

A wide range of perspectives and orientations are associated with this dimension; it has a positive relationship with 29 items in the interview.²⁵ Three sets of items correlated with this dimension would seem to have a direct relationship

23. Previous assessments related to GEM measures of business creation were completed by Uhlaner, Thurik, and Hutjes (2002) and Hechavarría and Reynolds (2009).

24. Inglehart (1990); Inglehart and Welzel (2005).

25. Reynolds, (2011), Appendix 4.

to participation in business creation. They are presented as three set of rows in the lower part of Table 1.

Table 1: Traditional versus Secular-Rational Values: Selected Items

| Traditional | Topic | Secular-rational |
|-------------------------------|---|--------------------------------|
| Important in life | God* | Not important in life |
| Obedience and religious faith | Children should learn* | Independence and determination |
| Never justified | Abortion* | Can be justified |
| Strong personal sense | National pride* | Not so important |
| Favors more | Respect for authority* | Favors less |
| Very important | Religion | Not so important |
| Believes exist | Heaven | Does not believe exists |
| | | |
| Very important in life | Work | Not so important in life |
| Source of problems | Wife earns more than husband | Not a source of problems |
| | | |
| Very important in life | Family | Not so important in life |
| Favorable | Large number of children | Not favorable |
| Parent's duty | Parents should sacrifice for their children | Not so important |
| | | |
| Relatively favorable | Army rule of the country | Not favorable |
| Seldom or never | Discuss politics | Often |
| Occupies the right | Left-right political scale | Occupies the left |

*Source: Based on Tables 2.1 and 2.3 from Inglehart and Welzel (2005); * marks items that are emphasized in author's discussion.*

The items in the second set from the top are related to a strong emphasis on work, particularly by husbands. The items in the third set include the importance of family, a preference for a large number of children, and a strong sense that parents are responsible for the well-being of their children. The items in the fourth set reflect not only a preference for a military rule, but a reluctance to participate in politics, and a conservative political orientation. This would suggest that individuals with a traditional orientation do not consider national leaders as a source of solutions to personal problems; they expect to provide their own solutions.

The combination of an emphasis on work, a strong sense of responsibility for a family, an emphasis on self-reliance, and a reluctance to approach national leaders for help with personal or family issues associated with traditional values could well lead individuals to find solutions to their economic problems by creating a new business. The alternative, considered a secular-rational emphasis, would seem to

suggest more trust in the public sector, a willingness to be involved in the national political life, and an expectation that individuals with problems can expect support and assistance from the others, often formalized as public agencies.

The second dimension is associated with a personal orientation toward life; important items are summarized in Table 2. Again the first six items are emphasized in much of the discussion of world values. At one extreme is a strong focus on personal survival, food, housing, clothing, etc. The other extreme is an emphasis on personal expression and self-development. This is sometimes described as a post-industrial value orientation. But there are 36 items associated with this dimension.²⁶ Those that appear directly relevant to participation in business creation are summarized in Table 2. The combination suggests that the survival end of this dimension is associated with a focus on income, financial security, working hard, and that the individuals are dissatisfied with their household financial situation. The self-expressive emphasis reflects a focus on individual development and each person reaching their full, unique potential.

Table 2: Survival versus Self-Expression Values: Selected Items

| Survival | Topic | Self-Expression |
|-----------------------------|---|----------------------------------|
| Economic, physical security | Personal priority* | Self-expression, quality of life |
| Not very | Personal happiness* | Very |
| Never justified | Homosexuality* | Can be justified |
| Has not and would not | Sign a petition* | Has or would |
| Must be very careful | Trusting people* | Less need to be careful |
| Men better than women | Political leaders | Women acceptable |
| | | |
| Dissatisfied | Household financial situation | Satisfied |
| Security, good income | Definition of a good job | Accomplishment, good colleagues |
| Does not favor | Less emphasis on money and material possessions | Does favor |
| Most important | Teach children to work hard | Not so important |
| Not very important in life | Leisure | Very important in life |

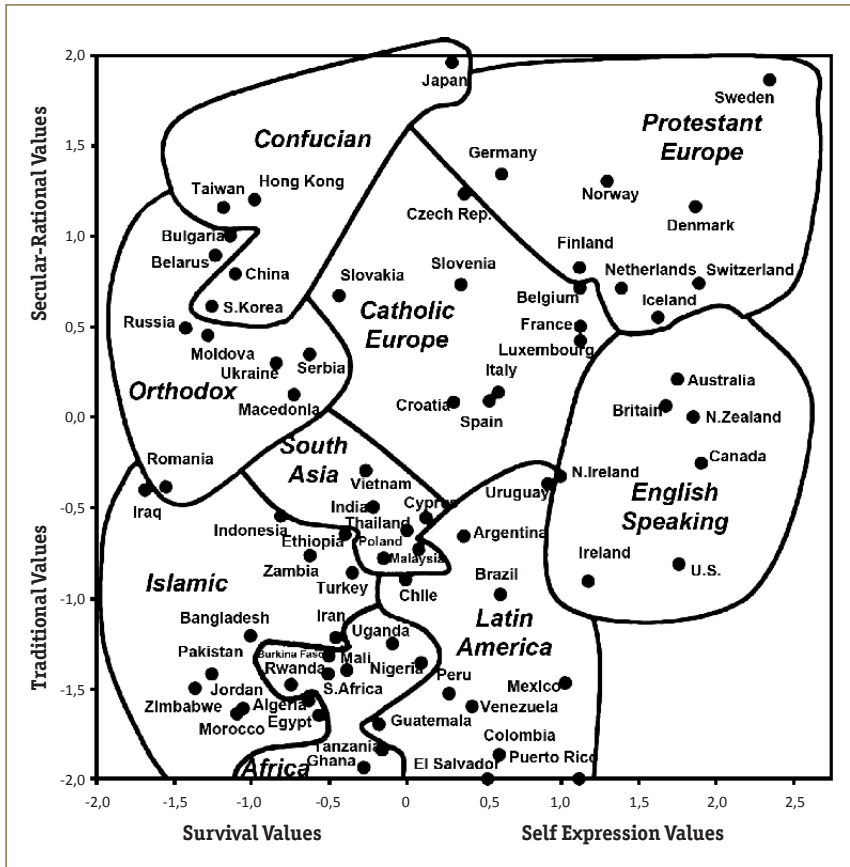
Source: Based on Tables 2.1 and 2.4 from Inglehart and Welzel (2005); marks items that are emphasized in authors' discussion.*

Both value dimensions summarize a wide range of more specific attitudes and reflect deep seated orientations widely shared in the population. The primary socialization of children would emphasize inculcating these values. Changes would be measured in human generations, not in terms of political or economic cycles.

26. Reynolds (2011), Appendix A.

A summary of the values for these two dimensions for major world regions is presented in Figure 2.²⁷

FIGURE 2: NATIONAL VALUE DIMENSIONS AND COUNTRY GROUPS²⁸



For both dimensions a country or region midway between the two extremes would have a value of zero. A positive value on the traditional versus secular/rational dimension would reflect an emphasis on secular/rational values; a negative value

27. The World Values Survey project website provides the values for these two dimensions for five administrations of the survey, in 1981, 1990, 1995, 2000, and 2006. For each GEM country the average across all administrations was computed, which varied from 1 to 5 surveys. As these values were normalized in each survey, no further adjustment was made for this assessment.
28. Inglehart, Ronald and Christian Welzel (2010).

an emphasis on traditional values. A positive value on the survival versus self-expression dimension would reflect an emphasis on personal development and self-realization, a negative value an emphasis on survival. This indicates that most countries are clustered in groups that share a common history and political development, reflected in similar emphases on these two value dimensions.

Many of the developing countries are in the bottom or left sections of Figure 2. Low income countries of Africa and Asia, particularly those with an Islamic tradition, tend to be in the lower left quadrant, strong on traditional values but with an emphasis on survival rather than self-expressive values. Latin American countries appear to be strong on tradition and intermediate on survival versus self-expressive values. European countries tend to be in the center or, particularly for northern Europe, in the upper right quadrant. Sweden has the unique honor of being in the extreme upper right corner of the world value map.

A distinct group of countries have a strong national emphasis on self-expression and an intermediate emphasis on the traditional versus secular-rational dimension. As seen in Figure 2, this appears to include seven “English Speaking” countries, of which four are outside Europe (Australia, Canada, New Zealand, and the United States). These North American, Oceanic countries have a level of business creation that is about twice that of other high income countries, including “English Speaking” European countries.²⁹ If there is a “positive entrepreneurial climate,” it may be a reflection of this unique combination of these two fundamental national values.

Based on the following assessment, the strongest impact on readiness for entrepreneurship would occur in countries with an extreme emphasis on both traditional and self-expressive values, the lower right corner of Figure 2. There are, however, no countries in this portion of the “value map.”

National Business Creation: The Second Stable Feature

Around the world, about 450 million adults are involved in start-ups or new firms.³⁰ These estimates are developed from the Global Entrepreneurship Monitor project, which coordinated harmonized adult population surveys in 76 countries from 2000 to 2009. Representative samples of those 18-64 years of age are the basis for identifying nascent entrepreneurs, those active in implementing ventures that have not yet achieved profitability, and new firm owners, those managing firm that have been profitable for up to 3.5 years (42 months).³¹ Countries, however, vary dramatically in the level of business creation. The proportion of adults involved in

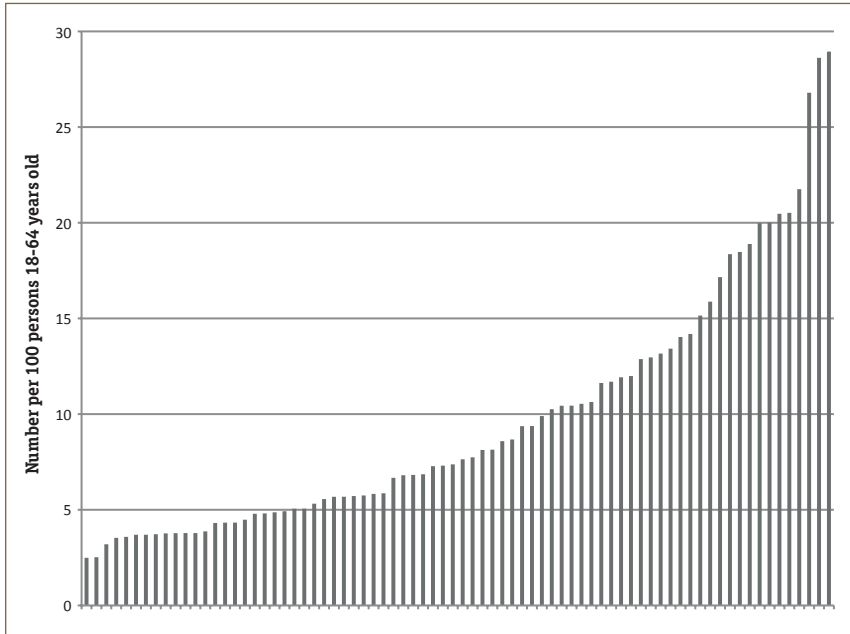
29. Reynolds (2011, Figure 6.1, p. 74).

30. About 211 million are nascent entrepreneurs, attempting to implement a new firm, and 236 million are owner-managers of new ventures that have been profitable for up to 3.5 years (Reynolds, 2012, Table 3.3 and 3.6).

31. See Reynolds, Bosma, Autio, et al. (2005) for an overview of the data collection procedures; recent details of the status of the research program can be found at ‘www.gemconsortium.org.’

start-ups or new firms (combined for the TEA index) can vary from one in forty, or 2.5 per 100 in Japan and Belgium, to about one in four, or 28.0 per 100 in Uruguay and Peru. This diversity is illustrated in Figure 3, comparing patterns from 2000 to 2009 from the Global Entrepreneurship Monitor project.³²

FIGURE 3: TEA PREVALENCE RATES ACROSS 76 COUNTRIES: 2000-2009



Much attention has been given to this diversity, with a particular focus on the “u-shaped” nature of the relationship with economic development. The highest levels of business creation are found in countries with the lowest levels of per capita income (Africa, developing Asia, Latin America), the lowest levels of activity among those with intermediate levels of personal income (Western Europe, Developed Asia), and slightly higher levels of activity among countries with the highest levels of personal income (Australia, Canada, New Zealand, and the US).³³

But the remarkable stability of business creation activity has received less attention. The year to year correlation among countries is about 0.91.³⁴ The best predictor of the level of activity for any country is the level of activity for the previous

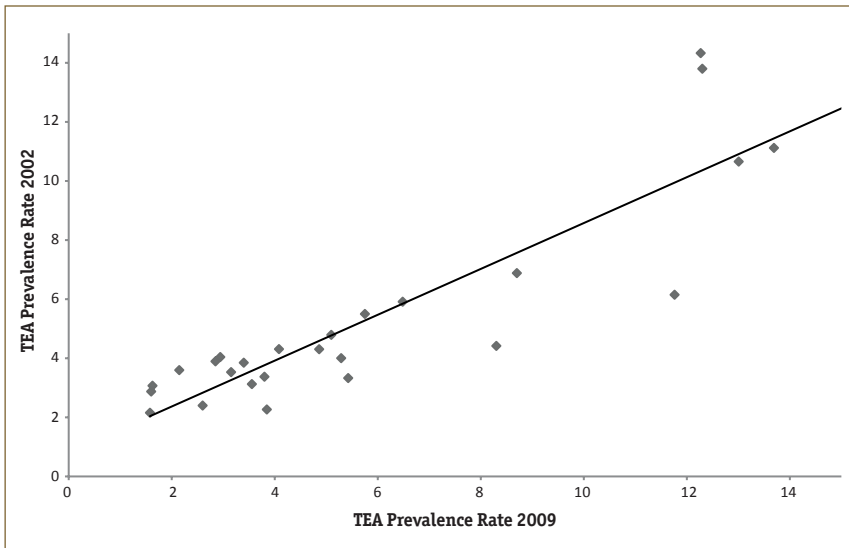
32. Based on Reynolds (2012), Appendix D1 and D2.

33. Wennekers, van Stel, Thurik and Reynolds (2005).

34. This average is based on 258 year to year assessments from 2000 to 2009 involving over sixty countries.

year. The long term stability is also substantial. This relationship across 7 years, from 2002 to 2009, for 26 countries is illustrated in Figure 4; the correlation is 0.88. The level of activity, number of persons per 100, is remarkably stable.

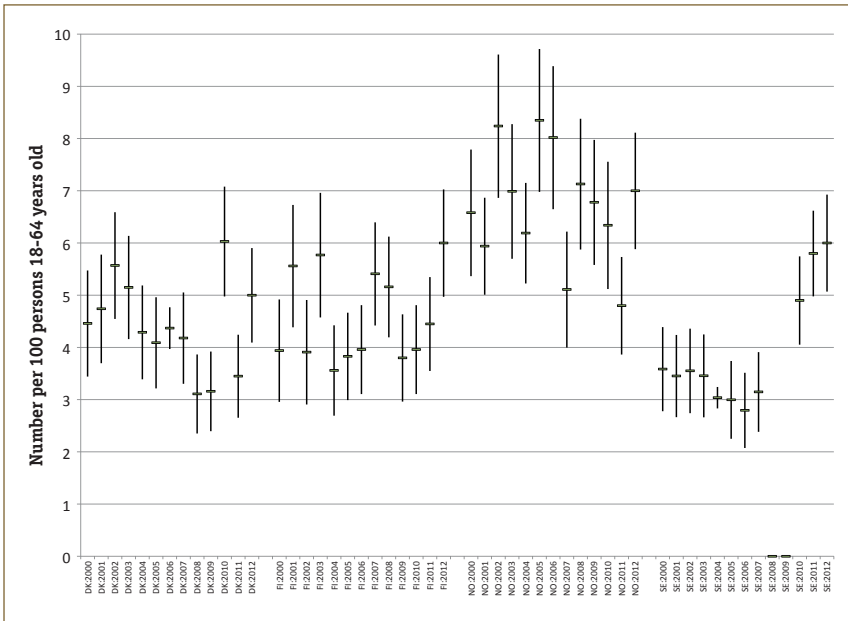
FIGURE 4: TEA 2002 PREVALENCE WITH TEA 2009 PREVALENCE



This stability can be represented for four Nordic countries by considering the patterns from 2000 to 2012, as presented in Figure 5.³⁵ They are, from left to right, Denmark (DK), Finland (FI), Norway (NO) and Sweden (SE). The horizontal bar represents the estimate for each year; the vertical bars represent the margin of error in the estimates, technically the 95 percent confidence intervals. These are narrow, as in Denmark in 2006 and Sweden in 2004, when there are large samples, 10,000 and 26,700 in these two cases. In most years the samples were from 1,500 to 3,000. Note that for most years for all four countries the vertical bars overlap, indicating no statistically significant difference. Using the probability of a statistically significant difference at 0.05, or one in twenty, the 2010 value for Denmark may be higher than some other years, the 2005 value for Finland may be lower than some other years, and the 2007 and 2011 values for Norway may be lower than some other years. Sweden is unique in that the values from 2000 to 2007 are almost identical, with a sharp increase to the 2010 to 2012 period, which is also stable. No Swedish surveys were completed in 2008 and 2009.

35. Data from author's consolidated, harmonized files (Reynolds, 2011, 2012) for 2000 to 2010 and from GEM Global Reports for 2011 and 2012.

FIGURE 5: NORDIC COUNTRIES ANNUAL TEA PREVALENCE: 2000 TO 2013



The average TEA prevalence rates in Sweden increased from about 3.2 per 100 to about 5.6 per 100 from the first to second series of surveys. It is not clear how to interpret this sharp increase following 2007. There are three possibilities. First, beginning in 1985 the Swedish government made a number of adjustments that reduced the government role in direct management of the economy and Swedish firms (Braunerhjelm and Henrekson, 2013). This may have encouraged more individuals to participate in business creation and is a true change. Second, some comparisons of the U.S. and other advanced countries suggest that the U.S. seems to have more participation in the start-up phase by enthusiastic but poorly prepared individuals. This seems to explain some differences between Australia and the US (Davidsson and Reynolds, 2009). Compared to countries where more experienced individuals with more resources are present in the pool of nascent entrepreneurs, in the U.S. a smaller proportion may make the transition from start-up to profitable new firms. If this is the case, the increase in the Swedish TEA prevalence rate may not indicate more active new firms but more poorly prepared idealists reporting they have entered the start-up process.

A third possibility is that it reflects a shift in the data collection procedures. There was a change in the sponsoring institutions, with one agency managing the

data collection from the year 2000 to 2007, and another from 2010 to 2012.³⁶ In addition, there are adjustments in the data collection procedures, with samples for the interviews that included cell phones in 2010, 2011, and 2012. As cell phone use is more prevalent among young adults, and younger adults are more likely to be involved in business creation, this may be a major factor in the jump in the prevalence rate from before 2007 to after 2010.³⁷ The lack of a cell phone sample may account for lower prevalence rates prior to 2010.

Despite some year to year variations in these four Nordic countries, the overwhelming impression is one of relative stability, with an average of 4.4 persons per 100 active in Denmark, 4.6 per 100 in Finland, 6.7 per 100 in Norway, and 3.9 per 100 in Sweden. Similar patterns of stability are found in almost all countries where comparable data is available across a decade. But the typical levels of activity are three to four times higher in other regions, such as Latin America, the Middle East North African (MENA) countries, or among developing Asian countries (China, India, Malaysia, etc.).

When the business creation process is examined in detail, it turns out that one of the most stable national features—the value structure—has a major impact on individual participation in business creation. A better understanding of the mechanisms that lead to this stability—or resistance to change—could help guide public policy.

Predicting National Prevalence Rates with National Factors (Link A)

It is widely recognized that individual behavior, particularly business creation, is affected by personal attributes and contextual factors. One approach to defining the context for individual behavior makes a distinction between formal and informal institutions.

36. From 2000 to 2007 GEM Sweden was supervised by the Entrepreneurship and Small Business Research Institute (ESBRI). From 2010 to 2012 GEM Sweden was supervised by the Swedish Entrepreneurship Forum. Both organizations received financial support from other Swedish sources, which varied from year to year.

37. Assuming that the surveys completed before and after 2010 are comparable in terms of sampling and interview procedures, there are then two options. There is a true increase in Swedish business creation or broader populations are entering the start-up process. If the latter has occurred then the proportion with a successful transition from start-up venture to profitable new firm may have changed in the last decade. Fortunately, a sophisticated panel study, tracking business creation over time, was implemented in Sweden with a cohort of nascent entrepreneurs identified in 1998 (Samuelsson, 2011). If this research protocol was duplicated with a current cohort of nascent entrepreneurs, it would be possible to determine if the nascent venture to profitable firm transition rate had changed in the last 15 years.

Institutions are the humanly devised constraints that structure human interaction. They are made up of formal constraints (rules, laws, constitutions), informal constraints (norms of behavior, conventions, and self-imposed codes of conduct), and their enforcement characteristics. Together they define the incentive structure of societies and specifically economies.³⁸

In most cases formal and informal institutions complement each other. It can be assumed that both types of institutions emerge over time as a consequence of “societal learning.” The formal structures—constitutions, laws, programs—often reflect well established informal institutions. In the following assessment the formal and informal institutions associated with this conceptualization are represented by a variety of specific measures. In particular, national values developed from the World Values Survey reflect significant aspects of informal institutions.

While new businesses are the product of deliberate efforts by individuals or teams, it is clear that in some contexts there is more business creation than in others. On the other hand, in all economies only a minority pursue new firm creation. Estimating the relative impact of national characteristics, formal and informal institutions, and personal attributes on participation in business creation is one of the major challenges in understanding the entrepreneurial process. The greater challenge, of course, is to establish the mechanisms that link national factors to individual behavior.

Many national characteristics have been proposed as affecting the amount of indigenous business creation. These features are related to processes that will affect individual participation in entrepreneurial activity. Almost all of these processes are related to five aspects of a national economy: basic economic characteristics, structural features, measures of centralized control or regulation, capacity of the population for business creation, and national cultural and social support. These five national aspects are represented by 25 individual measures as follows:³⁹

Economic characteristics: GDP per capita, recent increases in GDP per capita, recent population increases, and income inequality (the GINI index).

Structural features of the economy: Prevalence of established enterprises, percentage of the work force in agriculture (farming, forestry, and fishing), industry (mining, construction, manufacturing, and utilities), and services (everything else).

Centralized control, regulation of the economy: The proportion of government employees in the labor force, government spending as a proportion of annual GDP,

38. North (1993) based on North (1990). This is distinct from the efforts to explain the presence of productive organizations, where an administrative component coordinates the work of a group of people, as a response to the inefficiencies of coordinating economic production with a price based market mechanism, frequently described as the “new institutional economics” (Coase, 1937; Hodgson, 1998; Williamson, 2000).

39. Detailed descriptions including procedures for estimating missing values are found in Reynolds (2011).

index of business registration costs, commercial legal costs index, legal recognition of physical property rights index, legal recognition of intellectual property rights index, and corruption.⁴⁰

Population capacity for business creation: National index of entrepreneurial ready adults, percentage population 25-44 years old, percent adult population with secondary school degrees, labor force participation by men, labor force participation by women, and the unemployment rate.

National cultural and social norms: Prevalence of informal investors, cultural support for entrepreneurship, emphasis on traditional versus secular-rational values, and an emphasis on survival versus self-expressive values.

Virtually all of these variables are represented by continuous measures and almost all have a statistically significant correlation with measures of business creation. Note that the formal institutional factors are reflected in the measures related to the centralized control and regulation of the economy. Formal institutions may have an indirect effect on some aspects of population readiness, such as the proportion of adults that complete educational programs and the proportion of women that participate in the labor force. In extreme cases, government institutions may affect the age structure of the population, but these efforts have had very mixed success. Informal institutions are reflected in the national cultural and social norms, and well represented in this selection of measures.

The effects of these factors on the prevalence of participation in the first two stages of the firm life course are summarized in linear additive regression models in Table 4.⁴¹ In this table, the standardized Beta coefficients are presented for those variables identified as making an independent and statistically significant contribution to predicting the prevalence of nascent entrepreneurs and new firm owners. These two stages are summarized in the TEA index discussed in the introduction and in Figures 3, 4, and 5.

The first important feature of these models is the high level of predictive success. The model predicting the prevalence of those active in start-ups, nascent

40. The index represents a western conception of corruption, where those in official positions expect “side payments” to perform official duties. In societies where the most reliable sources of personal assistance of elementary justice are within trusted informal networks of family members or a tribal community, corruption is considered “the failure to share any largess you have received with those with whom you have formed ties of dependence” (Rosen, 2010).

41. This is a cross sectional analysis, all independent and dependent variables characterize the countries from 2000 to 2009. Each country is weighted in relation to the proportion of its population 18-64 years of age in the entire sample. As a result, Tonga and Iceland have much less impact on the assessment than China and India. The log of the prevalence rates provides a normally distributed dependent variable. The models were developed from SPSS Regression Stepwise regression procedures, using the standardized defaults, the tolerance criteria, to avoid in two or more variables that would be highly related, or have a high degree of collinearity.

entrepreneurs, accounts for 72 percent of the variance. The model predicting the prevalence of new firm owners accounts for 93 percent of the variance. Both models, then, are relatively successful at predictions. Most major factors affecting variation in business creation are probably included in the models.

Second, the models for the two initial stages of the firm life course are somewhat different, justifying separate attention to the two initial stages of the firm life course. The only national feature with the same impact in both models is the proportion of the adult population that has completed secondary education (high school). The presence of nascent entrepreneurs, working on start-ups, is affected by income inequality but not the absolute level GDP per capita. Income inequality tends to be, however, the highest in low income countries. There is a positive impact of the prevalence of informal investors, which may be correlated with the measure of support for entrepreneurship. There is no independent impact of the two measures of national values. The index reflecting individual readiness for entrepreneurship has a major impact; it will be emphasized in the following sections.

There are ten significant factors in the model in the right column of Table 4, predicting the prevalence of new firm owners; owners of firms less than 3.5 years old.

The most significant is the prevalence of established firms, those over 3.5 years old; this would reflect a national economy with a large proportion of smaller firms and may reflect a relative emphasis on small firm sectors, such as farming, retail, consumer services, and the like. This may also be reflected in a low GDP per capita. A growth in GDP per capita would result in greater demand for goods and services, encouraging new firm survival.

Two measures of centralized control of economic activity have some impact. Greater costs for commercial litigation tends to reduce activity as does greater physical property rights, which may reduce the potential for setting up a new firm without regard to land ownership. Three features of the population, a greater concentration of those 25-44 years old, more educated adults and more women in the labor force, are associated with more new firms.

Two measures related to cultural and social support have an impact. There is a slight reduction where there are more informal investors, perhaps reflecting greater capacity for competitors to arise. There is a major effect related to one national value, a greater emphasis on traditional values tends to increase the presence of new firms. This is discussed in more detail later.

What is most striking about both predictive models is the almost total absence of effect of factors representing centralized control of economic activity. The size of the government sector—represented by the proportion of government workers or government spending as a proportion of GDP; measures of the ease of business registration, recognition of intellectual property rights, and measures of corruption do not appear in either model. The remaining two factors have a modest impact in the model predicting the prevalence of new firms. Yet these are the major factors emphasized in most discussions of policy initiatives.

Table 4: Predicting Participation in Start-ups and New Firms: National Factor Models

| | [Standardized Beta Coefficient in cells] | Active in Start-up | New Firm Owner |
|--|--|--------------------|----------------|
| Number of Countries | | 74 | 74 |
| Percent Variance Explained (R ² R) | | 72.0 | 92.8 |
| Prevalence: Nascent entrepreneurs/100 adults | | 4.8 | 4.2 |
| Constant | | 0.03 | -1.20 |
| Economic Characteristics | | | |
| High GDP per Capita: \$35-\$57/K (2009: PPP) Yr: | | | |
| Medium GDP per Capita: \$16-\$35/K (2009: PPP) Yr: | | Base | Base |
| Low GDP per Capita: \$01-\$16/K (2009: PPP) Yr: | | | 0.29 |
| Percent change GDP per capita: 2003-08 | | | 0.23 |
| Annual Pop Growth: 1999-2009 (Avg) | | | |
| Income Inequality: 2000-2008 Average | | 0.28 | |
| Structural Features of the Economy | | | |
| Established firms/100 Persons 18-64 Yrs Old | | | 0.61 |
| Percent agricultural workers: 2009 | | | |
| Percent industrial workers: 2009 | | Base | Base |
| Percent service workers: 2009 | | | |
| Centralized Control of Economic Activity | | | |
| Percent government workers | | | |
| Gov spending as per cent of GDP | | | |
| Ease of business registration index | | | |
| Costs for commercial legal action Index | | | -0.23 |
| Physical property rights recognition Index | | | -0.13 |
| Intellectual property rights recognition Index | | | |
| Perceived corruption index: 2005 | | | |
| Population Capacity for Business Creation | | | |
| National Index: Readiness for Entrepreneurship | | 0.56 | |
| Percent Total Population 25-44 Yrs old | | | 0.19 |
| Percent HS Degree or more 15+ years | | 0.27 | 0.24 |
| Percent Women 15-64 Yrs Labor Force: 2007 | | | 0.44 |
| Percent Men 15-64 Yrs Labor Force: 2007 | | | |
| Unemployment Rate: Avg 2000-2008 | | | |
| National Cultural and Social Support | | | |
| Prevalence informal investors: #/100 Persons | | 0.45 | -0.12 |
| National Index of Support for Entrepreneurship | | | |
| Traditional (+1) vs. Secular/Rational (-1) Values | | | 0.41 |
| Survival (+1) vs. self-expressive (-1) values | | | |

Note: Base is the reference category and is therefore not included in the regression. The interpretation of the other variables is thus relative to the reference category.

National factors are clearly associated with the amount of business creation activity in any given country. Individual participation in business creation is also affected by a number of personal attributes, such as gender, age, educational attainment, work force status, and, perhaps most significant, a readiness to pursue entrepreneurship. The research challenge is to assess the relative impact of these two types of factors, one reflecting the national context and the other individual attributes.

Predicting Individual Business Creation: National and individual Factors (Link B)

It is a major challenge to explore the relative impact of contextual and individual factors, two levels of analysis, in the same assessment. These multi-level issues have emerged in many areas of social science, such as the education of students, performance in work groups and organizations, care in hospitals, outcomes of judicial proceedings, etc. In all cases there are both individual and contextual factors that appear to have significant impact on the outcomes, such as academic achievement, work output and morale, personal health, or judicial decisions. Understanding the relative impact of national and personal factors affecting participation in firm creation is conceptually identical to these other phenomena.

The importance of this issue has led to the development of multi-level models.⁴² The basic strategy is to complete analysis at two levels. The initial level (level 1) utilizes regression analysis to develop linear additive models for each unique context. In this assessment, models using individual attributes to predict participation in new firm creation in each country are developed. Each linear model is summarized by an intercept (a measure of the prevalence of activity in each country) and a slope (reflecting the success of using individual factors to predict individual activity). The result will be a range of results across the different countries (level 2). The next stage is to develop models that use national (level 2) features to predict, or explain, variation in the two characteristics of the level 1 linear models, the level of predicted activity (the intercept) and the impact of individual factors on the intercept (the slope).

As before, those identified as nascent entrepreneurs and new firm owners were the dependent variables for the outcome to be predicted. These are reflected as both individual attributes (active versus inactive) and as national prevalence rates.⁴³

42. The development and testing of the models involves a combination of standard regression procedures and multi-level analysis of variance (ANOVA). One of the most versatile procedures is the Hierarchical Linear Model Version 7 (HLM7) program (Hoffman, 1997; Hoffman and Gavin, 1998; Raudenbush and Bryk, 2002; Raudenbush, et al, 2011; Snijders and Bosker, 1999). It will be used to explore the impact of national and individual factors on participation in business creation.

43. For each specific model, predictor variables are entered based on informed judgments to identify that set of variables that provide statistically significant, independent contributions to predicting the outcome while retaining no more than one level two (country) predictor for each ten level two (country) units (Hoffman, 1997, p. 740). The procedures followed for developing these models are summarized in Reynolds (2012) Appendix H.

Independent variables included both individual attributes (level 1) and national factors (level 2).⁴⁴ The individual variables reflected gender, age, educational attainment, workforce status, household income relative to others in the country, and four measures of judgments about perception of opportunity, confidence in skills to pursue start-ups, knowing other entrepreneurs, and potential effects of fear of failure.⁴⁵ The national factors were those previously discussed and listed in the first column of Table 4.⁴⁶

The results of applying this procedure to predictions of the prevalence of nascent entrepreneurs and new firm owners are provided in Table 5.⁴⁷ Only factors significant at least at the 0.05 level are included in the tables; over four fifths are significant beyond the 0.001 level. To present all statistically significant variables in a one-page table, most national factors that were not statistically significant are omitted from the presentation. All national factors were, however, initially considered as candidates in the early stages of model development. As the three items in the entrepreneurial readiness index are included as separate factors, the index reflecting entrepreneurial readiness was not among the national factors. As all data is to be considered cross-sectional in nature, causal interpretations must be made with some care. The number of countries is reduced from 74 to 72 due to missing data on some personal attributes. The number of individuals involved, however, is 583,127.

The predictive success of the models in Table 5 are similar to that in Table 4, they account for 77 percent of the variation in the national prevalence of nascent entrepreneurs and 92 percent of the variation in the national prevalence of new firm owners. This is further evidence that many important factors have been included in these models.

The model developed for nascent entrepreneurs includes gender and age with the expected effects. Men are more active than women and there is a linear decline in participation among older individuals. Those that have completed secondary education (high school) are more likely to be involved than those that have not; there is no substantial addition effect from further education. Those in the labor force, either working or seeking work, are more likely to be involved than those not part of the labor force (homemakers, retirees, students). The level of household income, relative to others in the same country, has no effect. Nor is there any effect from reporting that fear of failure would prevent involvement.

44. Two types of weights are specified in these models. Level one or individual weights in each country are adjusted such that the national sample reflects the national adult population. Level two or country weights are those used in the previous assessment; each country is assigned a weight reflecting its proportion of the total population of adults in all the countries. Weights at both levels are adjusted to average 1.00.

45. These variables and their coding are summarized in Reynolds (2012) Appendix G.

46. Sources are summarized in Reynolds (2012) Appendix E.

47. Due to missing data on some individual characteristics, there is a slight reduction in the number of countries, from 74 to 72. The omitted countries were among those with the lowest GDP per capita.

Table 5: Predicting Participation in Start-ups and New Firms: Multi-Level Models

| | Active in Start-up | New Firm Owner |
|---|--------------------|----------------|
| Number of Countries | 72 | 72 |
| Individual respondents | 583,127 | 583,127 |
| Percent Cross National Variance Explained | 76.8% | 92.4% |
| Reliability | 0.85 | 0.79 |
| Nascent/100 adults: National (Weighted average) | 4.78 | 4.19 |
| Constant | -3.32 | -3.31 |
| Individual Characteristics | | |
| Gender: (men = 1; women = 0) | 0.18 | |
| Age: 18-24 years old | Base | Base |
| Age: 25-34 years old | -.18 | |
| Age: 35-44 years old | -.38 | |
| Age: 45-54 years old | -.56 | |
| Age:55-64 years old | -.78 | -0.29 |
| Education: No HS degree | Base | Base |
| Education: HS degree | 0.32 | |
| Education: Post HS, College degree | 0.39 | |
| Education: Graduate experience | 0.34 | -0.17 |
| Working full, part time | 0.45 | N/a |
| Not currently working | 0.52 | N/A |
| Not in labor force | Base | N/A |
| Household Inc: Lower third for country | | -0.32 |
| Household Inc: Middle third for country | | -0.17 |
| Household Inc: Upper third for country | Base | Base |
| Perceive opportunities | 0.72 | 0.25 |
| Confidence in start-up skills | 1.06 | 1.06 |
| Know an entrepreneur | 0.59 | 0.41 |
| Fear of failure effect | | |
| Economic Characteristics | | |
| GDP Per Capita below US\$ 16,000/yr | 0.79 | |
| GDP Per Capita: US\$ 16,000 and US\$ 35,000/yr | Base | Base |
| GDP Per Capita above US\$ 35,000/yr | 0.25 | |
| Per cent change GDP per capita | | |
| Structural Features of the Economy | | |
| Prevalence of nascent firms (#/100 persons) | N/A | 0.07 |
| Prevalence of new firms (#/100 persons) | 0.04 | N/A |
| Prevalence of established firms (#/100) persons | | 0.10 |
| Percent agricultural workers: 2009 | -.02 | |
| Centralized Control of Economic Activity | | |
| | | |
| Population Capacity for Business Creation | | |
| National Index: Readiness for Entrepreneurship | N/A | N/A |
| Percent Women 15-64 Yrs Labor Force: 2007 | | 0.01 |
| National Cultural and Social Support | | |
| Prevalence informal investors: #/100 Persons | 0.12 | -0.07 |
| National Index: Support for Entrepreneurship | | 0.32 |
| Traditional (+1) vs. Secular/Rational (-1) Values | 0.18 | |

Note: Base is the reference category and is therefore not included in the regression. The interpretation of the other variables is thus relative to the reference category.

All three measures related to readiness for entrepreneurship—perceptions of opportunities, confidence in start-up skills, and knowing an entrepreneur—have major positive effects on participation in entrepreneurship.

Among the national factors, there is a positive impact of either very low (less than US\$ 16,000/year) or very high (US\$ 35,000 or more/year) GDP per capita. The presence of new firms, up to 3.5 years old, has a small positive effect, and an agricultural emphasis in the economy has a small negative effect. Both the presence of informal investors, an indication of contextual support, and a traditional value emphasis have a positive influence.

The model predicts participation as a new firm owner reflects a much greater impact of contextual factors. Few individual factors are incorporated. There is no gender effect. Those over 55 years old are less likely to be involved. Those from households with relative income in the upper third for the country are more likely to be involved, and there is no relationship from expected fear of failure. As with the model predicting participation in start-ups, all three measures related to readiness for entrepreneurship—perception of opportunities, confidence in start-up skills, and knowing an entrepreneur—have major positive effects.

The presence of more nascent (start-up) firms and established firms, those over 3.5 years old, has positive effects. There is a slight positive effect of more women in the labor force, and national support for entrepreneurship has a major positive effect; the presence of informal investors has a negative impact.

The dominant factor associated with more nascent entrepreneurs and new firm owners across countries is personal readiness for entrepreneurship. All three factors—perceive opportunities, confidence in start-up skills, and knowing entrepreneurs—are associated with more business creation activity. This justifies more attention to the diverse aspects of readiness for entrepreneurship.

Predicting Entrepreneurial Readiness: National and individual Factors (Link C)

An assessment of the factors affecting the three aspects of readiness for entrepreneurship will provide a more complete understanding of the intervening processes affecting business creation. These aspects include the perception of opportunities, confidence in the skill to implement a firm, and knowing others involved in business creation.

The strategy for this analysis is quite straightforward. The multi-level modeling assessment is repeated using the three components of the entrepreneurial readiness index as dependent variables. Except for the measures of entrepreneurial readiness at the national level, the same variables are candidates for inclusion as independent variables. The results are summarized in Table 6.

There are some differences among the models related to different aspects of entrepreneurial readiness. Men are generally more likely to report yes to

all three items, compared to women. The association of age, however, varies substantially for the three items. Those 25 to 44 years old are much more likely to report confidence in their start-up skills than those 18-24 or 45-64 years old. In contrast, perceptions of opportunities are greatest among those 18-24 years of age and knowing an entrepreneur is highest among those 18-34 years of age. The perception of opportunities or knowing an entrepreneur is less among older adults.

This represents a major conundrum, younger adults see opportunities and know others involved in business creation, yet older adults are more confident in their skills to successfully implement a business. There may be an optimum age, perhaps in the early 30s, where a person is young enough to see opportunities and have a supportive social network of other entrepreneurs but old enough to have developed useful skills and experience. In most countries and for both men and women the proportions participating in firm creation as nascent entrepreneurs is highest for those 30-40 years old.⁴⁸

Educational attainment and, with a strong relationship, working full or part time are generally associated with positive responses to all three aspects of entrepreneurial readiness. The association with household income, relative to others in the country, is consistent across all three factors. Those with lower levels of relative household income are less likely to provide a positive response to all three items.

Among the national factors, those in countries with the lowest GDP per capita are more likely to be positive about opportunities or their confidence in start-up skills. There is no effect regarding knowing an entrepreneur. Two measures of potential increase in demand, increases in GDP per capita and population growth, are associated with more positive responses to all three items. More of those in countries with a higher prevalence of new firms report knowing an entrepreneur. Those in countries with more established firms or a larger proportion of government workers will report confidence in their start-up skills. For all three national factors, however, the impacts are small but statistically significant.

Two national values, however, have a major impact on the perception of opportunity and confidence in start-up skills, two aspects of readiness for entrepreneurship. In those countries emphasizing traditional values (with a major focus on self-reliance) and self-expression values the residents are more likely to see good business opportunities and have confidence in their start-up skills.

48. See Reynolds, Carter, Gartner, and Greene (2004) for patterns in the U.S and Samuelsson (2011, Table 9.1) for patterns in Sweden.

Table 6: Multi-Level Models: Entrepreneurial Readiness Items

| | | Perceive Opportunities | Confidence in Start-up Skills | Know an Entrepreneur |
|--|---|------------------------|-------------------------------|----------------------|
| | Number of Countries | 72 | 72 | 72 |
| | Individual respondents | 583,127 | 583,127 | 583,127 |
| | Percent Cross National Variance Explained | 79.2% | 85.2% | 63.2% |
| | Reliability | 0.96 | 0.95 | 0.96 |
| | Proportion reporting "yes" | 32% | 50% | 40% |
| | Constant | -.77 | -0.06 | -0.29 |
| Individual Characteristics | | | | |
| | Gender: (men = 1; women = 0) | 0.26 | 0.48 | 0.29 |
| | Age: 18-24 years old | Base | Base | Base |
| | Age: 25-34 years old | -.08 | 0.17 | |
| | Age: 35-44 years old | -.22 | 0.16 | -0.18 |
| | Age: 45-54 years old | -.29 | | -0.43 |
| | Age: 55-64 years old | -.40 | | -0.52 |
| | Education: No HS degree | Base | Base | Base |
| | Education: HS degree | | 0.21 | 0.22 |
| | Education: Post HS, College degree | | 0.29 | 0.37 |
| | Education: Graduate experience | 0.22 | 0.37 | 0.51 |
| | Working full, part time | 0.34 | 0.56 | 0.35 |
| | Not currently working | | | |
| | Not in labor force | Base | Base | Base |
| | Household Inc: Lower third for country | -.22 | -0.44 | -0.46 |
| | Household Inc: Middle third for country | -.14 | -0.25 | -0.23 |
| | Household Inc: Upper third for country | Base | Base | Base |
| Economic Characteristics | | | | |
| | GDP Per Capita below US\$ 16,000/yr | 0.36 | 0.36 | |
| | GDP Per Capita: US\$ 16,000 and US\$ 35,000/yr | Base | Base | Base |
| | GDP Per Capita above US\$ 35,000/yr | | | |
| | Percent change GDP per capita: 2003-2008 | 0.06 | 0.06 | 0.06 |
| | Population increase: 1999-2009 | 0.35 | 0.35 | 0.13 |
| Structural Features of the Economy | | | | |
| | Prevalence of nascent firms (#/100 persons) | | | |
| | Prevalence of new firms (#/100 persons) | | | 0.04 |
| | Prevalence of established firms (#/100) persons | | 0.04 | |
| | Percent agricultural workers: 2009 | | | |
| Centralized Control of Economic Activity | | | | |
| | Ease of business registration index | | | |
| | Percent all workers in government jobs | | 0.02 | |
| Population Capacity for Business Creation | | | | |
| | National Index: Readiness for Entrepreneurship | N/A | N/A | N/A |
| | Percent Women 15-64 Yrs Labor Force: 2007 | | | |
| National Cultural and Social Support | | | | |
| | Prevalence informal investors: #/100 Persons | | | |
| | National Index: Support for Entrepreneurship | | | |
| | Traditional (+1) vs. Secular/Rational (-1) Values | 0.17 | 0.33 | |
| | Survival (+1) vs. Self-Expressive (-1) Values | -.35 | -0.40 | |

Note: Base is the reference category and is therefore not included in the regression. The interpretation of the other variables is thus relative to the reference category.

Overview and Implications

There have been two major findings from the cross-national assessments of participation in business creation. There are considerable differences among countries in the level of activity and a high level of year to year consistency for each country. This stability appears to be resistant to the many efforts to promote and enhance the level of citizen initiated business creation—or indigenous entrepreneurship. Regression models considering the major national factors affecting business creation provide a high level of predictive success, but do not illuminate the underlying processes. They do indicate that measures of individual readiness for entrepreneurship have a statistically significant role. Multi-level models, which assess the relative impact of both contextual (national) factors and individual attributes, provide strong evidence of the impact of several personal attributes, including gender, age, work force activity, educational attainment and responses to items associated with readiness for entrepreneurship on participation of individuals in business creation.

Further assessment using multi-level models indicates that national values have a major effect on the perception of business opportunities and confidence in start-up skills. Those in countries with a traditional, rather than a secular-rational, value structure and an emphasis on self-expressive values are more likely to report they are aware of business opportunities and have confidence in their skills to implement a start-up business. These national value structures, however, are fundamental aspects of the national culture and reflected in educational, political, economic, and religious institutions. While not totally resistant to change, they will shift slowly—measured in generations. The stability of these national value structures may explain why it is difficult to increase the level of business creation with short term, small scale policy initiatives.

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CHAPTER 7

Sweden and the United States: Differing Entrepreneurial Conditions Require Different Policies

ELIZABETH J. GATEWOOD, PATRICIA G. GREENE AND PER THULIN

Introduction

In 1979 David L. Birch published *The Job Generation Process*, which identified the key role small businesses play in net job creation in the United States. Although there have been some dissenting voices about the magnitude of the impact of new and small business on the US economy (Kliesen and Maués, 2011), in the decades since Birch's report, research increasingly and robustly demonstrated the importance of new and small businesses to the economy (Eisinger, 1989; Walzer, 2007; Powell, 2008; Headd, 2010). Politicians and policy makers in nations around the world began to fund research projects to more precisely determine the role new and small businesses played in their economy, as entrepreneurship was increasingly recognized as a critical part of economic development.

Correspondingly, questions began to be asked about which government policies best support the creation of jobs through new and small businesses (Gartner et al., 2004; Acs and Szerb, 2009; De Hoyos-Ruperto et al., 2012). As entrepreneurial formation varies widely in different economies around the world, it is appropriately recognized that policies need to fit the specific geographic, political, and cultural environments to be successful.

In this essay we investigate some differences between entrepreneurial activity in the US and Sweden, with special focus on women's participation rates in the two economies. There are many reasons why this is an important subject to research. Among the many reasons to consider, we offer two. Entrepreneurs are among the happiest individuals across the globe when it comes to individual well-being and satisfaction with their work conditions (according to the 2014 GEM Global Report). The second reason is that "too few" female entrepreneurs can be viewed as a suboptimal use of a society's entrepreneurial talents.

We will describe the data base we are using as the basis for this essay and will summarize the data on women's entrepreneurship rates in comparison with men's in various regions of the world. We will also consider the differing motivations, capability perceptions, fear of failure and perceptions of opportunities in the environment for women and men. Finally we will offer some general policy recommendations based on our findings.

Entrepreneurship in Different Economies

Politicians, policy makers, researchers and educators have increasingly recognized the role of entrepreneurs in economic development, and a growing number would argue that entrepreneurial activity holds the key to economic growth, prosperity, and societal well-being in economies around the world (Eisinger, 1989; Walzer, 2007; Powell, 2008). This has resulted in ever more interest in understanding the nature of entrepreneurial participation in various economies around the world and the resultant funding of research projects to shed light on the phenomenon. One of the most comprehensive research projects focused on entrepreneurship rates and the environmental and cultural conditions forming entrepreneurial attitudes and behavior is the Global Entrepreneurship Monitor (GEM) research project. The GEM project began in 1999 with 10 participating countries. In 2012, more than 198,000 adults in 69 economies participated in the GEM survey from all regions of the world, and from all levels of economic development (Xavier et al., 2013).

The GEM project, unlike most entrepreneurship research projects, surveys not only those who have started and are running businesses, but also those who are in the process of starting businesses. In addition, the GEM project surveys adults in the general population in order to capture societal attitudes about entrepreneurship (Xavier et al., 2013). Two particular measures are used in the research project, Total Entrepreneurship Activity (TEA), which is the measure of those in the process of starting a business (Nascent Entrepreneurs), plus those running a new business less than three and a half years old, and those running a business three-and-a-half years old or older, or the Established Business (EB) rate.

TEA rates and EB rates varied widely among nations and regions of the world, along with GDP, and with the level of industrial development (Kelley et al., 2012). It is estimated that on average nine percent of the adult population is actively attempting to launch a new venture at any given time, however in some developing

and emerging countries entrepreneurial activity can include more than 40 percent of the population (Bosma and Harding, 2007). Countries with lower levels of GDP have generally higher levels of early-stage entrepreneurial activity, especially necessity driven entrepreneurship, and more very small companies than countries with higher levels of GDP (Kelley et al., 2012).

Although not in the same geographic region of the world, the United States and Sweden are relatively high GDP countries and would be classified as innovation-driven economies, rather than factor-driven or efficiency-driven economies. Factor-driven economies, for example Algeria, Ghana, Iran, Pakistan, Palestine, rely on subsistence agriculture and extraction businesses and the employment of primarily unskilled labor. Efficiency-driven economies, Brazil, China, Mexico, Poland, Tunisia, South Africa, etc., rely on economies of scale, capital intensive industries, while innovation economies rely on knowledge intensive industries and higher service sector activities (Belgium, Denmark, Japan, Switzerland, the United Kingdom, etc.). Selecting two countries in the same type of economy (innovation-driven) helps to manage part of the contextual differences in the discussion in this paper.

Women and Entrepreneurship

In general women's participation rates track men's in most countries around the world, that is, if men's rates are high, women rates are high, however, in nearly every nation there are fewer female than male entrepreneurs. Across countries, TEA and EB rates vary widely. TEA rates are as low as 1 percent in Pakistan to 40 percent in Zambia (Kelley et al., 2013). Regional differences also exist from a low of 5 percent for Developed Europe, Developed Asia, and Israel to a high of 27 percent in Sub-Saharan Africa.

In most nations, EB rates for women, like TEA rates, are less than for men, however, in Sub-Saharan Africa countries, as well, as Russia, Costa Rica, and Thailand, there are equal percentages of men and women running established businesses. Women's EB rates also vary widely by nation from a low of 1 percent in Algeria, Egypt, Palestine, and Panama to 29 percent in Uganda and 36 percent in Ghana. There are also large regional differences. In general, regions with developing economies have higher participation rates, except for the Middle East/North Africa/South Asia (MENA/Mid Asia) where EB rates are only 1 percent, than regions with developed economies (Developed Europe, Developed Asia, the US and Israel). Differing rates of participation in entrepreneurship activities are thought to reflect different motivations, attitudes and perceptions that women hold, as well as cultural constraints that impact women's potential as entrepreneurs (Kelley et al., 2013).

At the most basic level, there are two motivations for starting a business. One is to pursue an opportunity, while the other is out of necessity, meaning there are few other options to generate income. In general, more women than men across the world start businesses because of necessity. In the developing economies the primary motivation for women is necessity. In Sub-Saharan Africa or MENA/Mid

Asia, 36-37 percent of women indicate their motivation for starting their business was necessity. This is opposed to, for example Developed Europe, where 73 percent of women indicated they started their businesses to pursue an opportunity (Kelley et al., 2013).

In every economy, women have lower perceptions of their capabilities for entrepreneurship than men, however as with all of the GEM measurements, there are wide variations across regions. In Sub-Saharan Africa 73 percent of women stated they had the ability to successfully start a business versus only 16 percent of women in Developed Asia. Women also have a greater fear of failure than men, but this measure also shows variation across region although not as extreme as for capability perception. For example in Israel, 52 percent of women said they would be deterred from starting a business because of fear of failure versus 25 percent in Sub-Saharan Africa.

Finally we see the same pattern between men and women and their overall perception of the external environment as for their internal self-assessments. Women across all regions perceive fewer opportunities for entrepreneurship in their environment than men. There are also wide variations for women from different regions. Only 19 percent of women in Developed Asia perceived opportunities for entrepreneurship versus 69 percent in Sub-Saharan Africa.

Given that both are innovation- driven economies, we would expect to find more similarities than differences with women entrepreneurs in the United States and Sweden. However we might hypothesize that women, and men, entrepreneurs in different political systems and cultures but similar economies, such as the US and Sweden, might have different entrepreneurial rates, motivations for starting their business, perceptions of their capabilities, fear of failure, and environmental acceptance of the career path. If differences exist, are different policies needed to support business owners and their businesses in the two countries?

Entrepreneurship in the United States and Sweden

When comparing the results of the GEM data in the two countries we find that the overall TEA rates in the United States are significantly higher than the TEA rates in Sweden, and specifically both women's and men's TEA rates in the United States are higher than women's and men's TEA rates in Sweden (See Table 1). The same holds true for EB rates, which are overall significantly higher for established business ownership in the United States than in Sweden, the EB rates are also higher for both women and men in the United States than in Sweden. Interestingly, although there is a higher discontinuation rate for business owners in the United States, this is due to the considerably higher rate of discontinuation for women in the United States than women in Sweden, but there is no significant difference in discontinuation rates between men in the two countries. (For a discussion of the methodology used in this essay, please refer to the Appendix.)

Table 1: Comparative statistics for the USA and Sweden

| | USA | Sweden | Difference USA–Sweden |
|--|-----|--------|--------------------------|
| TEA rates (2012) ^a | | | |
| Overall | 13 | 6 | 7 |
| Women | 10 | 5 | 5 |
| Men | 15 | 8 | 7 |
| Established business rates (2012) ^a | | | |
| Overall | 9 | 5 | 4 |
| Women | 7 | 3 | 4 |
| Men | 10 | 7 | 3 |
| Discontinuation rates (2012) ^a | | | |
| Overall | 4 | 2 | 2 |
| Women | 3 | 1 | 2 |
| Men | 4 | 3 | 1 |
| Perceived opportunities (2012) ^a | | | |
| Overall | 43 | 66 | -23 |
| Women | 40 | 63 | -23 |
| Men | 47 | 69 | -22 |
| Opportunity motivation rates (2012) ^b | | | |
| Overall | 75 | 86 | -11 |
| Women | 74 | 88 | -14 |
| Men | 76 | 85 | -9 |
| Necessity motivation rates (2012) ^b | | | |
| Overall | 13 | 7 | 6 |
| Women | 10 | 7 | 3 |
| Men | 15 | 7 | 8 |
| Entrepreneurial intention (2012) ¹ | | | |
| Overall | 13 | 11 | 2 |
| Women | 10 | 10 | 0 |
| Men | 15 | 12 | 3 |
| Fear of failure (2012) ² | | | |
| Overall | 32 | 33 | -1 |
| Women | 35 | 40 | -5 |
| Men | 30 | 26 | 4 |
| Perceived capabilities (2012) ^a | | | |
| Overall | 56 | 37 | 19 |
| Women | 47 | 26 | 21 |
| Men | 65 | 47 | 18 |
| High status (2010) ^a | | | |
| Overall | 76 | 72 | 4 |
| Women | 74 | 76 | -2 |
| Men | 77 | 67 | 10 |
| Good career choice (2010) ^a | | | |
| Overall | 65 | 57 | 8 |
| Women | 63 | 57 | 6 |
| Men | 67 | 57 | 10 |
| Media attention (2010) ^a | | | |
| Overall | 68 | 61 | 7 |
| Women | 67 | 62 | 5 |
| Men | 68 | 60 | 8 |

Note: Bold entries refer to significant differences (5-percentage level) in entrepreneurship between the US and Sweden.

¹ Intentions assessed among 18-64 year old non-entrepreneur population (percent).

² Fear of failure assessed for those 18-64 years old seeing opportunities.

^a Percentage of population 18-64 years old.

^b Percentage of those engaged in early entrepreneurial activity

When it comes to perceived opportunities and motivation to start a business, a higher percentage of women and men in Sweden perceived an environment that held opportunities for starting a business. Moreover a higher percentage of entrepreneurs in Sweden cited the pursuit of an opportunity as their motive for starting a business, but there was no significant difference between the percentage of women and men in the United States and Sweden who cited necessity as their motive for starting their business.

Although people in Sweden overall have lower entrepreneurial intentions to start a business in the future, this is due to a significant difference between men in the United States and men in Sweden; women in the United States and Sweden are not significantly different in their intentions to start a business. And this is despite the fact that women in Sweden have a greater fear of failure concerning starting a business than women in the United States, and that fewer women and men in Sweden perceive they have the necessary skills to be successful compared to women, and men, in the United States.

Overall, people in Sweden compared to the United States, do not feel that entrepreneurs are given high status in their countries; however, this is due to a lower percentage of men holding this view. Women in the United States and Sweden are not significantly different in their perception of whether their country provides high status to entrepreneurs. The percentage of women and men who see entrepreneurship as a good career choice is significantly lower in Sweden than in the United States. This may be partially due to the fact that women and men in Sweden to a lesser degree feel that entrepreneurship is given much media attention in comparison to women and men in the United States.⁴⁹

Public Policy on Entrepreneurship

Public policy is the system of legislative acts and regulations put into place to advance (or deter) some objective that impacts the public at large. For economic policy, one general objective around the world has been to address economic conditions in order to advance quality of life. For decades the modern economic development approach focused on attracting and retaining large companies for a community, bringing ready-made jobs along with the accompanying increase in tax base (Eisinger, 1989) that was to lead to a higher quality of life. While serving its purposes for the fortunate recipients, the weakness of this approach, where some communities win at the expense of other communities, has been increasingly recognized over the past two decades (Powell, 2008). Instead, a greater emphasis is now placed on entrepreneurship.

49. The comparisons in this paragraph are based on the GEM 2010 data collection, all others on the GEM 2012 data collection.

In most cases, entrepreneurship, in an economic development context, was generally approached as starting and growing businesses, which supported the rationale of communities growing their own businesses and jobs. However, in 2011 the European Commission broadened this approach by defining entrepreneurship as "...mindset and processes needed to create and develop economic activity, blending risk-taking, creativity, and/or innovation within a new or existing organization" (Commission in De Hoyos-Ruperto et al., 2013, p. 4). Therefore, one challenge is to identify what hinders the creation and growth of businesses as well as what environmental changes need to be made (including changing mindsets and processes) to support the start and growth of businesses. Another challenge is to identify what type of policies can be enacted to make those changes.

The purpose of public policy is to attend to the public good, at the heart of this specific discussion, is economic good through entrepreneurship. Although there are a number of benefits that can arise from entrepreneurship, the one of typical interest to politicians, policy makers, and educators is job creation. This paper focused on women's entrepreneurship; therefore economic good for women is central to our consideration. We are building from the assumption that entrepreneurship benefits women by advancing economic health for the women themselves, and often, their families. We are also assuming that promoting women's entrepreneurship is good for the economic health of society because low entrepreneurship rates for women implies that society is underutilizing valuable entrepreneurial resources.

One question that needs to be asked in developing national public policy is whether gender of the entrepreneur should and can be addressed differently in economic policy. And finally, we need to consider the role of national context, for example in this case, policy development in an innovation-driven economy. Policies need to avoid the assumption that the same approach works for all people and places (Wagner and Sternberg, 2004). The meta-policy questions are critical: how the political body is defining entrepreneurship, how broad they are willing to make their policy reach, and crucially, what is the public good the political body is working to achieve. While the initiating or even the overarching goal may be economic development, in some countries there may also be a goal of promoting gender equality. The emphasis on one or the other, or both, of these policy goals will vary depending on the current and desired status of women in the economy and society.

For women in the innovation-driven economies of the United States and Sweden, the need for gender equality policies are quite different than in many other countries with less developed economies. The United States recently ranked 23rd for overall gender equality (World Economic Forum, 2013). One can make an even stronger case about the progress towards gender equality in Sweden, which ranked 4th in the world for gender equality. When gender discrimination in the United States and Sweden occur, given that, as in many countries, it is illegal to discriminate on the basis of gender, it is generally subtle, covert and/or tacit in nature. For example, gender discrimination may occur through wage differences,

assignments, and differences in promotion. For both countries then the assumption is that gender equality in economic opportunities and participation exists, whether valid or not, and the policy question has focused on the unanticipated consequences of actual policies.

Both the similarities and differences in the GEM data between Sweden and the United States women and men raise interesting questions and different policy implications. Women and men in Sweden report a higher sense of perceived opportunities than women and men in the United States, yet the rate of total entrepreneurial activity and established business rates are lower for women and men in Sweden than in the US. Not surprisingly there are higher percentages of women and men in Sweden than in the US reporting the pursuit of opportunity as their motivation for starting their businesses.

Overall the general population in Sweden has lower intentions to start a business than the general population in the US but this is due to a lower percentage of men in Sweden versus the United States who intend to start businesses. The percentage of women in the United States and Sweden who intend to start a business is not significantly different. The question brought to mind is why the intentions of women in Sweden do not translate into action, and what policies might increase their TEA rates, and the EB rates?

Women (and men) in Sweden versus the US do not perceive that they possess the necessary skills to be successful. Educational programs need to be designed to increase basic business skills, including simple accounting, bookkeeping, marketing and communications for the startup and growth phase, as it has been shown that at least for individuals who are encouraged by government policies and programs, entrepreneurial education increases entrepreneurial self-efficacy development (De Hoyos-Ruperto et al., 2012). Entrepreneurial self-efficacy, an individual's estimate of her (or his) ability to capably perform the roles and tasks to be successful as an entrepreneur, has been shown to be positively associated with entrepreneurial entry rates, especially in societies like Sweden with a high rate of institutional collectivism (Wennberg et al., 2013). It appears that high self-efficacy insulates individuals from societal norms that may discourage entrepreneurial behavior. Since self-efficacy is built on earlier successes, educational programs should be designed to enhance the opportunities for success to produce an upward spiral of confidence in abilities.

Women in Sweden also have a greater fear of failure than women in the United States. Fear of failure inhibits entrepreneurial intentions and is negatively associated with entrepreneurial entry and the decision to exploit a business opportunity (Caliendo et al., 2009; Welp et al., 2012). Individuals who procrastinate frequently cite fear of failure as one of the causes for delaying action (Burka, 1983). Fear of failure may lead women in Sweden to never actualize their intentions to start a business. The benefit of designing educational programs with a goal of raising self-efficacy should also increase entrepreneurial behavior since individuals who feel competent to face required tasks are less likely to procrastinate (Haghbin et al.,

2012). Educational programs should strategically focus on participants past successes to positively impact a sense of competence.

There is also a necessity for designing appropriate educational programs for women in the U.S. but programming needs to fit specific cultural and entrepreneurial needs. According to GEM research women (and men) in the U.S. perceive fewer opportunities in the environment, and have a higher discontinuation rate than women in Sweden. Educational programming should concentrate on opportunity recognition and assessment as well as improving skills for the early stages of startup and growth such as problem identification and solution generation.

If Sweden desires to raise TEA and EB rates, additional research is needed to understand why Swedish women and men do not feel it is a good career choice. Is this a reality? One major policy difference between the two countries lies with family policies. In the United States, parental leave policies are very limited making less difference in the attractiveness between employment and self-employment. Sweden provides parental leave for about one and a half year for new parents, as well as an opportunity to work more flexible part-time hours (75 percent) until the child is eight (Parental Leave Act).⁵⁰ This leave policy also applies to women, and men, who own their own businesses. However, the self-employed might be reluctant to go on parental leave since this can prove damaging to their businesses. Since women tend to use the parental leave system more frequently⁵¹, this may have an influence on women's interest in entrepreneurship in countries with more generous parental leave systems.

Other policy differences, for example sick-leave and pensions, and/or social constraints may make entrepreneurship an unattractive choice in comparison to wage employment, and these may have a greater impact on women. Women in most economies, including developed economies, are still responsible for a greater share of child and elderly care (Lawler and Hundley, 2008).

Entrepreneurial attitudes vary across regions and cultures and impact entrepreneurial behavior (Krueger and Carsrud, 1993; Shane, 1993; Bowen and De Clercq, 2008). In addition to developing educational programs to develop hard and soft skills, policies makers in Sweden may need to consider how to raise awareness and change mindsets about entrepreneurship as a career choice. Is the perception of entrepreneurship as a poor career choice a cultural constraint rather than due to legal or regulatory constraints? Our analysis showed that, compared to the United States, both women and men in Sweden felt that entrepreneurs were afforded less media attention, and that men in Sweden felt it was not accorded high status as a career choice. In order to increase entrepreneurial behavior it may be necessary to change mindsets about its individual and collective value to society.

50. See <http://www.government.se/sb/d/574/a/104985> (accessed February 2, 2014).

51. See <http://sweden.se/quickfact/parental-leave> (accessed February 2, 2014).

Research Implications

Only recently have researchers started to investigate and offer theories for differences in entrepreneurship participation rates across world regions, countries, and regions within countries. There are two competing theories to explain differences in entrepreneurial behavior with different policy implications. The first theory, the social legitimation or moral approval approach, argues that cultural favorability for entrepreneurship determines higher entrepreneurial activity (Etzioni, 1987). This would imply that increasing entrepreneurial rates centers on changing mindsets to increase society assessment of the cultural favorability and acceptance of entrepreneurial behavior. The opposing view, the dissatisfaction approach, posits that differences in values and beliefs between potential entrepreneurs and populations as a whole determines entrepreneurial activity. It suggests that entrepreneurial activity is determined by the number of individuals whose values clash with the predominantly non-entrepreneurial culture (Baum et al., 1993). This theory implies that increasing entrepreneurial behavior should focus on identifying cultural outliers and encouraging them to engage in entrepreneurial behavior through education and incentives.

More research is needed to identify why intentions of women and men in Sweden do not translate into action, why entrepreneurship is not considered a good career choice, and whether men and women who choose to engage in entrepreneurial activity are positively influenced by the culture to make that choice or hold beliefs that clash with the predominate culture. More research is also needed to understand why women in the United States have higher discontinuation rates than women in Sweden.

Conclusion

There is little empirical support to date that policies focused upon identifying, or “picking winners” have been successful in increasing entrepreneurial rates. Although of research interest to determine which theory explains entrepreneurship rates in Sweden or the United States, for today’s policy solution, entrepreneurship education policies are key to increasing entrepreneurship rates and successful outcomes. Education increases skills and self-efficacy whether defining entrepreneurship in narrow conventional terms or broader terms as crafted by the European Commission. But educational policies and programs must be designed to appeal to a broad population of society to capture the “maverick” as well as the conventional segment of societies.

Appropriate policy is dependent on many other decisions and circumstances, including fit with the political system, the influences of social and religious contexts, and the interplay of governmental levels, e.g. in the case of the United States, the potential fit or lack therefore of federal and sub-federal policies. For the purposes of this essay, we were interested in the role of policies on general equality of opportunity and outcomes in entrepreneurship.

In summary, policy development must be cognizant of geographic, gender, and population segment differences in order to be successful.

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Appendix

The comparison of entrepreneurship in the US and Sweden is based on data from the Global Entrepreneurship Monitor (GEM). GEM is a worldwide annual survey of entrepreneurial activity, ambitions and attitudes among the population within the participating countries and great effort is undertaken by the central GEM consortium in order to make data comparable across countries and time. Each country is required to randomly sample at least 2,000 individuals aged 18 or older who are subsequently subjected to a large standardized set of questions. The result of the survey is reported to a central data team who, together with the national GEM team, scrutinizes the data to detect and correct any suspicious entries. The

strict process ensures high quality data. GEM is considered as one of the most valuable sources for entrepreneurship research as it 1) identifies a clearly defined entrepreneur through various stages; 2) makes it possible to track changes in the entrepreneurial behavior among the adult population over time; and 3) enables reliable cross-country studies of entrepreneurship.

Most of the variables reported in the subsequent sections of this chapter refer to the data collected in 2012. However, for a small number of variables, 2010 is the latest year where we have matching data for both the US and Sweden. The Table below shows the number of individuals aged 18–64 years sampled in the two countries in 2010 and 2012.

Number of respondents aged 18–64 in 2010 and 2012

| | 2010 | 2012 |
|--------|-------|-------|
| The US | 2,880 | 4,265 |
| Sweden | 2,271 | 1,740 |

Source: *The GEM Consortium*.

The aim of the empirical part of the chapter is to describe and compare entrepreneurship between the US and Sweden with a particular focus on female entrepreneurship. We will implement the following test statistic to check for any statistically significant differences in the entrepreneurial behavior between the two countries,

$$Z = \frac{\hat{p}_1 - \hat{p}_2}{\sqrt{\hat{p}(1-\hat{p})(1/n_1 + 1/n_2)}} \quad (1)$$

\hat{p}_1 and \hat{p}_2 denote share of respondents belonging to a certain category in the US and in Sweden, respectively; n_1 and n_2 denote the sample sizes for the two countries and, finally, \hat{p} denotes the sample-weighted average of \hat{p}_1 and \hat{p}_2 . It can be shown that the test statistic Z is approximately normally distributed with mean zero and standard deviation one under fairly general conditions.

The null hypothesis used throughout the chapter (H_0) states that entrepreneurial behavior in the US and Sweden is the same, while the alternative hypothesis (H_1) states that entrepreneurial behavior differ between the two countries. A sufficiently high test statistic Z in absolute terms will consequently imply that we reject the null hypothesis and conclude that there exists statistically significant differences in entrepreneurial behavior between the US and Sweden.

CHAPTER 8

Entrepreneurship: The Practice of Cunning Intelligence

BENGT JOHANNISSON

Introduction: Practice beyond Reason

Three decades of steady research on how successful Swedish owner-managers utilise their time has revealed how entrepreneurship differs from management, i.e., how entrepreneurship differs from systematic and formal organising (Johannisson 2008). An inquiry into how entrepreneurs operate indicates that they spend considerably more time on (inter)action and envisioning the future than on planning. Since the mid-1970s, entrepreneurs have increasingly preferred (inter)action to reflection, probably because of an increasingly turbulent global environment. Nonetheless, in 2002, entrepreneurs continued to spend more time contemplating the long-term prospects of their entrepreneurial businesses and careers than on planning. Taken together, these findings signal that entrepreneurship is more concerned with hands-on action and social interaction that is aimed at envisaging and enacting new realities than on rational decision making. Thus, for theoretical and practical reasons, it is important to learn why entrepreneurs are concerned with detail-oriented action and associated interactions and how this conduct results in innovative ventures.

Accomplishing change—which is the meaning of entrepreneurship—requires action rationality rather than decision rationality (Brunsson 1985). When enacting new realities, conviction and commitment are more important than institutionalised facts and logical analysis. However, in an environment dominated by management and its concern for planning and control, entrepreneurship as concrete and spontaneous social action has come under substantial pressure. Entrepreneurship involves creativity and action – ‘creativity’. However, even when it is recognised

that realising new ideas requires experimentation, it is also assumed that the associated anarchic processes must be tamed when institutionalised into a firm. The lack of formal control systems and other management tools is thus regarded as a problem and a barrier to the further growth of entrepreneurial family businesses. Research, though, has demonstrated that there is no correlation between business planning and the success of a young firm (Honig and Karlsson 2004). Presumably, the need for legitimacy nevertheless forces entrepreneurs to submit to planning as a concession to influential stakeholders.

From a perspective that regards not only management as a normative framework but also science as a logical discourse, the practice of entrepreneurship thus appears to be an anomaly. However, as early as 1945, Hayek pointed out that scholars must recognise that there is “.... a body of knowledge that cannot possibly be called scientific in the sense of knowledge of general rules: the knowledge of the particular circumstances of time and place” (1945:521). The entrepreneur thrives on this type of practical knowledge. Four decades later, the well-known management writer Peter Drucker supported Hayek’s proposition, stating that, “Entrepreneurship is neither a science nor an art. It is a practice” (1985: viii). Therefore, this paper seeks to contribute to a practice framework for making entrepreneurship comprehensible and to elaborate on the types of knowledge that entrepreneurship requires. The next section discusses the idea of practice further and suggests that the Aristotelian notion of ‘*mētis*’, which is defined as ‘cunning intelligence’, represents the appropriate form of knowledge to characterise the practice of entrepreneurship. In the section that follows the next section I use lessons from an in-depth study of soci(et)al entrepreneurship to propose appropriate entrepreneurial tactics. Finally, in the last section, I reflect upon the implications of the suggested approach for researching, teaching and practicing entrepreneurship and offer several policy implications derived from my argument.

Practicing Entrepreneurship: Concepts and Appropriate Knowledge

I recognise entrepreneurship as creatively organising individuals and resources to exploit opportunities. Opportunities are crafted out of coincidences that are elaborated upon and that are transformed into ventures by alert and visionary individuals. By inspiring other actors to become involved in the emerging venture, the venture becomes a collective effort in ambiguous environments. The entrepreneur relates to such change and uses his or her ‘first mover advantage’ to take appropriate action. By mobilising ‘actionable knowledge’ (Jarzabkowski and Wilson 2006), the entrepreneur makes (part of) the environment enactable.

Because coincidences that trigger opportunity creation arrive as surprises, it is important for the entrepreneur to be embedded in a personal network. Such a network provides both weak signals that bridge to a changing environment and offers instant resourcing through bonding relationships. Additionally, intense

interplay with the environment invites serendipity, i.e., it increases the chances of ending up in favourable situations that are shortcuts to opportunities. Recognising that entrepreneurial activities are embedded in a slowly changing web of personal relationships makes the venturing process appear as a stream of unique—yet interconnected—projects that are unpredictably initiated (Johannisson 2000). Thus, a key property of entrepreneurial practices is experimentation with available internal and external resources. As a series of episodic transformations, the venturing process is, as pointed out by Hayek (1945) guided by ‘karios’—catching the right moment or proper timing—and not ordered by ‘chronos’, which embodies linear time, as in planning.

Entrepreneurship is a special mode of organisation not because of its substantive outcomes per se but because of how entrepreneurial processes and practices generate extraordinary results. Such results are achieved through experimentation in a world that is recognised as not being safe, risky or uncertain. Instead, such a world is considered ambiguous, that is, open to multiple interpretations. To be able to exploit the potential of such circumstances, the entrepreneur must mobilise all the human faculties at his/her disposal, that is the creative, affective and conative capacities, in addition to cognitive powers. To create order, imagination is required. Additionally, it is important to recognise emotions as drivers because they invite intuition, and it is crucial to acknowledge volition and desire as leading stars in fuzzy settings in which no logic can make sense. Adopting this view means anchoring entrepreneurship in the individual’s self-identity, which makes entrepreneurship into an existential project, i.e., a way of life. This view also suggests that if entrepreneurial venturing is incorporated into a professional career that is guided by a management-based rationale, the ability and the propelling force required to recognise and exploit potential in ambiguous settings will wither.

Existing theoretical frameworks attempt to determine the core features of a practice once that practice has become institutionalised. Therefore, identifying what the practices concern is often the primary focus of researchers. Reckwitz (2002: 249) states, “A ‘practice’ ... is a routinized type of behaviour which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, ‘things’ and their use, a background knowledge of understanding, know-how, states of emotion and motivational knowledge”. Leading researchers on practice include Pierre Bourdieu (1992) and Theodore Schatzki (1996), and their frameworks include concepts such as ‘habitat’ and ‘rules,’ which aligns these authors with researchers operating in (neo)institutional frameworks that include ‘regularity’ and ‘routine’ as core concepts. Nevertheless, Bourdieu provides valuable theoretical contributions on entrepreneurship as practice. For example, he observes that practices are characterised by a certain rhythm and he as well emphasises the importance of timing. Schatzki’s theories are also relevant here; these theories stress that practices include not only cognitive factors (‘understanding’) and rules but also what he terms “teleoaffective structures embracing ends, projects, tasks, purposes, beliefs, emotions and moods” (1996:89). However,

focusing on the structural features of practices within these frameworks cannot accommodate a view that regards change as a natural state, which is something that I associate with entrepreneurship. Schatzki (1996:89-91) presents practice through two additional concepts: as learning and as 'nexuses of doings' (which includes sayings). Both concepts can be integrated into a framework for entrepreneurship as an on-going experimentation. Two questions remain: why is the practice approach relevant for capturing entrepreneurship as a (social) phenomenon and how may the practice approach depict entrepreneurship as an evolving nexus of actions/doings and interactions/relations?

Our understanding of ambiguity and how entrepreneurship addresses ambiguity depends on our ontological assumptions. Complexity and chaos theories demonstrate that even an objective worldview may produce ambiguous settings (for an introduction, see Stacey 1993). However, it is simpler to imagine that ambiguity is constantly produced in socially constructed worlds in which 'reality' appears as the outcome of on-going negotiations between individuals and collectives. These negotiations depend substantially on which information and communication technologies are adopted. Thus, those who control the media are able not only to introduce new concepts but also to change the political landscape—as Silvio Berlusconi has accomplished in Italy, for example. In contemporary digital times, social media can instantaneously produce turmoil, as we over the last decades have observed in the financial markets and in various national contexts.

Although the entrepreneurial phenomenon has rarely been discussed from a practice perspective, strategy has frequently been addressed from this viewpoint. Scholars who adopt a constructionist view (Weick 2009) or an approach inspired by chaos and complexity theories (Chia and Holt 2009) agree that more detailed observations of the contemporary world soon enough reveal that this outside world is unknowable. Such circumstances call for an ontology of becoming (see, for example, Chia and Rasche 2010), which recognises that any attempt to foresee future events is futile, even when guided by rational plans or visions that are strongly believed in. What remains 'in practice', then, is near-sighted coping (compare Sarasvathy 2001). However, in ambiguous settings, those individuals who can mobilise concerted (inter)action 'to catch the moment' are favoured and able to create temporary monopolies. The increasing action-orientation of entrepreneurial firms discussed in the introduction supports the notion that alert and concerted action is crucial. As soon as an event occurs, appropriate action must be taken because in the next moment the possibility to turn the coincidence into an opportunity may have disappeared. Thus, strategy as long-term positioning must be replaced by a set of loosely coupled tactical moves (compare de Certeau 1984).

What type of scientific inquiry does the proposed image of entrepreneurship as practice invite? According to the academic discourse, science is concerned with providing general truths about 'reality'. Objective approaches mirror whereas subjective approaches interpret 'reality'. Nonetheless, neither approach associates truth with proper action. However, pragmatism offers a third ontological

standpoint, which states that an assertion is true if its consequences are shown to be sustainable when tested empirically in the real world. Pragmatic research does not aim to identify universal truths but rather to uncover appropriate coping in unique situations. Thus, pragmatism bridges science and entrepreneurship in practice. However, this ontological bridge must be reinforced with the appropriate modes of knowledge creation to be able to formulate a practice perspective on entrepreneurship.

Relating to Aristotle's terminology, Chia and Rasche (2010) propose a shared platform for researchers and practitioners that may be instrumental when inquiring into entrepreneurship. Chia and Rasche state that researchers with a 'building' worldview typically apply episteme or techne to create generalisable truths about a disguised world. By contrast, practitioners adopt a 'dwelling' worldview. This means that they use tacit and situated knowledge and are guided by phronesis and mētis to cope with ambiguous realities. Phronesis "...is the tacit form of prudent practical intelligence and wisdom, acquired through experience, that accounts for the ability to perform expediently and appropriately in defined social circumstances" (Chia and Rasche 2010:39). Mētis, which has seldom been addressed in social research, represents an internalised disposition that "...is characterized by agility, suppleness, swiftness of action and the art of dissimulation (seeing without being seen or acting without being seen to act)" (Chia and Rasche 2010:40). As modes of knowing, mētis and phronesis both appear to be pivotal when practicing entrepreneurship. Elsewhere, I argue that these modes are also relevant to entrepreneurship research (Johannisson 2014).

In their study of mētis, Letiche and Statler (2005) refer to the concept 'cunning intelligence' and relate this concept to Greek mythology. Mētis was a Titaness who seduced Zeus (i.e., management as a hegemonic force); to gain control over Mētis (i.e., entrepreneurship as an unruly force), Zeus swallowed her. Transforming this message into an inquiry into organisation theory, Letiche and Statler (2005:4) state that "Metis refers to a mode of intelligent action that responds to particular events in the context of identifiable circumstances". Additionally, these scholars argue that " ... if metis is seen as improvised interventions on behalf of the otherwise powerless, it cannot be ignored as a source of creativity and innovation" (2005:4). Thus, mētis, or cunning intelligence, provides an epistemological basis when inquiring into the type of anarchic organising that we associate as much with guerrilla warfare against regular armies as with entrepreneurial venturing that challenges dominant actors in the market and in society. Thus, as embodied in tacit knowledge aimed at concrete action, cunning intelligence is required in the entrepreneurial process when transforming coincidences into opportunities. According to Letiche and Statler, mētis represents a mode of knowing that is characterised by " ...intuitive attentiveness, heightened awareness, and situational intelligence" (2005:7). This interpretation presents mētis/cunning intelligence and phronesis/prudence as closely related. However, my focus is on mētis, and I will only briefly comment on

phronesis in the concluding section. Inquiry into these modes of knowing demands detailed qualitative research, as demonstrated in the next section.

Soci(et)al Entrepreneurship: Identifying Coping Tactics

For several reasons, I have chosen an inquiry into soci(et)al entrepreneurship to illustrate and elaborate how cunning intelligence may be used in venturing processes.⁵² First, marginalised economic and social activities require cunning intelligence to compensate for the lack of power and influence that are often available when resourcing ventures in the capital markets. Second, as much as soci(et)al entrepreneurship concerns the creation of not merely economic but also social value, myriad ends and means nurture and guide the venturing process. Thus, the complexity required to cope with ambiguous environments is internalised. Third, a mixed team of benevolent professionals, dedicated idealists and enlightened bureaucrats who contribute diverse competences and influence frequently supplement the core staff in social ventures, which provides the capacity to absorb a broad range of weak signals that forebode environmental change. Fourth, soci(et)al entrepreneurship penetrates not only product markets but also subsidy markets, which develops negotiation capabilities. Fifth, multiple and exchangeable sources of capital (i.e., financial, human, social, cultural and symbolic capitals) invite versatility. Sixth, social venturing in welfare states such as Sweden typically occurs at the intersections between the private, public and non-profit/voluntary (NPVO) sectors. Accordingly, such venturing is labelled 'societal' (compare Berglund et al. 2012)). Social venturing in such contexts draws upon resources from all three sectors and thus invites bricolage.

Detailed empirical research on a small social enterprise that was established in 2005 and located in a medium-sized town in southern Sweden discloses three generic tactics used to mobilise cunning intelligence to enact soci(et)al entrepreneurship: '*social bricolage*', '*amplified immediacy*' and '*dynamic involvement*' (see Johannisson 2012). In the context of creative organising, the concept of bricolage must be advanced beyond its original connotation of recycling artefacts at hand to include the social relationships that make it possible to appropriate external resources (compare Baker and Nelson 2005). Thus, *social bricolage* is a general organising mode that orchestrates an assemblage of loosely coupled concrete moves. Vagueness regarding the ends and means in the social venture accommodates unconventional moves when resourcing the operations. Challenges are addressed as they occur by adjusting the organisational boundary such that further resources can be acquired from the network according to need. One initiative

52. Drucker (1985, Section III, pp. 207-252) presents what he correctly refers to as 'entrepreneurial strategies' because, although they are based on entrepreneurship as practiced, they differ from the short-term spontaneous tactics that contemporary environments require.

and its associated use of resources follow upon the previous one. The increasing standardisation and routinisation of organisations in the private and public sectors in combination with an increasingly ambiguous world accelerate and deepen the need for social ventures that offer such flexible organising.

'Amplified immediacy' captures the genuinely process-like and dynamic features of social entrepreneurship as reflected in the practices and interactions that occur during venturing processes. The stabilising and institutionalised forces in the environment of the social enterprise, on the one hand, and the struggle for survival and recognition, on the other, generate a dynamic tension. This tension in turn produces what can be considered a basic rhythm in the practice of social entrepreneurship (compare Bourdieu 1992). This enforced or amplified immediacy can be qualified in five respects. First, it is a temporal feature linked to spontaneity, which is based on the belief that every moment is or can be transformed into the 'right' moment when intentional synchronisation and casual serendipity are balanced. Second, immediacy indicates that a sensation is not required to pass the filter of time-consuming reflection in the cognitive space that may cause the feeling of the 'right moment' to evaporate. Intuition guides action. Thus, reflection occurs during or after action instead of prior to action (as it occurs with planning). Third, because action, or experimentation, is instantly triggered, inconvenient paths forward can quickly be excluded, which create the time and space for experimenting with new, possibly more appropriate, options with the resources that have been made available. Fourth, the inspired actor spontaneously searches for partners in his/her existing personal network with the proper attitude and resources to make the enactment succeed. Fifth, immediacy itself mobilises intense collective involvement, a feeling of shared ownership and a perceived joint responsibility to complete projects once they have been initiated.

Involvement in soci(et)al entrepreneurship may be individualistic—even egoistic (as noted in many theories on entrepreneurship)—or collective. If collective, involvement may be centripetal or centrifugal. If centripetal, or selective, as in family businesses and local communities, the concern is limited to a closed group. Centrifugal involvement is expansive. It searches out new arenas in which a general social concern can be practised. Sustainable societal entrepreneurship demands a commitment that appears to be both centripetal and centrifugal and accordingly is termed *'dynamic involvement'*. On the one hand, there is substantial concern for those individuals who are already being cared for. On the other hand, there is an equally dedicated openness to, and responsibility for, assuming new (social) challenges. This dual concern may reflect expressive and instrumental accountabilities. Core members may state that certain tasks must be performed, whereas marginal members may argue that they commit themselves because of the enjoyment they experience. In both groups, the demonstrated commitment is situated but constantly open to new challenges. In the present study, the members who entered as minor contributors either became more involved over time or exited, which suggests that involvement in (social) entrepreneurial processes either completely occupies

participants or alienates them. This behaviour in the social space parallels entrepreneurial behaviour in the temporal space where the motto is ‘it’s now or never’.

Lessons for Research, Education and Practice

Recognising that entrepreneurship involves unique venturing in ambiguous environments by practicing cunning intelligence excludes general models of the venturing process. Although any entrepreneurial venture (like any bricolage) includes imitated elements, the organising process as an original composition requires situated knowledge that is mobilised in the creative act. Whereas blueprinting is always impossible in the context of entrepreneurial projects, imitation is possible (Johansson, 2010), and analogy is generally feasible (Johannisson, 2011). Accordingly, knowledge can ‘only’ be used in examples for inspiration and analogy, not for direct application, i.e., for mimicry. This fact makes narrative knowledge appropriate and allows the recipient to translate experiences communicated by others into his/her own setting. The dramatised storyline of entrepreneurial events inspires and informs. Such events, if communicated in personal networks founded on trust, empower the storyteller with credibility. Thus, it is not surprising that entrepreneurs listen to experiences communicated by fellow entrepreneurs, particularly because these stories not only include ‘straight’ instrumental advice but also tacit insights that are embedded in shared existential conditions.

The importance of concrete, detailed and timely action for the initiation and continuation of entrepreneurial processes has obvious implications for entrepreneurship research. In informal conversations (let alone in formal interviews), entrepreneurs telling their life-stories easily omit everyday details. The reason is not necessarily that the entrepreneurs prefer to present themselves as people of vision and splendour than as individuals concerned with issues that may appear trivial. Entrepreneurs may simply have repressed the everydayness of entrepreneurial processes because the activities and associated interaction that constituted those processes were only relevant at the moment of their execution (compare Hayek 1945). This indicates that the practice approach presented here requires a research method that enables the researcher to experience the passion of venturing. Because they acknowledge a dwelling epistemology, interactive methods can contribute to filling this research gap. Such research indicates that researchers and actors coproduce knowledge. Elsewhere, I introduce different modes of interactive research in the field of entrepreneurship (Johannisson 2014). The insights reported in the previous section are the outcome of my dwelling in the context of the venturing process.

Devaluing the role of formal knowledge in the venturing process has implications for teaching entrepreneurship in general and at academic institutions in particular. Different methods to make students aware of the importance of detail and the need for personal relationships must be developed, preferably in a manner that invites students to engage in different arenas and ultimately to take responsibility

for their own learning and for creating their entrepreneurial selves. Social media, such as blogging, can create temporary communities of practice in which students discuss their experiences acquired in confronting the abstract modelling in the literature with concrete work in projects outside the university. Thus, students can be encouraged to control the tools and the outcomes of the learning process. When compared with this method of enhancing student capacity to cope with ambiguity, the traditional case approach in education appears to be mere puzzle solving.

Presenting cunning intelligence as crucial in entrepreneurial projects actualises the moral aspects of entrepreneurship, which is not the least important topic for practitioners to reflect upon. The practice of cunning intelligence reveals more fine-tuned considerations than drawing a distinction between the dark side of entrepreneurship, such as criminal activity and terrorism, on the one hand, and its bright side, which includes social entrepreneurship and philanthropy, on the other. However, street-smart and startling initiatives that leave others behind may produce a feeling among the latter of having been deceived (compare Hayek 1945:522). For example, when entrepreneurs, as bricoleurs, transform into practice what others can only express in words, they may be viewed as swindlers by those who provided significant input to the emergent project without being informed. Such reactions frequently ‘just’ reflect envy or a bad conscience for not having taken action oneself. Nevertheless, sustainable entrepreneurship must consider such reactions and forestall them by adopting measures such as shared ownership—literally or symbolically—in venturing activities. This approach calls for prudence or what Aristotle termed *phronesis*. Presumably, the time that successful owner-managers spend on long-term reflection concerns the implications of their own practices and not only dreams about the future, let alone wishful thinking. For example, such owner-managers may consider that practicing only ‘raw’ and unreflecting cunning intelligence in close business relationships may undermine the trust that has been jointly developed and leave her/him alone.

Obviously, conventional policy measures founded on scientific research or normative models will not help advance and spread cunning intelligence through diffusion. Instead, settings in which the information flow is not regulated should be created. Here, the ‘industrial district’, i.e., localised clusters of socially embedded (small) firms, offers a model (see, for example, Marshall (1920 (1979)) and Becattini et al. 2008). Business participation in trade shows may be encouraged by policy measures. As ‘temporary clusters’, trade shows provide a space in which unexpected encounters combine with planned meetings (Maskell et al. 2006), thereby constructing and diffusing practical knowledge.

The education system, from the primary school to the university, appears as an even more important arena for policy measures with respect to promoting cunning intelligence. The preference of educational institutions for communicating general truths based on scientific knowledge must be compensated for with *métis*. This objective can be achieved by inviting not only business entrepreneurs but also activists and artists, for example, to present their activities in the classroom: Or, even

better, by breaking out of the institutional constraints and introducing students to practitioners in their own settings, initiatives which may end up in joint knowledge creation.

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CHAPTER 9

The Venture Capital Policy Challenge Implications for Sweden

JOSH LERNER

Policymakers world-wide are paying increasing attention to venture capital and entrepreneurial finance. In some cases, leaders have been motivated by a desire to jump-start sluggish growth. In others, they are seeking to transform natural resource-dependent economies into ones where twenty-first century industries play an important role. Both these motivations have been at work in Sweden, where the national government has undertaken a variety of (only partially effective) efforts to address tax and regulatory barriers to venture funds, alongside numerous provincial and local efforts (see the discussion, for instance, in Lerner and Tag, 2012).

The motivation behind such efforts is clear. A single dollar of venture capital, one study suggests (Kortum and Lerner 2000), is as effective at boosting new ideas as three dollars of corporate investment in R&D. If we listened to the venture capital trade bodies world-wide, we might conclude that to get more innovation, all we need is more venture capital.

But claims that venture capital is a driver of true innovation, or even of positive financial returns to investors, face some hard questions. With the industry facing a hangover from its recent flurry of social-media investing and the disappointing stock-market performance of firms such as Groupon, Zynga, and Facebook, the skeptics have rarely been as loud as they are today.

Several essential constraints limit venture capitalists' ability to promote true innovation. The first is that venture investors have financed a progressively narrower range of technologies. Recently, a few hot areas—most notably Web and

social media—have dominated an increasingly large share of the venture landscape. While another smartphone app to identify the drinking establishment where your buddies are currently carousing may benefit fraternity and sorority members, it is hard to feel that such ventures address fundamental challenges facing mankind today. Investor Peter Thiel has aptly expressed the core anxiety: “We wanted flying cars. Instead, we got 140 characters.”⁵³

Historical data from the U.S. bear out the trend. In 1974, the fraction of venture capital investments primarily involving computers and telecommunications was only 35 percent, a share that climbed to 62 percent in 1982 (as excitement grew around computer peripherals) and finally reached 79 percent during the dot-com boom in 2000 before subsiding temporarily. The figure has rapidly climbed again, reaching 56 percent in 2011. And that may yet mask the rise of social-media investing, which fits poorly into traditional classification schemes. Even within other categories, venture funding is highly concentrated. In the energy sector, venture funds have overwhelmingly gone to renewable and “smart grid” technologies rather than those related to conventional power generation.

What explains this dramatic concentration? One answer is that venture funds have done much better in categories where the innovation cycle is short, such as media and software, than in areas like advanced materials and biotechnology, where the time frame for success is longer than the eight-to-10-year life of the typical fund.

Estimates assembled by the consulting firm Sand Hill Econometrics, which examined the relative performance of all venture investments globally, show that a dollar invested in 1991 in venture-backed software firms would have turned into more than \$23 by the end of 2011 (before the venture funds took their fees and cut of the proceeds), for an annual return of close to 19 percent. Venture investments in health care and retail had an annual return of 10 percent over this period (again, before the fees), while a similar investment in the bedraggled “other” category—which includes energy, transportation, and many other areas—returned only 6 percent. Once the venture capitalists’ annual fees (which typically run about 2 percent of the capital under management) and profit share (20 percent or more of the capital gains) are factored in, the performance difference would be even bigger.

This seeming limitation of the venture capitalists’ “pixie dust” only serves to concentrate their efforts further. Groups specializing in computers and telecommunications have had superior returns, which has allowed them to garner more money. Others struggle, disappear, or reinvent themselves as mainstream investors in popular categories.

A second critical limitation is that the venture market is extraordinarily uneven, moving from feast to famine and back again. Consider the tremendous surge in funding for biofuels, peaking in 2006, and again in social-media companies during

53. [www.foundersfund.com/the-future](http://wwwFOUNDERSFUND.COM/the-future) (accessed December 21, 2013).

the last two years. During booms, unjustified exuberance rules. A common phenomenon is known as “money chasing deals.” As more money flows into funds from institutional and individual investors, venture capitalists are willing to invest in ever riskier deals (and often on worse terms): in the United States, the share of first-round venture dollars going to seed-stage companies—those whose prospects are least certain—has varied from a low of 24 percent in 1995 to a high of 58 percent in 2000–2001. What about today? The percentage has climbed again, reaching 61 percent in 2011. Moreover, this risk-taking is not rewarded: returns in boom years such as 2000 are among the lowest seen in any period.⁵⁴

Cycles in the venture industry stem largely from the behavior of funds themselves. During hot markets, inexperienced groups raise capital, often from unseasoned investors who are attracted by the excitement—not appreciating that first-time funds often show weaker performance, particularly in hot markets.

Name-brand groups, too, often take advantage of exuberant markets to raise money aggressively, perhaps because partners’ compensation is driven by fees on capital under management. As venture groups grow, they increase the capital that each partner is responsible for and broaden the range of industries in which each invests. In other words, what starts as a trickle ends as a torrent. Ultimately the expansion proves unsustainable as investment returns fall. Then the cycle repeats itself all over again.

Government policies can amplify these cycles as well. The experience of the Canadian Labor Fund Program in the 1990s provides a good illustration of this danger. A number of provincial governments, seeking to encourage venture capital, established tax credits for these funds in the 1980s and 1990s. The amount of capital investors put into labor funds grew spectacularly in response to these investments: the venture investment pool climbed from \$800 million in 1992 to \$7.2 billion in 2001 (see Cummings and MacIntosh, 2006; OECD, 2003; Sandler, 2004).

But the funds that were established and raised capital were far from inspiring. Multiple analyses suggest that the bulk of the funds raised were invested by inexperienced groups in a problematic manner. In many instances, these uninformed investors were willing to commit capital at huge valuations. Many of these groups unaffiliated with the program, convinced that they could not generate profitable returns in the Canadian market, shifted (at least temporarily) to investing in the United States instead. Thus, not only did this program lead to an unsustainably large amount of investment, but actually drove away the most knowledgeable investors.

Whatever the precise mechanisms behind the boom-and-bust cycle, its impact on innovation is worrisome. For instance, during the deep venture trough of the

54. http://www.nvca.org/index.php?option=com_content&view=article&id=257&Itemid=103 (accessed December 21, 2013).

1970s—no venture capital funds at all were raised in the United States in 1975—many companies that sought to pioneer personal computing languished unfunded. Ultimately, these technologies surfaced with revolutionary impact in the 1980s, but their emergence might have been accelerated had the venture market not been in such a deep funk. It is hard not to feel that many long-term, expensive investment areas, such as clean tech, manufacturing, and biotech, are in exactly such a trough today.

The overfunding of startup firms during booms carries its own negatives. Examples include the frenzy surrounding B2B and B2C Internet companies in the late 1990s. The result is waste: multiple companies pursue the same opportunity, each often more marginal than the last. The initial market leader's staff is poached by the me-too followers, disrupting the progress of the firm with the best chance of success. Moreover, once the overfunding subsides, the firms that still survive struggle to attract funding in an atmosphere that is now often poisonous.

So when do booms turn to busts? Venture capitalists depend critically on acquisitions and the public stock markets to help them exit their investments and return capital to their investors. But the public markets are fickle. During the past decade, soaring enthusiasm—for clean tech in 2006–2007 and social media in 2010–2012—each time abruptly subsided, leaving the portfolios of venture capitalists, and stock investors, in shambles.

Ironically, busts may promote innovation precisely because they frustrate venture capitalists' efforts to exit their investments. A myriad of accounts and studies have suggested that public listing may act as a powerful deterrent to innovation. In recent years, firms from Pfizer to Yahoo have slashed their R&D budgets in hopes of pleasing stock investors. More generally, the latest academic research suggests, venture-backed companies that consider going public but abandon the efforts in the face of unfavorable market conditions are actually more innovative.

Senior partners at an established venture firm are likely to have a pretty sanguine view of their own (and their partners') ability to effect positive change in the firms they fund and in society at large. This is understandable as one is unlikely to be successful at committing skittish institutions' money to nascent startups without a considerable degree of self-confidence.

The venture capital model is no panacea for innovation. The boom-and-bust cycle, the mercurial effects of public markets, and the narrowing of its objectives have all been challenges. Public policy policies must be thoughtfully designed to accentuate the positive potential of venture capital on innovation.

These insights are likely to have substantial impact for Sweden. First, they suggest the importance of developing attractive environment for venture activity, which is likely to enhance entrepreneurship wherever we are in the venture capital cycle. To the extent the taxes and regulations impede the entrepreneurial process, government efforts are likely to be to no avail. Second, it suggests the need for the government to make a long-term commitment to promoting venture activity. All too often, governments rush in to support venture capital at exactly the time when

it's attracting the greatest attention and is most likely to be overheating. Rather than adding "fuel to the fire," it is far better for policymakers to be there when market conditions are difficult.

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CHAPTER 10

Institutional Change And Venture Exit: Implications For Policy

ROBERT N. EBERHART, KATHLEEN M. EISENHARDT AND CHARLES E. EESLEY

Introduction

Policymakers who hope to stimulate economic activity often implement policies to reduce the burden, time, and cost of starting new businesses. For example, the Startup America program and the Jobs Act in the US, Vinnova in Sweden, Gründerland Deutschland in Germany, and Skolkovo in Russia seek to generate increased economic prosperity through fostering new ventures by lowering the costs of starting a firm. Yet, in spite of these efforts, start-up rates remain unchanged in many national contexts. For instance, in the US, startup rates and new firm job creation declined after government efforts (Haltiwanger, et al. 2012; Reedy and Strom, 2012). Start-up rates after government efforts have also been disappointing in Germany (Fritsch, et al. 2012), and in Japan where new firms have started in numbers with only small variations from year to year (Statistics, 2011). Moreover, there is evidence that efforts to encourage startups may actually inhibit startups or produce poorly performing ventures (Nanda, 2011; Shane, 2009).

Entrepreneurship is viewed by many in government and academia as both central to economic growth and as a career outlet for talented young individuals that could potentially relieve unemployment (Ahlstrom, 2010; Stam and van Stel, 2011). The U.S government, for example, actively supports and advises on policies to encourage entrepreneurship in other countries as a means of strengthening alliances and fighting political extremism (Forsberg 2013). Despite the relative lack of empirical evidence on the effectiveness of entrepreneurship education, initiatives

to teach entrepreneurship are increasingly popular and many nations seek to promote entrepreneurship education as part of higher education (Aldrich, 2005). Developing countries try to gain prestige by signaling their rates of venture founding and their entrepreneur-friendly policies. Many countries seek to implement policies designed to emulate Silicon Valley such as the Skolkovo effort in Russia that attempts to found venture capital firms, encourage immigration, and assist with marketing - among many other formal schemes. In short, following the vibrant economic growth focused on technology firms in the U.S. during the 1990's and the associated belief that more startups are "better", there arose the perception in the eyes of many policymakers that there is little that entrepreneurship cannot do. These policies reflect a new role for entrepreneurship as an instrument of policy. Before 1990, entrepreneurs were often viewed as anomalies and outsiders, particularly in countries like Japan (Vogel, 2006). Entrepreneurship - in the view of many policymakers - was an anomalous part of the business landscape. Entrepreneurs were either to be aided through financial support programs such as the Small Business Administration, or regulated and restrained because they might disturb competitive equilibrium and induce inefficiency (Audretsch and Thurik, 2001). This conflicting understanding of ventures - both needing financial support and creating competitive threats to incumbents - persisted until the 1990's. Then, stimulated by the technology boom in Silicon Valley and other regions, entrepreneurship became clearly linked to economic growth (Hwang and Powell, 2005).

As successful new firms in the computer, software, and associated technology industries came to the fore, the substitution of efficient technology for less efficient labor resulted in productivity gains (Acs and Audretsch, 1988; David, 1990; Oliner and Sichel, 2000). Researchers found that these efficiency gains and replacement of old firms by new ones (Foster, et al. 2005) are important mechanisms of economic growth and productivity (Carree and Thurik, 2005). Ventures provided gains in employment (Haltiwanger, et al. 2010), and created calls for encouraging small firms, particularly ventures. Overall, associated with the success of new technical firms in the U.S. during the 1990's, it is now taken for granted that entrepreneurship is desirable and merits encouragement.

In spite of the proliferation of public policies that address entrepreneurship, we do not yet have a comprehensive grasp of how policy change alters entrepreneurial activity (Sine and David, 2010). A particularly salient gap is the role of policies that shape entrepreneurial exit. Exit, either in success such as IPO or failure such as bankruptcy, is a key consideration for entrepreneurs, employees, and investors. Yet without a sharp understanding of how exit conditions in the institutional environment operate, we lack a complete understanding of how failure, founding, types of entrepreneurs, and firm performance are inter-related. Thus, we have a fragmented understanding of how institutional change affects entrepreneurship. We address this gap by asking: *how do changes in the institutional environment of venture exit alter entrepreneurial activity - i.e., rates of founding and exit, types of ventures and entrepreneurs, and venture performance?*

Background Research

Prior research indicates that the institutional environment affects the number and types of firms that are founded and the types of individuals who become entrepreneurs (Aldrich, 1999; Romanelli, 1989). This occurs because the founding environment shapes the formal and informal “rules” that affect the ability and motivation of entrepreneurs to start firms and gather resources. We can think of the institutional environment as composed of two dimensions: formal dimension that captures public policies, regulations and written rules, and informal dimension that captures taken-for-granted behavioral norms and normative beliefs about what is socially acceptable (Scott, 2001).

Laws and regulations with respect to the industries within which businesses can operate, the legal steps required to incorporate, and the process for bankruptcy are examples of the formal dimension (Eesley, 2013; Sine et al., 2005). These constraints are consequential for the number and types of firms that form. To illustrate, during the temperance movement in the U.S., breweries were attacked and then outlawed. This unintentionally triggered the formation of ventures in the nascent soft-drink industry as entrepreneurs filled the void, re-used brewery assets, and began ventures (Hiatt, et al. 2009). In addition, even if ventures are permitted, new firms must also be able to navigate the formal regulatory steps of founding a firm. The World Bank, for instance, evaluates and ranks a nation’s entrepreneurship potential by the number of steps and the costs to establish a firm, and links this to the rate of national entrepreneurship (Djankov, et al. 2002). A study of European countries found that simpler procedures for firms to obtain business licenses and permits positively affects venture formation (Klapper, et al. 2006), although evidence suggests that this effect may be limited to marginal firms (Branstetter, et al. 2013). Further, reducing the friction of industry regulation increases venture formation, particularly in the deregulated industries (Hsu, et al. 2007). Overall, prior literature establishes that the formal regulatory environment can affect the rate of founding and the types of firms and entrepreneurs that start.

In addition to the formal environment, related literature finds that the informal institutional environment can also influence entrepreneurial opportunities for growth and environmental resources that, in turn, can affect new business formation and performance (Buhr and Owen-Smith, 2010). One reason this occurs is that conforming to the norms and expected behaviors of the institutional environment can catalyze successful venture performance by facilitating accumulation of needed resources (Santos and Eisenhardt, 2009). In a study of advertising industry ventures, Khaire (2010) showed that new firms gained legitimacy and performed better by adopting the same organizational titles as successful incumbents than those that did not. Another reason is that changes in the formal institutional environment can have differing effects on individuals. For example, a study of policy reform in China shows that lowering barriers to entry led to a greater likelihood of entrepreneurship among low human capital individuals whereas lowering barriers to growth encouraged more entrepreneurship by high human

capital individuals (Eesley, 2013). Besides the policies themselves, the ways that policies are implemented and the public infrastructure (such as Chinese science parks) that creates the details of policy execution have an important influence on entrepreneurial activity (Armanios, et al. 2013). Overall, the informal institutional environment determines the types of firms that form, and the strategies and practices that ventures must emulate to enhance the likelihood of success.

Most important for policymakers, since institutions affect entrepreneurial activity, changes to the institutional environment such as new policies are likely to influence venture formation. For example, the environmental movement and energy crises that led to regulatory changes in the U.S. electric power industry opened new markets that entrepreneurs could address (Sine and Lee, 2009). Moreover, these regulatory changes not only legitimated a new industry (Sine and Lee, 2009), but also amplified founding rates by altering investors' beliefs about the prospects of the new industry (Sine and Lee, 2009) and differentially influenced the types of ventures that formed (Sine et al., 2005). In another example, environmental activism increased the rate of founding in the solar power industry. In this case, the U.S. government streamlined the legal steps to start solar power ventures in response to popular sentiment. Further, it provided financial support to do so, and so aided ventures through public financing (Meek, et al. 2010).

In summary, prior literature suggests that the formal and informal institutional environment is salient to the rate and types of new firms that form. Our review of the relevant literature indicates a particularly important gap in our knowledge is an understanding of how the institutions – formal and informal – that govern the exit of ventures shape entrepreneurial activity. Exit, either in success such as IPO or failure such as bankruptcy, is perhaps the most important event for entrepreneurs, employees, and investors. Another salient gap in our knowledge of heterogeneous effects of policy on individuals that start ventures. Current research emphasizes the number of people who become entrepreneurs rather than on the importance of motivating the “best and brightest”. As we noted, government initiatives emphasize lowering entry barriers. In contrast, more recent literature has shown that whether a venture becomes high performing depends substantially on the quality of the entrepreneur. Taken together, we lack a good understanding of how failure, founding, types of entrepreneurs, and firm performance are inter-related. This chapter addresses this gap with two relevant studies focusing, in turn, on successful and unsuccessful exit of new ventures.

Empirical Studies: IPO and Bankruptcy Reform

We examine this question in two preliminary studies focusing on the exits of ventures: successes and failures. Specifically, we examine the effects of changes to the institutional environment, including barriers to success (making IPO easier) and barriers to failure (making bankruptcy easier). We use Japan as our focal

setting. Japan is a particularly appropriate context for our research because it is an advanced economy with a roughly similar rate of entrepreneurship to that of other nations with comparable national income. Japan is also an ideal context because it underwent material changes to its institutional environment as policymakers and business leaders sought to emulate the success of Silicon Valley. These changes were largely stimulated by Japan's economic contraction that began after the asset bubble collapse and financial crisis of 1990. This marked the beginning of a prolonged era of declining Japanese asset values and a decade of stagnant business activity. As Japanese policymakers and business leaders searched for remedies, the entrepreneurial environment of the U.S., especially in Silicon Valley that was enjoying unprecedented prosperity, was especially salient. Thus began an era of reforms to Japan's business environment. While most reforms focused on large corporations and banks, several emphasized changes to the Japanese entrepreneurial environment. These included IPO listing reform that occurred in 2000, and bankruptcy law reform enacted in 2003 (Vogel, 2006). These reforms were intended to influence venture success and failure, respectively. Our studies examine, in turn, these salient reforms.

Methods

For each of our studies that examines institutional changes that affect exit, we employ a sample of Japanese venture firms from the COSMOS 2 database from Teikoku Databank, Ltd. (TDB). TDB is a commercial credit rating firm in Tokyo (founded 1890), which is one of the two leading firms in Japan providing credit ratings to corporate clients. Since Japanese firms rely on this database for evaluating supplier and customer credit worthiness, it is particularly comprehensive and accurate in its capture of firms with any commercial activity. Each record in the database consists of initial firm measures including capitalization, CEO characteristics, incorporation date, legal form, and industry as well as current measures of the focal firm including employees and IPO status. The database also includes financial performance data (e.g., revenue and profit) for the most recent three fiscal years. We begin our observations with firms incorporated in 1990 because that year marks the beginning of Japan's post-asset bubble environment. We end the observation period in 2007 just prior to the 2008 financial crisis. We augment this sample with the TDB Bankruptcy database – i.e., we add back the bankrupt firms removed from the COSMOS 2 database.

Reforms to the Exiting Environment – Success

Our first study focuses on the institutions that affect successful firms, in particular, reforms to IPO markets (Eberhart, et al. 2013). Leaders in a number of nations have introduced reforms that ease the listing requirements for an IPO in public equity markets. For example, the JOBS Act in the U.S. relaxed SEC registration and Sarbanes-Oxley requirements to encourage ventures to seek IPOs. Similarly,

several new public equity markets were created with greatly reduced IPO listing requirements in Japan. The common logic behind these reforms is that lowered barriers to successful exits such as IPOs attract investors, encourage individuals to start firms, and create an economic engine that drives job growth, recycles capital, and creates economic prosperity. But it is less clear whether IPO reforms actually achieve these objectives. Overall, there is a gap in our knowledge of how institutional changes that lower barriers to successful exit (such as IPO reforms) affect entrepreneurial performance. We take advantage of a natural experiment in which the IPO listing requirements in Japan were dramatically reduced in 2000.

We find in our preliminary analysis, as expected, that IPOs are more frequent after reforms with 2.45 percent of newly incorporated firms obtaining an IPO after reform as compared to 2.08 percent before reform. This is all the more notable because firms in our study founded before reform have up to ten years more time to gain IPO than those founded after the reform. Moreover, technology firms obtain IPOs at a rate more than twice their proportion of total startups. We also find that the proportion of ventures with elite founders (i.e., graduates of the leading Japanese universities) that obtain IPO increases much more after the reform than their proportion of the ventures founded prior to the reform – from 22.1 percent to 35.9 percent. Since elites comprise just 10 percent of founders after reform and yet comprise over a third of IPOs, this suggests that elites are more likely to succeed in obtaining IPOs, and more importantly, that their rate of successful IPOs increases at a proportionately greater rate than for non-elites after reform.

Median initial capital also increased substantially for elite founders, from an average 74 million yen to 100 million yen, and for technology firms that grew from 72 million yen before reform to 88 million yen on average after reform. Yet surprisingly, while firms in most industry sectors founded after reform grow faster than firms founded before, this is not the case for technology firms. Instead, the rate of technology firm growth after reforms is lower than the average growth of firms in other sectors. This occurs despite their almost 50 percent increase in average initial capital. Overall, our univariate data indicate that IPOs are more likely after reform as expected, particularly among elite individuals and technology ventures. Moreover, the secondary effects of attracting and recycling additional venture investment capital unexpectedly affect primarily technology ventures and elite founders. Finally, the performance of the technology ventures declines after reform. Technology firms, which are the beneficiaries of increased capital, grew more slowly than other firms after reform suggesting that increased investment capital unexpectedly decreased the chances of success.

In sum, the preliminary findings of this study indicate that IPO reform that lowers the “barriers to successful exit” by reducing IPO requirements makes IPOs more likely – an outcome favored by entrepreneurs and investors who often wish to “cash out”, gain the prestige of being a “successful entrepreneur”, and raise new funds. But there is also the surprising finding that IPO market reform has no effect in many industries, triggers poor performance among firms in the industry sector

(i.e., technology) where it does have an effect, and enables superior performance only for particular founders (i.e., elites). Thus, this reform either does not affect other sectors or may actually pull away investment from them. Moreover, we find that investors ironically seem to move away from venture opportunities in sectors like manufacturing, domestic services, and retail where Japan has traditional strengths and where better returns seem available. Finally, while IPO market reform particularly helps elite founders to launch high-performing firms, the additional investment capital often reduces the performance of firms founded by “average” entrepreneurs. Thus, our initial results suggest that IPO market reform is an unexpectedly complicated engine for economic prosperity that triggers some economic advantages for some entrepreneurs but may actually damage others.

Reforms to the Exiting Environment – Failure

Our second study examines the focal institutional change of bankruptcy reform (Eberhart, et al. 2012). In 2003, bankruptcy law in Japan was altered to reduce the costs of bankruptcy for executives, and make it easier to rehabilitate failing firms. Beyond direct bankruptcy rate effects, we hypothesized that easing bankruptcy law would have a heterogeneous effect on the motivation of individuals to start firms. On the one hand, since non-elite entrepreneurs gain access to more opportunities when entry costs are lowered, they are more likely to start firms after such reforms are enacted. Yet, their choice of whether to start a firm is less affected by changes to bankruptcy conditions. The rationale is that they face less financial risk when starting new firms than elite founders because they are likely to have fewer personal resources and less reputational risk. In addition, non-elite individuals have fewer career alternatives to entrepreneurship (Amit, et al. 1995). Thus, the choice to start a venture for a non-elite individual depends heavily on entry barriers, but less so on failure barriers since they have fewer alternatives and face less risk. On the other hand, for similar reasons, failure barriers are especially consequential for determining whether elites will start firms because these individuals usually have many attractive career alternatives to entrepreneurship and have much more to lose in terms of financial assets and personal reputation. In summary, we expect that bankruptcy reform will have the direct effect of triggering more bankruptcies, and the indirect effect of disproportionately motivating elite founders to start more ventures after reform.

We also anticipate that bankruptcy reform will influence the performance of ventures after reform. Specifically, if bankruptcy reform motivates more elite individuals to start firms, then this reform is also in turn likely to increase the performance of ventures founded. Elite founders are more likely to start higher performing firms because they typically have superior human and social capital than the “average” entrepreneur. This often gives them access to superior educational opportunities, which hone their abilities and so further enhance

their human capital. Through their education and other advantages, they are also often more able to gain better business experience at high managerial levels which further enhances their human capital. As a result, they are better able to choose strategies and manage new firms effectively. Moreover, these elite individuals are likely to possess superior social capital that they acquire via industry experience, professional ties, educational experience, and social memberships. These advantages compound over time and further increase the likelihood that their ventures will be high-performing.

Our second study explores these ideas by examining the rates of bankruptcy and firm founding, and the growth of new firms after bankruptcy reform. We find that bankruptcies increased as expected after reform, and occurred more frequently in the technology sectors with high capital intensity, and in the service and finance sectors. We also find that the proportion of firms declaring bankruptcy founded by elite individuals (i.e. graduates of leading Japanese universities) increases from 1.7 percent to 2.1 percent after reform, or about a 20 percent increase in bankruptcy filings by firms founded by elite individuals.

We also find that elite individuals are the founders of 1.3 percent of firms before reform and but that their proportion doubles to 2.3 percent afterward. The data also indicate the effects of elite founder entry after reform. For example, we can compare growth in the first four years for firms founded in the year before and the year after reform, 2002 and 2004 respectively. Firms founded in 2004 - one year after reform - grew significantly faster at 1.56 percent compared to 1.08 percent for firms founded one year before reform. Moreover, this growth is focused in the upper quartiles, indicating that exceptionally high-performing firms were founded post-reform. In addition, there is increasing growth and higher performance variance for elite-founded firms post-reform. Overall, our preliminary data indicate the anticipated direct effect that bankruptcies increased, especially among elite-founded firms as well as the indirect effects on founding such that the proportion of elite-founded ventures increased and the related indirect effects on performance that firms founded after reform were more likely to perform better, particularly when founded by elite entrepreneurs.

In sum, the preliminary findings indicate that bankruptcy law reform that lowers “barriers to failure” is an unexpectedly powerful policy lever because it particularly motivates elite individuals to become entrepreneurs. Specifically, our preliminary analysis suggests that bankruptcy reform has several wide-ranging effects. First, the reform catalyzes the entry of elite individuals into entrepreneurship. Second, there is superior new firm performance that seems driven by the increased entry of elite founders after reform. Overall, we find that government changes that lower “failure barriers” in the institutional environment influence entrepreneurial activity by encouraging elite individuals to leave marginal firms and launch new, riskier firms that have higher likelihood to become high growth.

Discussion, Implications, and Conclusion

We have several key findings from our preliminary examination of institutional changes to the exits of entrepreneurial firms: success, and failure. Specifically, we examine lowering the “barriers to success” of obtaining an IPO, and “barriers to failure” of entering bankruptcy, through natural experiments that occurred in Japan in the wake of its economic malaise that began around 1990. We find that these institutional changes have substantially different effects on entrepreneurship.

First, we express caution concerning IPO market reform. Lowering IPO requirements is likely to create more IPOs and attract more capital. But this reform may not necessarily benefit all industry sectors and all entrepreneurs. Rather, the reform may over-allocate investment into “popular” industries, and fail to support worthy entrepreneurs in other sectors or who are less “elite”. Second, we observe the unexpected importance of bankruptcy reform as a lever of government policy. Bankruptcy law emerges as particularly influential. Bankruptcy’s long shadow appears to have significant influence on an entrepreneur’s decision to launch a firm, pursue a risky but high growth opportunity, and terminate an under-performing firm. Taken together, these studies of institutional reform indicate diverse positive, negative, and sometimes limited effects on entrepreneurial activity. They also indicate several implications for policymakers.

One implication is that policy reforms that lower barriers to exit (not just entry) are likely to be influential for entrepreneurial activity. Prior literature and policies often focus on the entry environment for new businesses, and the entry rates of new ventures (Djankov et al., 2002; Klapper et al., 2006). In contrast, we find that the exit environment such as conditions surrounding IPO and bankruptcy exits may be as or more relevant to business and economic outcomes. This has important implications for policy because these reforms expand the levers of policymakers albeit in ways that are sometimes not obvious. Our findings suggest that reducing the burden of bankruptcy exit via bankruptcy reform does more than increase the bankruptcy rate. It can also trigger elite individuals to start firms, and increase subsequent venture performance. Similarly, IPO reform that enhances the likelihood of successful exit does more than increase the likelihood of IPO. It can also attract and re-direct capital to “popular” industry sectors which may not be helpful for either advantaged or disadvantaged entrepreneurs. At the same time, it can attract and re-direct capital to elite entrepreneurs who are particularly able to use increased resources effectively. The overall point is that policymakers should go beyond the commonly used reforms that address market entry to reforms that address exit because these reforms have significant, albeit often complex, effects.

A second policy implication is the relevance of who becomes an entrepreneur. Since IPO and bankruptcy reforms can improve venture performance by motivating the entry of elite founders or increasing their access to additional capital, this implies that the most influential reforms for entrepreneurship often focus on who becomes an entrepreneur, rather than on the number of people who become entrepreneurs. Thus, making entry per se easier is less likely to be helpful. Rather,

policy should focus on the importance of motivating the “best and brightest”, not necessarily the “most”, individuals to be entrepreneurs. As we noted at the outset, many government initiatives focus on lowering entry barriers such as providing resources and simplifying regulations. In contrast, as venture capitalists have long known, whether a venture becomes high performing depends substantially on the quality of the entrepreneur. Thus, effective government policies for shaping the institutional environment to promote economic prosperity and job growth through entrepreneurial activity will wisely focus on attracting individuals who are most likely to succeed into the ranks of entrepreneurs.

A final implication is the importance of the indirect or second order effects of reforms. We observe the anticipated first-order effects of easier IPO and bankruptcy. Yet, we also find second-order effects. For example, bankruptcy reform had indirect effects that also influenced elite individuals to start firms. Similarly, IPO reform had indirect effects that narrowed the focus of subsequent investment, and caused increased performance for only some entrepreneurs while appearing to harm others. The overall point is that effective government policies for achieving goals such as growth and employment should take into account both the direct and potential indirect effects of the focal reform.

We conclude by observing that reforms that change the institutional environment for exits such as IPO and bankruptcy appear likely to influence the failure, founding, and performance of new firms. Thus, if entrepreneurship is part of the perennial gale of “creative destruction”, then our findings suggest that the nature of exits in the national institutional environment plays a pivotal role in determining the “strength” and “direction” of that gale.

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About the Authors

Howard E. Aldrich



Howard E. Aldrich is Kenan Professor of Sociology, Chair of the Sociology Department and Adjunct Professor of Business at the University of North Carolina, Chapel Hill. His main research interests are entrepreneurship, entrepreneurial team formation, gender and entrepreneurship, and evolutionary theory. His book, *Organizations Evolving* (Sage, 1999), won the George Terry Award from the Academy of Management and was co-winner of the Max Weber Award from the OOW section of the American Sociological Association. In 2000, he won the International Award for Entrepreneurship and Small Business Research for his research on entrepreneurship. His latest book, *An Evolutionary Approach to Entrepreneurship: Selected Essays* was published by Edward Elgar in 2012.

David Audretsch



David Audretsch is a Distinguished Professor and Ameritech Chair of Economic Development at Indiana University, where he also serves as Director of the Institute for Development Strategies. Audretsch is also an Honorary Professor of Industrial Economics and Entrepreneurship at the WHU-Otto Beisheim School of Management in Germany. In addition, he serves as a Visiting Professor at the King Saud University in Saudi Arabia, Honorary Professor at the Friedrich Schiller University of Jena in Germany, and is a Research Fellow of the Centre for Economic Policy Research in London.

Audretsch's research has focused on the links between entrepreneurship, government policy, innovation, economic development and global competitiveness. His recent books include *Entrepreneurship and Economic Growth*, and *The Entrepreneurial Society*. He is co-founder and co-editor of *Small Business Economics: An Entrepreneurship Journal*. He was awarded the Global Award for Entrepreneurship Research in 2001.

William J. Baumol



William J. Baumol is the Harold Price Professor of Entrepreneurship and Academic Director of the Berkley Center for Entrepreneurship and Innovation in the Stern School of Business at New York University. He is also Senior Economist and Professor Emeritus in the Department of Economics at Princeton University. Professor Baumol is a past president of the American Economic Association and a member of the U.S. National Academy of Sciences, the American Philosophical Society, the Accademia Nazionale Dei Lincei (Italy), and the British Academy. He is the author of more than 45 books and more than 500 articles published in professional journals. His most recent books include *The Microtheory of Innovative Entrepreneurship* (2010) and *The Cost Disease: Why Computers Get Cheaper and Health Care Doesn't* (2012). In 2003 he won the International Award for Entrepreneurship and Small Business Research.

Pontus Braunerhjelm



Pontus Braunerhjelm earned his Ph. D. at the Graduate Institute of International Studies, Geneva, Switzerland, in 1994. Professor Braunerhjelm currently holds the positions of Managing Director of The Swedish Entrepreneurship Forum and Head of Department of Industrial Economics and Management at the Royal Institute of Technology, both located in Stockholm. He is a member of The Royal Swedish Academy of Engineering Sciences as well as a number of other associations. Pontus Braunerhjelm has been responsible for several high-level governmental and other commissions, e.g. The Globalization Council set up by the Swedish government in 2007. He has published extensively in the areas of economic geography, entrepreneurship and economic growth.

Robert N. Eberhart



Robert N. Eberhart is an Assistant Professor of Management at Santa Clara University and a research scholar at Stanford University where he directs the Santa Clara / Stanford Project on Japanese Entrepreneurship. He is also a visiting professor at Kobe University and research associate at Columbia University. His research interests focus on theories of institutional change and role of institutions on new venture performance.

He has been quoted in the New York Times, Forbes magazine, the Nikkei Weekly, and the Nihon Keizai Shimbun. He also serves as the Vice Chairperson of the U.S. Dept. of State and METI's Japan-US Innovation and Entrepreneurship Council

Charles E. Eesley



Charles E. Eesley is an Assistant Professor at Stanford University in the Department of Management Science and Engineering. His research focus is on institutions and technology entrepreneurship, and in particular on the determinants of high-growth, innovative firm creation across institutional contexts. He examines how the environment influences entrepreneurs and firms. Dr. Eesley received the 2010 Best Dissertation Award in the Business Policy and Strategy Division of the Academy of Management and is a recipient of the 2007 Ewing Marion Kauffman Foundation's Dissertation Fellowship award. He earned his doctorate from the MIT Sloan School of Management.

Kathleen M. Eisenhardt



Kathleen M. Eisenhardt is the Stanford W. Ascherman M.D. Professor at Stanford University and Co-Director of the Stanford Technology Ventures Program. Professor Eisenhardt's research focus is on strategy and organization in uncertain, high-velocity markets with emphasis on complexity and power theories. She is currently studying the use of heuristics in strategies, creation of synergies in multi-business corporations, building alliance portfolios by entrepreneurial firms, and strategic interaction.

She has received the career Scholarly Contribution Award from the Academy of Management as well as from the Organization and Management Theory division. She has also received numerous awards including the Irwin Award for her contributions in strategy and the Global Award for Entrepreneurship Research in 2012.

She was recently noted as most cited research author in the domain of strategy and organization studies in the past 25 years.

Elizabeth Gatewood



Dr. Elizabeth Gatewood is an Associate Director of the Center for Enterprise Research and Education directed Wake Forest University's Kauffman Campus Initiative, a program focused on multidisciplinary entrepreneurship education. In addition to directing academic entrepreneurship units at Wake Forest University and Indiana University, she directed the Small Business Development Center (SBDC) Network for southeast Texas, providing consulting and training to entrepreneurs and SMEs. She was the 2013 recipient of the Max S. Wortman, Jr. Lifetime Achievement Award for Entrepreneurship by the United States Association of Small Business and Entrepreneurship. Gatewood is also a co-founder of the Diana Project, a multi-country network of researchers examining women's entrepreneurship, which won the International Award for Entrepreneurship and Small Business Research in 2007.

Patricia G. Greene



Patricia G. Greene is the Paul T. Babson Chair in Entrepreneurial Studies at Babson College where she formerly served first as Dean of the Undergraduate School and later as Provost. Prior academic positions were the Kauffman/Missouri Chair at the University of Missouri – Kansas City and the New Jersey Chair of Small Business and Entrepreneurship at Rutgers University. Greene's current assignment at Babson is to serve as the national academic director for the Goldman Sachs 10,000 Small Businesses initiative and advisor to the 10,000 Women program. Dr. Greene's is a founding member of the Diana Project which was awarded the International Award for Entrepreneurship and Small Business Research in 2007.

Bengt Johannisson



Bengt Johannisson is professor emeritus of Entrepreneurship at Linnaeus University and at Jönköping International Business School in Sweden. He previously held chairs at Lund University in Sweden and at Roskilde University in Denmark. He has also initiated an inter-university networks on research and post-graduate studies in entrepreneurship in Sweden. Johannissons current area of interest is social entrepreneurship

research, and he also has a special interest in entrepreneurship education. His recent publications include *Enacting Regional Dynamics and Entrepreneurship, Bridging the Territorial and Functional Rationales*. Abingdon: Routledge. 2012. (editor with Å Lindholm Dahlstrand) and *Societal Entrepreneurship – Positioning, Penetrating, Promoting*. Cheltenham: Edward Elgar. 2012. Bengt Johannisson is the first Scandinavian Winner of the International Award for Entrepreneurship and Small Business Research (2008).

Josh Lerner



Josh Lerner is the Schiff Professor of Investment Banking at Harvard Business School and the author of *The Architecture of Innovation* (Harvard Business Review Press, 2012), from which this essay is partially adapted. He graduated from Yale College with a Special Divisional Major which combined physics with the history of technology and earned a Ph.D. from Harvard's Economics Department. Much of his research focuses on the structure and role of venture capital and private equity organizations. He also examines policies towards innovation, and how they impact firm strategies. He has recently been named one of the 100 most influential people in private equity over the past decade by *Private Equity International* magazine. In 2010 Josh Lerner won the Global Award for Entrepreneurship Research

Paul D. Reynolds



Paul D. Reynolds is the Aston University Marie Curie International Incoming Fellow. Reynolds received his PhD in Sociology from Stanford University in 1969. Over the past 20 years he was the coordinating principal investigator of two longitudinal studies of US business creation [Panel Studies of Entrepreneurial Dynamics, I and II] and the founding principal investigator of the Global Entrepreneurship Monitor. Reynolds recently completed an extensive assessment of the participation of the bottom billions in business creation. He is also the author or co-author of five books; seven edited collections; 42 research reports and monographs; 85 peer review journal articles and book chapters; eight data sets in the ICPSR archives; and over two hundred presentations to professional and policy audiences. In 2004 Reynolds received the International Award for Entrepreneurship and Small Business Research.

David J. Storey



David Storey is Professor at the Department of Business Management and Economics at University of Sussex, UK. He has two honorary Doctorates and has been Visiting Professor at the Universities of Manchester, Reading and Durham, and was an International Fellow at Sydney University in 2009. According to Hans Landstrom et al. in *Research Policy* (2012) David Storey is the highest ranked non-US scholar in Entrepreneurship. His book *Understanding the Small Business Sector*, published in 1994, is in ninth place overall in the Entrepreneurship “core works”. Between 2001 and 2005 he was appointed by the UK Secretary of State for Trade and Industry as a Member of the Small Business Council which advised the government on small business policy-making. In 1998 he received the International Award for Entrepreneurship and Small Business Research and in 2008 he was awarded a Wilford White fellowship.

Per Thulin



Per Thulin is a researcher at the Swedish Entrepreneurship Forum and program director for the master program Economics of Innovation and Growth at the Royal Institute of Technology (KTH) in Sweden. His main research interest lies within the fields of economic growth, causes and effects of labor mobility and entrepreneurship. Per Thulin has published articles in *Annals of Regional Science*, *Industrial and Corporate Change*, *Journal of Entrepreneurship and Public Policy*, *International Economic Journal*, *Journal of Industry Competition and Trade* and in the *International Business Review*.

Tiantian Yang



Tiantian Yang is a PhD candidate in the Department of Sociology, University of North Carolina at Chapel Hill. Her research crosscuts a wide range of areas in entrepreneurship, organizations, social networks, social stratification, and quantitative methodology. She examines the macro-level social mechanisms that govern the founding of new organizations. Her work has appeared in the *American Sociological Review*, the *Journal of Business Venturing*, the *Strategic Entrepreneurship Journal*, and *Entrepreneurship Research Journal*.

In 1994 – the year when The Swedish Entrepreneurship Forum was founded – the idea that entrepreneurship could play an important role in economic development and growth challenged conventional wisdom. 20 years later research on SMEs, innovation and entrepreneurship have exploded and the view that entrepreneurs are indeed the agents of change is firmly established.

This book marks the 20th anniversary of The Swedish Entrepreneurship Forum and 20 years of research on entrepreneurship, SMEs and innovation. As the past 20 years has shown, the research issues are both complex and multifold, spanning several disciplines. This is mirrored in the contributions to this book, written by some of the most distinguished scholars in this field of research. The main authors have all been at the forefront when it comes to initiating and undertaking research in the field of entrepreneurship research and have also been awarded one of the most prestigious international research prizes, The Global Award for Entrepreneurship Research, initiated by the Swedish Entrepreneurship Forum in 1996.

