# Chapter 1

# UNDERSTANDING ENTREPRENEURSHIP ACROSS COUNTRIES AND OVER TIME

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## **1.1 ENTREPRENEURSHIP MATTERS**

That entrepreneurship matters is not a new observation. However, the way in which it matters has evolved over time. During the first three-quarters of the last century, small business clearly mattered. The reason it mattered, however, seemed to be less on the grounds of economic efficiency, and more for social and political purposes. In an era where large firms had not yet gained the powerful position of the last quarter of the last century, small businesses were the main supplier of employment and hence of social and political stability. Scholars, such as Chandler (1977), Galbraith (1967), and Schumpeter (1942), had convinced a generation of economists, intellectuals and policy makers that the future was in the hands of large corporations and that small business would fade away as the victim of its own inefficiencies. Certainly the famed Swedish model of economic policy saw the demise of small business as inevitable. Policy in the United States was divided between allowing for the demise of small business on economic grounds, on the one hand, and preserving at least some semblance of a small-enterprise sector for

social and political reasons, on the other. Small business, it was argued, was essential to maintaining American democracy in the Jeffersonian tradition. Certainly, passage of the Robinson-Patman Act (Foer, 2001), which has been accused of protecting competitors and not competition (Bork, 1978), and creation of the United States Small Business Administration were policy responses to protect less-efficient small businesses and maintain their viability.

More recently, however, the way that small business matters has changed. It is seen more than ever as a vehicle for entrepreneurship contributing more than just to employment and social and political stability. Rather it contributes in terms of innovative and competitive power. Rather than perceived as a social good that should be maintained at an economic cost, new econometric evidence (Audretsch and Thurik, 2000; Audretsch, Carree, Van Stel and Thurik, 2002; Carree and Thurik, 1999; Carree, Van Stel, Thurik and Wennekers, 2001; Audretsch, Carree and Thurik, 2001) suggests that entrepreneurship is a vital determinant of economic growth. According to Audretsch, Carree, Van Stel and Thurik (2002), a cost in terms of forgone economic growth will be incurred from a lack of entrepreneurship. The positive and statistically robust link between entrepreneurship and economic growth has been indisputably verified across a wide spectrum of units of observation, spanning the establishment, the enterprise, the industry, the region, and the country. Thus, while small business has always mattered to policy makers, the way in which it has mattered has drastically changed. Confronted with rising concerns about unemployment, jobs, growth and international competitiveness in global markets, policy makers have responded to this new evidence with a new mandate to promote the creation of new businesses, i.e., entrepreneurship. See Reynolds, Hay, Bygrave, Camp and Arkko (2000). Initially, European policy makers were relatively slow to recognize these links but since the mid-1990s have rapidly built momentum in crafting appropriate approaches. See EIM/ENSR (1993 through 1997). Yet, without a clear and organized view of where and how entrepreneurship manifests itself, policy makers are left in unchartered waters without an analytical compass. This explains the variation in their responses.

The purpose of this book is to provide such a compass. We do this in two ways. The first is to provide a framework for policy makers and scholars to understand what determines entrepreneurship. The second is to apply this framework to a series of cases, or country studies. In particular, this book seeks to answer three questions about entrepreneurship: *What has happened over time? Why did it happen?* And, *What has been the role of government policy?* 

# 1.2 THE ECLECTIC THEORY OF ENTREPRENEURSHIP

One of the reasons why policy makers and scholars have had such little guidance in understanding why entrepreneurship varies both temporally and geographically is that it is inherently an interdisciplinary subject spanning a broad range of fields, including management, finance, psychology, sociology, economics, political science and geography. The interdisciplinary nature of entrepreneurship research reflects a phenomenon that crosses the boundaries of multiple units of observation and analysis, such as the individual, groups, enterprises, cultures, geographic locations, industries, countries, and particular episodes of time. While each particular discipline may be well suited to analyze any particular analytical unit of observation, no discipline is equipped to analyze them all.

Thus, in addressing why variations in entrepreneurship occur, in the second chapter of this book we introduce an Eclectic Theory of entrepreneurship. The purpose of our *Eclectic Theory* is to provide a unified framework for understanding and analyzing what determines entrepreneurship. The Eclectic Theory of entrepreneurship integrates the different strands from the relevant fields into a unifying, coherent framework. At the heart of the Eclectic Theory is the integration of factors shaping the demand for entrepreneurship on the one hand, with those influencing the supply of entrepreneurs on the other hand. While both the demand and supply sides are formed by many factors, what results is a level of entrepreneurship that is equilibrated by these two sides. The key to understanding the role of policy is through identifying those channels shifting either the demand or the supply sides (curves) by policy instruments.

The *Eclectic Theory* shows that the level of entrepreneurship can be explained making a distinction between the supply side (labor market perspective) and the demand side (product market perspective; carrying capacity of the market) of entrepreneurship. This distinction is sometimes referred to as that between push and pull factors. The determinants of entrepreneurship can also be studied according to level of analysis. A distinction can be made between the micro, meso and macro level of entrepreneurship. The objects of study tied to these levels of analysis, are the individual entrepreneur or business, sectors of industry and the national economy, respectively. Studies at the micro level focus on the decision-making process by individuals and the motives of people to become self-employed. Research into the decisions of individuals to become either wage-or self-employed focuses primarily on personal factors, such as

psychological traits, formal education and other skills, financial assets, family background and previous work experience. Studies at the meso level of entrepreneurship often focus on market-specific determinants of entrepreneurship, such as profit opportunities and opportunities for entry and exit. The macro perspective focuses on a range of environmental factors, such as technological, economic and cultural variables as well as government regulation. In short, the *Eclectic Theory* shows that there are many ways in which the level of entrepreneurship can be influenced.

#### **1.3 FIVE STAGES**

An important aspect of the present book is the comparison of the answers to the three questions about entrepreneurship in some selected European countries and the United States. The general assumption is that the United States has been much quicker to absorb the virtues of entrepreneurship than Europe. Given that entrepreneurship is a vital determinant of economic growth, the idea is that much of the excess growth of the United States when compared to European countries is due to this lead. The European countries have been relatively slow to follow suit. Clearly, the European response varied across countries. Nevertheless, by and large five distinct stages can be discerned of the evolution of the European stance towards the entrepreneurial economy.

The first stage was denial. During the 1980s and early 1990s, European policy makers looked to Silicon Valley with skepticism and doubts. After all, this was the continent where in 1968 Jean Jacques Servan-Schreiber had warned Europeans to beware the "American Challenge" in the form of the "dynamism, organization, innovation, and boldness that characterize the giant American corporations". Because giant corporations were needed to amass the requisite resources for innovation, Servan-Schreiber advocated the "creation of large industrial units which are able both in size and management to compete with the American giants." According to Servan-Schreiber, "The first problem of an industrial policy for Europe consists in choosing 50 to 100 firms which, once they are large enough, would be the most likely to become world leaders of modern technology in their fields. At the moment we are simply letting industry be gradually destroyed by the superior power of American corporations." Europe was used to looking across the Atlantic and facing a competitive threat from large multinational corporations, such as General Motors, U.S. Steel and IBM, and not from nameless and unrecognizable startup firms in exotic industries such as

software and biotechnology. In fact, the Cecchini Report to the European Commission in 1988 documented the economic gains in terms of the scale economies to be achieved from the anticipated European integration. The emerging firms such as Apple Computer and Intel seemed interesting but not having any sufficient relevance for the mainstay businesses in the automobile, textile, machinery and chemical industries, which were the obvious engines of European competitiveness, growth and employment. The high performance of Silicon Valley was generally qualified as suffering from a short-term perspective, where long-term investments and commitments were sacrificed for short-term profits.

The second stage, during the mid-1990s, was recognition. Europe recognized that the high performance of the entrepreneurial economy in Silicon Valley did deliver a sustainable long-run performance. The theory of comparative advantage typically evoked during this phase was that Europe's most important economy, Germany, would provide the automobiles, textiles and machine tools. The entrepreneurial economy of Silicon Valley, Route 128 and the Research Triangle would produce the software and microprocessors. Each continent would specialize in its comparative advantage and then trade with each other. Thus, Europe held to its traditional institutions and policies channeling resources into traditional moderate technology industries.

The third stage, during the second half of the 1990s, was envy. As Europe's unemployment soared into double digits and growth stagnated, the capacity of the American entrepreneurial economy to generate both jobs and higher wages became the object of envy. The United States and Europe seemed to be on divergent trajectories. The separate but equal doctrine from the concept of comparative advantage yielded to the different but better doctrine of dynamic competitive advantage. As the entrepreneurial economy continued to diffuse across the United States, most policy makers, particularly in important countries such as Germany and France despaired that European traditions and values were simply inconsistent and incompatible with the entrepreneurial.

The fourth stage, during the final years of the last century, was consensus. European policy makers reached a consensus that - in the terminology of Audretsch and Thurik (2001) - the new entrepreneurial economy was superior to the old management economy. Moreover, in their opinion a commitment had to be forged to creating a new entrepreneurial economy. Leaders like Tony Blair and Gerhard Schroeder defied the politics and policies of their traditional left-oriented parties in leading the way of privatization, deregulation and encouraging entrepreneurship. Rather than despairing that the United States had what Europe could not attain, a broad

set of policies were instituted to create a new entrepreneurial economy. See European Commission, 2000, Chapter 8: New developments in SME policies. These European policy makers looked across the Atlantic and realized that if places such as North Carolina, Austin, and Salt Lake City could implement very conscious and targeted policies to create the entrepreneurial economy, cities such as Munich and Randstad (the 'circular' agglomeration spanning Rotterdam, The Hague, Utrecht and Amsterdam) could as well. After all, Europe had a number of advantages and traditions favoring the emergence of the entrepreneurial economy, such as a highly educated and skilled labor force and the existence of world-class research institutions. In addition, its variety in cultures and hence innovative approaches to new products and organizations provides a perfect framework for absorbing the high levels of uncertainty inherent to the new entrepreneurial economy (Audretsch and Thurik, 2000).

The fifth stage will be attainment. While Europe may not be there quite yet, there are definite signs that an entrepreneurial economy is emerging on the old continent. Consider the cover story of the German weekly magazine, *Der Spiegel*, which recently proclaimed "Handys, Hightech and Reform: Good Morning, Europe – How the Old Continent is attacking the Economic Power USA". For example, the amount of venture capital in Germany tripled in the 1990s, from  $\notin$  1.6 billion in 1990 to  $\notin$  5.4 billion in 1998. The number of listings on the German New Market increased from 9 in July 1997, to over 300 by September 2000. During this same period, the capital volume of the New Market increased from  $\notin$  2.5 billion to  $\notin$  55 billion. Still, the share of information and communications technologies accounting for the 1998 German GDP was only 58 percent as great as that in the United States. And there are numerous other examples.

### 1.4 CROSS-NATIONAL RESEARCH TEAMS

While Chapter Two of this book introduces the *Eclectic Theory* of entrepreneurship, without subjecting the framework to actual empirical evidence, it remains a conjecture at best. There are many methods available to subject theory to empirical testing. In this book we seek the benefits accruing from in-depth country case studies, where the framework is applied at the country level and over a relatively long period of time. To implement these country studies, EIM's public research program SCALES (Scientific AnaLysis of Entrepreneurship and SMEs), that is financed by the Dutch Ministry of Economic Affairs, assisted in organizing a trans-Atlantic

research project. This project was carried out by teams of graduate students participating in the BRIDGE (Bloomington Rotterdam International Doctoral and Graduate Exchange) program directed by Professors A. Roy Thurik, David B. Audretsch along with Sander Wennekers of EIM Business and Policy Research. The BRIDGE program is a joint effort of Indiana University, Erasmus University Rotterdam and EIM Business and Policy Research. Each research team consisted of members from both sides of the Atlantic and was given the mandate to apply the framework provided by the *Eclectic Theory* to a particular country.

The countries selected for the case studies published in this book are the Netherlands, France, Germany and the United States. The basis for selecting these countries was that the United States seemed to be a leader in shifting from what Audretsch and Thurik (2001) term as the managed economy to the entrepreneurial economy. The Netherlands was selected because of its pronounced recovery from sick man of Europe under the lethargy of the Dutch Disease in the early 1980s to become one of the first European countries to move into the entrepreneurial economy in the 1990s. Germany was selected because even as recently as the early 1990s the model of the *Sozialmarktwirtschaft* had delivered *Wohlstand* through static efficiency and seemed to be impervious to developing an entrepreneurial economy. The final country selected was France, where the model of *Dirigisme* seemed to exclude the possibility of entrepreneurship.

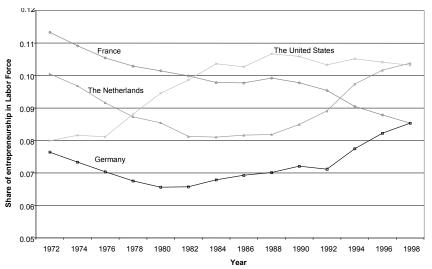
In implementing the country studies, the research teams used the framework provided by the *Eclectic Theory* to enable the determinants of entrepreneurship specific to each country and time period to be identified. This provided remarkable evidence that different factors and forces shape the entrepreneurial experience across countries and time periods.

## **1.5 ENTREPRENEURSHIP POLICY MATTERS**

Applying the *Eclectic Theory* of entrepreneurship to these four countries has generated several new and important insights into both the prevalence and the determinants of entrepreneurship. In terms of the prevalence of entrepreneurship, three of the countries exhibit a decline followed by a revival. See Figure 1.1. This decline lasted until the mid-1970s for the U.S., the early 1980s for Germany, and the mid-1980s for the Netherlands. Seen from the vantage point of the 1980s and perhaps even early 1990s, this may have appeared to be a case of divergence across countries. However, an important conclusion of this book is that what appear to have been

divergence, is, in fact, a process of convergence. All of these countries have experienced first a decline, but then subsequently an upturn in the importance of entrepreneurship. While the precise timing was different, the similarities in terms of first decline, followed by an upturn, are striking.

The one outlier in this process is France. Like the other countries France exhibited a decline in entrepreneurship going into the 1970s and 1980s. However, unlike the other countries, the role of entrepreneurship continued to decline into the late 1990s. Two hypotheses interpreting this trend can be considered. The first involves divergence. Perhaps the long-term role of entrepreneurship in France is simply different than in the other countries. The second involves convergence and suggests that, as for the other countries, the prevalence of entrepreneurship will begin to increase, but that France had not yet hit the bottom of the trough by the turn of the century.



*Figure 1.1.* Developments in entrepreneurship in France, Germany, the Netherlands and the United States.

*Source*: EIM: COMParative Entrepreneurship Data for International Analysis (COMPENDIA 2000.1)

*Note*: Entrepreneurship is defined as the share of business owners in the labor force including owners of both incorporated and unincorporated businesses, but excluding the so-called unpaid family workers and wage-and-salary workers operating a side-business as a secondary work activity. Agriculture, hunting and fishing are excluded.

A second important insight involves the role of policy in generating entrepreneurship. In all of the countries entrepreneurship policy can be viewed as an instrument that evolved to create jobs, and to promote international competitiveness, economic development and growth. Just as entrepreneurship policies have been a response to unemployment and stagnation, the upturn in entrepreneurial activity can be traced as a response to the policies. Just as the *Eclectic Theory* shows that there are many ways in which the level of entrepreneurship can be influenced, the country cases show remarkable evidence that different factors and forces shape the entrepreneurial experience across countries and time periods. In all of the countries entrepreneurship policy is used in different ways. However, the role of institutions and culture is predominant. It is beyond the scope of this introduction to provide a full comparison. To a certain extent, the typical roles of the government policies in the four countries as well as the specific cultural and institutional settings defy comparison.

The findings in the chapters dealing with the country cases show that, by utilizing the framework provided by the *Eclectic Theory*, it is within the grasp of policy makers of many highly developed economies to identify the determinants of entrepreneurship in a particular country setting at a particular point in time. This will be helpful in gauging the impact of various policy instruments on the degree of entrepreneurial activity. Whether the *Eclectic Theory* proves to be fruitful for other countries outside of Europe and North America and under different settings remains a question to be answered by similar research endeavors.

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#### REFERENCES

- Audretsch, D. B., M.A. Carree, A.J. van Stel and A. R. Thurik, 2002, Impeded industrial restructuring: the growth penalty, *Kyklos* xx (1), forthcoming.
- Audretsch, D. B., M.A. Carree and A. R. Thurik, 2001, Does entrepreneurship reduce unemployment?, Discussion paper, Tinbergen Institute, Erasmus University Rotterdam, forthcoming.
- Audretsch, D. B. and A. R. Thurik, 2000, Capitalism and democracy in the 21st century: from the managed to the entrepreneurial economy, *Journal of Evolutionary Economics* 10 (1), 17-34.
- Audretsch, D. B. and A. R. Thurik, 2001, What's new about the new economy? From the Managed to the Entrepreneurial Economy, *Industrial and Corporate Change* 10 (1), 267-315.
- Bork, R. H., 1978, *The Antitrust Paradox: A Policy At War With Itself*, New York: Basic Books.
- Carree, M.A., A.J. van Stel, A.R. Thurik and A.R.M. Wennekers, 2002, Economic development and business ownership: an analysis using data of 23 OECD countries in the period 1976-1996, *Small Business Economics*, forthcoming.
- Carree, M.A. and A.R. Thurik, 1999, Industrial structure and economic growth, in: D.B. Audretsch and A. R. Thurik (eds.) *Innovation, Industry Evolution and Employment*, Cambridge, UK: Cambridge University Press, 86-110.
- Chandler, A., 1977, *The Visible Hand: The Managerial Revolution in American Business*, Cambridge, MA: Harvard University Press.
- EIM/ENSR, 1993, *The European Observatory for SMEs: first annual report*, Zoetermeer: EIM Business and Policy Research.
- EIM/ENSR, 1994, *The European Observatory for SMEs: second annual report*, Zoetermeer: EIM Business and Policy Research.
- EIM/ENSR, 1995, *The European Observator for SMEs: third annual report*, Zoetermeer: EIM Business and Policy Research.
- EIM/ENSR, 1996, *The European Observatory for SMEs: fourth annual report*, Zoetermeer: EIM Business and Policy Research.
- EIM/ENSR, 1997, *The European Observatory for SMEs: fifth annual report*, Zoetermeer: EIM Business and Policy Research.
- European Commission, 2000, *The European Observatory for SME- Sixth report*, submitted to the Enterprise Directorate General by KPMG Consulting, EIM Business and Policy Research, and ENSR, Luxembourg.
- Foer, A.A., 2001, Small business and antitrust, Small Business Economics 16 (1), 3-20.
- Galbraith, J.K., 1967, The New Industrial State, Boston, MA: Houghton Mifflin.
- Reynolds, P.D., M. Hay, W.D. Bygrave, S.M. Camp and E. Autio, 2000, *Global Entrepreneurship Monitor: 2000 Executive Report*, Kauffman Centre for Entrepeneurial Leadership at the Ewing Marion Kauffman Foundation.
- Schumpeter, J.A., 1942, Capitalism, Socialism and Democracy, New York: Harper and Row.

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