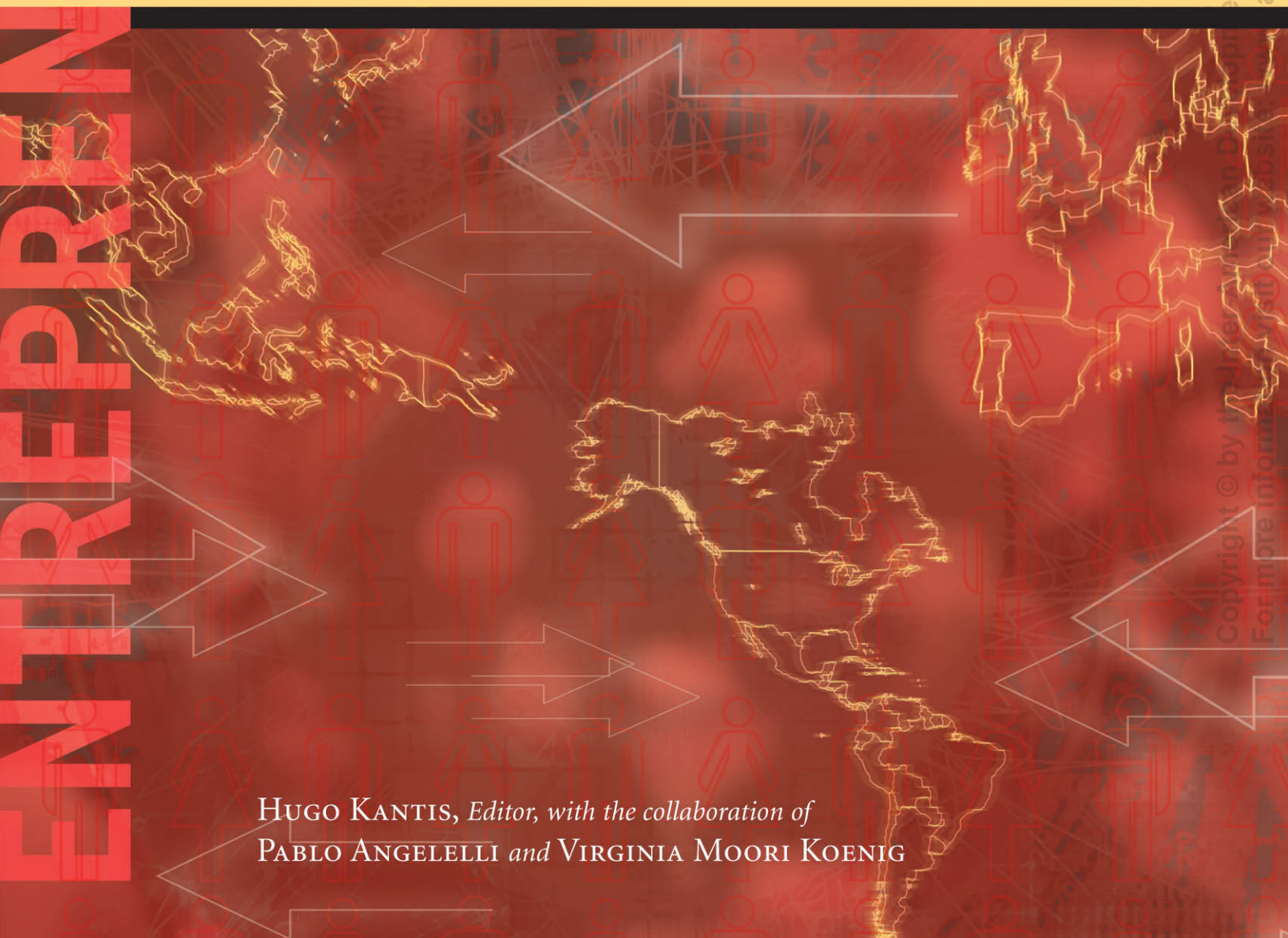
INTER-AMERICAN DEVELOPMENT BANK
FUNDES INTERNACIONAL

DEVELOPING ENTREPRENEURSHIP

Experience in Latin America and Worldwide



HUGO KANTIS, *Editor, with the collaboration of*
PABLO ANGELELLI *and* VIRGINIA MOORI KOENIG

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PREFACE

Developing a vigorous private sector that is innovative, socially responsible, and integrated with international trade and investment flows is critical for more rapid economic development and improved social conditions in Latin America and the Caribbean. The creation of dynamic enterprises is one of the basic pillars for developing the private sector. By developing new businesses to satisfy the needs of the population, entrepreneurs facilitate productivity increases and generate employment.

The role of governments is to encourage the development of the private sector through public policies that create a favorable business environment for entrepreneurs. In order for these policies to be effective, they must be grounded in precise information about the problems involved and on how entrepreneurs operate.

The Inter-American Development Bank has been working in the field of entrepreneur development for some years, both operationally and in generating information on the entrepreneurial phenomenon. Through varied projects, such as entrepreneur competitions, training and technical assistance services, investment and guarantee funds, and business incubators, the Bank has displayed a clear commitment to fostering business creation and the entrepreneurial spirit in Latin America and the Caribbean.

To promote the development of entrepreneurship in the region, the Bank carried out an initial study and issued a publication comparing the most influential factors for business creation in East Asia and Latin America. This study, which was a pioneer in its genre, served as the basis for preparing new Bank operations, and drawing attention to the importance of entrepreneurs for the development of Latin America.

The impact of that first study led to an increase in the number of countries analyzed and regions compared, and case studies of policies to foster entrepreneurship were incorporated. The result is this publication, which analyzes the profile of entrepreneurs and how they create high-growth businesses in 13 countries in Latin America, East Asia, and southern Europe. It also offers a set of case studies of entrepreneurship development policies and programs in the Americas and Europe. The comparative analysis of the 13 entrepreneur development systems, in combination with these case studies, makes it possible to identify a set of areas and recommendations on the basis of which governments and development agencies in Latin America and the Caribbean can act to promote business creation and spur the development of the private sector.

This study is the product of a joint effort by the Inter-American Development Bank and Fundes Internacional for whose valuable help we are most grateful. We also wish to thank the Italian Consultant Trust Fund for its financial support. A team of researchers from more than ten countries worked to prepare this study under the supervision of an academic coordinator and development agencies.

We are sure that the findings of this study will enrich the experiences of the Bank and other actors and will inspire new policies and innovative projects for promoting entrepreneurship in the region.

Antonio Vives, Deputy Manager
Office of Infrastructure, Financial Markets,
and Private Enterprise
Inter-American Development Bank

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Research Team		
	Member	**Institution**
General supervision	Juan José Llisterri Pablo Angelelli	Inter-American Development Bank
	María Vega Virginia Moori Koenig	Fundes Internacional
Academic coordination	Hugo Kantis	Universidad Nacional de General Sarmiento
Country studies		
Argentina	Hugo Kantis Juan Pablo Ventura	Universidad Nacional de General Sarmiento
Brazil	Miguel Juan Bacic	Universidad de Campinas
Chile	José Miguel Benavente	Universidad de Chile
Costa Rica	Juan Carlos Leiva Bonilla	Universidad Nacional de General Sarmiento
El Salvador	Carlos Umaña	PRODEC
Mexico	Clemente Ruiz Durán Brettzel Altamirano	Universidad Autónoma Nacional de México
Peru	Fernando Villarán Juan Julio Gutiérrez	SASE Consultores
Spain	Teresa Obis Eduardo Jiménez Marqués	Universidad Autónoma de Barcelona
Italy	Fabio Boscherino	Fundación Égida
Korea	Nakki Baek Wonchan Ra	Korea Institute for Industrial Economics and Trade
Japan	Masahico Ishida Masahiko Komori	Japan Economic Research Institute, Development Bank of Japan
Singapore	Chee Leong Chong Kwan Kee Ng	National University of Singapore
Taiwan	Chen-en Ko Jennifer H.J. Chen	National Taiwan University
Supervision of country studies	Rodrigo Rabetino Mercedes Cano Paula Suárez	Universidad Nacional de General Sarmiento
Data processing	Javier Babino	Babino and Voilkis

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INTRODUCTION

Juan José Llisterri

BUSINESS DEVELOPMENT POLICIES

Creating new enterprises and stimulating entrepreneurship have become widespread policy objectives among those committed to the development of small and medium enterprises (SMEs).

Although there is no simple answer to the question of whether entrepreneurs are born or made, most groups concerned with designing business development policies are looking for ways to identify which profiles can best contribute to other specific policies (such as job creation, local development, or technological innovation, to mention a few), and to create the conditions that may facilitate the emergence of new companies.

Thus, the European Union has incorporated promoting entrepreneurship into business development policies, and with the launching of the *Green Paper on Entrepreneurship* it has begun a policy discussion process that is also fueling significant output of information on entrepreneurship. Eurobarometer reports on entrepreneurial activities in Europe, and sections of the European Observatory for SMEs on business creation and entrepreneurial demography make clear Europe's competitive disadvantages and consequently argue for the need to react with clear policies favoring a change in the entrepreneurial paradigm.

In the United States and Canada, policy-oriented work on promoting entrepreneurship is of a different character. In the former, seen as the country with the highest rate of entrepreneurs, foundations, universities, schools, and private research centers—more than government agencies—are devoted to maintaining and spreading the entrepreneurial mindset, which is deeply rooted in North American culture, while government policies focus on programs to improve the business environment.

The Organization for Economic Cooperation and Development (OECD) has a Working Party for Small and Medium Enterprises and Entrepreneurship, which added the entrepreneurship portion to its name in 1998. Along with business-creation initiatives driven by OECD programs like LEED (Local Employment and Economic Development), it has increased the number of policy documents, publications, and discussions in recent years.

In Latin American countries, a real transformation is underway in business development policies, which involves fostering new enterprises and promoting a new mindset that values entrepreneurial activity. In recent years, many programs for creating new companies and fostering entrepreneurship have appeared both nationally and at the municipal level, often led by private groups but also enjoying government support.

THE INTER-AMERICAN DEVELOPMENT BANK'S ONGOING EFFORTS

For several decades, the Bank has carried out operations and activities to support the creation of companies and foster entrepreneurship. Yet it was only in the mid-1990s—with the launching of the Inter-American Investment Corporation (IIC) and especially the Multilateral Investment Fund (MIF)—that projects pursuing in one fashion or another the creation of new companies and fostering entrepreneurship began to spread rapidly.

In the second half of the 1990s, more programs focused on starting businesses, training entrepreneurs, financing new companies, and simplifying red tape for business creation, together with other operations that offered technical assistance to small businesses and new entrepreneurs. This was in response to an initial demand for support for the creation of new businesses by many businesspeople in the region. However, occasional exceptions aside, no policy of support for entrepreneurship had been formalized, nor did the Bank have a line of action designed with that explicit purpose.

Accordingly, the Bank's efforts have been articulated out of an experience very rich in content, albeit somewhat scattered. That experience has made clear the need to understand entrepreneurship more precisely in order to be able to adjust its tools to more clearly defined needs.

Thus, the first analytical study of business creation in the region began in 1999. To that end, a specific methodology was developed to make it possible first to identify which factors are most crucial in creating businesses, and second to allow for comparing countries in the region and comparing the region with other regions. With financing from the Japanese Trust Fund for Consultancy Services, a methodology was then developed that emphasized the process of creating businesses (composed of the stages of inception of the entrepreneurial venture, company start-up, and early development of the firm), moving toward a comprehensive approach of support for entrepreneurship. This was an effort to get beyond the Bank's previous partial approaches.

In seeking an adequate methodology for identifying critical factors leading to policy recommendations, other options for comparative research on entrepreneurship were considered, for example, surveys of the adult population in each country. However, in order to differentiate enterprises that arise as the only means of survival from those that are conceived in terms of growth and accumulation, the Bank studied the creation of businesses that had shown some dynamism. That was how the decision was made to begin a study led by the Japan Development Bank in collaboration with the Institute of Economic Research in Japan and the Universidad Nacional General Sarmiento in Argentina, which would compare the process of business creation in four East Asian and four Latin American countries.

The results of this first study, published by the Bank under the title *Entrepreneurship in Emerging Economies: The Creation and Development of New Enterprises in Latin America and East Asia* (Kantis, Ishida, and Komori 2002), were a key element in deepening knowledge of the entrepreneurial process in the region. The study had the distinction of being the first collection and analysis of comparative information on the creation of dynamic businesses in several Latin American countries, while also illustrating how they differ from the Asian countries that had experienced a much faster growth rate. The study concluded with a series of policy recommendations.

The publication has likewise served as an important contribution to the growing debate in the region, but it has also had an impact in the Bank where, along with other publications and studies, it has helped to deepen thinking on the possibilities of taking a comprehensive approach to the process of business creation. To that end, other operations of MIF and the Social Entrepreneurship Program have been prepared, applying a similar methodology to developing new enterprises in a number of countries in the region.

BROADENED SCOPE OF THE STUDY

The gains made with this first publication, while important, still left some aspects insufficiently explored. For one thing, the four countries studied in the previous phase—Argentina, Brazil, Mexico, and Peru (Costa Rica was added later)—made up a rather limited sample. In addition, the comparison with the East Asian countries was revealing but determined by marked cultural differences. Finally, the study uncovered relevant aspects in the entrepreneurial process and made policy recommendations, but did not examine operative aspects that could be important if the aim was to incorporate them not so much into overall policies but into the design of specific programs and projects.

Hence, the Bank decided to broaden the study with help from Fundes Internacional and financing from the Trust Fund for Consultancy Services of Italy. The new study used the same methodology developed in the previous stage, incorporating two new countries, Chile and El Salvador, and extending the international comparison to two European countries, Italy and Spain. The new study also examined instances of best practices in policies and programs for promoting new enterprises in Europe and Latin America.

This publication presents the results of that work. The aim is to offer an analytical approach that incorporates the study results of the previous stage while moving beyond its thematic focus.

RENEWED INTEREST IN NEW ENTERPRISES

In Latin America, as in other regions, there is a slow but steady transition toward a new entrepreneurial culture. In recent years, since the Bank began reflecting on its operations in the 1990s and carrying out the studies that we have mentioned, there have been manifestations of new interest in various segments of society in the countries of the region. Increasingly the universities, perhaps conscious of the limited contribution that they have made thus far to entrepreneurial culture, are starting new enterprise programs, introducing related subjects into other professional career curricula, and carrying out research on many aspects of the phenomenon of business creation. More and more conferences and congresses are being held—a number of them with international participation—in many countries in the region, thereby indicating the upsurge of interest in the issue in civil society and academia. In the political realm, numerous initiatives aim at promoting the creation of new businesses to help renew the productive sector. Some municipal governments are showing great interest in creating systems for incubating businesses and working with the business sector to promote entrepreneurship among young people. The media are also joining in the transformation of the entrepreneurial culture in societies, as reflected in the increasing number of programs devoted to the topic.

A number of countries are making progress in broadening knowledge about the creation of new businesses. The information gathered for the Bank's studies includes reports from seven countries in the region. The database of the complete study, with results from more than 1,800 surveys of new entrepreneurs in 13 countries, is rich in information that is available to research groups wishing to use it.[1]

Another important comparative international study of trends in entrepreneurship, the *Global Entrepreneurship Monitor Survey*, includes reports from seven Latin American countries. The household surveys also provide valuable information on the entrepreneurial activities of the population. Important research studies have begun on entrepreneurial demography, such as the recently published study on the birth, growth, and death of small and medium enterprises in Chile (Crespi 2003). It uses government-generated information to develop an interesting research approach that may be relevant for designing policy.

A body of documentation has been built up elsewhere, primarily in the OECD countries, including the Ministerial Conference of Ministers responsible for SMEs, which was held in Istanbul in June 2004. The central theme was Promoting Entrepreneurship and Innovative SMEs in a Global Economy. Likewise, the topic of entrepreneurship occupies the center of the agenda of the 2004 Summit of the Meeting of Ministers responsible for SMEs in the *Asian Pacific Economic Cooperation* (APEC) region.

Thus, there seems to be unanimous interest in deepening experiences and continuing to explore new forms of implementing more efficient programs for promoting new enterprises. The Inter-American Development Bank firmly intends to make its contribution to that effort in Latin America.

NEW POLICY TRENDS

Policy recommendations for fostering entrepreneurial activity depend on the objectives being sought. The new enterprise programs have two main aims. On the one hand, the recommendations promote entrepreneurship as part of business development and SME policies, which will focus more on the process of changing the business paradigm. On the other hand, the aim is to spread entrepreneurship to various potential policy areas, such as employment policy, education policy, specific business and innovation development policies linked to specific sectors, or export or economic development activities in a sector or location. The general conclusions and programs to be designed will have to be adapted depending on the type of target population established for each concrete action and on the specific objective envisioned at the outset.

[1] The only requirement for receiving the database is to indicate the purpose and scope of the study in advance and subsequently report on its results.

For both cases, the conclusions of the previous stage of this research remain valid. It is still important to widen the social base of entrepreneurs, encourage work experience in companies as a way of acquiring the skills for creating new enterprises, foster networking among entrepreneurs, and eliminate barriers to the gestation, start-up, and growth of businesses.

This second stage of the study confirms the conclusions of the first stage. It adds some aspects not fully found previously, such as the role of the immigrant population in developed countries in detecting business opportunities; it allows for a separate analysis of the aspects that characterize more dynamic new businesses and differentiates them from the rest; and it enriches international comparison by including aspects drawn from the international experiences presented. Thus, the original proposal of providing programs for fostering entrepreneurship with a comprehensive focus on pulling together the steps in business creation and coordinating the actions of the parties involved is complemented at this stage with a proposal for diversifying programs.

This diversification may be a reflection of the diversity of the other policy objectives with which fostering entrepreneurship intersects; it may also address the suitability of actors and protagonists of these programs. Thus, in this stage there will be a recommendation for a combination of national programs with local and regional applications and complementary actions aimed at entrepreneurs with great growth potential across income groups. In any event, it will be important to link such programs to other business development programs that have experience in execution and evaluation, and to take advantage of the development tools already available.

Part II of this study, based on the Bank's operational experience and international best practices, provides recommendations for setting up programs for entrepreneurs. Specifically, it is crucial that companies in the private sector be directly involved in carrying out these programs. From the standpoint of changing mindsets and spreading entrepreneurial culture and from the standpoint of specific support for new entrepreneurs throughout the process of creating businesses, the most relevant factor is the relationship with other businesses.

CONTENTS OF THE VOLUME

Part I incorporates the findings from the work done in the previous stage of research (comparison of Latin America with East Asia) with no need to repeat them. Hence the chapters are organized so as to allow for themes to cut across as differently as possible from the way it was done in the previous publication.

Chapter 1 places the work as a whole in a theoretical framework, reviews and updates references to the recent literature, and reports on conceptual advances in creating businesses. Thus, it provides a systematic approach to entrepreneurial development cutting across socioeconomic, cultural, personal, and institutional aspects along with matters of production and setting. The chapter concludes by situating the entrepreneurial process in the context of the countries included in the study, thereby making it possible to appreciate the various initial conditions in the economic and educational spheres, as well as those related to production and setting. Likewise, the chapter explains the methodology used in carrying out the study and the adjustments made since the previous stage.

Chapter 2 analyzes the differences displayed by more dynamic enterprises, namely, those that have grown the most three years from start-up vis-à-vis those in the control group, that is, those that survived for three years but grew less. The analysis encompasses the performance of the businesses created and the characteristics of the entrepreneurial project at the outset, along with aspects such as their start-up capital, the markets they face, the types of business opportunities they pursue, and the customers they generate. The chapter analyzes the personal profile of the more dynamic entrepreneurs along with their sociological, cultural, and motivational characteristics, and the factors that differentiate them from those that are less dynamic. Thus, the study evaluates the influence of factors such as formal education, previous work experience, family, the importance of networks of contacts, and forms of financing, as well as other matters. This chapter takes up some differences between the countries of Latin America, which are explored further in the country studies that formed the basis of and gave rise to this publication. One of the major findings is the fact that the best setting for generating dynamic new enterprises is that of firms where the entrepreneur has previously worked. That fact will have significant repercussions for policy and program design.

Chapter 3 examines differences in the performance of businesses in countries in Latin America and East Asia and Italy and Spain measured in terms of growth in jobs and sales. Businesses in Italy and Spain are at an intermediary point between those in East Asia, with greater growth, and those in Latin America, which lag. The analysis finds marked differences in culture, motivation, behavior, skills acquisition, and models of the organization of production, which are found to be related to better or worse performance. The differences are a significant source of recommendations aimed at generating structural conditions more favorable for business creation.

Chapters 4 and 5 analyze two of the groups of businesses in the sample of new enterprises. Chapter 4 compares business creation in metropolitan areas with that in local production areas. Although the latter are a better school for entrepreneurs and a more fertile environment for business creation, businesses emerging in metropolitan settings display better medium-term performance. This fact gives rise to the challenges of how to take advantage of the positive aspects of local production settings, how to deal with the limitations of these settings, and local markets with a globalizing projection. In this sense, the international comparison with Asian countries and especially with Italy offers some clues for recommendations about how to take advantage of the positive features of both settings.

Chapter 5 compares more traditional enterprises with the creation of businesses that are more knowledge-intensive, that is, those that work in the areas of software and communications, plus those that are so by self-attribution. The differences found between the two types of enterprises and between the personal characteristics of entrepreneurs make it possible to define the specificities of the programs of support for new knowledge-based businesses. Such businesses can contribute to greater innovation and product diversification, and to greater medium and long-term economic growth.

Chapter 6 analyzes financing for new businesses. Although new businesses in the three regions are financed primarily with their own resources, there are marked differences in access to private capital—both venture capital and angel investors—and to bank credit, and companies in Latin America are clearly at a disadvantage. One of the most serious consequences of this extra difficulty is that the scale of initial investment in new enterprises is directly affected, thereby likewise impacting their rate of growth. Developing financial markets and overcoming the information problems presented by start-up companies will be key factors for improving conditions of access to financing of new enterprises in the region.

Chapter 7 draws the most important conclusions of this research and addresses the characteristic features of the dynamic new enterprises in Latin America, the influence of geographical location on entrepreneurial activity, and the peculiarities of the new knowledge-intensive businesses. The chapter reviews the differences between Latin America and other regions, and aspects that need improvement to be able to emulate the most advanced countries. The chapter concludes by listing the areas of work in which entrepreneurship should be promoted in Latin America.

Part II reviews international experiences in promoting entrepreneurship. The analysis compares the entrepreneurial situation in the region with that in more advanced regions with programs that offer valuable experiences and lessons. This part concludes with some operational recommendations.

Chapter 8 provides a setting for the cases to be analyzed later in a broader framework of possible operative approaches for promoting new enterprises. In addition to considering holistic entrepreneurship strategies, the chapter studies enterprises that find niche strategies, which is often the case. Such strategies can focus goal-specific groups (moving between two extremes, one made up of the underprivileged population such as the unemployed, ethnic minorities, youth, and women, and the other of enterprises with great growth potential), which are part of development strategies. The chapter also mentions the criteria for selecting the cases analyzed, which include the diversity of types of interventions and contexts, achievement of progress, recognition of relevance by experts, and availability of some kind of evaluation.

Chapter 9 presents experiences of fostering entrepreneurship in the United States and Canada. In the United States, policies that support small businesses range from facilitating their access to public sector markets—thereby broadening business opportunities for new companies—to providing assistance regarding financing or simplifying government procedures for creating businesses. In an entrepreneurial country like the Unit-

ed States, the private sector drives promotion of entrepreneurship, while the government concentrates on maintaining overall support for small businesses. The chapter describes the experience of the Atlantic region in Canada. In the 1990s, the development agency designed and set up a strategy for promoting entrepreneurship, training, networking, and financing of new enterprises. Important lessons are drawn from the factors that led to success.

Chapter 10 reviews the experiences of Scotland, Germany, and Italy. The program of the Scottish Development Agency is perhaps one of the most complete. The chapter analyzes the definition and objectives of the program, which include creating awareness, improving the business environment, promoting access to financing, broadening the number and social origins of entrepreneurs, and providing a specific program of support for rapidly growing enterprises. The chapter also describes evaluation reports that take into account the achievements and weaknesses of the program, and some lessons about its strategic approach, long-term horizon, importance of local focus, and combination of an overall policy with niche objectives.

The experience of the Exist program in Germany, which is designed to stimulate entrepreneurial culture in universities and research centers, is described as it is applied in five regions and complemented by higher-level regional initiatives. The presentation of the Italian case focuses on two experiences: the agency Sviluppo Italia, which has encouraged youth entrepreneurship in the south of the country, and the Business Innovation Centers in the Friuli-Venezia-Giulia region.

The Latin American cases described in Chapter 11 include three very different experiences. The first is the Softex program in Brazil, which promotes the competitiveness of the Brazilian software industry. The program includes a strong entrepreneurship component, creation of new software companies, and help for new businesses. The second case, in the Municipality of Buenos Aires, includes programs that support microenterprise, a center for incubating design companies, and the university program for stimulating entrepreneurship. Finally, the Emprende Tu Idea (Start Up Your Idea) program in El Salvador was developed on the basis of a methodology prepared by the McKinsey Company. Its goal is to help low-income youth develop business ideas and put them into practice. A series of private entities have been formed with project support from the Fundemás program (EMPRETEC in El Salvador) for educational and entrepreneurial institutions.

Part III is an overview of the lessons from the work, both of the results of the comparative study of seven Latin American, four Asian, and two European countries, as well as the experiences of operative programs. After insisting on the need to have a strategic framework and to reject recipes and isolated objectives, the discussion comments on the diversity of experiences that arise from a variety of economic and social assumptions and conditions. The start-up conditions in each country or geographical setting must be taken into account. In addition, a combination of general objectives for promoting the appropriate culture and context for business creation must be considered, along with other more specific objectives of a niche nature. These are the stated objectives related to employment, growth, exports, local development, and other matters. The entrepreneurial style of the interventions, active involvement by the private sector, and leadership capability of the institutions executing the programs are preconditions for their success. Part III concludes by proposing a menu of specific recommendations based on concrete experiences that can serve as a practical guide for designing programs in Latin American countries. ■

PART I

COMPARATIVE STUDY OF THE ENTREPRENEURIAL PROCESS IN COUNTRIES OF LATIN AMERICA, SOUTHERN EUROPE, AND EAST ASIA

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CHAPTER 1

A SYSTEMATIC APPROACH TO ENTERPRISE CREATION

Hugo Kantis

The study of entrepreneurship has been approached from various perspectives and disciplines. This study uses a systematic approach focused on identification and analysis of the factors affecting the stages of the business venture process: inception of the entrepreneurial venture; company startup; and early development of the firm.

In this schema, the first stage comprises the initial entrepreneurial motivation, where the business idea is identified and the business plan developed. Thereafter, startup involves the final decision to create the enterprise. While the entrepreneur's actions begin in the preceding stage, during startup, resources must be gathered and organized, and tangible and intangible assets placed at risk. Then, during the early development of the enterprise, the entrepreneur must address the often turbulent challenges of management during the first years, when the venture as well as the entrepreneur's management capacity will be put to the test in the market.

The aim of this chapter is to establish the conceptual and methodological framework on which the study is based. It briefly reviews the major approaches to entrepreneurship and discusses the conceptual perspective of the study, the characteristics of the countries in which it is carried out, and the methodological definitions adopted.

APPROACHES TO ENTERPRISE CREATION

The study of entrepreneurs and new enterprises has given rise to a vast literature reflecting various disciplines. According to Fayole and Bruyat (2002), economists have tended to approach the topic from a functional view of the phenomenon focused on the entrepreneur's role (the "what"), the social sciences have tended to emphasize personal aspects (the "who" and "why"), and management and organizational studies have concentrated on process (the "how"). This chapter reviews a number of these approaches with a view to facilitating understanding of the approach adopted in this study.

A pioneering approach in the field of studies on entrepreneurship has concentrated on studying who an entrepreneur is or the personality traits of the entrepreneur (trait approach). In accordance with this approach, entrepreneurs are characterized fundamentally by their need to achieve (McClelland 1961), but the list of characteristics also includes their desire for independence, capacity to tolerate ambiguity and risk, perseverance, and self-confidence. Other authors single out entrepreneurs for their capacity to learn (Gilder 1984), which enables them, despite failures and frustrations, to achieve success by breaking away from old patterns of behavior and creating their own new order. This definition is clearly influenced by Schumpeter (1934) and his vision of the entrepreneur's innovative role. For his part, Baumol (1997) finds that the most common sort of entrepreneur is the imitative entrepreneur, one who capitalizes on a business opportunity identified by another person. Other authors, including Brockhaus (1980), associate entrepreneurial activity with enterprise ownership and risk-taking. Jennings (1993) adopts a more operational definition according to which the entrepreneur is the person who founds an enterprise. This definition is the most widespread, in particular owing to its pragmatism and ease of use.

The trait approach to the attributes of the entrepreneur has been called into question by those who find that these characteristics are present not only in entrepre-

neurs, but also in other social actors (athletes and politicians, for example). Consequently, they argue that the identification of entrepreneurs is not in and of itself an approach conducive to making progress in the analytical sphere, and that there is a need to redefine the focus of study (Gartner 1988). Instead of answering who an entrepreneur is, attention is shifted toward the enterprise creation process, which has come to be regarded as a complex phenomenon in which social, cultural, and economic factors interact (Shapero 1984; Gibb and Ritchie 1982; Buame 1992).

Along these lines, Shapero conceptualizes the "entrepreneurial event" and explains it based on four conditions. The first emphasizes the presence of "displacement factors," namely those factors that cause a person to break with his or her previous life path and lean toward an entrepreneurial career. Such factors may be positive (identification of an opportunity, desire to achieve, etc.) or negative (for example, emerging from unemployment, the need to emigrate to another country, or the sense of frustration with current employment). The other conditions are the entrepreneur's propensity to act, the credibility of the venture, and resource availability. Other authors have added information as a critical factor.

Gibb and Ritchie (1982) classify the stages of a firm's creation process as follows: identification of an idea, its validation, access to resources, negotiation, birth, and survival. According to these authors, successful venturing depends on four key factors: the business idea, the availability and obtaining of resources, the abilities of the entrepreneur, and his or her level of motivation and commitment.

One approach of growing importance is focused on the role of networks in the entrepreneurial process (Johannisson 1998). From this perspective, the entrepreneur's interaction with the other parties involved (family and friends, other entrepreneurs, and institutions in the business environment) constitutes a crucial aspect of the process of enterprise creation that merits special study.

Conventional economic wisdom regards the firm as a "black box" that is mechanistically controlled by a perfectly rational "automatic pilot" that responds to price signals. Studies in industrial dynamics have shown interest in the phenomena of market entry and exit by enterprises, assigning a central role to factors such as the expected benefits from an activity and the existence of entry barriers (Geroski 1991), but these are not considered factors that influence the supply of entrepreneurs. This is equivalent to assuming that, provided that attractive business opportunities exist—in terms of profitability and barriers to entry—there will be a lineup of entrepreneurs prepared to take advantage of them.

From another perspective, inside the economy, the Rees and Shah (1986) model predicts that individuals choose the sector in which they will work by balancing factors such as the expected income from one type of employment or another and the nature of work in each sector. Rees and Shah (1986) and Evans and Jovanovic (1989) identify variables that explain why certain individuals embark on a new venture and the various factors taken into account in the decision-making process.[1] In the area of technology-based enterprises, the entrepreneurial model posits that within consolidated firms, there are individuals who have ideas for new products/businesses that their organizations do not value as highly as they do. Given uncertainty and asymmetrical information, these individuals may choose to assume the risk and begin their own firms because they believe that the market will respond favorably and they value their idea more than the firm that employs them (Audretsch 1997; Audretsch and Thurik 2001).[2]

The transaction costs approach suggests that the use of market mechanisms has associated costs (Coase 1937), among which are contact costs (search for information and counterparts), costs of signing and administering contracts, and costs of monitoring their fulfillment. The limited rationality of economic actors and the existence of specialized activities—which are

[1] Variables associated with human capital, such as education and work experience, contribute to an increase in the expected income from imitative or innovative activities; personal assets and demographic factors (age and marital status) have an impact on the attitudes of individuals toward confronting risk.

[2] Markets where innovation follows a venture type model place a higher value on the entrepreneurial option (Audretsch 1995). These cases are characterized by the existence of conditions of low ability to appropriate the benefits associated with innovation, low entry barriers, and reduced accumulation of knowledge in existing firms (Burachik 1999).

not easily shifted between transactions—means that enterprises must evaluate the alternative costs of, for example, carrying out an activity internally (under the direction of their management) or procuring or outsourcing it so that another firm does so (Williamson 1975). This approach helps explain the problems faced by new enterprises once they are launched on the market. From this perspective, new and small enterprises pay transaction costs that are proportionately higher than those of larger and established firms as a consequence of their smaller scale and lesser management capacity (Nooteboom 1993). These factors are accentuated in the presence of market imperfections that boost the costs of seeking and accessing information, as well as those of negotiating, signing, and administering contracts (for example, registration, buying and selling transactions, and contracting labor).

The studies referred to above lead to the conclusion that understanding entrepreneurship requires the adoption of broad and interdisciplinary approaches. In recent years, various efforts have been made to develop a framework that articulates the various factors and perspectives that promote understanding of the entrepreneurial process. The Global Entrepreneurship Monitor (GEM) has defined a conceptual framework that articulates the various factors that have an impact on the entrepreneurial process in order to explain its impact on economic growth. GEM classifies them into two major groups: national contextual factors—which affect entrepreneurial opportunity—and conditions relating to the social, cultural, and political context. Both affect entrepreneurial activity and capacity, which, in conjunction with entrepreneurial opportunity, define business dynamics and ultimately contribute to economic growth (GEM 1999).

Another important advance gave rise to the eclectic approach (Verheul and others 2001), which considers the factors relating both to the demand for and supply of entrepreneurs, which determine enterprise entry and exit rates. On the demand side, it includes factors that have an impact on the existence of entrepreneurial opportunity in a country, for example the degree of economic and technological development, industrial structure, diversity of demand, and the influence of globalization over these factors. The supply of entrepreneurs is affected by factors associated with the demographic structure of the population (for example, age structure, population growth, and population density), income levels, income distribution, and unemployment, that is, factors that directly or indirectly affect the skills, attitudes, preferences, and resources available for entrepreneurship.

THE ENTREPRENEURIAL DEVELOPMENT SYSTEM

The approach adopted in this study is among the contemporary efforts to advance toward more comprehensive conceptual frameworks. It is based on a review of the specialized literature and on qualitative interviews with entrepreneurs and key informants carried out in various countries participating in the project during an earlier phase of the study (Kantis, Ishida, and Komori 2002). While the literature review made it possible to include a broader list of factors, the preparatory phase allowed for the prioritization of those that, in light of the interviews, may be of greater importance for understanding the differences in the process of creating dynamic enterprises in the regions under analysis.[3]

The study adopted a systematic approach focused on analyzing the entrepreneurial process in three stages of events whose output is the creation of entrepreneurs and enterprises.[4] These stages are the inception of the entrepreneurial venture, the startup of the enterprise, and its early development.[5] The first stage begins with motivation of the entrepreneur and includes the formation of entrepreneurial skills, identification of the business idea, and

[3] Approximately 50 entrepreneurs and 80 key informants were interviewed.

[4] The systematic approach to the entrepreneurial process bears some methodological similarity to the theory of innovation systems. However, despite some overlapping of themes, the aim of study is different. The output or result of the system in one case is the birth of entrepreneurs and enterprises, while in the other the focus of attention is the innovative activity. Another adaptation of the concept of a national innovation system may be found in Lall (2002), who defines the national industrial apprenticeship system as one in which the components interact systematically, influencing the development of the capacities of existing enterprises. This includes the incentives structure (trade, industrial, and technology policies; the macroeconomic context; and the regulatory system), factor markets, and institutional support system for enterprises.

[5] Strictly speaking, the entrepreneurial process does not necessarily follow a linear sequence; rather, it is a process involving advances and setbacks throughout. The presentation followed in this study endeavors to simplify the explanation.

development of the project. In the launch of the enterprise, preparation of the project gives way to the entrepreneurial decision and the central aim of activities is focused on accessing and organizing resources. The first years of life are critical to the survival of an enterprise because in this stage of entering the market, the entrepreneur and his or her associates must bring the project face to face with reality. A great many entrepreneurial activities fail to survive this phase (Storey 1994).[6]

For each of these phases and events, key questions have been identified as regards the principal factors affecting each stage. These were defined during the preparatory phase of the study (see Box 1.1).

In the investigation of these questions, the approach adopted takes particular account of a group of factors that, from a systematic perspective, influence the entrepreneurial process and lead to the concept of an entrepreneurial development system.[7] Such a system is defined in this study as the combination of elements and factors that have an impact on the entrepreneurial process, contributing to or posing obstacles to the creation and development of entrepreneurs and enterprises in both quantitative and qualitative terms. These factors may, in simplified form, be grouped in the categories described in the following.

Social and Economic Conditions

Social and economic conditions have an impact on the profile of the households from which potential entrepreneurs emerge. In societies where there is a high degree of social fragmentation, for example, it is to be expected that a sizable share of the population will have difficulties accessing education or basic incomes that allow for saving for entrepreneurial ventures. In contrast, in more interconnected societies there are more frequently channels of communication between persons from different social sectors. These enhance interaction, learning, and the flow of information relevant to entrepreneurial activity. Income levels also affect entrepreneurship. A high per capita income has a positive impact on the volume and diversity of the demand for goods and services, broadening the scope of opportunities for the emergence of new enterprises based on knowledge and differentiation of supply (GEM 1999).

Furthermore, macroeconomic conditions such as the behavior of demand or the degree of economic stability have an impact on the context in which entrepreneurs identify opportunities and decide whether to proceed. Stability and economic growth have a positive effect on the expectations of individuals who see themselves as being in a position to decide whether to create the enterprise they have been planning.[8]

Culture

Culture is the set of standards and values of a society. Various cultural aspects, such as the social value ascribed to the entrepreneur, attitudes toward the risk of failure, and the presence of exemplary entrepreneurial models, are cultural factors that have an impact on the formation of the entrepreneurial spirit (Wennekers and Thurik 2001; McGrath, McMillan, and Scheimberg 1992). In societies that have a culture favorable to entrepreneurship, it is more feasible for persons who wish to be entrepreneurs to gain social recognition, to be independent, or to follow in the steps of other entrepreneurs they admire (role models). The family, educational system, enterprises in which they worked previously, and communications media define contexts that are particularly influential on the culture and have

[6] The evidence available on the industrial sector in Argentina until the mid-1990s (Kantis 2003) and in Chile for the early 1990s (Crespi 2003) indicates that by the fifth year following enterprise creation only about half had managed to survive, which coincides with the high infant mortality rate of enterprises observed internationally.

[7] According to Ackoff (1961), systems are composed of interacting parts, inputs and outputs, and arbitrary limits (Simon 1962), depending on the focus of interest. Beyond a certain point, the components and their structure begin to be regarded as a black box allowing for understanding of the transformations of inputs into outputs but not of their internal structure (Ashby 1956).

[8] This is not the same as maintaining that greater growth is automatically reflected in a larger number of enterprises. Efforts to tie economic growth to enterprise creation have increased in recent years. There is empirical evidence of both the procyclical and countercyclical nature of the enterprise creation dynamic. Beyond the debate on these issues, in Argentina, for example, the growth of GDP during the 1990s was not reflected in a direct and linear increase in the rate of enterprise creation, demonstrating the limitations of the entrepreneurial process in that country (Kantis 2003).

Box 1.1
Stages in the Entrepreneurial Process and Questions Explored by the Study

Stage 1. Inception of the Entrepreneurial Venture

- Acquiring the motivation and skills needed to become an entrepreneur. What are the motivating factors that first lead a person to think about becoming an entrepreneur? How does the entrepreneur's immediate social context influence the motivational process? Where does an individual find the motivation and skills needed to become an entrepreneur?
- Identification of the business opportunity for the new enterprise. What are the principal sources of business opportunities? How do entrepreneurs find and identify these opportunities?
- Business planning. During the preparatory phase before launching the business, what information and planning tools do entrepreneurs use?

Stage 2. Company Startup

- The final decision to begin entrepreneurial activity. How do entrepreneurs make the final decision to start a business?
- Access and mobilization of the resources needed to begin. How do entrepreneurs access and mobilize the financial and nonfinancial resources needed to launch a business?

Stage 3. Early Development of the Firm

- Introduction to market of goods and services. What factors influence market entry?
- Management of the enterprise in the early years. What are the main problems that entrepreneurs confront during this phase? How do they finance their operation and growth? How do they confront these problems?

Source: Kantis, Ishida, and Komori (2002).

an impact on forming the motivation to engage in entrepreneurship.

Productive Structure and Dynamism

The sector and regional profile as well as the size of the existing enterprises and institutions, that is, the productive structure, affect the type of work and professional experience that individuals can obtain prior to becoming entrepreneurs. As a consequence, these factors can contribute to varying degrees to the development of entrepreneurial skills in the workforce and in the formation of networks of relationships. Small and medium-size enterprises, for example, are usually regarded as good seedbeds for entrepreneurs because, in such firms, individuals obtain a broader understanding of the entrepreneurial function than they do in large corporations (Mason 1998). In addition, the dynamism of the various sectors or markets and the magnitude of entry barriers influence the profile of the opportunities to start new enterprises and, consequently, the nature of the firms created (Audretsch 1997).

Personal Aspects

This category refers to the socio-demographic profile of the entrepreneur and entrepreneurial skills (such as propensity to assume risk, tolerance for hard work, managerial capacities, and creativity). By definition, entrepreneurial skills have an impact on the various aspects of the entrepreneurial process and, as indicated, are influenced by the family, educational, and work environments. The more reductionist approaches to

the entrepreneurial phenomenon tend to focus exclusively on this factor.

The Entrepreneur's Networks

The existence of social networks (friends and family), institutional networks (business associations, institutions of higher learning, and development agencies), and commercial networks (suppliers and customers) may drive the entrepreneurial process, for example, by facilitating access to the resources necessary to engage in entrepreneurial activity, providing support for problem solving, and furnishing information about opportunities. The importance of this factor for entrepreneurial development is recognized in studies that stress its role in the entrepreneurial process (Johannisson and Monsted 1997).[9] Networks may be analyzed from a dual perspective, structural and procedural. In the first case, the degree of development of networks and their profiles are influenced by the existence of diverse socioeconomic environments. A highly inequitable social structure, for example, erodes trust and communication between various population groups, thereby limiting social capital. However, the development of networks is also an entrepreneurial construct that can vary their impact on the enterprise creation process—in a given context—in light of the efforts and skills of entrepreneurs themselves in "knitting relations." This is not to disregard the fact that, in reality, entrepreneurs' propensity and skill in knitting networks may be affected by their training or by the sociocultural microclimate in which they are operating.

Factor Markets

The functioning of factor markets influences the access to financial resources, the supply of skilled labor or professional services (accountants, consultants, etc.), and suppliers of inputs and equipment. These factors have an impact during the stage of launching the enterprise and its early development. Regarding activities oriented toward gaining access to the resources needed to set up the enterprise and finance activities during its initial years, it is important to know the degree of utilization of distinct sources of financing and its implications for the nascent firm; such sources include bank loans, venture capital, and public support (bootstrapping) (Mason 1998).

Regulations and Policies

This category includes the set of rules and policies that have an impact on enterprise creation (taxes, procedural requirements for formally establishing a new firm, and initiatives and programs to develop entrepreneurship) and affect, for example, business opportunities and access to them, the acquisition of vocations and skills, and entry into the market. Where there is adequate support for entrepreneurs and persons who wish to expand their enterprises, entrepreneurship flourishes (Birch 1979). Interest in the study of the policies and institutions that promote entrepreneurship has grown significantly in recent years, as has the number of countries implementing initiatives to stimulate enterprise creation (Lundström and Stevenson 2002; Urbano, Vaillant, and Veciana 2002). Part 2 of this publication is devoted to detailed presentations of various international experiences.

In summary, the systematic approach adopted in this study examines various types of factors that contribute to an understanding of the complex and contextual nature of the entrepreneurial process and have an impact on forming the motivation and skills to engage in entrepreneurial activities, the identification of business operations, project preparation, the decision to proceed, access to resources, and management of the development of the enterprise (see Figure 1.1).

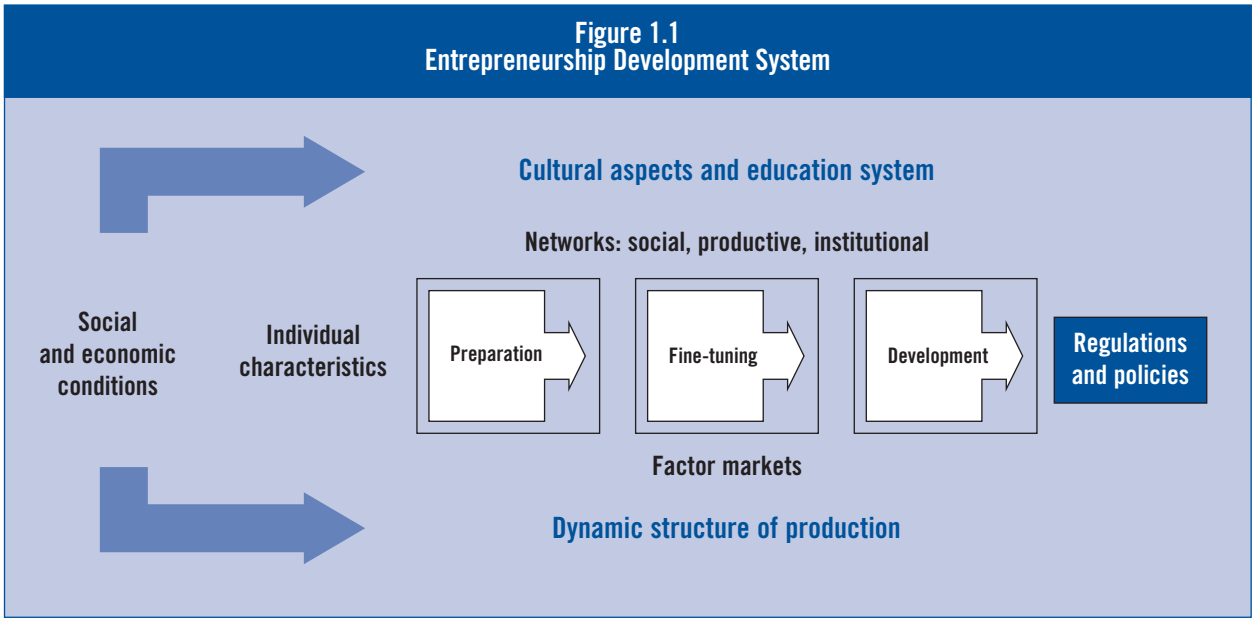
The next section presents some of the characteristics of the regions included in the study, which provide evidence of the contrasts between them, lending weight to the hypothesis that there are a variety of conditions in which businesses are created and developed.

CONTEXTUAL NATURE OF THE ENTREPRENEURIAL PROCESS

The following countries were included in the study: Argentina, Brazil, Chile, Costa Rica, El Salvador, Mexico, and Peru in Latin America; Japan, Singapore,

[9] Other authors have highlighted the role of networks in the area of industrial economics and innovation (Hakanson and Snehota 1990; Lundvall 1992) and, more recently, have analyzed its implications for industrial development (Lall 2002).

Figure 1.1
Entrepreneurship Development System



South Korea, and Taiwan in East Asia; and Italy and Spain in southern Europe. There are some differences of interests between countries that should be highlighted at the outset and returned to later when the results of the study are interpreted.

Although the available secondary information may not make it possible to report exhaustively on the various factors affecting the entrepreneurial development process, it does reflect significant differences between the various countries. The commentaries on these differences are not intended to provide a deterministic view of entrepreneurial activity or to assess with precision the impact of each factor on entrepreneurship. The aim is to identify and highlight various contrasts in structural conditions that must not be disregarded when interpreting the results of the study. Some examples are presented below.

Output per capita in the Latin American countries ranges between US$4,000 and $10,000 per year; for the East Asian countries, Italy, and Spain, it ranges between $17,000 and $28,000 (CIA 2002). In addition, income distribution patterns are extremely disparate. The gap between the richest 20 percent and the poorest 20 percent of the population is much wider in Latin America (the factor is more than 10 in Latin America compared with less than 6 in the other cases). These figures reflect extremely dissimilar socioeconomic conditions that may have an impact on the level and profile of demand (and on the scope for business opportunities) as well as on the supply of entrepreneurs (for example, by limiting the proportion of individuals with the ability to access information or to accrue savings that can be applied to entrepreneurship). Accordingly, it is likely that these conditions affect the profile of entrepreneurs because the relative presence of those engaged in entrepreneurship owing to the lack of work options is greater in the Latin American countries (GEM 2002).

The differences are no smaller in the area of education. The tertiary gross enrollment ratio of the Latin American countries is below 25 percent, except in the cases of Chile (38 percent) and Argentina (48 percent). The Asian and European countries tend to have higher ratios (UNESCO 2002). The lowest ratio in this group of countries is that of Japan (48 percent), and is equivalent to the highest ratio in Latin America. At the other extreme, South Korea has a gross enrollment ratio of 78 percent.[10] These percentages are of particular importance considering that a substantial proportion of growth-oriented businesses are founded by entrepreneurs with university education (see Chapter 2, this volume, and GEM 2002). The lower coverage of the population by the universi-

[10] Spain and Italy are situated between 50 and 60 percent, and Japan at 49 percent. Data are not available for Taiwan and Singapore.

ty system in Latin America explains the narrower segment of entrepreneurs with this profile.[11]

In the complex field of culture, a study on values conducted in 40 countries—based on surveys of 116,000 workers in affiliates of a multinational enterprise—provides information on the differences between regions (Hofstede 1980).[12] The dimensions studied include, for example, attitude toward risk, a factor inherent to entrepreneurial conduct, and individualism, understood as the capacity to exercise initiative and pursue personal achievement. Both dimensions are high in countries where entrepreneurial spirit is strong. By contrast, the Latin American countries share, with some of the other countries or regions, characteristics that are deemed unfavorable to entrepreneurial spirit.[13]

Another relevant structural difference relates to the productive profiles of each country, the degree of technological development and competitiveness. The initial evidence results from a comparison of per capita exports (CIA 2002). Sales abroad by the Asian countries, Italy, and Spain are considerably greater than those of Latin America (over $3,000 compared with less than $1,500, respectively). In Asia, the technical content of exports is significant (World Bank 2002); in Italy, design is significant. In terms of technological achievement, the Asian countries rank in the top five and those in southern Europe are close to 20th place, while the Latin American countries are all lower than 30th place (UNDP 2001). These figures are consistent with the ratio of personnel in research and development to the total population. The East Asian countries have more than 2,000 scientists and engineers working in research and development per one million inhabitants, while those in Latin America have less than half this amount and Italy and Spain fall in between (World Bank 2002). In Latin America, Argentina (711) and Costa Rica (533) are the only countries with more than 500 researchers per one million inhabitants.[14] In addition, various studies highlight the distinctly different functioning of the innovation systems in Latin America and the countries of East Asia (Alcorta and Peres 1998; Lall 1999).

Furthermore, the Asian countries and some regions in Italy and Spain are recognized for the international competitiveness of their small and medium enterprises, as well as for the strong involvement of such firms in complex systems linking them together with major firms (Guerrieri, Iammarino, and Pietrobelli 2001; Coriat 1992; Pyke and Sengenberger 1991). By contrast, the fragmentation of the productive sector is a structural characteristic of Latin America, with major gaps in productivity between large firms and small and medium-size ones (Peres and Stumpo 2000). Latin American countries have tended to specialize in natural resource-intensive goods and scale-intensive industrial commodities (Mortimore 1995).

These differences are not without effect on entrepreneurial development, as they have an impact on the type of business generated, the nature of the skill sets forged by the workforce, and the nature (for example, the structure and behavior) of entrepreneurial networks.

In the financing area, the startup index developed by Andrew Warner to measure the ease of enterprise creation (Hosono 2002) shows that, in the Latin American countries, the conditions for access to financing (venture capital and loan availability) are less advantageous than they are in Asian countries. Although the highest score goes to the United States, at 2.02, Taiwan and Singapore also have high indicators (1.04 and 1.31, respectively). South Korea, Italy, Japan, and Spain have less favorable rankings, but their figures are still higher than those of the majority of Latin American countries.[15]

[11] Moreover, according to data from the OECD (2003), the share of the population between 25 and 35 years of age that had completed at least secondary school was 94 percent in Japan, 95 percent in South Korea, 57 percent in Italy, 57 percent in Spain, 58 percent in Chile, 56 percent in Peru, 51 percent in Argentina, 31 percent in Brazil, and 25 percent in Mexico.

[12] This study lasted six years, and although relevant cultural changes have been observed since, it is still an indispensable reference when dealing with these questions and continues to be used by researchers on entrepreneurship as relevant background information (McGrath, McMillan, and Scheinberg 1992).

[13] Along with Spain, they share low levels of acceptance of risk, and along with the countries of Asia, they have reduced levels of individualism.

[14] Brazil has 168, Mexico 213, Peru 229, Chile 370, El Salvador 19, Italy 1,322, Spain 1,562, Singapore 2,182, South Korea 2,139, and Japan 4,960.

[15] The index is based on the availability of venture capital and the possibility of a loan against little collateral.

When an enterprise is registered, entrepreneurs in the various regions, and even within each region, encounter distinctly differing conditions. When the time required and the costs associated with formalizing a new enterprise are considered jointly, El Salvador, Peru, Costa Rica, Mexico, and Spain have the least favorable conditions, while the other extreme is represented by Singapore, followed by Chile, Japan, and Taiwan;[16] Italy and South Korea feature relatively short time lags but high costs, while Argentina has low costs but lengthy time requirements.

In sum, without disregarding the differences noted between the countries in each region, the comments above reflect structural conditions in Latin America that are relatively less favorable to entrepreneurial activity and the development of a business.

METHODOLOGICAL ASPECTS[17]

Selection Criteria for Enterprises

This study focuses specifically on new, dynamic ventures. Strictly speaking, the universe of entrepreneurial initiatives spans a broad spectrum, ranging from those supporting a certain lifestyle or simply meeting the subsistence needs of the entrepreneur, to those targeting high value-added capacity and growth potential. Various studies show that the last category contributes the most to job creation and economic modernization, which is why this study has focused on this type of enterprise (Bridge, O'Neill, and Cromie 1998; Storey 1994). In addition, according to the Global Entrepreneurship Monitor (GEM 2002), creation of growth-oriented businesses is the outgrowth of processes that may have a low correlation with the mechanisms involved in efforts to engage in entrepreneurship on a massive scale. Accordingly, more targeted efforts are required to understand their distinctive traits.

A young business is defined as a firm between 3 and 10 years old.[18] This threshold period is intended to permit the inclusion of ventures that have survived the critical period of early development. The 10-year ceiling serves a dual purpose: first, it ensures that the focus is on ventures whose dynamism has been relatively well established; second, it minimizes the possibility that the founder might not always remember factors that are important to the researcher.

A dynamic enterprise is defined as one that has grown to a size of at least 15 and no more than 300 employees at the time of the study.[19] The control group, that is, the group of less dynamic enterprises, is made up of new enterprises with a maximum of 10 employees.[20] In each country, the dynamic enterprises account for about 70 percent of the enterprises in the panel. The study does not cover the sizable group of informal microenterprises, which represent a significant proportion of Latin American firms.

In order to capture the contextual nature of the entrepreneurial process, the same methodology was applied in the various countries, and territorial areas and sectors with distinct profiles were included. By gaining access to

[16] To classify countries by the ease of registering an enterprise, we used World Bank information on times and associated costs (percentage of per capita GDP). One condition that is considered particularly unfavorable is that of countries where processing takes more than 50 days and the cost exceeds 15 percent of per capita GDP (World Bank 2002). The results were: El Salvador, 115 days and 130 percent; Peru, 100 days and 25 percent; Costa Rica, 80 days and 21 percent; Mexico, 51 days and 19 percent; Spain, 115 days and 19 percent; Brazil, 152 days and 11 percent; Argentina, 68 days and 8 percent; Italy, 23 days and 24 percent; South Korea, 33 days and 18 percent; Japan, 31 days and 10 percent; Chile, 28 days and 12 percent; Taiwan, 48 days and 6 percent; and Singapore, 8 days and 1 percent.

[17] For further details on the methodology, see the Annex in Kantis, Ishida, and Komori (2002).

[18] The study gave special treatment to new Internet ventures in order to be able to include this type of venture, which is a recent phenomenon. It included enterprises in this sector with a minimum age of one year. However, the number of ventures in this group was low in all countries. In South Korea, for example, the country with the highest share of Internet enterprises studied, they accounted for only 8.5 percent of the total.

[19] In the case of El Salvador, the criterion was made more flexible: it was reduced to 12 employees for the size of a dynamic enterprise and to 6 for the control group (the ceiling for the definition of a microenterprise). In any event, the majority of the enterprises included respected the general criterion adopted for the other countries.

[20] Once the data were gathered, the validity of the dynamism criterion initially adopted (based on the number of employees attained) was verified. Both groups were of similar initial sizes, but while the dynamic enterprises expanded significantly in terms of both employees and sales, those in the control group stagnated or experienced declining sales.

information on the entrepreneurial process in such diverse contexts, captured using the same methodology, it was possible to identify both the common aspects of enterprise creation and development and those that were specific to each environment.

Enterprises from two types of sectors (conventional and knowledge-based) and two types of localities (metropolitan areas and local areas with a strong presence of small and medium-size enterprises) were included. The conventional sector includes manufacturing firms (for example, foodstuffs, furniture, clothing, and metalwork). The knowledge-based activities associated with the new communications and information technologies include software firms as well as Internet-related services, remote voice and data communications, and other branches of applied electronics.[21]

The local environments were defined as those where there is industrial concentration within a territorially delimited area that facilitates informal interaction among entrepreneurs. Although the population size of these cities differs across the countries under study, they frequently included enterprises located in sector clusters and industrial parks with a high concentration of small and medium-size enterprises outside metropolitan areas.[22]

Data Gathering and Analysis

The study was based on information obtained through surveys administered to approximately 2,000 founders of young businesses.[23] Firms were selected at random from enterprise directories and other available information sources, following the previously defined company profile criteria. In Latin America, where there tend not to be registries of businesses that list the date of founding, an important effort had to be undertaken to create specialized directories of new firms based on information from such sources as municipalities, business chambers, support institutions, universities, foundations, and previous studies.

As the basis for fieldwork, a common questionnaire was designed and used for all the countries. It was completed during personal interviews, except in Japan, where the questionnaires were delivered by regular mail. Fieldwork was conducted in two stages of the project. Between November 2000 and February 2001, it was carried out in the four East Asian countries as well as Argentina, Brazil, Costa Rica, Mexico, and Peru. Analysis of the information gathered led to an initial publication by the Inter-American Development Bank on entrepreneurship in emerging economies (Kantis, Ishida, and Komori 2002).[24]

In view of the interest shown in the results of the study, it was decided to expand it in a second phase in order to include four new countries and have a broader internationally comparative platform, which will make it possible to perform more in-depth analysis.[25] To this end, additional studies were carried out in Latin American countries: one in the Southern Cone, Chile, and another in Central America. In Europe, Italy and Spain were included owing to their importance for the region from the historical and cultural standpoint.

For consistency, rigorous quality control measures were implemented in accordance with common guidelines in all countries. For example, there was telephone follow-up to ensure that the surveys had been completed by the entrepreneurs themselves. Inconsistencies or ambiguous responses were rejected when it was not

[21] The study limited to 65 percent the maximum percentage for the inclusion of knowledge-based enterprises, and used 35 percent as the minimum to facilitate the comparability of results between regions. According to previously available information, the Asian panel would have had an absolute predominance of knowledge-based enterprises while the opposite would have occurred in Latin America. In fact, the Latin American panel did not manage to meet the 35 percent threshold adopted, while for the Asian countries it was exceeded in half the cases.

[22] The composition of the local and metropolitan areas included in the study is presented in Chapter 5.

[23] In Singapore, Costa Rica, and El Salvador, the number of enterprises surveyed was lower (approximately 50 in the first two cases and 100 in the last). This was because of difficulties in identifying enterprises that met the size criterion sought. These countries were analyzed particularly cautiously given the smaller number of firms surveyed.

[24] As part of this stage of the project, reports were prepared on the entrepreneurial process in Brazil (Bacic and others 2001); Mexico (Ruiz Durán and others 2001); Peru (Villarán 2003); Costa Rica (Leiva Bonilla 2001); Argentina (Kantis 2003); Japan (Ishida and Komori 2001); Taiwan (Ko 2001); South Korea (Baek 2001); and Singapore (Chong and others 2001).

[25] At this stage, some changes were made in the formula in order to facilitate the fieldwork, but these had no effect on the comparability of the results.

possible to resolve or clarify them. For a questionnaire to be deemed to be used in the study, 90 percent of the answers had to be valid.

The procedures applied for gathering information and the quantitative techniques used adhered to rigorous methodological criteria. This said, it is necessary to explain some limitations of the study that were duly taken into account in the interpretation of results.

While the definitions adopted for the selection of enterprises were the same, the sources of information used to identify the firms where interviews would take place varied somewhat across countries. In the countries in East Asia and southern Europe, enterprises were generally selected on the basis of national business directories. In Taiwan, participants in business seminars were also included. The Latin American countries lacked such directories and information on new enterprises. Therefore, the data were gathered on the basis of various sources that made it impossible to estimate the degree of statistical representativeness with precision. In any event, the sources consulted were quite extensive, with a view to limiting biases.

The identification of the distinctive characteristics of the dynamic entrepreneurial activities was based on comparison with the least dynamic firms, but did not include cases of enterprises that were never launched on the market or those that had ceased activity. Therefore, the investigation contributes to understanding why, out of the total number of nascent enterprises, only some expanded significantly, but it does not explain the specific reasons why some entrepreneurial ventures were never carried out or have ceased to exist. It was not possible to learn, for example, the extent to which the lack of financing prompted some entrepreneurs to abandon their projects before they began operations.

The sources of opportunities on which the enterprise was based were identified by inquiring about the characteristics of the enterprise's first customers. This means assuming that the opportunities perceived by the entrepreneur at the outset and those effectively taking shape were the same. ■

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CHAPTER 2

DYNAMIC ENTERPRISES IN LATIN AMERICA

Hugo Kantis

The aim of this chapter is to present the main characteristics of new dynamic enterprises in Latin America. The study reveals the existence of a new generation of enterprises whose main features distinguish them from both less dynamic enterprises and traditional small and medium enterprises (SMEs).

Comparing the processes that led to the creation of the new enterprises presents a set of regularities as well as major differences between countries. The analysis is based on information from approximately 1,000 entrepreneurs in Argentina, Brazil, Chile, Costa Rica, El Salvador, Mexico, and Peru.

The chapter's profile of enterprises and entrepreneurs is comprised of two sections. The first describes some basic features of dynamic enterprises and entrepreneurs. Observations are made on the main features of the sample panel studied, considering variations such as the size and commercial orientation of the enterprises, the beginning and subsequent stages of the entrepreneurial process, and the background of the entrepreneurs.

Attention then shifts to examining the main differences found by comparing dynamic with less dynamic enterprises with a view to identifying the specific factors present in the entrepreneurial process that foster businesses that succeed in growing. The aim is to shed light on aspects that should be taken into account when devising policies to encourage the emergence of dynamic entrepreneurs and enterprises. The role of entrepreneur-forming environments (family, education system, and previous work) is explored along with the profile of entrepreneurial projects, the importance of networking, the composition of financing, and the conditions under which entrepreneurs decide to start a business. Finally, the chapter explores the conclusions of the analysis and their implications.

ENTREPRENEURS AND DYNAMIC ENTERPRISES IN LATIN AMERICA

Profile of the Enterprises

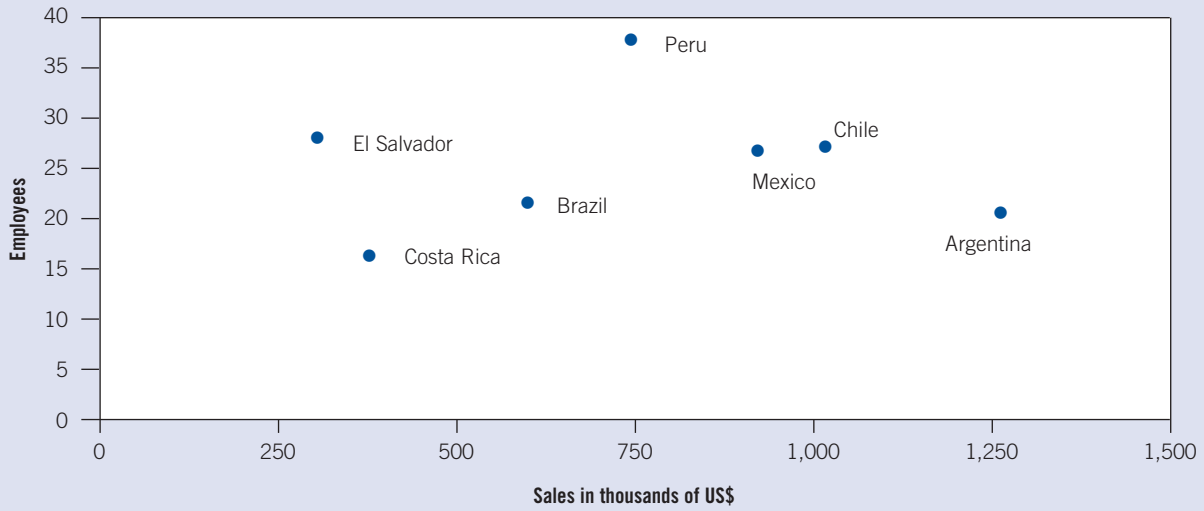
The enterprises studied quickly swelled the ranks of the SME sector. In their third year in business, they employed an average of 26 workers, and annual sales were around $800,000. On average the enterprises bill slightly more than $30,000 per employee (Figure 2.1).

The enterprises have been in operation an average of six years and employ some 40 workers (not counting the entrepreneurs). But they were growing even faster just a few years ago, before economic conditions began to deteriorate in most countries in the region. Both employment and annual sales had reached levels between 20 and 25 percent greater than those recorded at the time of the survey.[1]

Initial investments of the enterprises surveyed tended to be small. In most cases creating an enterprise required investing less than $100,000 during the first year. On average, only one in five exceeded that amount. Entrepreneurs in Mexico began with the smallest investments, with only one in ten companies investing more than $100,000. The situation was quite different in Argentina (one in three).

[1] Losses in Costa Rican enterprises, however, were much lower, at only around 5 percent of the high point achieved.

Figure 2.1
Sales and Employees in Dynamic Enterprises, by Country
(Average in third year)



Most of the enterprises chosen are located in metropolitan areas (approximately three in four).[2] The exception is Mexico, where more than half of the enterprises operate in the interior of the country in areas characterized by entrepreneurial vigor. The enterprises are generally devoted to the production and sale of traditional manufactures (food, furniture, clothing, metallurgy, and metal working). Firms in knowledge-based sectors represent about one-third of the total, and are concentrated in producing software and, to a lesser extent, Internet and telecommunications-related services.[3]

The domestic market constitutes the main source of new businesses. A larger group of enterprises utilized the export option only in countries with smaller economies (Costa Rica, El Salvador, and Peru). The rate of exports against sales in the third year of life was 4 percent for the region compared with 12 percent in Costa Rica, 9 percent in Peru, and 8 percent in El Salvador. In the smaller countries, foreign sales benefited from entrepreneurs' ties with people of their own nationality living outside the country. Emigration by Salvadorans in recent decades helps explain this situation (Umaña 2003).

Trade differentiation was the main source of opportunities for starting dynamic enterprises (Table 2.1). The new enterprises helped enrich the productive structures of the region. A little more than half of the enterprises based their project on offering differentiated products or services. Less common was the case of those who took advantage of opportunities for price competition or who introduced innovations. In the latter case, these developments largely aimed at satisfying specific needs of local customers. Internationally innovative products do not average even 10 percent of the total. The low presence of innovative enterprises may be associated with the degree of sophistication of demand of the companies, the families related to the sector, the technology profile of productive structures and the level and distribution of income. It may also reflect the ineffectiveness of innovation systems.

However, whereas Mexican enterprises offered lower prices than their competitors to enter the market, companies in Chile and Argentina tended to exploit commercial differentiation more intensely. Firms in Argentina stood out from the average for their innovative profile, perhaps because Argentina has higher gross rates of

[2] In the absence of statistics on new firm creation in most countries, each country consultant defined the regional composition of the panel based on the best available evidence. It is interesting to note that in almost all countries the task of identifying enterprises with at least 15 people working in the local areas selected was difficult except in Mexico. Even so, the resulting composition reflects only the characteristics of the panel. Hence, these findings cannot be projected onto the whole universe of new enterprises.

[3] Chapter 4 analyzes factors that distinguish the more dynamic firms in the various industries.

Table 2.1
Business Proposals for Dynamic Enterprises
(Percentage of enterprises)

Focus of proposal	Argentina	Brazil	Mexico	Chile	Peru	Costa Rica	El Salvador
Differentiation	59	56	43	65	57	54	52
Price advantage	27	27	53	30	37	32	32
Innovation at national level	40	27	19	28	21	32	29
Innovation at international level	23	2	3	14	5	4	10

Table 2.2
Type of Initial Customer of the Dynamic Enterprises, by Country
(Percentage of enterprises)

Type of initial customer	Argentina	Brazil	Mexico	Chile	Peru	Costa Rica	El Salvador
Individual consumers	26.8	25.0	43.4	28.1	33.3	21.4	61.0
Enterprises that used to produce those goods and services (outsourcing)	21.4	40.8	21.2	31.6	22.6	44.4	10.2
Enterprises that did not produce those goods and services	66.1	55.8	41.6	60.5	61.3	46.4	49.2

university enrollment and a higher density of research and development personnel per inhabitant than the other countries have (see Chapter 1). The university and scientific and technical population is a seedbed for potential entrepreneurs and a source of opportunity for innovative businesses.

The main customers of the new Latin American firms are other businesses, but outsourcing is not a widespread source of business. It may be that high transaction costs, the limited level of industrial and technological development, and the productivity gap between small and large companies limit the division of labor and articulation of production. On average only one in four firms was created to take advantage of this kind of opportunity. Only in Brazil and Costa Rica has outsourcing been a significant source of new businesses (see Table 2.2). Brazil's higher degree of industrial development and the dynamic productivity seen more recently in Costa Rica seem to have opened business options for subcontracting for a segment of the new firms studied. At the other extreme, in El Salvador only one enterprise in ten served this type of demand. The deterioration of the production structure and social capital as a result of the civil war help explain the lesser existence of new enterprises based on subcontracting and the prevalence of sales to individual consumers in that country (Umaña 2003). But generally speaking, companies in the region are not likely to transfer productive activities in a way that would stimulate startups of dynamic enterprises.

The new enterprises sell to large firms as well as SMEs, but their relative importance varies by country. In general, SMEs tend to be more important as customers of new enterprises in countries where the industrial sector has greater weight (Peres and Stumpo 2000). Large customers predominate in Chile, Costa Rica, and El Salvador; SMEs in Mexico; and both types of firms share equally in Argentina, Brazil, and Peru (Table 2.3).

Products tend to be aimed primarily at the manufacturing industry, followed in importance by the service sector in Brazil and Argentina and the wholesale sector in Mexico, El Salvador, and Peru.

Table 2.3
Customer Profile of Dynamic Enterprises, by Country
(Percentage of enterprises)

Profile according to size and sector	Argentina	Brazil	Mexico	Chile	Peru	Costa Rica	El Salvador
Size of enterprise							
Large	64.8	68.0	42.2	76.8	67.6	82.6	81.3
Small and medium	60.4	66.0	79.7	48.5	63.4	39.1	53.1
Sector							
Manufacturing industry	53.8	67.0	48.4	45.5	47.9	17.4	56.3
Services	44.0	48.5	25.0	38.4	36.6	39.1	25.0
Wholesale trade	37.4	24.3	45.3	34.3	50.7	13.0	40.6
Retail trade	33.0	23.3	29.7	23.2	31.0	13.0	28.1
Other	11.0	4.9		22.2	11.3	30.4	12.5

In short, dynamic enterprises swelled the ranks of the SME structure in the region and expanded significantly, starting from modest initial investments. They were aimed primarily at exploiting opportunities based on differentiation of supply in the domestic market, and served the needs of small, medium, and large enterprises, primarily in the manufacturing sector. Exploiting opportunities based on subcontracts, innovation, or exports was less common.

Profile of Dynamic Entrepreneurs

Teams of entrepreneurs created most of the enterprises in the study. Cases of sole proprietorships are uncommon, especially in Argentina, Brazil, and Chile (only 11, 10, and 16 percent, respectively); they are more common in Mexico (40 percent compared with the regional average of 27 percent).

The typical entrepreneur is a young, highly educated, middle-class man. Participation of women is limited, especially in Chile and Costa Rica, but significantly greater in El Salvador (slightly less than 1 in 4 cases versus 1 in 10 on average).[4] The civil war in that country helps explain the high presence of women because they were forced to occupy new roles in society (Umaña 2003).

The Chileans and Peruvians are more highly educated. Seven in ten are university graduates (the regional average is six). Most were trained in engineering, followed by economics (4 and 3 in 10, respectively). In the Chilean case this may be due to the strong presence of commercial engineers, a profession equivalent to that of administrators elsewhere in the region.

Half of the entrepreneurs come from homes where the father worked independently as a businessman, a professional, or self-employed. That may have influenced the career projection of entrepreneurs, even unconsciously. The presence of entrepreneurial parents (father and/or mother) is especially accentuated in Costa Rica and El Salvador (around 4 in 10) but significantly less in Brazil and Chile.

Before beginning their entrepreneurial career, the entrepreneurs most often worked in another company in a similar sector (supplier or customer) or were involved in a line of business related to that of the company started. The entrepreneurs had experiences in small, medium, or large firms in relatively similar proportions, except in the case of Mexico, where SMEs prevail, or in Costa Rica, where employment in large companies is more common.

[4] With regard to low female participation, other studies agree with these findings (Reynolds, Storey, and Westhead 1994; Weeks and Seiler 2001).

Table 2.4
Previous Work Experience of Dynamic Entrepreneurs, by Country
(Percentage of entrepreneurs)*

Occupation	Argentina	Brazil	Mexico	Chile	Peru	Costa Rica	El Salvador
Entrepreneur	55	53	25	61	55	36	48
Employee	65	82	83	75	48	71	68
Employee in a small or medium enterprise	37	48	68	38	21	25	34
Employee in a large company	31	52	19	40	27	46	39
Other activity	15	8	8	13	6	18	7

* Given that the entrepreneurs may have more than one type of work experience, the totals do not add up to 100. The 'Employee' category does not equal the sum of SME and large enterprise employees, due to the fact the same person may have been employed by more than one company.

The entrepreneurial adventure tends to start during youth and often it is not limited to a single experience. Two in three entrepreneurs started their first business between 20 and 35 years of age, and around half created more than one business in the course of their life. Entrepreneurs in Mexico contributed the most to broadening the entrepreneur base because three in four cases were first-time businesses (see Table 2.4).

Chile is the opposite case. Only a little more than a third were new entrepreneurs, whereas the others had started two or three firms before the present one. This situation has a number of implications, especially for policy design. It offers evidence about the entrepreneurial abilities of the Chileans who started these firms; yet it also defines a narrower platform of new entrepreneurs. And it raises the question of the importance of considering entrepreneurship not only from the standpoint of generating businesses and enterprises, but also from that of generating entrepreneurs. After all, the entrepreneurial process largely comes down to people's preferences, callings, and abilities (Audretsch and Thurik 2001; Botter, Dan, and Lundström 1999).[5]

People who were between 31 and 45 years old (36-37 years on average) started most of the enterprises studied. But the idea of going into business appeared much earlier in most cases, around age 26 on average, and indeed for many, around half, the idea appeared earlier. The motivation began earliest in Costa Rica. Chile not only stands out for a more limited base of dynamic new entrepreneurs, but also for those who began the entrepreneurial process later. It may be that the high level of education and the growth of the Chilean economy during the 1990s—with its impact on labor demand—may have been decisive in defining the opportunity costs for starting a business (Figure 2.2).

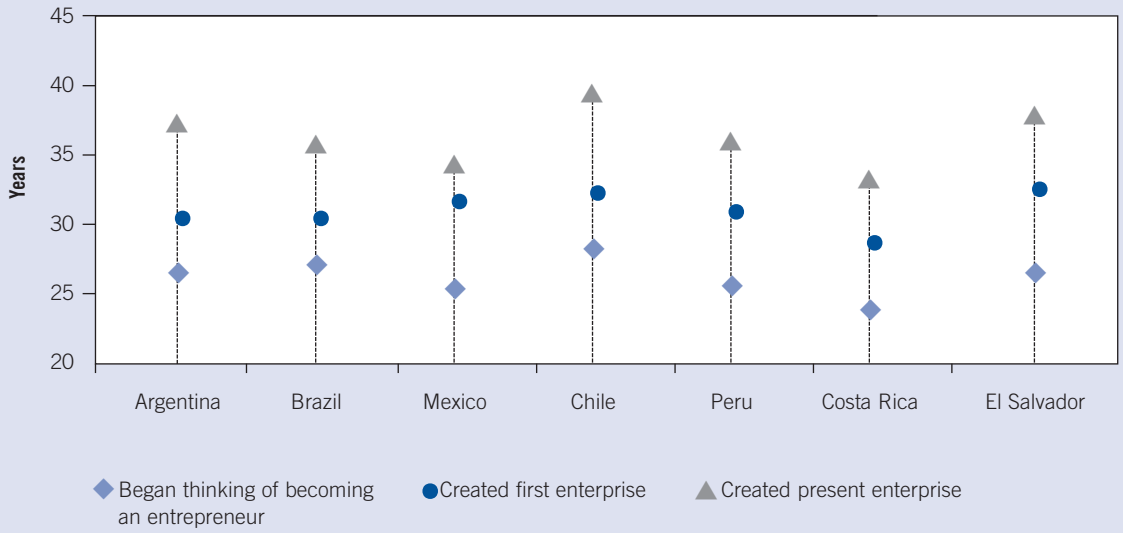
Increasing the number of entrepreneurs and lowering the age at which they begin to become interested in the entrepreneurial option would help strengthen the Chilean system of entrepreneurial development.

In Costa Rica, El Salvador, Mexico, and Peru, creating the first business takes longer than in the Southern Cone countries. In the former countries, the number of years between the time when the desire to start a business sets in and the time the business is started is longer than elsewhere in the region. While the reasons for this difference must be understood, shortening this period would lead to an increase in the rate of entrepreneurs entering the market.

The three main reasons for going into business are positive: the desire for personal fulfillment, to apply one's knowledge, and to improve personal income. Many of the entrepreneurs interviewed felt that they were also contributing to society, especially in countries

[5] The output of the entrepreneurial process is not simply new businesses (the aspect of interest when researching the dynamics of industry), but also the creation of entrepreneurs (Chapter 1).

Figure 2.2
Average Age of Entrepreneurs at Key Moments in the Process



with smaller economies (Costa Rica, El Salvador, and Peru). Motivations based on negative factors, such as being unemployed or not having been able to study, were less frequent among dynamic entrepreneurs (Table 2.5).[6]

The greatest contrasts between motivations for going into business in different countries had to do with the cultural environment of the entrepreneurs. To be independent, to gain social esteem, or to follow in the footsteps of other entrepreneurs who served as an example to them (role models) were not very important in Argentina, Brazil, and Chile. By contrast, Mexicans and Salvadorans were attracted by the idea of being their own boss and, along with the Peruvians, by the presence of role models and the desire to gain social esteem. These findings indicate that the cultural context surrounding entrepreneurs is not the same from one country to the next. There is less diversity of sources of positive influence in the Southern Cone countries. However, these motivations of entrepreneurs could have to do with their immediate cultural context, and hence these findings cannot be generalized to their respective societies as a whole. Given the high level of cultural heterogeneity existing in highly fragmented societies like those of Latin America, what is true for some groups cannot be expected to also be true for the other groups.

CHARACTERISTICS OF DYNAMIC ENTERPRISES IN LATIN AMERICA

This section presents the main differences between dynamic and less dynamic enterprises.

Differences in Performance

Dynamic enterprises stand apart in various performance-related variables, both in the number of jobs created and in sales. In their third year of life, average sales were almost six times that of the less dynamic group, and the spread tended to widen in subsequent years (Figure 2.3).

However, while to some extent significant contrasts could be expected to appear between the number of jobs created by dynamic enterprises and others—due to the different criteria of selection in the enterprises of the two groups—the dynamism gap becomes clear very

[6] In Chile and El Salvador, the study pursued other negative reasons, such as dissatisfaction with one's job or fear of labor instability, but in both cases it was established that these factors did not play a prominent role.

Table 2.5
Initial Motivations of the Founders of Dynamic Enterprises, by Country
(Percentage of entrepreneurs)

Motivations	Argentina	Brazil	Mexico	Chile	Peru	Costa Rica	El Salvador
Achieving personal fulfillment	87.5	91.7	94.7	78.1	81.7	92.9	96.6
Putting their knowledge into practice	77.7	81.7	69.0	81.6	82.8	64.3	89.8
Increasing their income	62.5	72.5	79.6	68.4	83.9	67.9	83.1
Contributing to society	53.6	50.0	55.8	47.4	73.1	71.4	79.7
Being their own boss	48.2	40.0	80.5	47.4	54.8	57.1	71.2
Becoming rich	26.8	23.3	36.3	23.7	32.3	32.1	18.6
Becoming like an admired entrepreneur	25.0	24.2	51.3	28.1	40.9	14.3	42.4
Gaining social status	16.1	25.0	46.0	21.1	49.5	25.0	33.9
Continuing the family tradition of being in business	17.0	5.0	28.3	15.8	31.2	14.3	27.1
Being unemployed	6.3	13. 3	9.7	13.2	4.3	7.1	10.2
Being unable to pursue further studies	5.4	4.2	5.3	3.5	8.6	3.6	8.5

early. This finding stands in contrast with the findings of earlier research, which tends to locate the expansion stage starting in the sixth or seventh year (Storey 1994).[7] From a systemic point of view, several factors help explain these differences (see Chapter 1). The main findings of the research on the role of settings where people are shaped (family, education system, and work), networking, projects, financing, and the conditions surrounding the decision to go into business are presented below.

Family Influence

A first aspect of interest is the extent to which there were substantive differences between some entrepreneurs and others before beginning the entrepreneurial process. For example, does family background distinguish dynamic from less dynamic entrepreneurs? While these questions cannot be answered conclusively due to the multiplicity of direct and indirect factors that ought to be considered, and by their multiple relationships, the study made it possible to find some evidence of the influences that these factors exercise in the countries of the region.

The contribution of the family, for example, in Costa Rica, El Salvador, Mexico, and Peru, is more prominent than in the Southern Cone. In El Salvador, Mexico, and Peru, being a child of an entrepreneur is more common among dynamic entrepreneurs than among the rest, and as is also the case in Costa Rica, less dynamic entrepreneurs are more likely to be children of salaried employees (Table 2.6).

In these countries, coinciding with this profile, the families of dynamic entrepreneurs also contribute more significantly to acquiring the motivation and skills to be an entrepreneur.

[7]The operating definition of dynamism was based on the criterion of employment attained by the companies at the time when they were selected, at which point they had been in business for an average of six years.

Figure 2.3
Employment Trends by Group and Country

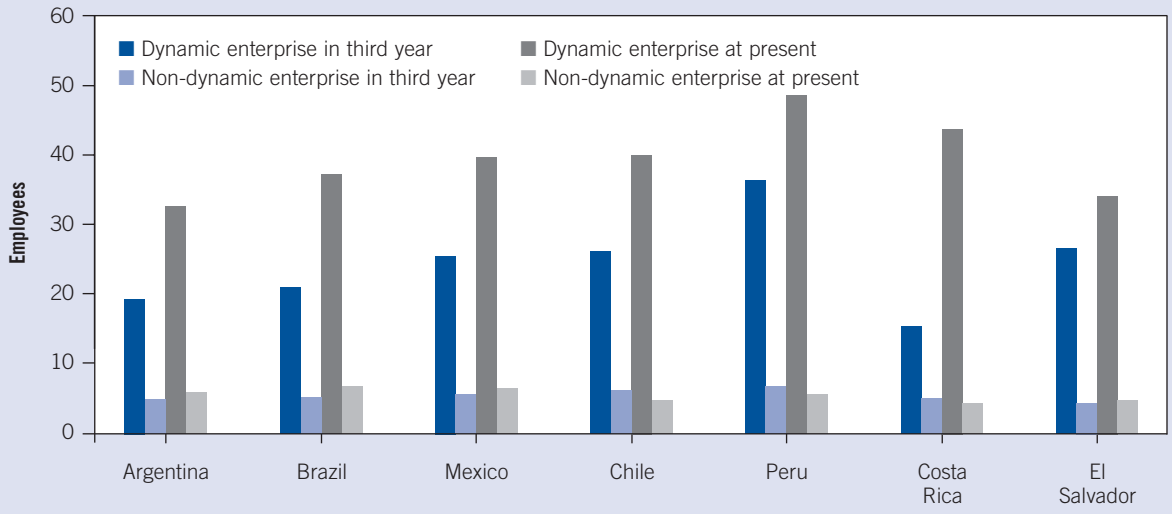


Table 2.6
Parent's Occupation by Country
(Percentage of entrepreneurs)

	Argentina		Brazil		Mexico		Chile		Peru		Costa Rica		El Salvador	
Occupation	D	LD	D	LD	D	LD	D	LD	D	LD	D	LD	D	LD
Businessman	37	36	15	29	34	11	19	26	31	18	36	30	34	10
Employee	23	23	37	39	19	19	38	36	19	35	36	55	30	40

D = dynamic; LD = less dynamic

In some cases it was the desire to continue the family tradition that most influenced the more dynamic entrepreneurs (El Salvador, Mexico, and Peru); in others the home helped forge attitudes such as a penchant for hard work (El Salvador and Mexico) or problem-solving ability (Costa Rica). In El Salvador, the most dynamic entrepreneurs also received more significant help from their families for ideas about business, nonmonetary resources (such as raw materials and facilities), and, as in Mexico, capital for financing the project (Table 2.7).

In those countries where being born into a family of entrepreneurs is more common among the dynamic entrepreneurs, it is important to create overall conditions that will provide fair access for all youth to training and opportunities to start up their enterprises and make them grow.

Education System

In almost all the countries, the entrepreneurs have high education levels, but there tend to be no significant differences between those of different degrees of dynamism, except in Mexico and Chile (Table 2.8).[8]

In most countries, the university contributed to the acquisition of technical knowledge, especially for the more dynamic entrepreneurs, but not of other skills

[8] In Brazil, the differences are not statistically significant.

Table 2.7
Contribution of the Family to the Entrepreneurial Process, by Group and Country
(Percentage of entrepreneurs)

	Argentina		Brazil		Mexico		Chile		Peru		Costa Rica		El Salvador	
Contribution to:	D	LD	D	LD	D	LD	D	LD	D	LD	D	LD	D	LD
Motivation and skills														
Continuing the family tradition	17	10	5	20	28	19	16	15	31	19	14	5	27	13
Problem-solving ability	39	39	27	35	26	26	37	45	21	27	50	40	19	18
Capacity for hard work	57	57	42	47	40	30	50	48	34	30	68	70	50	27
Enterprise project														
Identification of idea	16	21	19	26	23	30	26	24	24	24	18	9	31	11
Access to financing	18	31	17	24	39	14	16	20	18	32	36	30	27	17
Access to other resources	13	21	13	26	29	42	27	17	30	25	21	35	25	13

D = dynamic; LD = less dynamic.

necessary for entrepreneurship. In Argentina and Costa Rica, entrepreneurs recognized the contribution of a university education (73 percent and 82 percent, respectively, versus 66 percent for the regional average; see Table 2.9).

Chile and Mexico, the only countries in which the presence of university graduates is significantly higher among dynamic entrepreneurs, are not entirely alike. Whereas in Mexico those surveyed emphasized the contribution of the university to giving them the skills to go into business, in Chile the extent of such recognition was far lower than the regional average, as was also the case in El Salvador. Moreover, in Mexico dynamic entrepreneurs were especially appreciative—compared with the regional average—of the contribution of the university to the acquisition of skills, such as how to manage risk (29 percent versus 17 percent), work as a team (54 percent versus 39 percent), negotiate (31 percent versus 16 percent), and be creative (47 percent versus 37 percent).[9] But university education's contribution to technical knowledge was less appreciated (around half).

Table 2.8
Participation of University Graduates, by Group and Country

	Percentage of university graduates	
Country	Dynamic	Less dynamic
Argentina	58	52
Brazil	62	51
Mexico	55	28
Chile	72	51
Peru	72	70
Costa Rica	57	65

In the case of Chile, it would seem that university study is associated with variables other than the acquisition of entrepreneurial abilities that make it more likely that a

[9] Mexican entrepreneurs mentioned skills acquired in the university at a rate of 5.5 percent as opposed to the regional average of 4.6 percent.

Table 2.9
Skills and Learning Context of Dynamic Entrepreneurs, by Country
(Percentage of entrepreneurs)

	University			Work experience		
Country	Skill	D %	LD %	Skill	D %	LD %
Argentina	Technical knowledge	73	62	Negotiation	77	62
	Problem-solving ability	63	50	Team work	70	51
	Social skills to relate to others	36	15	Planning	66	54
				Communicating	62	51
				Managing	57	46
				Marketing	52	41
Brazil	Working as a team	41	30	Problem-solving ability	94	78
	Managing	39	27	Negotiation	85	67
				Risk tolerance	79	65
				Hard work	77	59
				Planning	77	67
				Business vocation	68	47
Mexico	Problem-solving ability	53	32			
	Creativity	47	32			
	Planning	43	32			
Chile	Technical knowledge	64	51	Marketing	49	26
Peru	Technical knowledge	70	60	Negotiating	78	62
	Planning	59	39	Risk tolerance	70	54
	Marketing	51	30	Social skills to relate to others	54	41
	Problem-solving ability	38	26	Managing	53	39
				Technical Knowledge	37	26
Costa Rica	Managing	58	37	Negotiating	86	60
				Planning	79	55
				Hard work	75	65
				Risk tolerance	75	60
				Team work	71	55
				Creativity	68	35
				Marketing	68	55
				Business vocation	46	25
El Salvador	Technical knowledge	50	32	Working as a team	64	43
	Marketing	41	28	Negotiation	60	50
				Managing	60	40
				Planning	59	37
				Problem-solving ability	59	37
				Communicating	57	33
				Risk tolerance	54	33
				Marketing	53	30
				Creativity	50	28

D = dynamic; LD = less dynamiic

college graduate entrepreneur will be dynamic than would be the case for an entrepreneur with a lower level of education. It could be, for example, that there are differences in the social origins of university students, and/or attending the university contributes to making relevant contacts.

Finally, the more dynamic entrepreneurs did not single out other education levels, such as high school. In fact, their contribution was little valued by both groups. This fact, combined with the limited role played by the university, indicates that there is undoubtedly a great deal of room for making progress in promoting entrepreneurship in the different levels of the education system, involving changes in curricula, teaching methods, and teacher training.

Previous Work Environment

The main "incubation context" of entrepreneurs and enterprises are the firms where they previously worked. Their contribution to creating callings and skills is key. That experience is the most acknowledged source of learning because of its distinctive contribution among the more dynamic entrepreneurs. They also highlighted its fundamental role in gathering information on business ideas (79 percent). This finding has important implications for programs to foster entrepreneurship, which ought to take advantage of the learning platform offered by connecting potential entrepreneurs to the business world. It is likewise crucial that young people who have difficulty entering the labor market have the opportunity provided by internships, for example.

Networking

The Kantis, Ishida, and Komori (2002) study of entrepreneurship in emerging economies highlights how networking plays a key role in various aspects of the entrepreneurial process. The study considers three basic situations in which interaction with other people plays a notable role: seizing the business opportunity on which the project is based (inception stage), accessing funding (startup stage), and the first moments in the life of the company (early development stage). The entrepreneurs mentioned that during these periods, communications and support networks were important for dealing with the problems and challenges of management. Consideration was also given to the social networks (relatives, friends, and acquaintances), business or production networks (suppliers or clients), and institutions (institutions for supporting businesses, business associations, and universities).

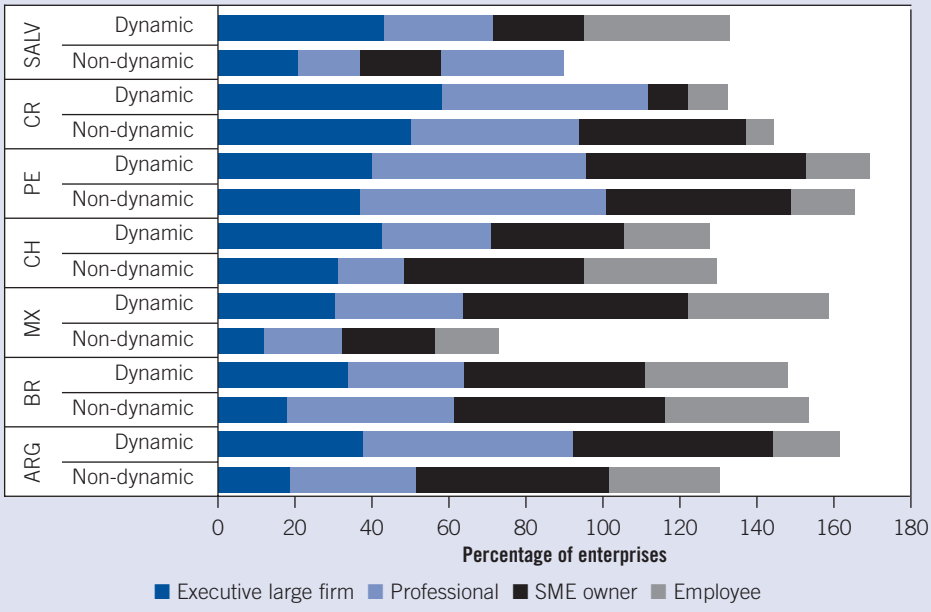
At the time when the business idea was identified, dynamic entrepreneurs generally stood apart from the rest because they interacted more with executives of large companies (Figure 2.4). In addition, the Argentines and Chileans were distinguished by having more contacts with professionals, and Mexicans by having contacts with other SME entrepreneurs. In some countries, networks of dynamic entrepreneurs are more stable, basically because one or another of these contacts ultimately becomes a partner in the new dynamic enterprises in Argentina, Costa Rica, and El Salvador (30, 19, and 31 percent, respectively).[10] These findings confirm the importance of having specific networks and qualified contacts.

Dynamic entrepreneurs more often received support from their networks in obtaining access to nonmonetary resources. Network support was highlighted in the case of technology (Table 2.10). In some countries, the networks also helped obtain access to information (Mexico, Peru, and El Salvador) or other resources, such as raw materials or facilities (Brazil, Chile, and Peru).

Institutional networks are not very important in most countries. They help distinguish only the most dynamic entrepreneurs in Mexico, where government organizations and trade associations provide sources of information for those who wish to go into business, and they are most utilized by dynamic entrepreneurs. In other countries, less dynamic entrepreneurs acknowledge the role played by such networks, not only with regard to access to information, but also in terms of the help needed to solve management problems during the first years of the firm (Argentina, Brazil, Costa Rica, and Peru). The reasons for this situation need to be researched in depth because, as a rule, SME entrepreneurs tend to be more proactive in using institutional support programs. In this instance, it may be that less dynamic entrepreneurs have been able to channel their demand for support through the offer of assistance to microen-

[10] In analyzing differences in the composition of the contacts, the unit of analysis taken was the enterprise, whereas for considering the stability of ties, the total number of enterprises was considered.

Figure 2.4
Main Occupation of the People Who Helped Identify the Business, by Group and Country (Percentage of enterprises)



terprises, whereas initiatives for growth-oriented entrepreneurs are less widespread in the region.

A comparison of countries shows that entrepreneurs in Mexico and Peru stand out for the significant help received from their networks in obtaining access to nonmonetary resources. Brazilians received more support from their production networks for dealing with management challenges in the first years of life (57 percent as opposed to the regional average of 30 percent).

At the other extreme, entrepreneurs in Chile and El Salvador made the least use of networking in identifying the business idea at the inception stage, in access to the resources needed to start the business, and also when they had to deal with the challenges of the enterprise in its first years of life (their networks were very small in this case). This feature of the entrepreneurial process in Chile coincides with the characterization of the "self-made man" offered in Benavente and others (2003). With regard to El Salvador, it is probably due to the destruction of social capital resulting from the civil war (Umaña 2003).

In short, networks play a distinctive role for dynamic entrepreneurs. Having access to specific contacts in business is fundamental for complementing the more generic support commonly provided by family and friends. Favoring their development must be at the core of entrepreneurial development initiatives, especially in those countries where they are not very much used.

Project, Strategy, and Preparation

There are major differences in the profiles of the projects taken up by firms of differing degrees of dynamism. Early sales reflect the fact that from the beginning some businesses are more growth-oriented. First-year sales averaged between 5 and 6 times more in the dynamic group, the proportion of projects of 1,000 dollars was double, and the average team size was almost 30 percent larger.

Dynamic entrepreneurs showed a greater disposition to export. However, in Brazil, Chile, Costa Rica, and Mexico, they also stood out for having more intensely utilized subcontracting-related business opportunities. Even so, for most of the enterprises—even for those exporting—the domestic market constitutes their main business base, and subcontracting is far from widespread.

Table 2.10
Role of Networks as Facilitators of Nonmonetary Resources, by Group and Country
(Percentage of enterprises)

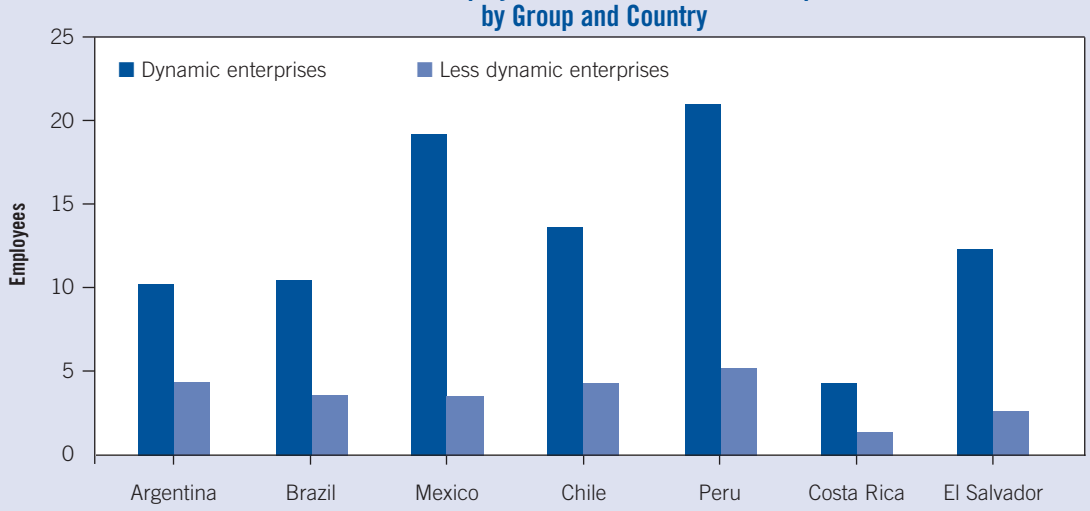
		Nonmonetary resources					
		Information		Technology		Other resources	
Country	Type of networks	Dynamic	Less dynamic	Dynamic	Less dynamic	Dynamic	Less dynamic
Argentina	Social	70	67	51	54	45	52
	Production	68	74	54 ****	43 ****	45	54
	Institutional	29	38	23	20	13	7
Brazil	Social	76	82	62	69	32 *****	12 *****
	Production	75	78	60	51	49	39
	Institutional	26	35	21	39	8	16
Mexico	Social	61*	46 *	69	67	59	65
	Production	77	56	64	30	50	42
	Institutional	50	26	34	23	19	19
Chile	Social	69	70	49	45	44	33
	Production	44	53	32	35	36	30
	Institutional	17	15	9	9	4	7
Peru	Social	89	87	70	61	67	56
	Production	69 **	52 **	84	71	67	54
	Institutional	43	55	31	39	25	16
Costa Rica	Social	75	65	36	35	43	35
	Production	89	85	79	60	39	45
	Institutional	36	60	11	25	7	25
El Salvador	Social	71	57	44	33	46	33
	Production	39 ***	23 ***	30	43	54	47
	Institutional	24	17	19	17	3	0

* The difference is attributable to support from known persons.
** The difference is attributable to support from suppliers from the same region.
*** The difference is attributable to support from non-local production networks.
**** The difference is attributable to support from local production networks.
***** The difference is attributable to support from friends.

Another aspect of interest explored in the research has to do with the preparation of business plans and the elaboration of the project. In most of the countries, there are no significant differences between dynamic entrepreneurs and the rest, and there is no evidence that would confirm a correlation between formal planning and achieving better performance. For most of the entrepreneurs, the decision to start up the enterprise and evaluation of the project are based on sales projections and the costs of the enterprise.

Only in Chile, a country that stands out due to the greater planning orientation of its entrepreneurs, is the practice significantly more common among dynamic

Figure 2.5
Number of Employees at the Start of the Enterprise, by Group and Country



entrepreneurs (65 percent versus 50 percent). Chilean entrepreneurs also stand apart from the Latin America average in more actively seeking technical and economic information prior to the project (for example, information on the size of competitive plants and associated levels of investment). In Peru most entrepreneurs, including the less dynamic, prepared business plans. In both instances the entrepreneurs had the highest education levels in the region.

In short, the main differences found have to do with the profile of the projects carried out by entrepreneurs of varying dynamism. This result suggests the need to devote special effort to designing actions aimed at fostering the identification of business opportunities with an orientation toward and potential for growth, and to avoid focusing attention exclusively on assistance in the formal preparation of the business plan.

Conditions Surrounding the Startup Decision

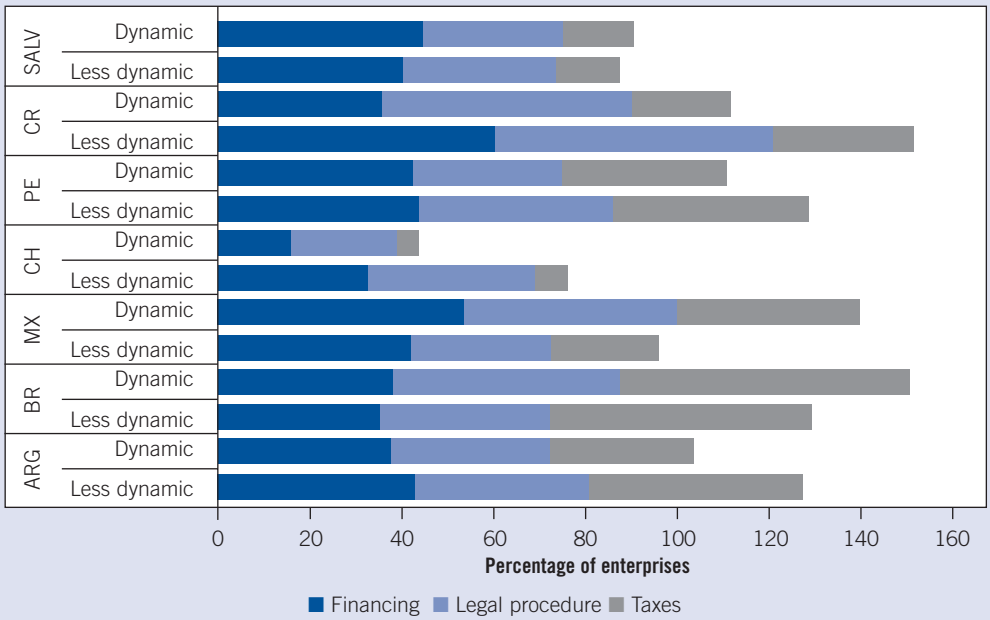
The research made it possible to explore the factors considered by the entrepreneurs when they made the decision to start a business. In addition to the initial reasons that awakened their motivation for an entrepreneurial career, it was noted how the evaluation of the conditions of the economic and regulatory environment influenced the final decision. Issues such as the influence of the availability of financing, the costs and time period for legally establishing the business, tax pressure, expected growth of the economy, the dynamism of the sector, and the availability of government help were taken into account.

In Chile, Costa Rica, and to a lesser extent Argentina, the conditions of the environment had a less negative effect on dynamic entrepreneurs than elsewhere, seemingly reflecting a different attitude or perception in those countries.

In Peru the environment is seen as having a notably less negative effect than is the case in the other countries. Tax pressure had a negative effect for only 4 percent of those interviewed, as opposed to Brazil, where two in three entrepreneurs noted its negative influence. Similar considerations can be made about costs and time to legally establish the business. In Chile only a little more than one in five had a negative evaluation of this aspect, as opposed to almost half in Brazil, Costa Rica, and Mexico. These differences are consistent with the contrasts noted in Chapter 1. Availability of financing likewise prompted fewer negative responses in Chile.

Finally, only a minority of those surveyed perceive that institutional support was positive. There were no significant differences between countries with strong traditions of institutional activity in the area of business development, such as Brazil, Chile, Mexico, or elsewhere (Peres and Stumpo 2000).

Figure 2.6
Main Obstacles to Creating a Firm, by Country and Dynamism



These findings indicate that the conditions of the environment that negatively influence the decision to start businesses must be improved, especially in those countries where entrepreneurs complained the most.

Financing

In addition to their dynamic qualities, another commonality was that most of the entrepreneurs financed the business startup with personal and family savings. This result coincides with other international research (Mason 1998). As a rule, dynamic entrepreneurs used a larger number of sources than the less dynamic used. Dynamic entrepreneurs especially used their own capital, but they also made more intensive use of other sources, thereby enabling them to avoid the constraints on access to bank financing (for example, they used help from suppliers and/or purchased used equipment). This behavior of dynamic entrepreneurs is known in the international literature as "bootstrapping" (Winborg 1997).[11]

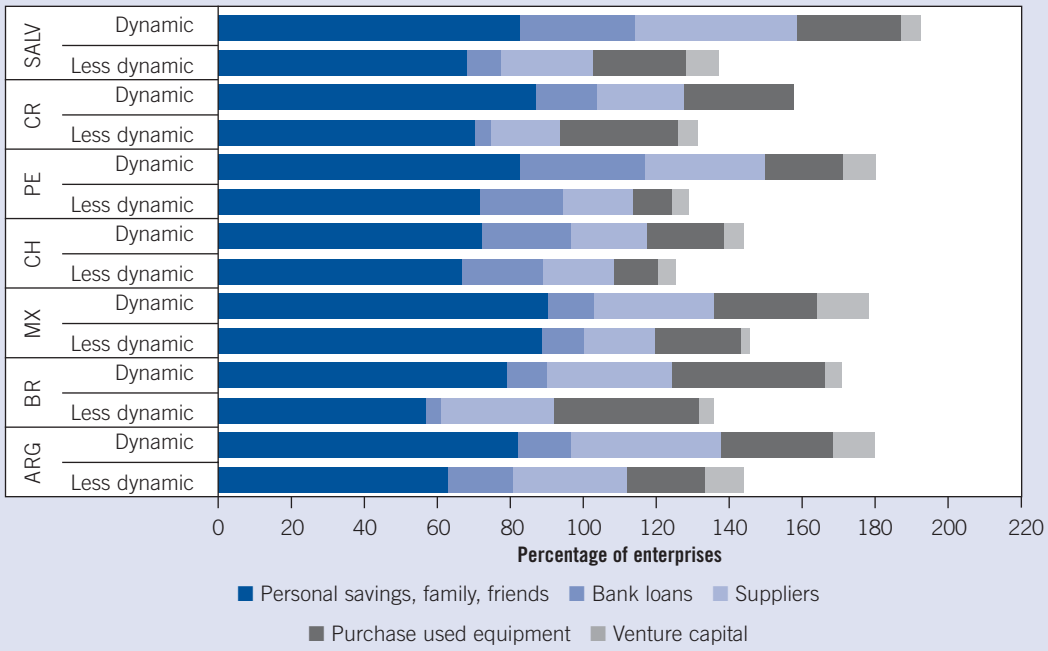
The low utilization of bank loans was due primarily to the inadequacy of the credit supply, especially in Brazil and Mexico. In Mexico, another prominent characteristic was the desire of entrepreneurs to avoid using outside sources (to maintain control of the business or because of mistrust of the institutions).

By contrast, in Chile more than half of the dynamic entrepreneurs indicated that they did not incur bank debt because there was no need for additional capital. This was the highest rate in the region and clearly differentiates the dynamic entrepreneurs from the rest. It is quite possible that when they were portfolio investors, the dynamic entrepreneurs financed the new business with revenues generated in the other firms that they had established previously.

In Chile, the consequences of tight financing were relatively less important. Although half of the Chilean entrepreneurs indicated that lack of financing affected their starting a business (for example, adjustments in the initial scale and/or technological level, or the

[11] Entrepreneurs in El Salvador and Peru obtained greater access to bank loans. Dynamic entrepreneurs' greater access to banks was accentuated in the early years in El Salvador and to a lesser extent in Brazil and Chile.

Figure 2.7
Sources of Initial Financing of Enterprises, by Group and Country



need to seek help from customers or suppliers), this proportion is much lower than in the other countries. In Mexico more than 90 percent faced lack of financing, followed by Brazil and Peru, with 84 percent in both cases. In Brazil and Mexico, financing constraints affected dynamic enterprises more than the rest, affecting especially their initial level of technology (57.5 percent versus 41 percent for Brazil, and 64 percent versus 49 percent for Mexico).

Venture capital and loans from government institutions are a marginal source of financing in the region, even for dynamic entrepreneurs. Only in Mexico and Argentina was there some access to venture capital, basically provided by "angel investors." Thus far, agents of external financing have not been able to provide services that would allow for discrimination between enterprises of varying dynamism in Latin America. This is compounded by the undeveloped state of venture capital and government initiatives aimed at entrepreneurs.

These findings emphasize the need for financing for those who wish to create a business. Supply constraints and the behavior of the entrepreneurs are important factors, especially since entrepreneurs' attitude toward financial institutions tends to be negative.

CONCLUSIONS

New entrepreneurs in Latin America have renewed the SME base and diversified the productive profile of the region. Most of these entrepreneurs are teams of highly educated young men with previous work experience who have often already started other businesses.

The new firms were aimed primarily at the domestic market, differentiating already existing products or services. The entrepreneurs were less likely to exploit export, subcontracting, or innovation business opportunities.

The study has made it possible to identify some elements of particular interest from the standpoint of designing strategies and programs for developing entrepreneurship. The entrepreneurial calling and the skills for it could be strengthened if the education system encouraged entrepreneurship in secondary schools

and universities. Their contribution is currently very limited. Moreover, this chapter has noted differences in the contribution that university education makes to the acquisition of technical knowledge by dynamic and other entrepreneurs. These findings suggest that there are uneven realms of learning and hence the quality of teaching in various institutions of higher learning should be enhanced and made more uniform.

In Argentina and Costa Rica, university education has made a significant contribution to the formation of technical knowledge and the rate of university enrollment is high. Thus, it could be particularly effective in encouraging the establishment of entrepreneurial development programs to foster the creation of knowledge-based enterprises. In Chile and El Salvador, research must delve deeply into the reasons why entrepreneurs have placed such little value on the contribution of institutions of higher learning so that they can play a more relevant role.

By contrast, dynamic entrepreneurs prized what they had learned in previous work. This indicates the need to articulate the various realms of training so that potential entrepreneurs can learn based on experience. This could be particularly effective in Brazil, where the contribution of previous work experience was far above the regional average.

The role of networking is another factor that significantly distinguishes the process of creating dynamic enterprises. Linking up with qualified networks (for example, with executives in large companies) is crucial for identifying business opportunities, obtaining access to in-kind resources, and dealing with the problems of managing a new company. It would be a good idea to foster the development of connections in order to spread access to intangible assets (such as information and technical assistance). Because of the degree of social and productive fragmentation characteristic of Latin American countries, young people's social background and work experience may mean that they do not have equal opportunities to establish such contacts. Actions to develop networks ought to be especially important in Chile and El Salvador, where their use has been limited. In these cases, the reasons explaining such behavior should be examined more carefully.

Setting up environments that foster entrepreneurial competence and skills and facilitate access to networks is especially crucial in countries where having been born into a family of entrepreneurs or employees marks the difference between more and less dynamic entrepreneurs (for example, in the acquisition of callings, skills, or resources for starting a business). Having a platform favorable for creating businesses and making them grow should not be limited to the children of entrepreneurs.

Significant contrasts were also identified in the profile of the projects, thereby suggesting that initiatives should be set up to facilitate the identification of business opportunities so that higher-quality plans will be forthcoming, and teams should have complementary skills that will be able to carry them forward. This need is particularly important in the case of Mexico, where many of the projects are created by one-person enterprises based on offering low prices. It would also be useful in El Salvador, where articulation with other businesses is especially limited. A lesson offered by the Salvadoran case is that the export orientation of enterprises can be fostered by developing nonlocal networks with fellow citizens who are living in other countries that can become a marketplace for their products.

In almost all the countries, the entrepreneurs had to commit their own resources more intensively, and they made more significant use of other alternative sources to reduce the need for traditional financing. Even so, lack of financing had negative consequences on the initial size and technology level of the projects. Hence, there is a need for actions aimed at developing a supply of financing appropriate for entrepreneurs. In some countries, such as Mexico, it is also crucial that work be done on demand because there is a great deal of reluctance to deal with financial institutions. It is likely that something similar is happening in Argentina in the wake of the economic and financial crisis. In the short run, it may be effective to train potential entrepreneurs to deal with nontraditional financing techniques (bootstrapping).

Likewise, the conditions of the environment that have a negative impact on the decision to create the enterprise (for example, the tax system or regulations on firm creation) must be reviewed and improved. This is especially important in Brazil and Mexico, where entrepreneurs complained significantly more than the average for the region. And an institutional supply of aid for entrepreneurs should be developed because their contribution has not been generally recognized. ■

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CHAPTER 3

THE ENTREPRENEURIAL PROCESS: MAIN CONTRASTS BETWEEN LATIN AMERICA AND EAST ASIA, ITALY, AND SPAIN

Hugo Kantis

The previous chapter revealed the existence of a new group of dynamic Latin American enterprises started by young entrepreneurs and identified the main factors distinguishing them from less dynamic enterprises. The aim of this chapter is to examine the contrasts that emerge from comparing the entrepreneurial process in the region with that in East Asia, Italy, and Spain. Given the contextual nature of the entrepreneurial process, the differences make it possible to reflect on the weaknesses and opportunities in Latin America with a view to devising actions to strengthen entrepreneurship.

The fact that a new generation of dynamic enterprises has been identified in the region does not mean that the conditions are the most favorable. This chapter, in addition to identifying differences in the performance of new enterprises in various countries, describes differences in the profiles of their founders and their reasons for establishing the business. It also analyzes the roles of entrepreneurs in business formation. The analysis focuses on entrepreneurs' acquisition of technical knowledge and other skills for going into business, their projects, their use of networking, and the conditions surrounding the birth of the firm.

PERFORMANCE

Confirming the findings of the previous study (Kantis, Ishida, and Komori 2002), new Latin American enterprises are less dynamic than firms created in other regions.[1] In the third year in business, for example, only one Latin American firm in four had surpassed sales of a million dollars a year, compared with two firms in three in East Asia, around half in Italy, and somewhat more than a third in Spain (Figure 3.1).

Data on annual sales per employee reveal differentiated behaviors between Latin American enterprises and others. Whereas for the former average levels are around $30,000 by the third year, in almost all the other countries this figure is more than three times higher. Spain is at that threshold while the figure for Japan is six times that of Latin America (Figure 3.2).

These differences prompt a set of questions about the factors associated with them. It is quite possible that the less favorable structural conditions faced by entrepreneurs in Latin America (see Chapter 1) at least partly explain this behavior. The following sections provide elements for identifying the factors affecting the poorer performance of Latin American firms. The contrasts in the background of entrepreneurs and their projects are presented first, followed by observations on the differences found in the main steps in the entrepreneurial process.

BACKGROUND AND CHARACTERISTICS OF ENTREPRENEURS

Social Origin and Gender

In all of the countries, the main source of entrepreneurs is the middle class (more than 80 percent). Hence, societies with a broad middle class have a potentially broader platform for producing entrepreneurs than those that are more polarized. This marks

[1] In Asia, four in ten companies surpassed sales of 2 million dollars, compared with less than one in ten in Latin America. Although the statistical representativeness of the panel of companies cannot be determined, the magnitude of the contrasts identified between countries constitutes a striking finding.

Figure 3.1
Trends of Average Sales in Dynamic Enterprises by Country or Region

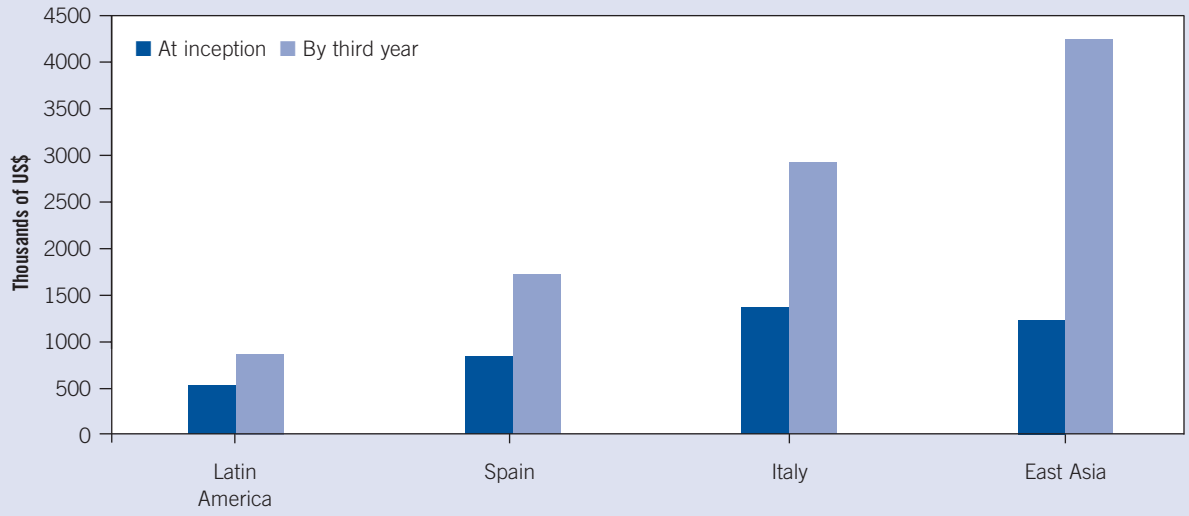
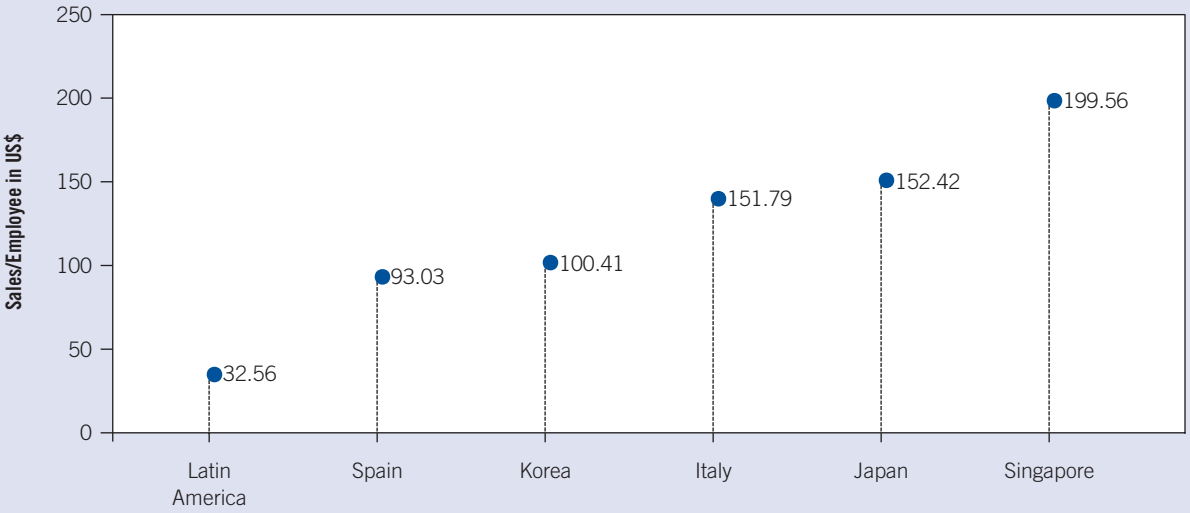


Figure 3.2
Sales per Employee by Third Year, by Country or Region



a first contrast between countries in Latin America and the other countries, which are characterized by a more balanced social structure and greater prominence of the middle class in the population (see Chapter 1). The social background from which entrepreneurs are likely to emerge is narrower in Latin America.

In addition, in most Latin American countries the relative presence of dynamic entrepreneurs from lower-class families is more limited (less than 25 percent). In East Asia, by contrast, half of the entrepreneurs are from the lower-middle or lower-class group. In other words, the social background from which Asian entrepreneurs emerge is broader not only because of the greater significance of the middle class, but also because of the greater presence of entrepreneurs from lower socioeconomic levels.

Italy stands out for the homogeneous profile of entrepreneurs (almost three in four are from the middle class) and

Table 3.1
Social Origin of Dynamic Enterprises by Country or Region

Social origin	Latin America	Italy	Spain	East Asia
Upper class	3	1	0.9	1.4
Upper-middle class	17.5	11	13.9	15.8
Middle-middle class	50.9	73	56.5	35.4
Lower-middle class	19.7	11	21.3	30.9
Lower class	8.8	4	7.4	16.5
Total	100	100	100	100

also for the greater presence of children of entrepreneurs (four in ten as opposed to fewer than three in ten in almost all other countries). The existence of a broad entrepreneurial middle class constitutes a significant "quarry" for new entrepreneurs in Italy (Boscherini 2003).

In Latin American countries as well as in Italy and Spain, many of the dynamic entrepreneurs had previous entrepreneurial experience. First-time entrepreneurs are more common in East Asia, and they are more likely to be successful on their first attempt in business (Figure 3.3).

Motivation

As in Latin America, the main motivation for starting a business is the pursuit of personal fulfillment. However, the presence of inspiring entrepreneurial models is a significantly more important source of motivation in Asian countries (except Japan).[2]

In Latin American countries, models are fundamentally within the family, that is, very close to the entrepreneurs. By contrast, in East Asia, the mass media plays an important role in making entrepreneurial models and business opportunities known. In Taiwan, for example, only one in ten entrepreneurs mentioned a relative as a source of inspiration compared with six in ten who mentioned the media.[3] In Latin America, cases publicized by the media tend to reinforce the public's negative image of businesspeople. That image is not based on the life experience of the majority of entrepreneurs, whose stories are not attractive news for the media. The more widely publicized cases are associated with business behavior questioned by the population (being unethical or making questionable profits).

This contrast seems to indicate that the cultural contexts are quite differentiated. In Asian countries—more than in Latin America—the figure of the businessperson seems to be directly tied to stories of effort and achievement not only individually, but also for the development of society as a whole (see Chapter 1). In Asia, the role of businesspeople, along with that of the state, seems to be associated with achievements attained in raising education levels and the incomes of the population, as well as in levels of productive and technological development.

In Italy, contrary to expectation, models are not a very important factor. Instead, family influence plays a major role in the motivation to carry on the tradition of being in business. This factor is more prominent in Italy than in Latin America, Spain, and East Asia.

[2] The desire to put knowledge into practice was excluded as a motivating factor because not all East Asian countries included this option in their surveys.

[3] Another way the media generates a climate favorable to enterprises is by spreading information about business opportunities. This type of contribution is significantly greater in Taiwan, Singapore, and Japan than in the other countries. In Japan, television and the print media devoted significant space to the experience of entrepreneurs and businesses (Lundström and Stevenson 2001; Ko 2001).

Figure 3.3
Participation of First-Time Entrepreneurs by Country or Region

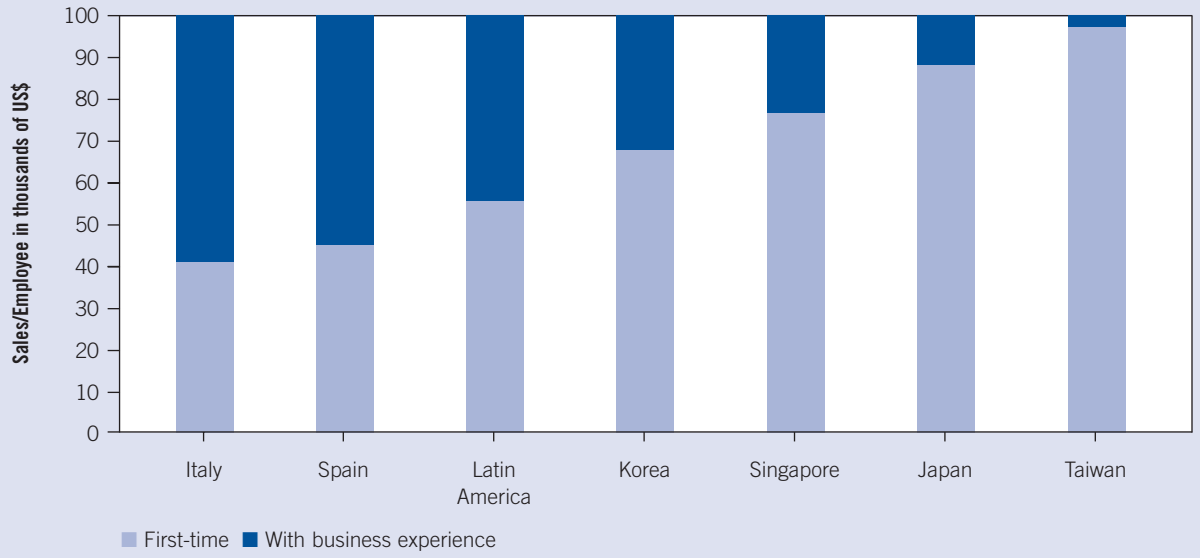
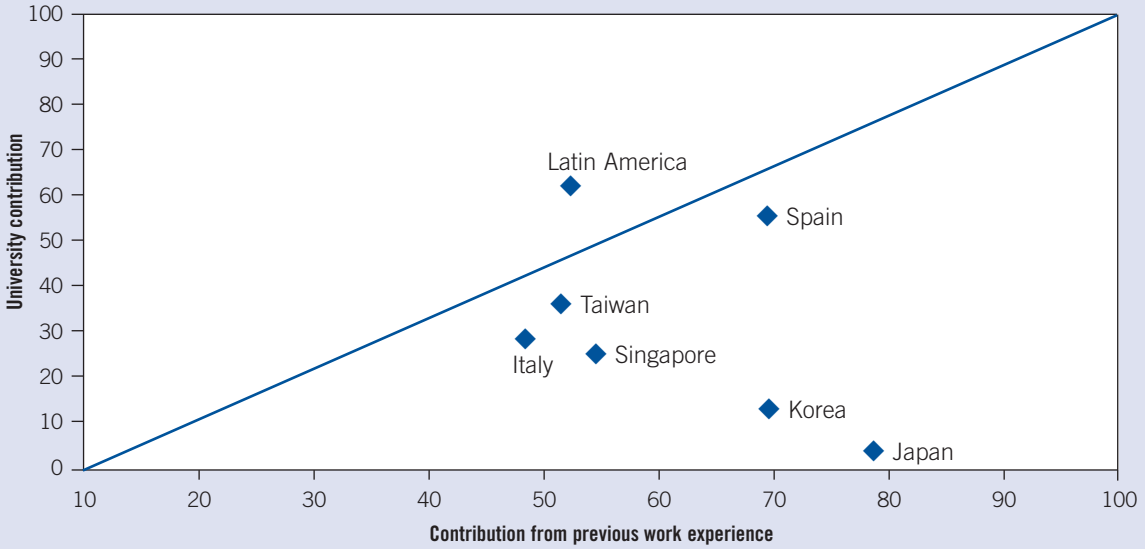


Table 3.2
Main Motivations of Dynamic Entrepreneurs by Country or Region
(Ranking position and, in parentheses, percentage of entrepreneurs)

Motivation	Latin America	Italy	Spain	Japan	Taiwan	Korea	Singapore
Personal fulfillment	1 (88)	1 (54)	1 (80)	1 (71)	1 (90)	2 (82)	1 (82)
Contribute to society	3 (58)	7 (15)	4 (41)	2 (61)	3 (68)	1 (83)	3 (71)
Role models	5 (33)	6 (21)	7 (25)	6 (33)	2 (73)	3 (61)	6 (57)
Independence	4 (56)	2 (51)	2 (63)	4 (51)	7 (31)	6 (43)	4 (69)
Improve income	2 (74)	3 (42)	3 (50)	3 (52)	5 (54)	4 (56)	2 (77)
Become wealthy	7 (27)	8 (13)	5 (31)	5 (40)	4 (54)	7 (39)	5 (66)
Follow family tradition	8 (19)	4 (40)	8 (23)	9 (6)	8 (10)	10 (10)	8 (29)
Social status	6 (31)	5 (23)	6 (31)	7 (30)	6 (37)	5 (50)	7 (40)

Figure 3.4
Role of the University and Work Experience in Forming Technical Knowledge
(Percentage of entrepreneurs)



Asian entrepreneurs were more inclined to acknowledge their intention to get rich, as opposed to the option of earning more, which was highlighted more in countries in Latin America and Europe. This response may indicate that cultural barriers to social recognition of material ambitions are greater among people in Latin America.

Technical Knowledge and Business Skills

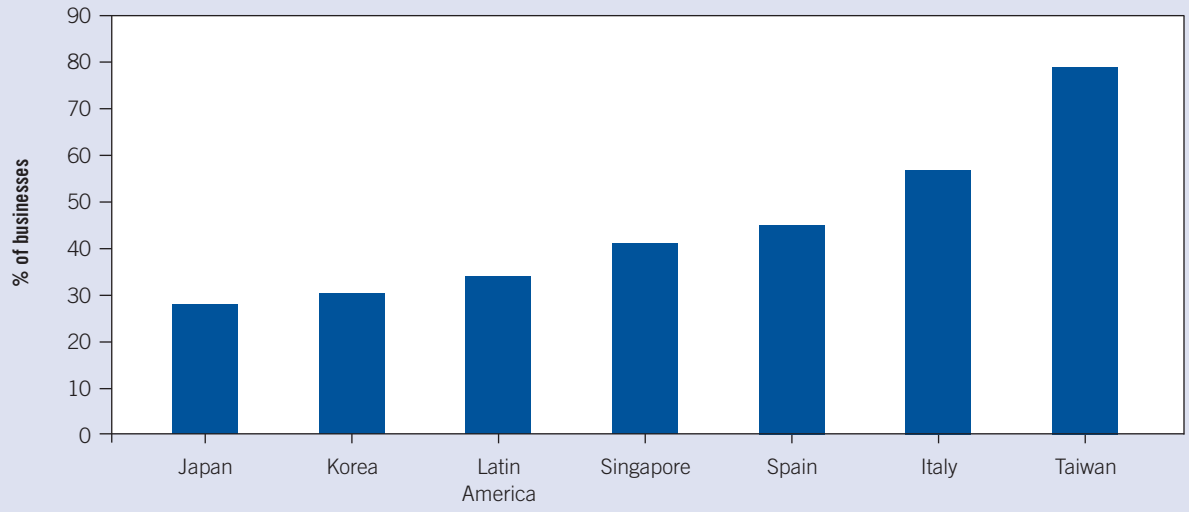
There is a significant contrast with regard to the role played by the university in different regions. In Latin America, its relative contribution to acquiring technical knowledge, a key resource for starting a business, is clearly more decisive than in other countries. In almost all Latin American countries, its contribution is far greater than the work environment, and positively distinguishes the more dynamic from the rest. This situation is different from that found in Asian and European countries, where work experience is more important as a source of technical knowledge.

In Italy, only one in four entrepreneurs is a university graduate, that is, less than half the rate in the other countries. These figures show that the technical knowledge for starting a business circulates and is spread through broader channels than those provided by the system of higher learning. In Italian industrial districts, for example, the network of small and medium enterprises plays such a role (Boscherini 2003; Boscherini and Poma 2000).

In Latin America, the strong role played by the university occurs in a context of specialization in production activities that are not very knowledge-intensive. Production networks as well as information and technology flows between businesses and institutions are poorly developed. This is not meant to minimize the role of the higher education system, but rather to recognize its contribution and potential for fostering the diversification and upgrading of the productive structure in Latin American countries by training entrepreneurs who have university education. The education system also faces the challenge of broadening production and spreading the technical knowledge needed for starting businesses, given that the proportion of the population attending university is only a minority in most countries (see Chapter 1).

Companies are the most fruitful environment for developing skills for starting a business, such as management ability (for example negotiation, administration, and teamwork) and other business skills (aptitude for business and tolerance for risk). Nonetheless, the ability to do business learned in previous employment is still significantly greater in East Asia (78 percent compared with 56 percent in Latin America, 38 percent in Italy, and 60 percent in Spain).

Figure 3.5
Percentage of Businesses Started by More than Two People



The contribution of the family as an environment that shapes some business skills (capacity for hard work) was more recognized in Spain. In the case of Italy, entrepreneurs indicated certain difficulties in identifying the context in which they acquired their entrepreneurial skills. The reason may well be the interrelationships in Italian industrial districts between the different spheres where, for example, there is a great deal of overlap between business and family (Boscherini 2003).

BUSINESS PROJECTS

Startup teams tend to be smaller in Latin America, especially compared with those in Taiwan and Italy, where, respectively, eight and six in ten enterprises have at least three founding partners.

Something similar occurs with initial investment. The proportion of Italian and Spanish entrepreneurs who invested more than $100,000 (43 and 40 percent, respectively) is double that of Latin America. Although information available on the investments of Asian entrepreneurs is more limited, it points in the same direction.[4] In other words, projects in Latin America start at a lower initial level of investment.

Furthermore, technology-based enterprises were more common in Asian countries, particularly in Japan and Korea.[5] Business activities associated with the outsourcing of work from other firms were more likely to be taken advantage of in Spain and Italy.[6] These differences reflect structural contrasts and contrasts in the behavior of productive actors. The different performance of innovation systems and the greater platform of technology companies in East Asia help explain this (see Chapter 1). In addition, the crisis of some economies (for example, Korea) stimulated the emergence of spin-offs of professionals from large corporations (Baek 2001).

Moreover, subcontracting as a source of opportunities for creating dynamic enterprises is correlated with dif-

[4] One in four invested more than $500,000 as opposed to one in ten in Latin America.

[5] The criteria for selecting the companies made it possible to include companies from knowledge-based sectors and from the traditional manufacturing sector in a proportion ranging between 35 and 65 percent, Whereas in East Asia it was difficult not to go over the maximum limit of the interval, in Latin America the opposite was the case. Although the sector composition of the panel cannot be extrapolated to the totality of new enterprises, the differences noted indicate the presence of contrasting sector profiles.

[6] In Italy, one in three enterprises arose to produce goods previously processed by other companies. It may be that their presence is not greater due to the prevalence of a business network comprised of specialized and articulated small and medium-size companies with little room for further intensifying subcontracting practices, which are already quite widespread.

Figure 3.6
Proportion of New Companies Based on Subcontracting

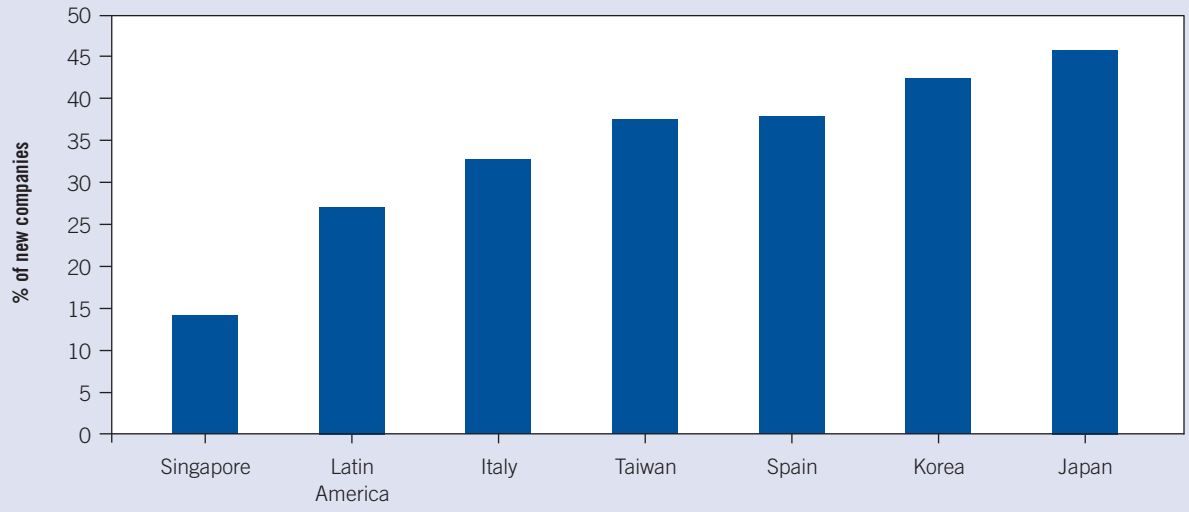
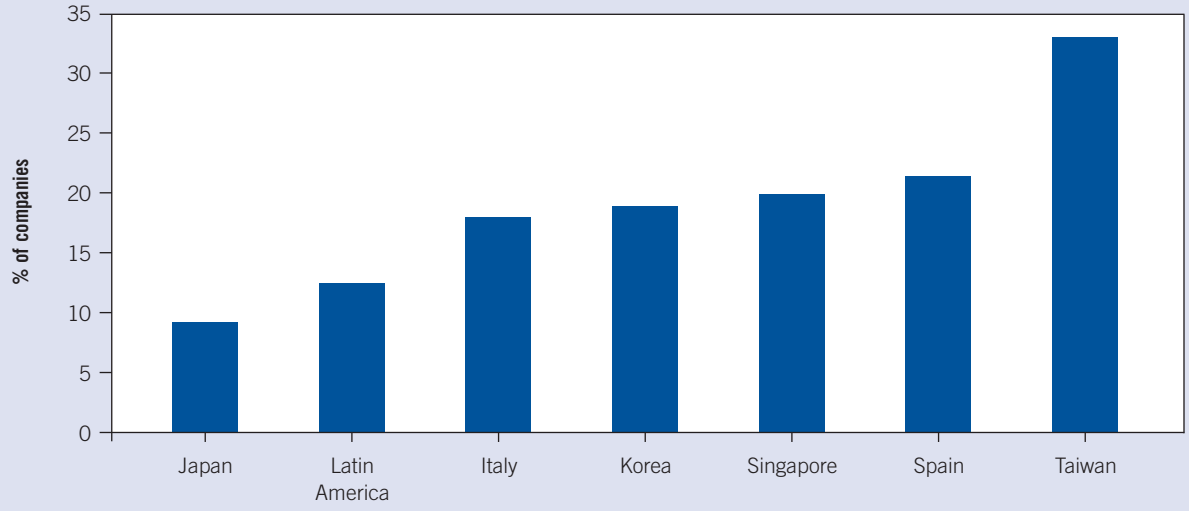


Figure 3.7
Dynamic Export Companies by the Third Year



ferent levels of vertical integration, articulation, and productivity gaps between small and medium-size companies and large companies from one economy to another (Kuriyama 1990; KIET 2000; Peres and Stumpo 2000; Lee 1997; Katz 1986).

New export enterprises are scarcer in Latin America. This difference may be based at least partially on the degree of international orientation of the companies in which entrepreneurs were formed. It tends to be low in Latin American countries, in contrast with the strong export propensity shown in most of the other countries (see Chapter 1). Hence, "entrepreneur schools" provide different skills, learning, and contacts, which are then used by entrepreneurs to do business.

In Latin America, both exporting and subcontracting are more common among dynamic entrepreneurs than oth-

Table 3.3
Main Sources of Competitive Advantages of Dynamic Enterprises
(Percentage of enterprises by country or region)

Sources of advantages	Latin America	Italy	Spain	Japan	Taiwan	Korea	Singapore
Price	24.9	26.0	29.6	50.0	26.5	28.0	31.4
Quality	53.1	71.0	65.7	61.5	66.5	57.0	57.1
Services	51.3	57.0	69.4	62.5	78.0	51.0	80.0
R+D, design	38.0	29.0	42.6	33.2	61.0	38.0	37.1
Marketing	27.1	22.0	36.1	21.6	45.5	27.0	57.1
Delivery of services	38.7	41.0	62.0	53.8	31.0	20.0	60.0

ers. That is, the businesses most associated with better performance are also more common in East Asia and southern Europe than in Latin America.

Finally, while most entrepreneurs established their businesses by differentiating already existing goods by quality and/or service, those in Italy and Spain and almost all Asian countries (except Korea) moved ahead of their competitors more significantly than the Latin Americans. In some countries, they also managed to differentiate themselves from their competitors in terms of research and development or design efforts (Taiwan) and marketing activities (Taiwan and Singapore). In other words, competition in these countries is broader and more widespread.

In short, comparison of enterprises across regions reveals differences in startup scale, degree of development of businesses in technology sectors, subcontracting and/or exports, and ability to outdo competitors based on differentiation.

Smaller startup scale may be attributable to both the smaller size of domestic markets in Latin America and greater restrictions on financing enterprises. Inasmuch as most businesses are aimed at meeting the demands of other domestic businesses, the smaller size of the entrepreneurial economy in Latin American countries and the restrictions on articulation between large and small companies (especially new ones) constitute structural aspects that limit room for opportunities for new enterprises. Moreover, the profile of already existing companies—where the entrepreneurs were trained—also differs among countries. The low orientation of Latin American enterprises toward technology sectors and/or exports makes it less likely that entrepreneurs will conceive of new businesses of that nature or have the contacts to facilitate their development.

It is likely that these structural aspects, which set Latin American countries apart from the others, help explain the contrasts identified above and force the region's entrepreneurs to confront the limits imposed by preexisting conditions. The connection between the structural characteristics of different contexts and the profiles and performance of entrepreneurs should be studied more thoroughly in future research.

NETWORKING

Figure 3.8 gives an overview of the extent to which entrepreneurs use networks at different key points in the process of creating an enterprise. Networks may be used at inception to identify the opportunity, at startup to access resources, and in early development to help with management challenges.

It is for access to funding resources, for example, that most entrepreneurs make use of networking. Even in Spain, where the number of entrepreneurs that used it is less, almost eight in ten did so. By contrast, support for dealing with management problems in the early

Figure 3.8
Companies That Used Networking to Deal with Problems
(In percent by country or region)

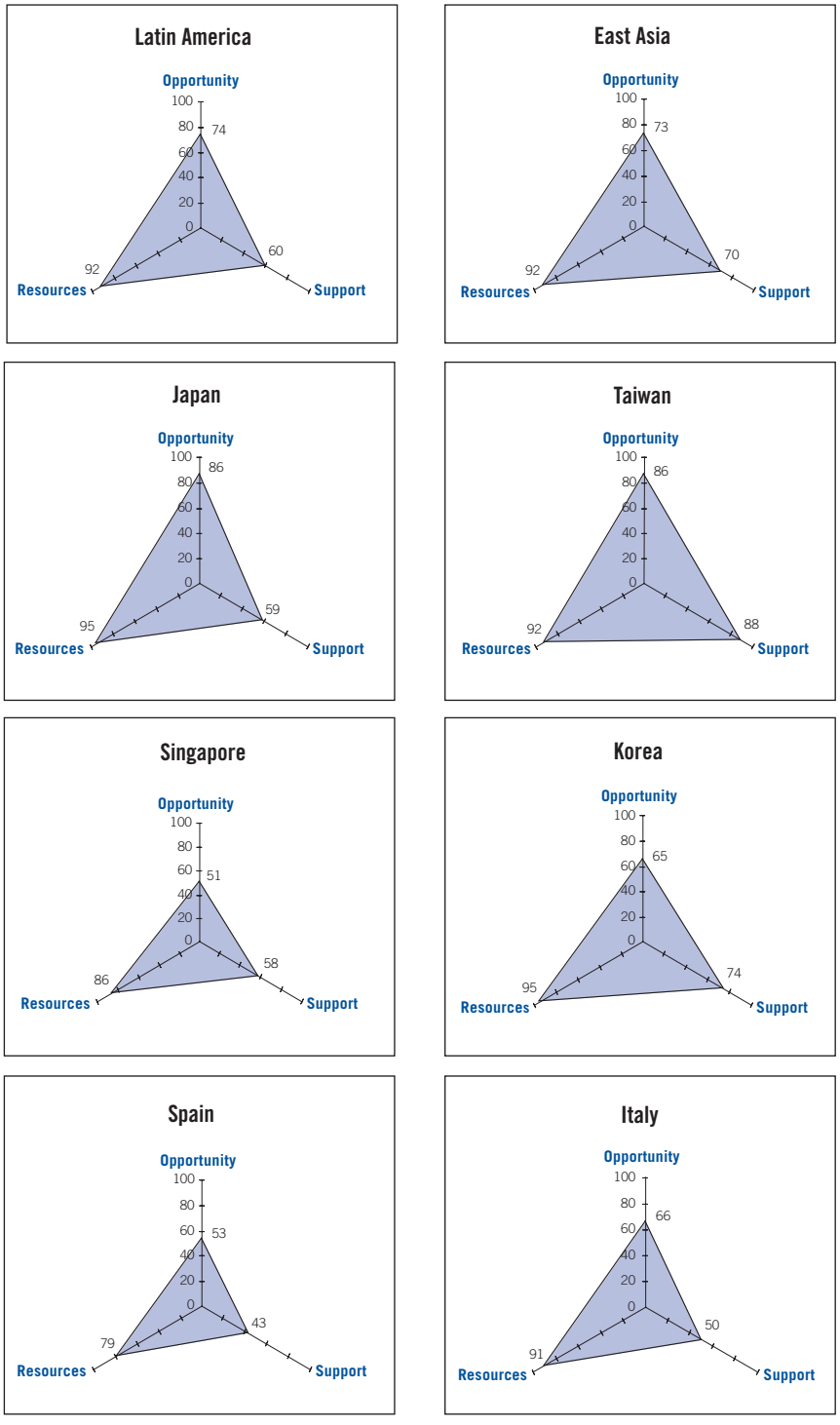
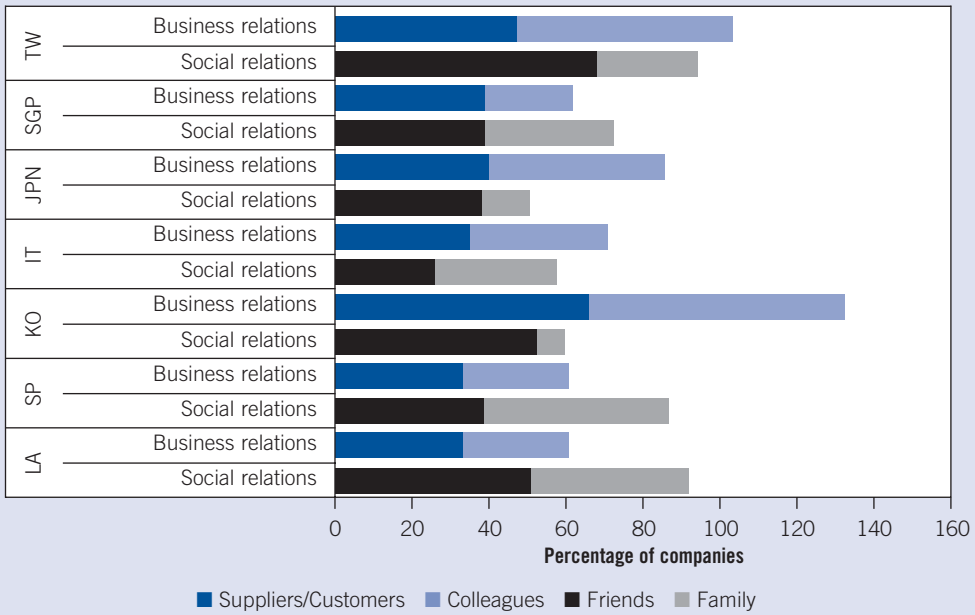


Figure 3.9
Importance of Networks by Group and Country



years is the point in the process where networking is least used.

This use of networking is more widespread in Taiwan, followed in order of importance by Korea and Japan. This finding reinforces the image of the existence of business networks favorable for entrepreneurs in that region. Networks (especially of suppliers and clients) provide crucial support in the early years of the firm in Taiwan and Korea.

At the other extreme, Spanish entrepreneurs make little use of networks, particularly to seize business opportunities and obtain support in the early years of the firm. However, there is no evidence to explain this behavior profile on the part of Spanish entrepreneurs.

Latin America and Italy stand at intermediate levels. The role of networking for access to resources and opportunities is more important than access to managerial assistance for enterprises. In Italy, known for the importance of its business networks, half of the entrepreneurs dealt with the initial management challenges based solely on the efforts of their internal organization. However, entrepreneurs in Italy were the least likely to mention problems in the early years, in particular those related to the difficulty of obtaining suppliers and customers, purchasing adequate machinery and equipment, and adapting to customers' needs.[7] It may be that a favorable environment for starting a business along with the contribution of networking play more of a preventive than a reactive role, and that they are most important for keeping problems from arising (Boscherini 2003).

One aspect that distinguishes the networks of Latin American and to some extent Spanish entrepreneurs is the greater relative importance of their immediate social circle (relatives and friends). In East Asia (especially Korea) and Italy, business relations are much more common than in the other countries. This greater presence of contacts with the business world in the case of Asian entrepreneurs is somewhat surprising given the lesser presence in this region of those who already had previous entrepreneurial experience. This

[7] In Latin America entrepreneurs in Mexico and Peru contribute to raising the regional average, while those in Chile and El Salvador are less likely to use networks.

Table 3.4
Profile of the Networks of Dynamic Entrepreneurs
(By country or region, in percent)

Occupation	Latin America	Italy	Spain	Japan	Taiwan	Korea	Singapore
SME owner	45	56	58	56	58	67	44
Large company executive	38	14	26	23	28	24	28
Employee	26	21	25	52	40	41	11

finding seems to indicate that conditions in Asian countries are more favorable for networking.

Another distinctive feature of Latin American entrepreneurs is the greater relative presence of large firms among their key contacts, especially among the more dynamic entrepreneurs. This situation contrasts with what occurs in Asian and European countries, where entrepreneurs of small and medium-size firms play a more significant role than employees of large firms. In Japan, and to a lesser extent Korea, contacts with other employees also contributed more significantly to identifying the business opportunity, filling out a more heterogeneous and less concentrated profile of the sources of relevant contacts.

The initial networks of Latin American (and also Spanish) entrepreneurs are less stable than those in Italy and Asia, thereby reflecting that connections are weaker. Less than a third of the former still retained any of these ties at the time of the study, as opposed to almost half in most of the other countries. In Italy and Taiwan, at the other extreme, six in ten maintained some type of relationship. Half of the Italians had internalized one of these contacts as a partner in the enterprise, while among the Asians stable ties with customers were also very important (40 percent), that is, they remained linked to the firm as part of an external network.

BUSINESS ENVIRONMENT AND FINANCING

The responses of entrepreneurs about discouraging factors at the time of making the decision to go into business reflect less favorable conditions in Latin America. These responses coincide with the evidence presented in Chapter 1, for example, concerning the decision to register a new business or finance the creation of a firm. At the other extreme, Italy and Taiwan stand out positively, as does Japan in the tax and regulatory area and Spain in tax matters.

The financing sources used also present significant contrasts. Although personal savings constitute the primary funding of entrepreneurs in all countries, the financing context is particularly restrictive in Latin America. Bank loans were used to create the enterprise by a significantly larger segment in Italy, Spain, Korea, and Taiwan, whereas public sector financing was more significant in Japan, Korea, and Italy, as was venture capital in Taiwan and Korea. In Latin America, however, venture capital was quite restricted and basically limited to informal investors whose presence was greater during the years of the Internet business boom. Thus, Latin American entrepreneurs were forced to seek help from suppliers or customers or to purchase used equipment.

Once the company has been started, in some countries the gap in the composition of sources used tends to become firmly established and even accentuated. The use of bank sources in Japan, or government support in Japan and Korea, is thus becoming increasingly common.

In most countries of Latin America, the main reason offered for not using external sources was the lack of adequate supply, whereas in Italy—and Spain to a lesser extent—the major reason was that there was no need for additional funding. Likewise, Latin American entrepreneurs were most likely to highlight the negative consequences of external financing constraints (such as starting at a smaller scale or technology level),

Figure 3.10
Main Obstacles Discouraging Entrepreneurs from Creating a Business

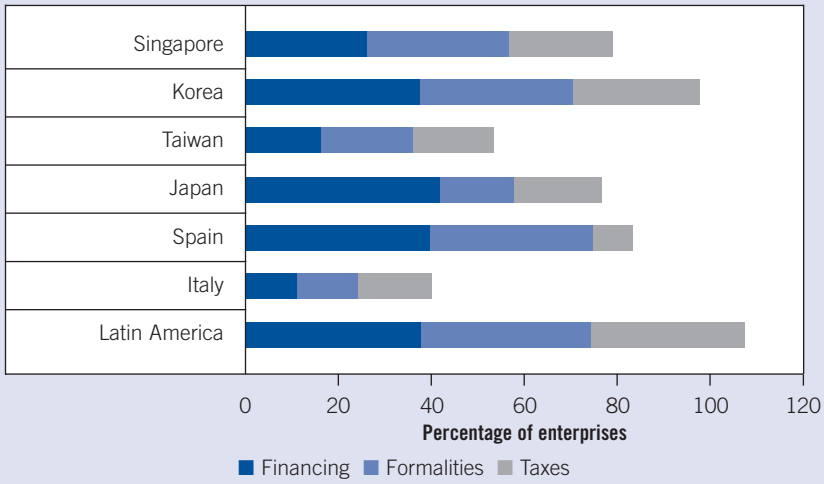


Table 3.5
Main Sources of Access to Financing at Company Startup and in the Early Years
(Percentage of companies)

	Internal sources		External sources							
			Banks		Public support*		Venture capital**		Other sources***	
Region/country	Startup	First years	Startup	First years	Startup	First years	Startup	First years	Startup	First years
Latin America	88	88	21	26	3	5	9	6	59	58
Italy	76	76	50	49	19	14	6	7	32	46
Spain	81	81	39	42	11	6	7	13	54	48
Japan	88	88	26	61	28	61	17	17	36	32
Taiwan	67	67	30	35	4	5	33	28	37	30
Korea	70	70	33	30	19	30	23	24	29	31
Singapore	80	80	6	26	11	17	9	14	46	57

* Includes loans, guarantees, and subsidies from public national and local institutions.
** Includes «angel investors» and corporate investors.
*** Includes advance payments from customers, credit from suppliers, purchase of used equipment and factoring.

whereas Italy and Korea were at the opposite extreme. In Taiwan and to a lesser extent Japan and Singapore, it was much more common to deal with these constraints by seeking new partners than in the other countries. No doubt the conditions of trust in Japan and Singapore and the greater savings capacity of the population and its lesser aversion to risk facilitated such behavior (see Chapter 1).

In short, the business environment presents significant

Table 3.6
Reasons and Consequences of the Non-Use of External Financing
(Percentage of companies)

Reason for non-use of external sources	Latin America	Italy	Spain	Japan	Taiwan	Korea	Singapore
Additional capital not needed	32	86	47	19	19	7	23
Offer was inappropriate	51	9	27	23	32	12	17
Consequences of non-use of external sources							
Scale reduced	56	13	41	31	43	26	60
Sought partners	11	7	11	38	70	9	34
Sought support from customers/ suppliers	51	7	27	24	51	5	63
Delayed launching	32	14	15	7	26	3	43

contrasts between Latin American countries and the other regions and defines a framework that is less favorable for starting and developing businesses in Latin America. This context helps explain the poorer performance of dynamic enterprises in Latin America.

CONCLUSIONS

Despite the dynamism shown by the new Latin American firms, it was still less than that of companies created in East Asia, Italy, and Spain. Yet, the differences between the various countries further highlight the effort and dynamism of the Latin American entrepreneurs. They were able to create enterprises and make them grow under relatively less favorable circumstances.

The importance of the middle class and the emergence of entrepreneurs from lower socioeconomic strata are more limited in Latin America than in East Asia, where social mobility is fostered more. Furthermore, there are fewer first-time entrepreneurs in Latin America than in East Asia, and hence their contribution to spreading the entrepreneurial base is more limited.

Some important contrasts were noted with regard to the motivational context influencing entrepreneurs. Especially in East Asia, the mass media publicizes entrepreneurial models and business opportunities, thereby helping to forge entrepreneurial vocations and identify business ideas. Moreover, the entrepreneurs recognized more ambitious ideas that impacted their desire to start a business. In Italy, the desire to create a business to continue the family tradition is a strong motivating factor, especially when the widespread presence of family businesses in that country is taken into account. In Latin America, such sources of motivation are much less powerful, reflecting the limitations of the sociocultural context for igniting entrepreneurial vocations.

Latin American universities play a more important role in the acquisition of technical knowledge than does training on the job. This situation differs from what hap-

pens in the other countries, where the companies in which entrepreneurs had worked previously were the main source of this kind of learning. The lesser presence of knowledge-intensive companies in Latin American countries means that institutions of higher learning and other scientific and technical institutions have to play a particularly prominent role in implementing policies for entrepreneurial development.

The projects are differentiated in terms of their initial scales and also in the profile of opportunities on which they are based. Knowledge-based, subcontracting, or export businesses are significantly less common in Latin American countries. They also have less of an edge on their competitors as a result of differentiation (quality, service, or marketing), which is the main source of opportunities for creating dynamic enterprises. This finding is connected to the characteristics of production in Latin America. The smaller presence of enterprises of this nature means that entrepreneurs are formed in schools that are less qualified for fostering such businesses. This likewise reinforces the conclusion in the previous chapter on the importance of encouraging the development of the ability to identify businesses with growth potential. The room for opportunities for entrepreneurs must likewise be expanded, for example, through policies for innovation and the internationalization of companies, which should be connected to entrepreneurial development initiatives.

Other important differences have to do with the characteristics of teams and networks. Latin American teams tend to be smaller and their networks are both less stable and more restricted to the immediate social circle. Building teams and networks depends largely on predominant attitudes and values in society. Levels of trust and the willingness to form associations open up space for forming networks and teams. Moving toward a more entrepreneurial culture and strengthening social capital ought to contribute to the development of denser and more stable networks, benefiting entrepreneurs and their enterprises. That will foster the possibility of identifying quality projects and having the support of more specific networks.

Finally, the conditions of the contextual setting, particularly the financing environment, have a particularly negative effect on the creation and development of enterprises in Latin American countries. That does not mean that the problem of access to financing has been solved in the other countries, but its magnitude is significantly less. That is why Latin American entrepreneurs are forced to scale down their projects in terms of start-up size or technology level, and to seek alternative sources, such as credit from suppliers and customers or purchasing used equipment. These factors may have a decisive impact on the subsequent performance of the firm. Facilitating access to credit and venture capital should be part of the policy agenda for favoring the creation and development of dynamic enterprises.

In sum, the development of Latin American countries requires more entrepreneurs and more decisive growth of new enterprises. However, the structural conditions for entrepreneurial development in the region are less favorable to enterprise creation than in other more developed countries. Comprehensive entrepreneurial development strategies must be devised that deal with all the factors that negatively influence the various stages and events in the entrepreneurial process. ■

CHAPTER 4

DYNAMIC LOCAL AND METROPOLITAN ENTERPRISES

Virginia Moori Koenig and Hugo Kantis

This chapter looks at the factors that distinguish the process of starting dynamic local and metropolitan enterprises in Latin America and identifies the major similarities and contrasts with Spain, Italy, and countries in East Asia. The aim is to shed light on the relative advantages and disadvantages of development in the region in order to stimulate dynamic, growth-oriented enterprises. In Latin America, agglomerations of firms have distinct characteristics in terms of the number and size of enterprises, competitiveness, innovative capacity, and development potential, among other aspects. However, as distinguished from what happens in clusters of firms in industrial countries, in large measure in the Latin American clusters the degree of specialization and complementarity among enterprises is low and innovative capacity is limited (Altenburg 2001). Against this backdrop, the assumption guiding the analysis is that the structural limitations of local agglomerations in Latin America limit their capacity to function as virtuous incubation environments.[1]

From a broad conceptual perspective, various factors influence the conditions for creating and expanding a company in a delimited location. These include cultural values of the local society, networks of small and medium enterprises, the degree of development of the networks interconnecting enterprises and institutions, the specificity and idiosyncrasy of the evolutionary path of the locality, and the richness of collective learning processes. In this sense, the local entrepreneurial dynamic depends not only on the sector profile, but also on links to other more specific factors in the environment. The influence of the local context in the entrepreneurial process is a topic of growing interest (OECD 2003a).

The analysis devotes particular attention to the degree of dynamism or performance of new entrepreneurial activities, the background and characteristics of entrepreneurs, the scope of learning and training, the project profile, contact networks, and access to resources and environmental conditions that influence the decision to embark on an entrepreneurial venture. For each of these factors, similarities and contrasts are identified between the characteristics of Latin American countries and of Spain, Italy, and East Asian countries. It bears noting that this avenue of investigation has yet to be adequately explored in the Latin American countries, for which reason there is a lack of comparisons between such contrasting countries. This chapter marks a first step in that direction.

SELECTED ENTERPRISES[2]

The analysis is based on empirical evidence relating to some 550 young, dynamic enterprises in Argentina, Brazil, Chile, Mexico, and Peru. Roughly a third of the cases examined are local enterprises and the remainder are metropolitan enterprises.[3] The majority of the local enterprises tend to be engaged in traditional man-

[1] Identifying the factors that distinguish the entrepreneurial process for local enterprises in the region reflects the growing interest shown in recent decades in the relationship between the creation of firms and regional or local economic development.

[2] In Singapore, El Salvador, and Costa Rica, the investigation focused exclusively on metropolitan areas.

[3] In accordance with the methodological guidelines for the study, local enterprises are located in areas of industrial concentration within a territorially delimited area that facilitates informal interaction among entrepreneurs. Although the population of such areas may differ from one country to the next, the enterprises included were situated in sector clusters with a high concentration of small and medium enterpris-

ufacturing activities (9 in 10 enterprises). This is less pronounced for the majority of the metropolitan enterprises (between 6 and 7 in 10), which are also involved in new information and communications technologies. Box 4.1 lists the locations of the local and metropolitan enterprises included in the study.

The information from the East Asian countries refers to 600 dynamic local and metropolitan enterprises in Japan, Taiwan, and South Korea, in roughly the same proportions as those in Latin America. On average, slightly less than half of the local enterprises are active in traditional industries (45 percent), while for metropolitan enterprises knowledge-intensive activities account for nearly two-thirds of the total.

In Italy, the information is based on a group of 100 dynamic firms, of which more than half are located in industrial districts specializing in the production of traditional manufactures, while the remainder is located in metropolitan areas in Tuscany. A similar number of enterprises were surveyed in Spain. About one-fourth of the Spanish sample are local enterprises engaged in conventional industrial activities.

PERFORMANCE

In Latin America, the local enterprises studied show little growth in terms of their annual invoicing or number of employees, especially compared with the metropolitan enterprises.[4] The pattern differs in Mexico, where local enterprises in their first year tend to be larger than metropolitan enterprises, but then lose their relative dynamism and approach the general trend.[5] Local enterprises in Spain also register less growth (see Table 4.1). However, local manufacturing enterprises located in Italy grow more rapidly at the outset, but then are surpassed by the extraordinary performance of knowledge-intensive metropolitan firms. By contrast, local enterprises in the East Asian countries, whose characteristics are relatively similar to those of the metropolitan enterprises initially, grow significantly more rapidly over time.

For local enterprises in Latin America at the time of the survey, average sales per worker were 35 percent lower than for metropolitan enterprises. By contrast, in Italy and Spain, the level was somewhat higher for local enterprises (by approximately 10 percent), while in the East Asian countries the difference in favor of local enterprises was almost 80 percent (Table 4.2).

The available evidence does not permit associating the lower growth recorded for local enterprises in Latin America with their predominant sector profile. In a comparison of traditional local and metropolitan manufacturing firms, the metropolitan enterprises almost double their sales between the first and third years of life. The local enterprises grow at a more modest pace, a trend that is accentuated over time. In the East Asian countries, there are no significant differences between the performances of enterprises in the two areas.[6]

The lower degree of dynamism of new local enterprises in Latin America raises a number of questions about the capacity of those environments to generate positive externalities suitable for powering the creation and development of new enterprises and reducing—as in other more virtuous contexts—strategic uncertainties (Yoguel and Boscherini 2001) and transaction costs with which smaller and older firms must cope (Nooteboom 1993; Pyke and Sengenberger 1991). As noted in the specialized literature, geographical proximity favors interactions between local economic agents by facilitating the information flows needed to identify business opportunities, make appropriate technological choices, discover new markets, and gain access to the resources needed to establish the enterprise (Johannisson 2000).

es. The local areas selected differ significantly from one another as regards their industrial history, structure, and productive dynamics; the reciprocal specialization and complementary activity of economic agents; the socioeconomic conditions of their populations; and growth potential, among other factors. The results compared reflect the characteristics of the panel from both environments, but cannot be extrapolated to the universe of new enterprises established in local areas.

[4] The method for selecting local areas entailed various sector groups that, at the time of the survey, were in different stages of growth and dynamism.

[5] If Mexico is excluded from the analysis, annual sales of local enterprises are, on average, less than half those of metropolitan enterprises. In the first year of life, the figure is 45 percent, which drops to 43 percent in the third year and 40 percent at the time of the survey.

[6] In the case of Italy, this analysis was not possible because the sector and territorial compositions of enterprises were virtually distinct. Almost all the local enterprises in the panel are engaged exclusively in producing traditional manufactures, while the metropolitan enterprises are knowledge-intensive.

Box 4.1
Geographic Areas Included in the Survey

Region	Metropolitan enterprises	Local enterprises
Latin America	Buenos Aires (Argentina); Santiago (Chile); São Paulo, Campinas (Brazil); Mexico City, Guadalajara (Mexico); Lima (Peru)	Rafaela, Mar del Plata (Argentina); Americana (Brazil); Valparaiso, Bio-Bio (Chile); Trujillo (Peru)
East Asia	Tokyo, Kanagawa, Sautama, Chiba, Osaka, Hyoto, Aichi (Japan); Seoul, Inchon, Pusan, Taegu, Kwangiu, Taejon (Korea); Taipei, Kaoshung (Taiwan)	Kanazawa, Suwa (Japan); Shihung, Anyang Bucheon (Korea); TaiChung-Xian, Taipei-Xian, XianZhu City (Taiwan)
Spain	Madrid and Barcelona	Zaragoza
Italy	Florence-Prato, Pisa, Livorno, Arezzo and Siena (Tuscany)	Industrial Districts of Prato and Arezzo

Table 4.1
Average Annual Sales by Enterprise
(In thousands of U.S. dollars)

	Latin America		Italy		Spain		East Asia	
Years	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.
1	485	704	412	1,890	812	753	1,079	1,119
3	979	723	2,348	3,191	1,800	1,156	3,937	5,361
6 or 7	1,644	858	5,082	3,237	3,278	2,589	9,144	22,103

M.E.: Metropolitan enterprises.
L.E.: Local enterprises.

BACKGROUNDS AND CHARACTERISTICS OF ENTREPRENEURS

In almost all the Latin American countries, the profile of local entrepreneurs differs from that of metropolitan entrepreneurs, especially in the areas of education, social background, and prior experience. This contrasts with the greater degree of homogeneity of entrepreneurs in Spain and East Asia.

In Latin America, local entrepreneurs have less education than those in metropolitan areas. Fewer than half have completed university education, whereas more than two-thirds have done so in metropolitan areas. This pattern is even more pronounced in Spain and Italy, where the majority have completed mid-level education at most. Conversely, in the East Asian countries, there are no sharp contrasts and entrepreneurs who have completed university education are predominant in both areas (Table 4.3).

The social background of enterprise founders in Latin America is different as well, although the difference is less pronounced. In the local areas, there is a greater presence of entrepreneurs from the lower-middle and lower class (33 percent, compared with 25 percent for metropolitan entrepreneurs). Similarly, local entrepreneurs are more likely to be the children of payroll employees (39 percent, compared with 30 percent for metropolitan entrepreneurs). Moreover, local entrepreneurs are less likely to have previously founded other enterprises (Table 4.4). These results would appear to reflect the fact that education level and social background do not constitute barriers to entre-

Table 4.2
Average Annual Sales per Worker
(In thousands of U.S. dollars)

	Latin America		Italy		Spain		East Asia	
Years	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.
1	35	47	59	118	74	94	90	62
3	38	29	124	152	100	64	131	134
6 or 7	38	25	118	129	102	112	152	276

M.E.: Metropolitan enterprises.
L.E.: Local enterprises.

preneurship in the local areas, much less the subsequent performance of new enterprises.

By contrast, the available evidence for the other countries shows no differences with respect to entrepreneurs' social background or their parents' occupational profile in the different geographical areas, except in the case of Italy. In the Italian districts, there is a greater presence of founding partners from households where parents were engaged in entrepreneurial activity. That is, 5 in 10 entrepreneurs are the children of entrepreneurs, a proportion that drops to only 2 in 10 in metropolitan areas. This finding confirms the greater role of tradition and entrepreneurial culture in those areas, where a substantial proportion of enterprises are created as an expression of transgenerational phenomena (Boscherini 2003).

In general, local entrepreneurs tended to have worked in other small and medium enterprises (SMEs) before founding the new enterprise more often than their metropolitan counterparts did, reflecting the productive profile characteristic of those areas. This trend is observed in particular in the industrial districts in Italy.

The research also made it possible to ascertain that these differences exist regardless of the sector profile of the area in question, a fact that confirms the influence of the territory as an explanation for these variations.[7]

To summarize, the results of the investigation show contrasts in the entrepreneur profiles between the two areas, especially in Latin America. In the local areas of the region, the perception of the path of entrepreneurship as a desirable and feasible option is more widespread.

MOTIVATION FOR STARTING A NEW BUSINESS

The greatest contrasts are observed with respect to the influence of positive role models on entrepreneurship. This source of motivation is also more relevant for local enterprises in the countries of East Asia and Latin America, although there are interesting differences between the regions as regards the type of role models that motivate entrepreneurial activity (see Table 4.5).

In Latin America, a higher proportion of local entrepreneurs identified relatives, friends, and acquaintances as models (44 percent, compared with 29 percent of metropolitan entrepreneurs).[8] This distinctive local trait in

[7] Comparison of firms in the traditional manufacturing sector reveals that among entrepreneurs born in the metropolitan areas of Latin America, for example, only 39 percent failed to complete secondary education, while 67 percent fit this description in the local areas. Moreover, 29 percent of metropolitan entrepreneurs are the children of payroll employees, as against 39 percent in the local areas; 41 percent have work experience as an SME employee, a situation found in 52 percent of the cases in the local areas. These contrasts were not observed in Spain or the East Asian countries.

[8] This is found even in those countries where entrepreneurial role models were infrequently mentioned in the aggregate (Argentina, Brazil, and Chile).

Table 4.3
Education Level of Entrepreneurs
(Percentage of entrepreneurs)

Level of education	Latin America		Italy		Spain		East Asia	
	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.
Complete University	71.1	45.7	53.8	6.6	57.7	38.5	69.9	64.0
Incomplete University	8.8	10.5	12.8	4.9	7.3	2.5	5.2	2.9
Secondary	15.2	31.5	33.3	45.9	30.3	36.0	22.8	29.7
Primary	4.9	12.3	–	42.6	4.7	23.0	2.1	3.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

M.E.: Metropolitan enterprises.
L.E.: Local enterprises.

Table 4.4
Prior Experience of Entrepreneurs
(Percentage of responses)

Previous work	Latin America		Italy		Spain		East Asia	
	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.
Employee	71.8	71.6	64.1	80.3	81.9	88.0	82.8	81.9
Of SME	39.0	53.7	48.7	75.4	55.4	60.0	53.4	60.5
Of large company	39.0	24.1	17.9	4.9	36.1	32.0	40.8	42.9
Business owner	46.9	37.7	53.8	60.7	49.1	72.0	19.5	30.5
Other activity	10.5	11.1	25.6	9.8	12.0	–	8.4	3.4

M.E.: Metropolitan enterprises.
L.E.: Local enterprises.

the region reflects the fact that proximity facilitates people's identification of such inspiring examples. For local entrepreneurs in East Area, the communications media played a larger role (69 percent, compared with 54 percent for metropolitan entrepreneurs). As noted in Chapter 3, a distinctive trait of the East Asian countries in general is the significant involvement of the communications media in various stages of the entrepreneurial process, a phenomenon that appears to be even more pronounced for local entrepreneurs.

It bears noting that in Italy the influence of role models is generally limited and does not differ significantly by geographic area (20.5 percent in the metropolitan areas and 21.3 percent in the industrial districts). However, family tradition constitutes a more relevant motivational factor in the districts, reflecting the influence of the local cultural context (Boscherini 2003).

Finally, the available data show that the greater influence of role models on local entrepreneurs in Latin

Table 4.5
Influence of Role Models
(Percentage of responses)

	Latin America		Italy		Spain		East Asia	
Role models	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.
Total role models	29.0	44.4	20.5	21.3	28.9	12.0	50.8	66.1
1: To be an entrepreneur like a relative	14.6	29.6	17.9	21.3	21.7	12.0	21.8	24.3
2: To be an entrepreneur like a friend	7.2	14.8	15.4	9.8	15.7	8.0	24.1	27.7
3: To be an entrepreneur like someone from the city	7.7	15.4	17.9	8.2	14.5	4.0	21.8	27.7
4: To be an entrepreneur like someone who appears in the media	6.7	13.0	15.4	8.2	1.7	4.0	36.0	55.9

M.E.: Metropolitan enterprises.
L.E.: Local enterprises.

American and East Asian countries constitutes a phenomenon that is relatively independent of the type of activity of the enterprise.

The greatest contrasts between regions are found in the type of models motivating entrepreneurial activity. Entrepreneurs who are close to those interviewed, mostly family members, are important in Latin America, and entrepreneurial models publicized through the communications media are important in East Asia. In the Italian districts, family tradition constitutes the key motivational factor.

TRAINING IN ENTREPRENEURIAL SKILLS

In Latin America, the contribution of prior experience as a factor in skill formation is greater for local entrepreneurs. They valued the contribution of prior experience in 7 in 13 total subject areas covered by the survey.[9] The subject areas include entrepreneurial calling, other questions regarding attitudes, managerial skills, and technical knowledge. For technical knowledge, the role of experience was deemed more important than the educational system. That is, the role played by the firms where the interview subjects were employed before they became entrepreneurs is more important as a learning environment for local entrepreneurs than for metropolitan entrepreneurs. This trend is observed regardless of the sector.[10] SMEs were particularly important as a "school for local entrepreneurs" because work in these kinds of organizations occurred more frequently in this instance. These findings confirm the importance of SMEs as an environment for developing entrepreneurial skills, indicating that their profile and interconnections with other enterprises influence the design of new businesses.

Unlike the case in Latin America, in the countries of East Asia prior experience contributes to a similar degree in

[9] The positive influence of experience on the acquisition of skills by local compared with metropolitan entrepreneurs shows the following results: (i) business calling: 64 percent vs. 49 percent; (ii) technical knowledge: 64 vs. 47 percent; (iii) risk tolerance: 72 vs. 61 percent; (iv) business management: 74 vs. 60 percent; (vi) creativity: 57 vs. 43 percent; and (vii) planning: 65 vs. 52 percent.

[10] Among the entrepreneurs who starting local businesses focused on traditional manufacturing activities, the average number of skills acquired from prior experience is 10. Among those in the same sector in metropolitan enterprises, the average is 8.

both geographic areas, while the contribution of the university as a source of technical knowledge was more widely acknowledged by local entrepreneurs. In Italy as well as Spain, experience was more highly valued by local entrepreneurs. In the Italian districts, entrepreneurs highly value this source of learning but acknowledge a lesser degree of contribution compared with metropolitan entrepreneurs regarding the acquisition of management skills (administration, planning, and teamwork).

ENTREPRENEURIAL PROJECTS

In Latin America, there are distinct differences in the profiles of the projects undertaken by dynamic entrepreneurs in the two geographic areas. This emerges clearly from the differing degree of intensity as regards variables such as the size of the founding teams, initial investment, business orientation, and competitive strategies, as well as in matters relating to project development.

For local enterprises in Latin America, the presence of founding teams made up of a smaller number of partners, as well as sole proprietorships, is more common.[11] Similar differences are observed for local enterprises in Italy, but only during the first year of the enterprise. The number of partners grows after the enterprise is launched, a change that was not identified for local enterprises in Latin America. In the countries of East Asia, a distinctive characteristic of the local enterprise is the predominance of large teams in conjunction with the virtual absence of enterprises with just one partner. Indeed, 8 in 10 local entrepreneurial undertakings were created by teams made up of more than three partners, while this proportion is reduced to 6 in 10 cases for metropolitan enterprises.

Moreover, in Latin America, the few projects for which the initial investment required to begin operations exceeded $500,000 tend more often to be metropolitan enterprises. By contrast, in Italy and East Asia, projects that are initially larger in scale tend to be local enterprises. This situation could be related, at least in part, to the existence of vastly different conditions as regards access to financing for local enterprises for the two country groups.

Beyond the predominance of projects based on commercial differentiation, in Latin America, more than metropolitan entrepreneurs, local entrepreneurs tend to take advantage of business opportunities by offering lower prices and making more limited use of the possibilities afforded by innovation and export activity. In contrast, in the Italian districts, the more frequent competitive strategies are based on differentiation from existing goods or orientation of activities toward external markets. In the countries of East Asia, the differences between areas are not significant, although export-related activities are more important for local entrepreneurs (Table 4.6).

Local enterprises in Latin America target their sales toward individual consumers more than metropolitan enterprises do (40 percent, compared with 27 percent for metropolitan enterprises).[12] In Italy's industrial districts, the predominance of projects for which the principal customers are other businesses is greater (95 percent, compared with 77 percent for metropolitan enterprises), while individual consumers play a marginal role, as in East Asia.[13]

These contrasts between the profiles of local and metropolitan enterprises in various regions appear to relate to countries' existing demand structure. The differences also reflect the distinct presence of a dense and interconnected entrepreneurial web and its impact on the strategic behavior of new firms. Entrepreneurs vary in their capacity to identify business opportunities that have one profile or the other.

Compared with their metropolitan counterparts, local entrepreneurs in Latin America are less inclined to evaluate projects by means of conventional methodologies (for example, calculating cash flow, the period for recovering capital, and the internal rate of return). This is evidenced by the number of instruments consulted,

[11] On average, 44 percent of local entrepreneurial ventures are single proprietorships, a proportion that drops to 19 percent for metropolitan ventures. The presence of single proprietorships among local enterprises is even greater in Mexico and Peru.

[12] Chile was an exception. Orientation of sales toward individual consumers was most common for the group of enterprises located in the interior: 40.6 percent, compared with 20 percent for metropolitan enterprises.

[13] The differences identified between the projects in the two areas in Latin America proves to extend beyond their sector profile. Metropolitan and local entrepreneurial ventures in the traditional manufacturing sector tend to be differentiated by the same variables and in the same direction noted above. In the first case, the number of founding partners is greater and the orientation toward individual consumers lower, and a larger proportion of firms engage in export activities and make use of evaluation tools. In the countries of East Asia, the propensity to export and strategies based on product differentiation are even more important in the local areas than in metropolitan areas when controlling for the sector.

Table 4.6
Type of Business Opportunities
(Percentage of responses)

	Latin America		Italy		Spain		East Asia	
Type of opportunity	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.
To offer a differentiated product in the country	56	56	46	66	53	60	46	42
To offer an innovative product in the country	32	16	44	10	39	20	33	33
To offer an innovative product internationally	12	3	15	10	17	8	13	12
To offer a product at a lower price	32	41	3	16	19	24	21	24
To export	26	10	3	36	43	28	25	44

M.E.: Metropolitan enterprises.
L.E.: Local enterprises.

which averaged 3.5 for metropolitan enterprises and 2.5 for local enterprises. This contrasts with the study's findings for the countries of East Asia, where the use of these kinds of tools is significantly greater for local enterprises.

To summarize, the research identified differences in the profiles of the projects undertaken by dynamic entrepreneurs in the two areas in the countries under study. These differences suggest that local entrepreneurs in Latin America encounter greater difficulties in identifying business opportunities in order to develop higher quality projects, as well as in the formulation of the business plan. This contrasts with the situation in the other countries.

NETWORKS FOR ACCESS TO NONMONETARY RESOURCES

As shown in Chapter 3, for the majority of the entrepreneurs interviewed, contact networks played a key role in various aspects of the entrepreneurial process. Against this backdrop, there are a number of differences between dynamic local and metropolitan entrepreneurs in Latin America.

In the area of identifying business opportunities, contacts or networks of local entrepreneurs in Latin America tended to be more concentrated by social group. Interaction with relatives and friends accounted for 60 percent of contacts for local entrepreneurs, compared with 37 percent for metropolitan entrepreneurs. By contrast, in the Italian districts covered by the study, business relationships were more common, while in the countries of East Asia no differences were identified between geographic areas (Table 4.7).

Local entrepreneurial activities in Latin America are distinguished from the others by their greater interaction with SME entrepreneurs. In the same areas, professionals and executives of large companies are less frequently mentioned as part of the network of contacts used in identifying the business idea. A similar and more pronounced situation is observed in the areas of specialization in Italy. However, because the international competitiveness of Italian SMEs is acknowledged to be superior to that of Latin American SMEs, the similarity in the composition of contacts does not necessarily indicate comparable network quality levels. Finally, in the East Asian countries, there are no significant differences between the occupational profiles of local and metropolitan entrepreneurs (Table 4.8).

Table 4.7
Type of Relationship with Entrepreneurs' Contacts
(In percent)

	Latin America		Italy		Spain		East Asia	
Type of relationship	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.
Friend	25.9	31.0	22.0	9.3	26.3	23.1	24.1	29.5
Colleague	18.7	7.3	50.8	11.6	17.8	11.5	22.6	25.8
Relative/Family	18.7	29.2	13.6	26.9	25.3	34.6	5.7	7.4
Business relationship	22.4	18.6	10.2	46.5	23.2	23.1	26.0	23.8
Other	14.3	13.9	3.4	5.8	7.4	7.7	21.5	13.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

M.E.: Metropolitan enterprises.
L.E.: Local enterprises.

Table 4.8
Occupations of Entrepreneur's Contacts
(In percent)

	Latin America		Italy		Spain		East Asia	
Occupation	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.
SME owner	25.1	41.5	15.3	66.3	41.1	23.1	32.6	29.3
Employee	12.8	16.7	25.4	8.1	13.7	23.1	26.8	24.6
Professional	24.3	16.5	20.3	7.0	12.6	19.2	14.2	15.5
Large company executive	24.1	13.0	22.0	2.3	17.9	15.4	13.1	12.6
Other	13.7	12.3	17.0	16.3	14.8	19.2	13.3	17.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

M.E.: Metropolitan enterprises.
L.E.: Local enterprises.

The contact network of dynamic entrepreneurs in both areas in Latin America is unstable, and in most cases they do not maintain relationships with their initial contacts outside their geographic location. It is also noteworthy that the group of local enterprises that maintain some type of linkage tends to incorporate their contacts as partners less frequently (15.4 percent, compared with 23.4 percent for metropolitan enterprises). This trend is not observed in the other countries in general, except for Spain, where a sizable proportion of entrepreneurs in both areas retain their first contacts. However, there are differences in terms of the linkage established: in the Italian districts, the most frequent relationship is that of customer or supplier, while in the East Asian countries contacts tend to become partners.

In terms of networks that facilitated access to information, technology, and other nonmonetary resources for starting up the enterprise, the entrepreneurs in both areas used their personal contacts in similar proportions, and the number of contacts or extent of those networks was similar as well. However, in Latin America, interaction with friends and relatives was more common for local entrepreneurs than for metropolitan entrepreneurs,[14] evidencing the fact that social networks are more important in local than in metropolitan areas.[15]

Differences in the profiles of the local and metropolitan entrepreneurs' networks may also be verified by comparing information on conventional manufacturing firms in both areas, which makes it possible to infer that there are specifically local factors that influence network composition.[16]

Local entrepreneurs in Latin America are distinct in that they build contact networks that involve less trade protection, are more circumscribed by the nearby social environment, and tend not to feature skilled contacts (executives and professionals of large enterprises). This type of network contributes to explaining the poorer performance of local entrepreneurial ventures.

SOURCES OF FINANCING FOR ENTERPRISE STARTUP AND INITIAL DEVELOPMENT

In general terms, there are no significant differences between the financing sources used for dynamic enterprises in the two areas in Latin America. More than differences in location, there is greater use of financing from personal and family savings, as well as reduced access to external credit, principally bank credit (Table 4.9).[17] Concomitantly, a substantial proportion of the entrepreneurial ventures in both areas experience some kind of difficulty owing to the inadequacy of such financing. For example, the local enterprises more frequently began at a lower technological level than desirable (57.4 percent, compared with 47.2 percent for metropolitan enterprises).[18]

One distinguishing characteristic of Latin American entrepreneurs in both areas as regards the scant usage of external financing sources is the perception that the supply of credit is inadequate and support information is not abundant. This perception is more pronounced among local entrepreneurs and results in their preference for avoiding external financing (Table 4.10).

This is in contrast to the situation observed among local entrepreneurs in Italy, whose use of external sources (especially bank loans) was significantly greater than that of metropolitan entrepreneurs. Furthermore, in areas with an industrial specialization, there was greater recognition of the support received through public institutions, for both startup and initial development of the enterprise. Against this backdrop, only a minority (21 percent) of enterprises experienced problems attributable to the lack of external financing because in general they did not require increases in capital (Table 4.11).

Local entrepreneurs in East Asian countries used external sources more frequently, especially when starting operations, not only bank credit (37 percent, compared with 27 percent for metropolitan entrepreneurs), but also venture capital from both corporate sources and "angel investors" (32 percent, compared with 21 percent for metropolitan entrepreneurs). Furthermore, financing problems were encountered more frequently when incorporating partners into the enterprise (49 percent, compared with 35 percent for metropolitan entrepreneurs).

[14] On average, between 36 and 44 percent of local entrepreneurs use their contacts with relatives and friends to access information and technology, respectively, while these percentages are reduced by half for metropolitan entrepreneurs.

[15] Local entrepreneurs in Spain were less likely to use contact networks in the various stages of the entrepreneurial process.

[16] In Latin America, new metropolitan enterprises tend to have greater interaction with professionals and executives of large companies, and more often make use of production networks to access information and technology. In East Asia, local entrepreneurs tend to interact more with production networks outside the local area and with other types of networks (colleagues and professionals) as key sources for accessing information and technology. The literature indicates that a major factor in the success of enterprises in these countries is information networks and the degree of interconnection of flexible production systems in vertical and horizontal networks (Guerrieri, Iammarino, and Pietrobelli 2001).

[17] Dynamic entrepreneurs in both areas, in similar proportions, turn to alternate sources, such as support from suppliers and/or the purchase of used equipment.

[18] Chile constitutes an exception; the research indicated a greater use of external credit, in particular among local entrepreneurial ventures.

Table 4.9
Financing Sources
(Percentage of responses)

	Latin America		Italy		Spain		East Asia	
	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.
Internal sources								
At startup	86.2	86.3	84.6	84.6	80.7	84.0	78.4	68.4
First years	62.8	66.7	53.8	45.9	61.4	60.0	63.8	49.7
External sources								
At startup	34.6	34.6	38.5	75.4	56.6	52.0	46.6	56.5
First years	39.7	34.0	48.7	70.5	65.1	40.0	63.3	59.9
Banks								
At startup	26.2	28.4	30.8	67.2	48.2	44.0	27.4	37.3
First years	32.1	30.2	43.6	60.7	56.6	36.0	44.8	41.2
Venture capital								
At startup	9.7	8.6	7.7	4.9	8.4	4.0	21.1	31.6
First years	7.9	4.3	10.3	4.9	15.7	4.0	21.3	26.6
Public support								
At startup	2.8	3.7	5.1	27.9	10.8	12.0	16.7	13.0
First years	5.6	5.6	2.6	18.0	7.2	–	38.5	18.1
Other sources								
At startup	60.3	53.7	20.5	39.3	55.4	52.0	35.3	31.6
First years	59.2	52.5	43.6	47.5	47.0	52.0	34.8	22.0

M.E.: Metropolitan enterprises.
L.E.: Local enterprises.

All in all, the available evidence shows that, in Latin America in particular, access to bank credit is limited, which has a negative impact on most of the dynamic enterprises in both areas.[19] The inadequate supply of credit was more pronounced in the local areas, which may be a reflection of the presence of different factors affecting access between the areas, as well as a more negative attitude of Latin American entrepreneurs toward local financial institutions.

BUSINESS ENVIRONMENT

The study clearly shows that Latin American entrepreneurs in local areas perceive adverse conditions in the business environment at the time the decision to embark on a venture is reached, especially those conditions relating to the availability of financing, public support, anticipated economic growth, and the size and dynamism of the market. By contrast, local entrepreneurs in the other countries have a more positive assessment of the business environment.[20] For exam-

[19] The barriers to access to bank credit are diverse and complex, and have a significant influence on the high transaction costs of operations as a result of the reduced initial size of new enterprises and the lack of a prior history that builds trust in their business capacity.

[20] The average number of references to all the factors covered by the survey is 2.44 in local areas, compared with 1.91 in metropolitan areas. Chile is an exception in that it shows virtually no difference in the perceptions of the entrepreneurs in the two geographic areas.

Table 4.10
Reasons for Not Using External Financing Sources
(Percentage of responses)

	Latin America		Italy		Spain		East Asia	
Reasons	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.
Was not necessary	31.3	29.0	79.5	90.2	48.2	44.0	17.5	8.5
Preferred to avoid use of credit	36.2	49.4	20.5	9.8	10.8	24.0	11.3	14.2
Offer of bank credits not suitable	41.8	54.9	12.8	6.6	22.9	40.0	16.5	15.3
No information	31.5	46.3	2.6	4.9	3.6	8.0	14.4	14.2

M.E.: Metropolitan enterprises.
L.E.: Local enterprises.

Table 4.11
Consequences of Scarce Financing
(Percentage of responses)

	Latin America		Italy		Spain		East Asia	
Consequences	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.	M.E.	L.E.
There were consequences	77.2	75.9	38.5	21.3	57.8	60.0	68.4	71.2
Started operating on a smaller scale	55.6	54.3	28.2	3.3	39.8	44.0	32.5	35.6
Started operating later	33.3	34.0	28.2	4.9	15.7	12.0	9.0	19.8
Had to find new partners	12.3	8.0	10.3	4.9	10.8	12.0	35.3	49.2
Began operating with a lower level of technology	47.2	57.4	7.7	3.3	41.0	36.0	14.6	5.6
Required support from clients and suppliers	55.6	45.7	7.7	6.6	26.6	28.0	25.5	29.4

M.E.: Metropolitan enterprises.
L.E.: Local enterprises.

ple, Italy stands out in the assessment of financing availability (48 percent, compared with 31 percent for metropolitan entrepreneurs). In East Asia, local entrepreneurs have higher expectations regarding economic growth (62 and 44 percent for local and metropolitan entrepreneurs, respectively), financing availability (46 and 34 percent), public support (39 and 28 percent), taxation levels (17 and 6 percent), and processing and registration requirements (22 and 8 percent).

Finally, while Latin American entrepreneurs in both areas face a number of similar problems during the first years of business life, for local entrepreneurs, the following areas are particularly important: identifying suitable suppliers (61 and 50 percent for local and metropolitan entrepreneurs, respectively), adapting products to customer requirements (55 and 44 percent), and obtaining market information (52 and 43 percent). The extent of these problems for local entre-

preneurs in Latin America reflects limitations in the productive networks (customers and suppliers).

Moreover, the simple fact of being in these environments does not appear to generate additional externalities that entrepreneurs can use to resolve these problems more effectively than in the metropolitan areas. The rate of problem resolution is roughly the same in both cases. This situation contrasts with that observed in local areas in Italy, where the obstacles for metropolitan enterprises are less pronounced, or with the situation in the East Asian countries, where the capacity to resolve such problems is greater (roughly one-half, compared with one-fourth in metropolitan areas).

In sum, the research makes it clear that conditions in the entrepreneurial environment are less favorable in the local environment in the region than they are in the major cities. This also helps explain the poorer performance of the local enterprises.

CONCLUSIONS

The results of the investigation confirm that there are significant contrasts at play as regards the process of starting local and metropolitan enterprises, especially in Latin America. In the local areas of the region, entrepreneurs come from broader population groups and a greater number of them are starting up their first business. Furthermore, neighboring models of entrepreneurship have a more significant effect than in the metropolitan areas, reflecting the proactive and visible nature of SME entrepreneurship in the local community. SMEs constitute the most valuable "entrepreneurship schools" for local entrepreneurs, and provide the greatest contribution toward forging the calling and skills required for such ventures. In other words, the perception of the path of entrepreneurship as a desirable and feasible option is more widespread in these areas.

However, the subsequent dynamism of enterprises is significantly lower in the local areas. The investigation also provided information regarding the different profiles of entrepreneurs' projects, networks, and access to financing sources. Their competitive strategies, for example, tend to be more focused on offering lower prices than the competition. In some cases, they benefit from lower shipping costs and wage outlays than do enterprises from outside the local area.

Furthermore, there is a greater presence of single proprietorships or small teams, and networks are more concentrated in the entrepreneur's close social circle. Over time, these associations are more extensively involved than in the metropolitan areas. That is, these contacts are less frequently transformed into partnership, supplier, or customer relationships for the enterprise. They also contribute more to resolving the problems and challenges faced in the first years of life of the enterprise, when businesses have greater difficulties than do metropolitan ventures in garnering market information, adapting to customer demand, identifying adequate suppliers, and accessing external financing sources. These disadvantages contribute to explaining the poorer relative performance of entrepreneurial ventures in local areas.

This situation contrasts with that observed in the industrial districts of Italy and in East Asian countries. In those countries, local enterprises do not operate under conditions that are less advantageous than those applicable to metropolitan ventures, and in many cases their performance is better. In the Italian districts, for example, initial contacts are more narrowly business-focused and more often become future customers or suppliers for the new enterprise, thereby forging more stable linkages. In more developed productive environments, entrepreneurial projects are associated directly with the demand from other businesses for differentiated goods and services. Over time, their greater international focus becomes more prominent. In addition, the contribution of these production networks to facilitating access to information, technology, and other nonmonetary resources is more significant than it is in metropolitan areas. Finally, access to financing by banks and public institutions is considerably higher than it is in metropolitan areas. In East Asia, local enterprises grow more than metropolitan ones, their networks are more targeted and diversified, and, as in the Italian districts, access to external financing is more widespread.

In sum, the challenges facing new enterprises in local areas in Latin America are greater than those in metropolitan areas, as distinguished from the situation in Italy and East Asia. Firms in the latter environments continue to take advantage of the externalities and opportunities provided by the local networks for developing their businesses, and for beginning to export, while the projects in Latin America tend more to be confined by narrow local demand and local resources.

The results obtained highlight the structural limitations of local clusters in Latin America as regards functioning as virtuous incubating environments, which demonstrates the need for strengthening the entrepreneurial process in local areas within the framework of comprehensive and systemic strategies. This requires the adequate assessment of the functioning of the factors that affect the new firm formation process in the areas and sector groups in which they intend to be active. The limitations identified reveal that a key focus of activities, in addition to improving the business climate and strengthening pre-existing networks, is actions oriented toward developing networks extending beyond the local area and broadening the sources for innovative technical know-how. The strategy to be implemented in each locality will depend on such assessments.[21] ■

[21] Critical areas for the design of policies to promote entrepreneurship and intervention strategies are described in greater detail in Chapters 6 and 12.

CHAPTER 5

CREATING ENTERPRISES IN TRADITIONAL AND KNOWLEDGE-INTENSIVE SECTORS

Pablo Angelelli and Hugo Kantis[1]

This chapter analyzes the differences between creating new companies that produce traditional manufactures and those that produce knowledge-based goods and services.

The aspects in which the two sectors differ from each other include the profile of the markets they serve, the speed of technology change, the type of factors of production they use—the degree of qualification of their human resources, for example—and the sources of technological change. In traditional manufactures, the suppliers of machinery, equipment, and supplies play a decisive role in spreading information and new technological developments. In knowledge-intensive businesses, contact with customers is a more relevant channel. Moreover, the pace of growth differs for the supply and demand of goods and services produced in the two sectors. Knowledge-based businesses are much more dynamic, and that dynamism is concentrated in the developed countries and in a group of emerging economies.[2] The relatively lesser development of knowledge-intensive activities in Latin America may be an obstacle to the development of new businesses in this sector.

Because of these contrasts, major differences between one sector and another in the enterprise creation process may be expected, and it will not occur identically in the countries of Latin America, southern Europe, and East Asia. This chapter seeks to identify and analyze those differences. In particular, it evaluates how the sector influences a set of variables including the dynamism of the new enterprises, the characteristics and motivations of the entrepreneurs, the business opportunity profile, the planning process and access to resources, and business strategies. Knowing the strengths and limitations that affect the creation of knowledge-based enterprises will help in the identification of specific policies for fostering such activities, which are strategic because of their impact on transforming, modernizing, and energizing production structures.

The analysis is based on information from surveys of more than 1,600 dynamic new enterprises in 13 countries.[3] Traditional manufactures include products such as furniture, textiles, clothing, footwear, food, and metal products. The knowledge-intensive sectors have to do with software development, products that combine computers with telecommunications (telematics), and Internet-related services.

The findings of the investigation confirm significant variations among the new enterprises emerging and growing in different economic sectors. These findings provide interesting evidence on the development of knowledge-based activities, especially in developing countries, and have policy implications for fostering entrepreneurship in different sector contexts.

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[1] The authors thank Claudia Suaznábar for her valuable help in preparing this chapter.

[2] This distinction between new enterprises in the different sectors does not ignore the heterogeneity in each of them. However, the importance of the contrasts between the two justifies the comparisons made in this chapter.

[3] The information covers 1,630 dynamic new enterprises, defined as those that were in operation between three and ten years and employed at least 15 people when surveyed. Of all the enterprises, 639 are in Latin America, 100 in Italy, 108 in Spain, and 783 in East Asian countries. In Latin America, Italy, and Spain, 69, 70, and 68 percent of the enterprises, respectively, produce traditional manufactures. In East Asia, this percentage is 43 percent. For more details on the selection process and characteristics of the sample, see Chapter 1.

PERFORMANCE OF NEW ENTERPRISES

This section analyzes the dynamism of the new enterprises by sector. The investigation revealed variables linked to business performance, such as sales trends, employment, and exports.[4]

In comparing sales trends, it is clear that over the medium run, knowledge-intensive enterprises grow more. In almost all the countries studied (except Spain), firms in traditional sectors register higher sales than those in the other group in the first year. By the third year, however, sales are even between the two groups, and by the sixth or seventh year, billing of the knowledge-based firms is much higher. These differences in the performance of new firms in both sectors are not identical in all the countries. Table 5.1 shows that knowledge-based companies in East Asian countries have the best relative performance.

Trends in the number of employees of enterprises in both groups are similar to those of sales, although the variations are less pronounced. As in the previous case, companies in the traditional sector begin with more employees in the first year, but then the situation reverses. The average scale of companies in the two groups ranges from 30 to 40 employees in the sixth or seventh year of operations, with the sole exception of Asian knowledge-based companies, which reach an average of 120 employees (Table 5.2).

Companies producing traditional manufactures stand out as more internationally oriented. In all the countries, the percentage of companies exporting after six or seven years of being in operation and the percentage of exports over sales are greater in the traditional sector (Table 5.3). It should be noted, however, that the technology companies in East Asian countries also exhibit good export behavior. Twenty-eight percent of them are export companies, and 13 percent of their sales are in foreign markets.

In short, the data analyzed indicate that the new technology companies grow more, especially in East Asian countries, where they stand out for being dynamic and for their international orientation. These findings are consistent with the literature, which indicates that in sectors that are in early stages of development, there are greater imbalances, which can be opportunities for favoring the entry and growth of new specialized, small-scale enterprises (Audretsch 1995a, b).

CHARACTERISTICS AND MOTIVATIONS OF ENTREPRENEURS

This section takes up differences and similarities in age, social origin, ability to work as a team, education level, work experience, and motivations of entrepreneurs in the two sectors studied.

The age, social origin, and family occupation of the entrepreneurs studied vary depending on the sector. Entrepreneurs in the knowledge-intensive sectors are younger than those of traditional enterprises at the time when the company is created, and their ages are a little below the average range in the set of dynamic firms: between 35 and 40 years old. In terms of social origin, entrepreneurs in knowledge-intensive sectors in Latin America and East Asian countries come primarily from upper-middle-class families, whereas in the traditional manufactures sector they are primarily from the middle, lower-middle, and lower classes. A similar trend is found in Spain and Italy. Finally, entrepreneurs in the traditional manufactures area are more often children of entrepreneurs, while those in knowledge-intensive sectors are generally children of salaried employees or self-employed professionals.

Teamwork is more important in the knowledge-intensive sector where companies are started by a larger number of partners than in traditional activities (see Figure 5.1). With regard to the origin of the partners, the information available for Latin America, Spain, and Italy indicates that in the traditional manufacturing sector, there are more family members or relatives, while in the knowledge-intensive sector, contacts made in university circles predominate.[5]

Another contrasting aspect is the education level of the entrepreneurs. The vast majority of those who start

[4] Measuring a company's performance is not simple. An exhaustive demonstration would require a varied set of indicators, including value of production, value added, productivity, innovation, and diversification of markets.

[5] There is no information available on the origin of the partners in East Asian countries. For Latin America, the information is from Chile and El Salvador.

Table 5.1
Average Sales Per Company in the First, Third and Sixth or Seventh Year
(In thousands of U.S. dollars)

	Latin America		Italy		Spain		East Asia	
Year	TM	KIS	TM	KIS	TM	KIS	TM	KIS
1	567	356	1,849	412	706	974	1,381	1,101
3	837	850	3,191	2,348	1,182	2,645	3,771	4,601
6 or 7	1,277	1,566	3,296	5,081	3,025	3,416	11,426	21,101

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.

Table 5.2
Average Employment Per Company in the First, Third and Sixth or Seventh Year

	Latin America		Italy		Spain		East Asia	
Year	TM	KIS	TM	KIS	TM	KIS	TM	KIS
1	15	11	16	7	11	9	16	10
3	27	22	21	19	16	21	28	31
6 or 7	40	41	24	42	29	32	34	123

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.

Table 5.3
International Orientation of the Companies in the Sixth or Seventh Year

	Latin America		Italy		Spain		East Asia	
Orientation	TM	KIS	TM	KIS	TM	KIS	TM	KIS
% of exporters	21	29	36	3	44	31	49	28
% of exports over sales	7	6	17	1	12	4	22	13

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.

knowledge-based businesses are university graduates, primarily in engineering. In the traditional sector, relatively more entrepreneurs have primary and secondary education (Table 5.4). In Latin America, attending or graduating from a university is the rule even in the conventional sector.

When asked about the role of education in the process of creating the company (as a source of motivation, technical knowledge, and business skills), entrepreneurs do acknowledge the role played by the university but only secondarily after work experience. In Latin America, contrary to East Asian countries, Italy, and Spain, entrepreneurs in the technology-intensive sector highlighted the role of the university as a source of technical expertise. In this regard, the contribution of the university was valued more than that of previous work experience. This situation could be reflecting the lesser presence of

Figure 5.1
Distribution of Founding Partners by Sector and Country

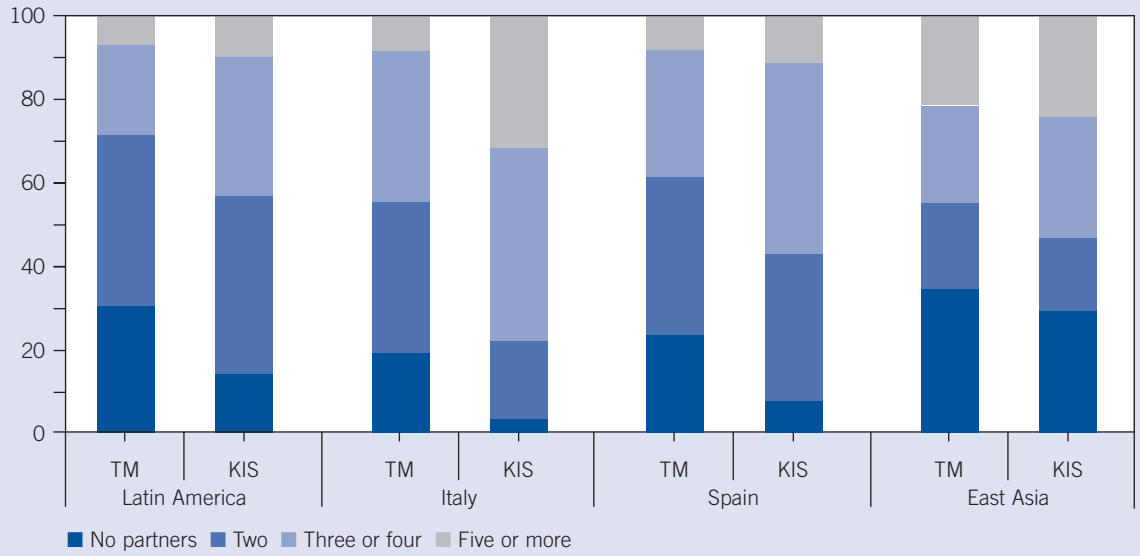


Table 5.4
Education Level of Entrepreneurs
(Percentage of entrepreneurs)

	Latin America		Italy		Spain		East Asia	
Level of education	TM	KIS	TM	KIS	TM	KIS	TM	KIS
Complete university	54.0	82.8	6.6	53.8	42.5	80.0	49.1	74.9
Incomplete university	10.0	9.6	4.9	12.8	2.9	8.2	2.4	4.3
Secondary	26.3	5.6	45.9	33.3	37.0	17.1	41.5	17.6
Primary	9.5	1.5	42.6		12.3		6.2	2.0

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.

Table 5.5
Previous Experience of Entrepreneurs
(In percent)

	Latin America		Italy		Spain		East Asia	
Previous work	TM	KIS	TM	KIS	TM	KIS	TM	KIS
SME Employee	44.4	35.4	75.4	48.7	58.9	51.4	41.2	35.0
Large company employee	30.6	46.5	4.9	17.9	35.6	34.3	30.3	28.0
Business owner	44.0	43.9	60.7	53.8	58.9	45.7	24.0	11.0

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.

Table 5.6
Entrepreneurs' Social Support
(In percent)

	Latin America		Italy		Spain		East Asia	
Members of circle	TM	KIS	TM	KIS	TM	KIS	TM	KIS
Family nucleus	78.9	72.7	85.2	61.5	82.2	71.4	54.7	41.5
Other family members	59.6	57.6	78.7	48.7	64.4	54.3	44.1	33.4
Friends	59.4	70.7	60.7	56.4	56.2	62.9	44.4	50.6
Colleagues	41.5	61,.6	19.7	43.6	39.7	48.6	43.2	50.3
Previous bosses	25.9	37.4	13.1	10.3	23.3	17.1	29.4	28.4
Teachers	21.8	24.7	4.9	5.1	13.7	14.3	21.2	18.5

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.

knowledge-based companies in the Latin American industrial structure (for example, as compared with East Asia) and hence fewer opportunities for entrepreneurs to receive technical knowledge in them, or even to apply in their work what they learned at university.

In the opinion of the entrepreneurs, the work experience acquired before starting the business was the main source of motivation and skills for being an entrepreneur. With regard to the origin of their work background, entrepreneurs in traditional manufactures seem to have more previous experience in small and medium enterprises than those in the knowledge-intensive sectors. Another striking aspect of the data presented in Table 5.5 is the greater relative importance of experience in large companies among technology entrepreneurs in Latin America. That is not the case in the other countries. This finding suggests that in order to create a technology-intensive company, it is more relevant to have worked in a large company in Latin America than in southern Europe or East Asia. However, since the platform of knowledge-based companies is so small in Latin America, entrepreneurs have to gain experience in other firms in other sectors, thereby limiting their chances for networking with specific contacts and taking advantage of the technical expertise gained at university.

The motivations of entrepreneurs for starting their business are generally similar in both sectors. These are primarily positive factors, such as the desire for personal fulfillment, putting their knowledge into practice, and improving their income. These findings seem to confirm previous studies that highlight the importance of positive motivation as a necessary condition for starting high-performance companies (Littumen and Tohmo 2001).

However, there are significant differences over the influence exerted by models of other entrepreneurs as a source of motivation. In Latin America, these role models play a more important role for entrepreneurs in traditional manufactures, contrasting especially with companies in Southeast Asian countries, where they contributed significantly to awakening the desire to go into business in both sectors. The presence of a major technological sector in those countries that tended to specialize in such activities raises the visibility of innovative entrepreneurs and facilitates the publicizing of their stories.

The reaction of the social circles around entrepreneurs to their decision to start a business is generally positive (Table 5.6). It is interesting to note, however, that for entrepreneurs in traditional sectors, family support played the most significant role, whereas for the knowledge-intensive sectors, friends and colleagues are also involved, especially in Latin America. It may be that because of their social background and education, entrepreneurs in knowledge-intensive sectors can draw support from a broader and more diversified set of contacts that extends beyond the family circle.

Three general observations may be drawn from the data presented in this section. First, the motivation of the

entrepreneurs who create enterprises in the traditional manufactures sector is associated with the tradition of family production. That aspect does not appear in the new businesses in the knowledge-intensive sectors, probably because these areas of business are much more recent. Second, the demands for education and teamwork are higher in the knowledge-intensive sector. Third, the importance of large Latin American companies in the process of training technology entrepreneurs and likewise their relatively low presence in the production structure of the region may become a factor limiting the incubation and formation of entrepreneurs capable of creating new knowledge-based businesses.

IDENTIFICATION OF THE BUSINESS OPPORTUNITY

This section considers the profile of business opportunities and the sources of information that entrepreneurs use to identify them.

In both sectors, the main source of dynamic businesses is the production and sale of a product or service that is differentiated in the domestic market (Table 5.7). However, the introduction of innovations (especially in the national market) is more common among knowledge-based companies, whereas in traditional industry, it is more usual to exploit opportunities based on offering lower prices than the competition. This contrast between sectors is accentuated in Latin America. These differences may be at least partially related to the profile of demand in each country. The relatively greater importance of low-income strata in Latin America means that there is an extensive area of business in which price-based competition is very relevant. Some entrepreneurs may have identified opportunities of this kind. Price-based competition may also reflect limitations in the abilities of entrepreneurs to pick strategies based on creativity and differentiation.

Most of the entrepreneurs interviewed, without differentiating them by sector, stated that previous work experience and networking were the sources that enabled them to identify the business opportunity. In the technology-intensive sector, reading academic articles, information on the Internet, and newspapers and magazines, that is, freely available sources of knowledge, were also important mechanisms. Entrepreneurs in the conventional sector in Italy and Spain recognized trade fairs as an effective means for identifying business opportunities (Table 5.8).

In Latin American and East Asian countries, the networks with which technology-intensive entrepreneurs interacted are larger and have a different makeup. Colleagues and friends have greater weight than relatives as sources for information on the product or service and the market in which the new company is to operate. With regard to the profession of the people involved in networks, for traditional sector entrepreneurs, small and medium businesspeople are more prominent, whereas in the other sector, there are more professionals, executives in large companies, and employees.

Table 5.7
Types of Business Opportunities
(Percentage of companies)

	Latin America		Italy		Spain		East Asia	
Business opportunity	TM	KIS	TM	KIS	TM	KIS	TM	KIS
Differentiated product in the country	56.6	53.5	65.6	46.2	60.3	42.9	37.3	44.0
Innovative product	18.4	48.5	9.8	43.6	30.1	42.9	30.8	40.1
Price competitive product	41.8	17.2	16.4	2.6	20.5	20.0	31.9	15.9

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.

Table 5.8
Sources of Information for Identifying the Business Opportunity
(Percentage of companies)

	Latin America		Italy		Spain		East Asia	
Source of information	TM	KIS	TM	KIS	TM	KIS	TM	KIS
Experience in previous work / activities	78.0	79.8	73.8	69.2	76.7	85.7	77.6	85.9
Interacting/discussing with different persons	71.7	79.3	65.6	66.7	52.1	54.3	64.6	79.8
Magazines	29.7	49.0	14.8	35.9	15.1	40.0	39.8	54.9
Trade shows	38.1	42.4	31.1	12.8	41.1	17.1	37.8	33.8
Newspapers	18.6	29.8	11.5	12.8	12.3	25.7	38.9	53.5
Internet	6.3	31.3	4.9	35.9	15.1	37.1	13.6	38.5
Academic articles	17.5	37.4	0	10.3	6.8	22.9	19.2	25.4
Television, radio	8.2	9.1	1.6	7.7	11.0	17.1	11.5	26.1
Other	7.0	10.1	11.5	7.7	4.1	8.6	0	0

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.

In short, while the business opportunities that give rise to the creation of dynamic enterprises are based fundamentally on product differentiation, innovation is more common among companies in the knowledge-intensive sectors. However, price advantages are more common in traditional industry, particularly in Latin America. The entrepreneur's previous experience and networking are the main sources of information and identification of business opportunities. The new enterprises in the knowledge-intensive sectors have larger and more diversified networks. In this sector, the support of friends and colleagues is greater, whereas in the conventional sector, family members are more prominent.

PLANNING AND ACCESS TO RESOURCES

This section analyzes the type of information and the professional tools used by the entrepreneurs to make decisions during the process of starting the business.

Slightly more than half of the entrepreneurs interviewed had created a business plan for the new enterprise. In defining the entrepreneurial project, dynamic entrepreneurs emphasized data having to do with the characteristics of the market. One aspect that distinguishes technology entrepreneurs is that they make greater efforts to collect information on the technical aspects of the business and on the sources of this technical knowledge, as is natural given the nature of the business. By contrast, traditional sector entrepreneurs seek more information on the size of the plant needed to be competitive (Table 5.9).

The method most used by the entrepreneurs for making the decision to start a business was estimating the sales and costs of the new business. Other tools that they apply, although less frequently (a little less than half), are preparing a cash flow for the early years of operation, calculating the period for recovery of investment, and comparing the income expected from the business with other alternatives. The use of different methodologies for decisionmaking is greater among knowledge-based enterprises. That could be explained by their higher education level as well as the need to calculate the risks associated with more dynamic and uncertain businesses.

Table 5.9
Types of Information Used for Formulating the Entrepreneurial Project
(Percentage of companies)

	Latin America		Italy		Spain		East Asia	
Information	TM	KIS	TM	KIS	TM	KIS	TM	KIS
Plant size	48.3	38.9	68.9	48.7	61.6	40.0	47.7	27.7
Investment size	52.8	47.0	65.6	61.5	67.1	57.1	57.6	55.1
Technical knowledge	75.1	87.4	62.3	79.5	79.5	88.6	80.6	85.8
Competitors' characteristics	70.1	63.6	54.1	59.0	74.0	71.4	65.9	64.8
Market size	68.7	64.6	57.4	61.5	74.0	77.1	72.9	79.2
Market characteristics	81.2	80.3	73.8	74.4	79.5	82.9	78.8	84.2
Distribution channels	73.2	55.1	54.1	38.5	68.5	68.6	63.2	56.9

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.

Access to Financial Resources

The entrepreneurs financed the startup and initial development of their companies as follows. First, they used internal sources, such as personal savings, help from relatives, and the use of personal credit cards. Second, they used alternative sources, including advances from customers, commercial credit from suppliers, delayed payment of taxes and services, and purchase of used machinery and equipment. Finally, they used external sources, most notably banks, private investors, venture capital funds, and public sector support (Table 5.10). Although this is the general pattern, there are noteworthy differences between sectors.

With regard to the use of internal financing sources, in Latin American and East Asian countries, the finding is that new enterprises in traditional sectors tend to receive more financial support from relatives and friends. In Italy and Spain, new knowledge-based enterprises make more intensive use of personal savings. Although the information is not entirely conclusive, entrepreneurs in knowledge-intensive sectors would seem to have access to less of a variety of internal financing sources.

Traditional enterprises are more likely to use alternative mechanisms for financing the company, with the sole exception of financing advanced from customers, which is more common for knowledge-based enterprises. In traditional manufactures, which use intermediate inputs and equipment more intensively, credit from suppliers and purchasing used machinery seem to be the most appropriate mechanisms for financing the business. By contrast, in companies in knowledge-intensive sectors, which use trained human resources intensively, advances from customers seem to be critical for financing high labor costs.

Banks are the most used of the external sources, with significant differences for traditional enterprises. This may be explained by the greater risks that banks perceive in businesses in knowledge-intensive sectors. Private investors are more frequent among the technology-intensive sector in Latin America. That may be because such financiers have specialized methodologies for analyzing companies and a greater appetite for more novel businesses that have greater profitability and risk. Experience shows, however, that this kind of financing is cyclical. Hence, during boom times, enterprises in knowledge-intensive sectors will be disproportionately favored in financing, and in times of recession they will be out of favor.

New enterprises in knowledge-intensive sectors have greater access to external financing sources in Italy,

Table 5.10
Sources of Financing for Startup and Initial Development
(Percentage of enterprises)

Sources of financing and stages		Latin America		Italy		Spain		East Asia	
		TM	KIS	TM	KIS	TM	KIS	TM	KIS
Internal	Startup	88.7	83.8	70.5	84.6	76.7	91.4	78.2	75.2
	Initial development	67.3	60.1	45.9	53.8	60.3	62.9	64.4	57.3
Alternatives	Startup	63.5	49.5	39.3	20.5	56.2	51.4	42.4	32.5
	Initial development	62.4	49.0	47.5	43.6	46.6	51.4	49.4	27.3
External	Banks for startup	29.0	23.2	67.2	30.8	53.4	34.3	30.6	21.4
	Banks for early development	35.6	26.8	60.7	43.6	53.4	48.6	43.5	37.9
	Private investors and venture capital for startup	6.1	14.1	4.9	7.7	4.1	14.3	18.5	22.3
	Private investors and venture capital for early development	4.5	10.6	4.9	10.3	5.5	28.6	17.1	23.9

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.

Spain, and East Asian countries than in Latin America, where almost half of the new knowledge-based businesses have to make use of alternative financing sources. In East Asia, no more than 25 percent of the businesses use alternative resources. These data suggest that in countries with deep financial systems and more developed capital markets—such as East Asian countries, Spain, and Italy—there are fewer constraints on access to financial resources for new enterprises, especially those that are knowledge-based.

The responses of the entrepreneurs interviewed on the impact of the lack of access to financial resources provide additional information on the differences in the intensity of the problem of financing in different countries. In this connection, two examples may be mentioned. First, whereas 36 percent of the new enterprises in knowledge-intensive sectors in Latin America stated that they began their operations at a lower than desired level of technology due to lack of external financing, this figure is only 14 percent in East Asian countries. Second, while in East Asia only 36 percent of the new enterprises in knowledge-intensive sectors begin at a less-than-competitive scale due to lack of resources, in Latin America this percentage is 54 percent. In short, the data presented make it clear that in Latin America it is the enterprises in knowledge-intensive sectors that suffer most from lack of external financing.

Role of Networks in Access to Resources

As entrepreneurs go through the stages of the business creation process, the size of the networks on which they rely for access to resources increases. Some studies emphasize that the change in networks over time occurs not only in the number of contacts, but also in their nature (Schutjens and Stam 2003). Although networks are more social in nature during the inception of the business idea, when the time comes to start operations, production and institutional networks are important.

On average, 45 percent of the entrepreneurs rely on networks of between one and three people for getting access to information and technology, while another 25 percent rely on networks of four to eight people. In Latin Ameri-

Table 5.11
Size of the Network Facilitating Access to Resources
(Percentage of companies)

	Latin America		Italy		Spain		East Asia	
Size of network	TM	KIS	TM	KIS	TM	KIS	TM	KIS
1 to 3	50.9	43.1	31.7	51.6	57.9	46.4	55.4	48.7
4 to 8	26.7	40.3	30.0	19.4	28.1	39.3	19.9	30.3
9 to 15	12.7	9.4	26.7	12.9	10.5	10.7	11.9	9.8
16 to 30	4.9	2.2	5.0	12.9	1.8		3.8	3.9
More than 30	4.6	3.3	6.7	3.2	1.8	3.6	5.4	3.7

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.

can and East Asian countries, the networks of knowledge-based companies are larger than those of traditional companies, whereas in Italy the opposite is the case (Table 5.11). This should not be surprising given the tradition of cooperation existing in Italy between the companies comprising the industrial districts, which as a rule specialize in the production of traditional manufactures. The larger size of the networks of entrepreneurs in the knowledge-intensive sectors in Latin America may be associated with their education level and their social origins as well as greater difficulties in obtaining financing. These Latin American technology entrepreneurs seem to be changing the go-it-alone behavior that characterizes small and medium entrepreneurs in the traditional manufacturing sector.

Analysis of the importance of networks for access to resources reveals that social and production networks are more important than institutional ones for access to information and technology. Of the institutional networks, technology entrepreneurs recognized only the universities as a source of information and technology, primarily in Latin America, Italy, and Spain.

In short, the data presented in this section show that knowledge-based companies use more information and technical tools for decisionmaking, are financed primarily with personal savings, and tend to cooperate with broader and more diverse networks, particularly in Latin America. Latin American technology entrepreneurs seem to suffer more from the lack of access to financing.

MARKET CONDITIONS AND BUSINESS STRATEGIES

This analysis focuses on the business strategies employed by the dynamic new enterprises in the two sectors in order to take advantage of market opportunities and react to the challenges of initial growth. The section begins with a description of the characteristics of the market in which the new enterprises are involved (such as dynamism, type of customers, and level of competition). It describes the problems faced by traditional and knowledge-intensive companies in the early years of operation, and the strategies that entrepreneurs in the two sectors use.

Market Characteristics

Most of the new enterprises studied (70 percent on average) indicated that demand was growing in the market niches in which they began to operate. That makes sense given the dynamic character of these businesses. However, the new knowledge-based companies seem to have a stronger orientation than traditional ones to markets on the rise, especially in Latin America, Spain, and the countries in East Asia (Table 5.12). This finding is consistent with differences in performance between knowledge-intensive and traditional manufacturing companies.

The type of customers targeted by the new enterprises also displays differences by sector. Eighty percent

Table 5.12
Demand Situation when Entering the Market
(Percentage of companies)

	Latin America		Italy		Spain		East Asia	
Demand situation	TM	KIS	TM	KIS	TM	KIS	TM	KIS
Growing demand	63.9	82.1	76.7	85.7	40.3	52.7	47.4	68.8
Stalled demand	18.0	15.4	20.5	11.4	32.3	16.4	36.2	16.9
Decreasing demand	18.0	2.6	2.7	2.9	27.4	30.1	15.6	13.5

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.

Table 5.13
Types of Customers
(Percentage of companies)

	Latin America		Italy		Spain		East Asia	
Customer sector	TM	KIS	TM	KIS	TM	KIS	TM	KIS
Industry	51.1	53.0	80.0	47.4	60.6	37.5	70.8	51.8
Services	23.5	68.3	5.0	55.3	27.3	50.0	28.8	48.9
Wholesale trade	36.4	35.4	21.7	28.9	34.8	21.9	34.3	9.4
Retail trade	26.0	28.7	6.7	31.6	25.8	18.8	12.4	5.4
Other	9.4	15.9	0	26.3	12.1	9.4	13.7	11.2

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.

of new enterprises begin operations by selling their products to other companies, whereas only 20 percent serve individual customers. However, the percentage of new technology-intensive companies is relatively higher in the first category, whereas the opposite is true of traditional businesses. Manufacturing companies are more important as a source of demand in the traditional manufactures sector, while knowledge-based companies aim primarily at the service sector (Table 5.13). The data show the role played by the service sector as a generator of knowledge-based businesses. In Latin America, for example, the process of modernizing the service sector, resulting from privatization and foreign investment during the 1990s, has opened many opportunities for new software and Internet-linked enterprises.

Another aspect that distinguishes the type of market in which companies of the different sectors are concentrated is the size of their customers. Large companies are the most important demand factor for the new knowledge-based enterprises, especially in Latin America and countries in East Asia, whereas for traditional manufacturing companies the most relevant are small and medium enterprises (Table 5.14). This suggests that the levels of sophistication and demand differ depending on the sector. This may explain the different profiles of entrepreneurs and should be reflected in their business strategies.

The profile of the competition of the new enterprises has some particular features depending on the sector. In Latin America and the countries in East Asia, new enter-

Table 5.14
Size of Customers
(Percentage of companies)

	Latin America		Italy		Spain		East Asia	
Customer sector	TM	KIS	TM	KIS	TM	KIS	TM	KIS
SMEs	68.3	45.7	78.3	60.5	71.2	68.8	66.5	40.2
Large companies	62.7	76.2	46.7	73.7	77.3	75.0	50.2	72.1

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.

prises in traditional sectors compete primarily with national products, whereas those that are knowledge-based do so with imported products. However, the Asian companies have an advantage because their international involvement has made them more accustomed to competing with foreign products. With regard to the size of the competitors, the new traditional enterprises compete with small and medium companies, whereas those that are knowledge-based do so with large companies. However, the intensity of the competition is similar in both sectors: 50 percent of the new enterprises indicated that they began their businesses in markets with high or very high competition, while only 20 percent indicated that the competition was low or very low.

In short, knowledge-based companies operate in markets where demand is more dynamic and more concentrated in large service sector companies. The new traditional manufacturing companies, by contrast, are more focused on satisfying the demands of small and medium companies in the manufacturing sector. With regard to competition, although the intensity is the same in both sectors, the competitors are not equal. While the new traditional manufacturing businesses are facing national competition from companies of a similar size, in the other sector the competitors tend to be large companies that operate on a global level. In other words, the companies in knowledge-intensive sectors operate in markets characterized by the presence of more sophisticated customers and competitors.

Business Strategies

The new enterprises develop business strategies based on product quality and customer service. In the case of new companies in knowledge-intensive sectors, research and development efforts are more intense and quality and customer service are more frequently competitive advantages, especially in Latin America. Remarkably, these businesses are also competitive in prices, primarily in Italy, Spain, and the countries in East Asia, although not in Latin America (Table 5.15). The fact that the companies mix price and nonprice factors in their strategies can be explained on the basis of the type of competition that they face. Quality and customer service do not seem to be sufficient for competing with large companies; the price also has to be lower. That companies in knowledge-intensive sectors in Latin America are not price competitive may be explained by their concentration on services tailored to their customers, thereby giving them maneuverability to set prices above those of the competition.

Challenges in the Early Years of Operation

The problems and challenges facing the new companies when they begin their operations may be grouped into three categories: related to the target market, access to (human, technology, and supply) resources, and management of the new enterprise. Table 5.16 shows the relative importance of the problems in each of the three categories.

The main problems faced by entrepreneurs are access to markets, qualified human resources, and networks of suppliers. With the creation of the business, the first concern is getting new customers, and this is a greater difficulty for knowledge-based companies in Latin America, Spain, and the countries in East Asia. The second obstacle encountered by new businesses in their initial phase of development, especially in Latin America, is hiring qual-

Table 5.15
Aspects Where They Stand Out from the Competition
(Percentage of companies)

	Latin America		Italy		Spain		East Asia	
Differences with competitors	TM	KIS	TM	KIS	TM	KIS	TM	KIS
Quality	49.0	62.1	67.2	76.9	65.8	65.7	54.7	65.2
Services to customer	47.8	59.1	57.4	56.4	74.0	60.0	70.3	65.2
Price competitiveness	25.6	23.2	14.8	43.6	23.3	42.9	27.1	39.7
Delivery times	40.4	34.8	60.7	10.3	72.6	40.0	49.4	34.1
Research, development and design	32.0	51.5	21.3	41.0	45.2	37.1	37.1	46.5
Marketing effort	28.8	23.2	14.8	33.3	41.1	25.7	46.8	29.6
Financing of sale	19.0	13.1		5.1	24.7	8.6	22.1	14.4

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.

Table 5.16
Importance of Problems in the First Months of Operation

	Latin America		Italy		Spain		East Asia	
Main problems	TM	KIS	TM	KIS	TM	KIS	TM	KIS
Related to target market								
Getting customers	B	A	B	B	C	A	B	A
Adapting to customer needs	C	C	D	D	D	D	C	B
Handling customer relations	C	C	D	D	C	C	B	C
Obtaining market information	B	C	D	D	C	D	C	C
Access to resources								
Hire managers	C	C	D	D	D	D	C	B
Find qualified employees	A	A	D	B	B	B	B	B
Find suitable suppliers	B	A	D	C	C	C	B	B
Business management								
Have a balanced cash flow	B	C	D	C	C	C	B	C
Managing the company	C	C	D	C	D	D	B	C
Managing the production	D	C	D	D	D	D	B	B
Certifying quality standards	C	C	D	D	D	D	C	D

TM: companies in traditional manufactures sectors.
KIS: companies in knowledge-intensive sectors.
A: High (more than 70 percent of companies); B: medium high (between 50 and 70 percent); C: medium low (between 30 and 50 percent); D: low (less than 30 percent).

ified employees. The third limitation is adequate suppliers, especially in the knowledge-intensive sectors in Latin America. From the information in Table 5.16, it may be concluded that these three problems have a more intense effect on entrepreneurs who start businesses in knowledge-intensive sectors in Latin America. To some extent, that may be explained by the relatively lesser degree of development of the service sector (as a source of demand), the limitations of the qualified labor force, and the weakness of the entrepreneurial sector as supplier of high-quality products and services.

Interaction with other persons and institutions—networking—is evidently central to solving the problems of the initial development of enterprises. The networks are larger for knowledge-based companies. Suppliers and customers are equally important for both sectors; family, friends, and business associations play a larger role for traditional manufacturing companies; and colleagues, universities, and consultants do so in the knowledge-intensive sector.

CONCLUSIONS

The findings presented in this chapter confirm that the knowledge-intensive enterprises have a greater potential for modernizing and energizing structures of production. The opportunities that give rise to these businesses have more to do with differentiation and innovation than with price advantages. Their strategies include more significant efforts at research and development, quality, and customer service. These companies are likewise more dynamic than traditional manufacturers are in terms of sales and employment, especially in East Asian countries, and to a lesser extent in Latin America.

Human capital is the key item for creating knowledge-based businesses. As a rule, technology entrepreneurs have a higher education level than those who produce traditional manufactures. However, the university is not the primary training ground. Work experience is the primary mechanism for incubating and forming knowledge-intensive sector entrepreneurs. Indeed, work experience makes it possible to network and identify business opportunities. Thus, the limited number of technology companies in Latin America may be a constraint on the formation of human resources capable of developing knowledge-intensive businesses.

Information is another key input for knowledge-intensive businesses. The new technology enterprises make intensive use of technical business information and apply professional tools for making decisions during the entrepreneurial process. However, the greater availability of information is not helpful for access to financial resources, especially for financing from banks. Knowledge-based companies are more dependent on the personal savings of the entrepreneur, and on advances from customers, private investors, and venture capitalists. Access to financing of companies in knowledge-intensive sectors in Latin America is more limited than it is in Asia and Europe.

Knowledge-intensive enterprises operate in more dynamic markets and concentrate more on large customers in the service sector. By contrast, new traditional manufacturing companies are more devoted to satisfying the demands of small and medium manufacturing companies. The intensity of the competition is similar in both sectors, but the competitors are not the same. Whereas new traditional manufacturing businesses face national competition from similar-sized companies, in the other sector the competitors tend to be large companies operating globally. In this regard, East Asian companies have an advantage because they are more involved in international trade.

Policies for fostering entrepreneurship should incorporate components that respond to the differences identified between the new enterprises in different sectors. In Latin America, in particular, the contribution that knowledge-based companies can make to energizing and diversifying production structures remains an unexploited potential. This research highlights the importance of the following aspects: training human capital, focusing efforts on both university students and qualified employees of medium and large companies; facilitating access to specialized financial resources; supporting the development of partnerships and strategic relationships between entrepreneurs and large companies; supporting research and development activities; and creating broad and diversified business networks. ■

CHAPTER 6

ACCESS TO FINANCING: A CHALLENGE TO DYNAMIC ENTERPRISE CREATION

Rogerio Studart and Claudia Suaznábar

This study has presented evidence of how important creating enterprises is for economic development. Yet in Latin America, new enterprises find their startup and expansion constrained by difficulties in gaining access to financing in the region due to credit and equity rationing and uncompetitive financing conditions. These constraints mean that even the few that do have access to financing, mainly credit, still have to bear restrictive financing conditions with short maturities and high intermediation costs.

The aim of this chapter is to explore and interpret the results of the survey in the light of a theoretical framework that can explain the lack of financing for new enterprises in Latin America and the Caribbean as compared with other regions. The chapter analyzes the negative effects on new enterprises of using informal financing sources and operating below potential levels.

The chapter describes the constraints to financing of the new enterprises by region and sector based on the results of the survey. It looks at the causes and consequences of the financing strategies used by these firms from a theoretical viewpoint. The chapter closes with the implications of the study's findings for formulating public policies.

OBSTACLES TO ACCESSING FINANCING

A diagnosis of conditions of access to financing by entrepreneurs in Latin America is presented below based on the survey. As mentioned in Chapter 1, the countries included in the survey were Argentina, Brazil, Chile, Costa Rica, El Salvador, Mexico, and Peru in Latin America and the Caribbean; Japan, Singapore, South Korea, and Taiwan in East Asia; and Italy and Spain in southern Europe.

There is evidence that new Latin American enterprises face relatively more obstacles to gaining access to formal sources of financing—both equity and credit—than do new enterprises in other regions. In the survey, when entrepreneurs were asked which factors were most discouraging when they made the decision to establish an enterprise, the most common response by the entrepreneurs in Latin America was financing conditions. The Europeans and Asians did not mention financing conditions as a negative factor. This section looks at the financing constraints for Latin American entrepreneurs and the consequences for enterprise development.

The analysis is divided into two parts in which the financing needs of entrepreneurs at two different moments in the development of their firms are discussed. The first is the moment of firm creation, when capital is needed to start up the business. The second is the phase that includes the early years of development of the enterprise, when financing needs are more oriented toward working capital and investment capital for expanding operations.

Constraints on Financing Enterprise Creation

In most countries, entrepreneurs are forced to use a major portion of their own funds to start their businesses. This could be interpreted as one more indication of the constraints they face in accessing formal financing sources through financial institutions and markets.

However, the degree of use of personal savings as a source of financing for launching enterprises varies by region. Latin America has the highest levels of dependence on internal savings: almost 80 percent of those surveyed stated that they had used personal or family savings as a significant source of financing. Entrepreneurs in East Asian countries use internal savings to a similar extent. However, because of the higher levels of per capita income and personal savings in that region, the use of such funds is not so problematic. The survey also shows that the size of the initial investment in Latin America is small. On average, fewer than 25 percent of those surveyed made initial investments greater than $100,000 in the first year of operation, compared with 50 percent of the Europeans surveyed.

The survey findings also show that more startup capital is needed in order to create export enterprises in Latin America than to create enterprises aimed solely at the local market (around of 20 percent of export enterprises made initial investments of more than $500,000; for nonexport enterprises, the figure was 6 percent).[1] In Europe, the difference is not so significant, and in East Asian countries, export-oriented enterprises need less initial investment than those of the nonexport type.

Figure 6.1 shows that the financing sources used by entrepreneurs to start their company clearly reflect the disadvantages of Latin America vis-à-vis the other regions. In the Latin American sample, fewer than 40 percent of those surveyed said that they had access to banks as an initial financing source, and fewer than 5 percent said that they had used investment by private partners or venture capital investors. By contrast, new enterprises in Italy and Spain had more financing through bank lending, and both Spanish and East Asian enterprises also had financing from private investors.

Figure 6.1 likewise shows that new enterprises in technology-intensive sectors have greater access to financing from private investors than do new enterprises in conventional lines of business, while the latter receive more financing from banks. However, Latin America is still at a disadvantage compared with the other regions with regard to formal financing for both technology-intensive and conventional enterprises.

Differences show up in the financing structures used by export and nonexport enterprises, as well as between regions. In Latin American and the European countries, export enterprises are financed primarily through bank loans (44 percent of the export enterprises used this source, and in Europe the ratio reaches 60 percent) and private investment is hardly used at all. By contrast, domestically oriented enterprises in these regions more often use financing from private investors and have less access to bank lending (albeit the difference between export and nonexport enterprises in European countries is less marked than in Latin America).

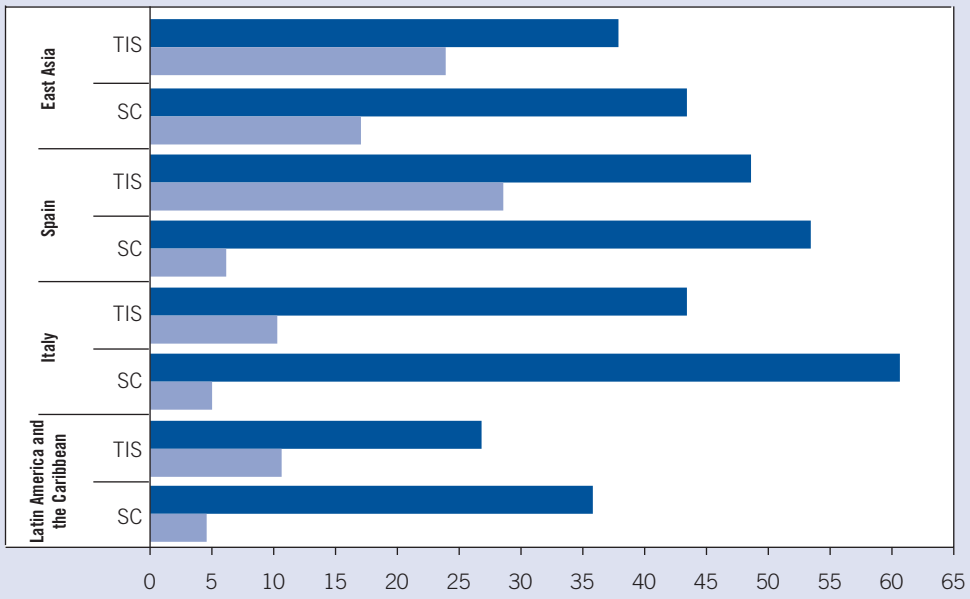
Asian export enterprises use more diversified financing: 28 percent of them used bank loans and more than 20 percent used private investment for starting their enterprises, and there are not many differences between the financing structures of export and domestic enterprises. In addition, over time the use of formal financing sources increases for Asian enterprises (especially access to private investment in the form of venture capital), whereas for entrepreneurs in Latin America the ratio of access to bank credit and private investors remains constant.

Other sources of financing used by newly created enterprises include government financing and alternative sources. The survey findings set forth in Figure 6.2 indicate that in Italy and Spain, the use of government financing sources was higher than for Latin American enterprises. As might be expected, in East Asian countries, more use was made of government funds. Analysis by economic sector shows that only in Italy and Latin America is public sector financing more common in the conventional sector, whereas in Spain and East Asian countries, government financing is more common in new technology-intensive enterprises.

The use of public sector support for financing new export-oriented enterprises is virtually nonexistent in Latin America and Europe. By contrast, around 10 percent of Asian exporters received help from government institutions in the form of subsidies or government-backed loans.

[1] For this analysis, an export enterprise is regarded as one in which 20 percent of sales are aimed at nondomestic markets. Sales in the company's first year were used in calculating the initial investment.

Figure 6.1
Formal Sources of Financing for Starting Up New Enterprises



TIS: technologiy-intensive sector.
CS: conventional sector.
See Chapter 1 for detailed definitions.

Alternative financing sources include customer advances; supplier credits; delays in paying taxes, services, and salaries; and purchasing second-hand equipment. Such sources are more common in Latin America than in the other regions. However, this kind of informal financing can have major consequences for enterprises in terms of entry barriers, survival, and competitiveness. This issue is discussed in greater detail below.

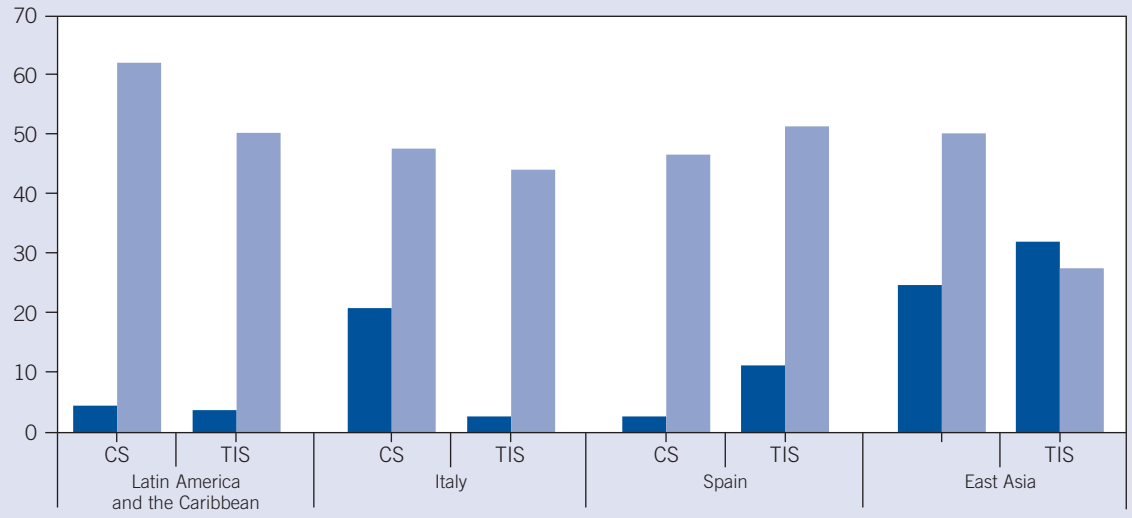
Constraints on Financing in the Early Years of Operation

In the early years of an enterprise, access to working capital and investment capital for expanding the business is as important as access to startup capital when the enterprise is launched. In most economies, such access means the difference between death and survival of the enterprise, whereas the interest rates and maturities under which such financing is obtained determine the capacity of the firms to absorb abrupt shocks in market conditions due to unanticipated changes in demand, input prices, or interest rate hikes.

Furthermore, the early years of operation of an enterprise generally coincide with the formation of commercial, financial, and business networks. These networks help entrepreneurs develop their businesses. In economies like those of Latin America with low levels of banking, relations with customers and suppliers take on even greater importance, as they become alternative sources for financing the working capital and investment capital needs of these companies. As may be seen in Table 6.1, the use of customers and suppliers as sources of credit increases during this phase.

Access to bank financing in the early years of operations in Latin America varies little in relation to levels at the startup of the enterprise: 26 percent of those surveyed said that they had access to such financing, only 5 percent more than those who said that they had access to bank credit at startup. This is one of the lowest ratios in the sample, comparable only to the results in Singapore, which counterbalances this low ratio with greater access

Figure 6.2
Sources of Financing for New Enterprises
(Percentage of entrepreneurs by sector)



TIS: technology-intensive sector.
CS: conventional sector.
See Chapter 1 of this publication for detailed definitions.

to public sector funds (17 percent) and venture capital (14 percent). In Japan, the percentage of those surveyed who said that they had access to banks rose from 26 percent at startup to 61 percent in the early years of operation. Moreover, 65 percent of the entrepreneurs in Latin America still use personal funds to finance the initial part of the life cycle of the enterprise.

Table 6.1 also shows that the use of funds from private investors, directly or through venture capital funds, is lower than during the startup phase. This finding is surprising because it would be reasonable to think that as the activity of the enterprise unfolds, uncertainty declines and private investors have more evidence on which to base their decision to invest. Moreover, the limited experience of venture capital funds in Latin America has been directed at enterprises that were already in operation rather than at startups. Hence, it would be logical to expect that these financing sources would be more common among enterprises that have already been in business for some years, as is the case in the countries in Europe and East Asia.[2]

The alternative financing sources most used in Latin America are advances from customers, credit from suppliers, purchase of second-hand machinery and equipment, and delay in paying taxes. The use of these alternative sources increases in Latin America during the early years as the enterprise develops its business.

Inasmuch as access to formal sources does not increase, dependence on informal financing sources becomes greater.[3] Table 6.2 shows that dependence on financing from customers and suppliers is more significant for Latin American entrepreneurs than for those in other regions. In Europe this dependence declines in the early years of operation from the time of startup, whereas in Latin America it increases (almost 60 percent of the Latin American entrepreneurs sur-

[2] This could be partially explained by the lack of information available to entrepreneurs on the options for financing from private investors and venture capital funds in Latin America.

[3] This is not the case for export enterprises. Although they use these alternative funds more intensively as their operations unfold, they have access to other formal financing sources.

Table 6.1
Financing through Private Funds

	Latin America and the Caribbean		Spain and Italy		East Asia	
Private sources of financing	Startup	Early years	Startup	Early years	Startup	Early years
Private investors	90	68	10	10	277	286
% of total surveyed	8.9	6.8	3.2	3.2	27.1	28.8
Venture capital	28	17	11	18	91	149
% of total surveyed	2.8	1.7	3.5	5.8	8.9	15.0

Table 6.2
Financing through Alternative Sources
(Percentage of entrepreneurs)*

	Latin America and the Caribbean		Spain and Italy		East Asia	
Alternate sources	Startup	Early years	Startup	Early years	Startup	Early years
Customers	18.0	19.1	11.5	9.6	11.6	10.2
Suppliers	32.0	36.6	17.6	15.7	20.5	17.1
Factoring	3.6	5.3	2.6	3.5	5.6	2.9
Delaying payment of taxes	8.0	9.4	3.5	2.6	4.0	3.0
Delaying payment of services	8.0	3.5	3.5	1.0	3.7	3.0
Delaying payment of wages	3.1	3.5	2.9	1.0	2.8	2.2
Purchase of second-hand machinery and equipment instead of new	27.5	20.6	18.3	8.7	23.0	17.3
Other	4.0	4.7	18.6	5.1	2.4	2.6

* Reference is made to the percentage of entrepreneurs who stated using alternative financing sources to a medium or high degree.

veyed said that they used these two financing sources during the early years of the company's activity, compared with only 50 percent at startup). This finding indicates that trading networks become yet another entry barrier to successfully developing new enterprises in Latin America.

Nevertheless, it is necessary to differentiate among the alternative sources used. Although financing from customers and suppliers is normally used as a source of working capital, this practice could be risky and its use inadvisable for financing longer-term investments. Moreover, delays in paying for services, taxes, or wages, besides being poor business practice, could have significant impacts on potential access to formal funding sources because one of the conditions for obtaining credit is being current in the payment of services, taxes, and wages.[4]

[4] The authors thank Edgardo Demaestri for this point.

Finally, purchasing second-hand equipment is also a strategy more often used in Latin America than in the other regions. This could have a negative effect on the competitiveness of these enterprises for two reasons. First, a technical reason is that purchasing a used machine generally entails older technology that could lower the productivity of the enterprise. The second reason has more to do with the growth dynamic of the region vis-à-vis other regions. In the past two decades, levels of investment and growth were low in Latin America, hence machines sold in the region's second-hand markets may be more obsolete than those sold in more dynamic markets, such as those in some countries in Europe and East Asia.

In short, mechanisms for alternative financing in Latin America appear to be a solution to the problem of the lack of external financing, but an alert must be sounded regarding the dangers of that practice. The instability of such financing, the potential costs (in terms of penalties, termination of contracts, or reputation), and its negative effects on future access to formal financing and competitiveness could exceed the potential short-term benefits. As will be seen below, for a region like Latin America, which suffers from volatile business cycles, this vulnerability may be a significant impediment to the development of new businesses.[5]

A THEORETICAL VIEW OF THE CAUSES AND CONSEQUENCES OF THE LACK OF ACCESS TO FINANCING

Causes

In the modern theory of financing, the problem of access is often confused with that of the asymmetric information.[6] But in order to study this aspect in developing economies like those of Latin America and the Caribbean, it seems necessary to consider two apparently implicit assumptions of asymmetric information models: (i) complete markets, and (ii) absence of uncertainty and relative macroeconomic stability.[7] These aspects of the problem are discussed below.

Incomplete Markets. There is strong evidence that the financing structure of the enterprise depends more on the structure and financial practices of the country where the enterprise operates than on the characteristics of the enterprise per se (for example, European Union 2001, p. 155). In Latin America, the existence of incomplete markets is therefore a key argument for explaining the problems of access to financing compared with more developed countries that have deeper financial systems.

Indeed, in early 2000, the financial systems of developing economies and those of Latin America in particular had structural problems similar to those described by Goldsmith (1969) for the 1960s:

- The banking sector is still relatively small and the credit supply is restricted, thereby limiting its financial operations to low-risk, short-term activities (such as discounting government debt instruments) and it remains vulnerable to external shocks.
- Particular sectors suffer from the rationing of the credit supply, as is the case of the small and medium enterprise sector, consumers of scarce resources, or productive long-term investments.
- The intermediation margins of financial institutions remain higher than in more developed countries. Thus, the financing costs confronted by domestic enterprises are not very competitive and self-financing is quite common.

[5] An analysis of the financing sources of dynamic enterprises as opposed to nondynamic ones in Latin American countries shows that dynamic enterprises have a greater and more varied number of financing sources than nondynamic enterprises. That is especially true with regard to access to banks, public-private support, and alternative sources. Moreover, as the operations of the enterprise unfold, the financing networks grow and dynamic enterprises maintain their advantage over nondynamic enterprises in terms of access to outside financing sources.

[6] In general equilibrium models, it is assumed that in perfectly competitive markets there is price flexibility and information is perfectly distributed among the actors, and that the latter are rational and act by maximizing their utility. It is thereby shown that the resulting general equilibrium in these complete markets with perfect information is Pareto optimum, and that the resulting allocation of resources is the most efficient. The problem of asymmetric information arises when the assumption of information perfectly distributed among all the actors is not met. The consequences of this market imperfection are explained further on.

[7] For a more detailed discussion of these implicit assumptions of the theory of asymmetric information, see Studart (2003).

- The securities markets continue to be quite small (see Table 6.3) and the primary markets actually shrank in the 1990s.[8]

The debate over the causes of these imperfections in the financial market continues. Among the reasons most often cited are institutional problems, the inadequacy of legal and contract systems, lack of regulation and supervision, high levels of informal enterprises, along with the lack of financial futures markets. Although these factors are essential for markets to operate adequately, international experience indicates that the creation and development of markets results from an interaction of explicit policies for creating markets and market responses in an environment favorable for financial innovation (with, for example, relative macroeconomic stability).[9] In other words, the problem of access to financing seems to go beyond problems of information, as discussed below.

Imperfect Information and Uncertainty. Joseph Stiglitz and other authors have focused on the analysis of problems that arise in markets with asymmetric information and, more specifically, in the process of financial intermediation.[10] Stiglitz shows that in a context of asymmetric information, actors make decisions that may result in adverse selection and/or moral hazard processes and credit and equity rationing.[11]

When small enterprises seek access to financing, the high transaction costs connected with obtaining and delivering information lead to a rationing of credit and equity. However, for new enterprises the problem of access to formal financial markets is different. A newly created enterprise has no credit history, and therefore a traditional analysis of credit risk and discount of future cash flows is impossible. In this case, the problem is not asymmetric information but incomplete information or uncertainty.

To resolve the problem of lack of information, lenders may opt to request from entrepreneurs collateral, that is, a sufficiently liquid asset that may serve as a guarantee in the event of nonpayment. In Latin America, as a rule, the low development of asset markets and the obstacles of the legal system limit the types of collateral that banks consider acceptable. This sometimes leads to a problem of "over-collateralization," in which, in order to lower potential costs of executing a guarantee or collecting less liquid assets, guarantees greater than the value of the loan are sought.

Business Cycle Volatility. Finally, the most general focus of asymmetric information implicitly assumes homogeneity in macroeconomic conditions for the borrowers, that is, the risk differential is only associated with the types of project and management carried out by an individual enterprise. Nevertheless, it is important to distinguish between the settings in which Latin American entrepreneurs operate and those in more developed economies. The degree of macroeconomic volatility is one of the major differences between these settings.

Figure 6.3 shows average growth and the standard deviation of growth, and the volatility rate measured by the ratio of these two variables for 1992-2001. Although this was a period when the volatility of economic growth for Latin America and the Caribbean was relatively low, the region experienced much more significant volatility levels than did more developed economies, such as the European Union or the OECD economies.[12] Latin America had higher interest rates, shorter maturities, and macroeconomic volatility that entailed greater risks for new enterprises. Not only are new Latin American enterprises more sensitive to business cycles, but the variations in these cycles are more pronounced than they are elsewhere in the world.

The survey results support the theoretical guidelines suggested. The argument most commonly given to justify not using formal sources of external financing was the existence of inadequate financing conditions. More than 50 percent of those surveyed answered that they considered

[8] See Dowers, Gomez-Acebo, and Masci (2000). Further evidence on the characteristics of financial systems in Latin America and the Caribbean may be found in Beck and others (2000) and Stallings and Studart (2002).

[9] Studart (2003) discusses this issue in more detail.

[10] See, for example, Stiglitz and Weiss (1981) and Honohan and Stiglitz (2001).

[11] Uncertainty is associated with the lack of past information needed to infer the probability of future events. Information asymmetries are thus associated with the lack of access to information by at least one of the actors involved. In this case, information is also necessary to infer forthcoming project results and thus, in the case of a financial transaction, default probabilities. Access to information does not assume, however, that both actors share the same view about the future; they may have different models for forming expectations or assign different probabilities to events taking place.

[12] If the study period were to be broadened to include the periods of crisis (early 1980s and 1997-2002), the volatility index would rise notably.

Table 6.3
Depth of Financial Systems in the Countries Analyzed
(In percent)

	Assets of the Banking Sector/GDP		Private Credit of the Banking Sector/GDP		Stock Market Capitalization/GDP	
	1990	2001	1990	2001	1990	2001
Latin America						
Argentina	22	33	13	22	4	79
Bolivia	18	51	18	48	–	10
Brazil	30	43	18	28	7	28
Chile	44	64	42	62	40	75
Colombia	18	29	–	19	3	7
Costa Rica	12	29	14	25	–	5
Guatemala	30	21	11	17	–	1
Honduras	19	35	23	34	–	–
Mexico	7	33	13	10	11	9
Peru	10	28	3	25	3	16
Paraguay	17	24	10	23	–	–
Venezuela	106	14	15	10	10	1
Europe						
Spain	69	120	80	100	23	72
Italy	129	94	53	77	15	51
East Asia						
Japan	–	136	114	109	121	56
Republic of Korea	51	94	48	90	50	43

Source: Compiled by the authors on the basis of the IFS database.

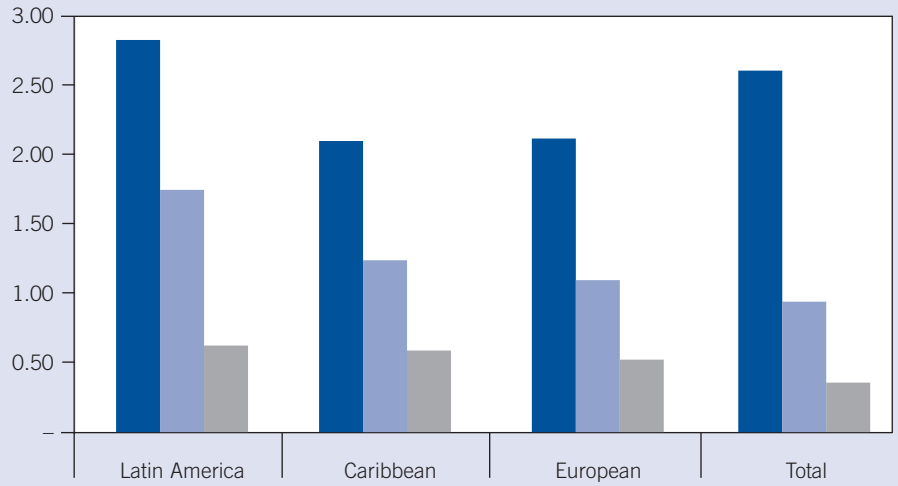
interest rates, requirements for information, and guarantees sought by banks and private investors as unsuitable.

Another important argument for explaining the lack of financing from private investors and public sector sources was the lack of available information about these financing sources. That lack of information could explain the drop in the use of venture capital sources and private investors in Latin America during the early years of operation of the enterprise.[13]

On the contrary, as may be noted in Table 6.4, the other countries in the sample show much lower ratios, ranging from 9 percent in Italy to 32 percent in Taiwan.

[13] In fact, in Latin America, contrary to what happens in the OECD economies, venture capital funds are relatively recent. They emerged in an organized way in the 1990s, when the first institutional venture capital funds appeared, aimed initially at larger enterprises. Although today there are venture capital funds that invest in small enterprises, it is estimated that as of 2002, only 5 percent of the investments had been made in small enterprises (Johnson 2002). The low level of financial market development is one of the factors that prevent financial instruments of this kind from spreading.

Figure 6.3
Volatility of Economic Growth, 1992 – 2001
(In percentage of GDP)



	Latin America	Caribbean economies	European Union	Total OECD
Average	2.82	2.08	2.10	2.61
Standard deviation (SD)	1.76	1.23	1.11	0.96
SD/average	0.62	0.59	0.53	0.37

Source: Compiled by authors using data from the Economic Commission on Latin America and the Caribbean (ECLAC).

In Italy and Spain, 86 and 47 percent of the entrepreneurs, respectively, said that they did not need more capital for their enterprises. To summarize, the problems of incomplete information and markets are a reality that ought to be included in the analysis of the problems of credit and equity rationing in Latin America.

Lack of access to financing has many consequences for new enterprises. The survey findings show some of them (see Table 6.4), which are discussed more fully in the following paragraphs.

Consequences

The survey findings confirm the speculations that have been presented throughout this chapter. As may be seen in Table 6.5, more than 56 percent of the entrepreneurs interviewed in Latin America confirmed that the lack of external financing led them to launch a smaller enterprise than originally planned, or to reduce it in times of financial constraints. Fifty-one percent said they had to avail themselves of alternative financing sources from customers or suppliers in order to be able to finance their businesses. A third of the entrepreneurs had to push back the date they opened the business. Moreover, 50 percent of those surveyed associate the lack of financing with the technological backwardness of their enterprise. The effects of lack of financing on new enterprises in the other countries were not so negative, with the exception of Singapore. In Taiwan, the need to seek a larger number of partners does not seem to have been an irremediable obstacle to creating enterprises, judging by the number of partners in enterprises in that country. That could be explained by the higher levels of savings accumulated by entrepreneurs in more developed regions.

Thus, the financial weakness of new enterprises results from the use of informal financing sources, small-size starting operations with much lower investment than in other regions, or potential missed business opportunities due to delays in starting businesses. These factors are all related—in the view of the entrepreneurs—to the lack of access to formal financing in the region. The survey data also confirm that in Latin America the difficulty in getting access to formal financing has a more intensely negative effect on the creation of enterprises than in other regions.

Table 6.4
Causes of Scarce Access to External Financing
(In percent by region/country)

Causes	Latin America and the Caribbean	Italy	Spain	Japan	Taiwan	Korea	Singapore
Additional capital was not needed	32	86	47	19	19	7	23
Inadequate financing conditions	51	9	27	23	32	12	17

Table 6.5
Consequences of the Lack of External Financing
(In percent by region/country)

Consequences	Latin America and the Caribbean	Italy	Spain	Japan	Taiwan	Korea	Singapore
Reduced scale	56.0	13.0	41.0	31.0	43.0	26.0	60.0
Search for partners	11.0	7.0	11.0	38.0	70.0	9.0	34.0
Search for support from suppliers/customers	51.0	7.0	27.0	24.0	51.0	5.0	63.0
Delay in launching enterprise	32.0	14.0	15.0	7.0	26.0	3.0	43.0
Technological backwardness	50.0	5.3	40.1	21.2	13.2	12.9	40.8

These consequences lead us to conclude that improving access to financing for new firms ought to be a policy priority, especially in Latin America. Although it would be impossible to provide an exhaustive description of possible policies for dealing with the problem, the chapter conclusions offer some general guidelines for policy design.

CONCLUSIONS AND PUBLIC POLICY RECOMMENDATIONS

The survey findings indicate that the lack of access to formal financing in Latin America represents a major obstacle not only to the creation of enterprises, but also to their survival and growth. The comparison of access to financing in Latin America vis-à-vis other regions shows that the new Latin American enterprises use fewer and less diversified formal sources of financing than do enterprises in other regions. The differences are especially noteworthy with regard to access to bank and private investor financing. In a world that is increasingly open and integrated commercially, this lag could constitute a serious obstacle to enterprise development in the region.

As a result of these financial constraints and based on the survey findings, Latin American entrepreneurs have to make greater use of personal savings in financing the startup of their enterprises than is the case elsewhere (with the exception of some East Asian countries). Moreover, Latin American entrepreneurs are forced to establish their enterprises with an initial investment that is less than that of European entrepreneurs. When resources are not available, the entrepreneur is forced to cut back on the starting size of the enterprise, look for new partners, or delay starting the business, which can lead to losing the business opportunity that had been detected. More important, the

lack of financing contributes to the technological backwardness of new enterprises in the region.

Despite these limitations, some entrepreneurs in Latin America are able to overcome obstacles and start their businesses, although financial difficulties may continue during the early years of the enterprise. At this phase, the use of formal sources remains below that of the other regions, and dependence on informal financing sources increases. The enterprises are forced to survive by availing themselves of financing from suppliers and customers, purchasing used equipment and machinery, and using poor business practices, such as falling behind in the payment of services, salaries, or taxes. Under particular conditions of a tight credit supply, the use of these sources may be considered good entrepreneurial practice, however, it is a good idea only in the short run. The instability of these financing sources leaves enterprises in a situation of financial vulnerability that becomes problematic over the medium and long run.

Moreover, in access to formal financial resources, especially bank loans, export enterprises in Latin America have advantages over nonexport companies, thereby enabling export-oriented firms to make larger initial investments. However, the export companies display weaknesses when compared with export enterprises such as those in Asia, which, although they start smaller initially, have diversified financing sources, including various kinds of government support.

The underlying causes of the financing problems of new enterprises in Latin America are complex. Underdeveloped financial markets, especially securities markets, lag behind those of more developed and even some developing economies. Murky information and/or high transaction costs for gaining access to information partly explain the problem of access to private financial systems in market economies, regardless of the level of development of the financial market. However, in the case of new enterprises, the problem goes beyond asymmetric information because new enterprises almost by definition have no credit history or operating record. Hence, they cannot offer lenders and investors the information they need to calculate the credit risk and be able to project their cash flow. This uncertainty is even worse in the case of volatile macroeconomic settings, which have been characteristic of Latin American economies in the past three decades.

For all these reasons, it is not surprising that a significant portion of studies on the problem of financing new enterprises make only limited recommendations. In the case of the so-called debate on second-generation reforms, the focus is placed on the institutional requirements for achieving market-friendly development. The recommendations include improving tax systems, market discipline, and information disclosure of private companies. However, these are necessary but not sufficient conditions for developing a modern financial market, which includes newly created enterprises. The solutions must involve solving the information problems that make risk evaluations a difficult or costly task, and deepening the financial market.

While for the case of imperfect information the use of collateral could facilitate access to credit, this solution is not problem-free. First, only a small percentage of the population has assets that are acceptable as collateral. As a solution, it is customary to recommend policies aimed at improving the quality of the collateral and/or the use of government instruments, such as loan guarantee systems to cover insufficient collateral. However, setting up and administering these systems often entails high costs that have to be considered when one of these systems is adopted. Moreover, situations of over-collateralization call attention to the internal operations of banks. Hence, it might be useful to conduct a study of banks' collateral and risk evaluation systems.

The possible options involve dealing with the problem of lack of information with support for programs aimed at reducing the costs of generating information. These might include loan offices that prepare projections on the cash flow of new enterprises, credit bureaus, and programs that foster entrepreneurship and entrepreneur training in preparing business plans that cover these needs.

Other recommendations for deepening the financial market for entrepreneurs include designing new seed capital instruments-in the form of capital, quasi-capital, or debt-suited to the particular characteristics of enterprises that are in the startup phase. To that end, work would have to be done on aspects such as the reform of legal and tax systems to facilitate the development of such instruments; programs to encourage entrepreneurship to assure a source of future projects; and training for international and local investors, venture capital fund managers, and the entrepreneurs themselves so that they fully understand the virtues and risks of the instrument. The particular architecture of these policies should be suited to the conditions of each economy according to its degree of development and the depth of existing markets, the institutional network, and cultural aspects. ■

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CHAPTER 7

CONCLUSIONS AND POLICY IMPLICATIONS

Hugo Kantis, Pablo Angelelli, and Juan José Llisterri

The chapters in Part 1 have presented new findings about how entrepreneurs and dynamic enterprises arise in various parts of the world, paying special attention to Latin America. Here we present the main conclusions of the study on the characteristic features of entrepreneurs and dynamic enterprises in Latin America and the influence of the sector and territorial aspects on the entrepreneurial process. We also note the contrasts with dynamic enterprises in the countries of Southeast Asia and southern Europe.

FEATURES OF THE NEW DYNAMIC ENTERPRISES IN LATIN AMERICA

The investigation has made it possible to identify a set of factors that distinguish dynamic entrepreneurs from those who did not significantly expand their enterprises.

Teams of Entrepreneurs

Most of the dynamic enterprises were set up by entrepreneur teams with complementary specialized functions. That image contrasts with that of the "heroic individual" traditionally associated with entrepreneurship. By setting up teams and networking, dynamic entrepreneurs were able to bring together a pool of talent and resources to face the challenges and structural constraints of their situation. That enabled them to launch enterprise projects that were more growth oriented from the outset.

Sources of Motivation and Skills for Starting a Business

The main "incubators" of entrepreneurs are the companies where they previously worked. This learning source is the greatest support for shaping the entrepreneurial spirit and talents of dynamic entrepreneurs, and it makes an essential contribution to gathering information on business ideas. By comparison, the university occupies a secondary position. Its primary contribution is technical knowledge, especially for the more dynamic enterprises.

Networking

Dynamic entrepreneurs highlighted the crucial role of networks in identifying the business opportunity and accessing technology or financing. Getting specific contacts in business is essential for complementing the more generic help commonly provided by family and friends. Executives in large companies were more prominent in identifying the business opportunity that they took as a basis for creating the enterprise, while suppliers more often facilitated commercial capital, and production networks did their part in providing access to technology.

Startup Scale

The dynamic enterprises start larger and are more export oriented. Sales in the first year averaged between five and six times greater in the dynamic group; they had twice as many projects of over $100,000, and their teams were 30 percent larger. The dynamic entrepreneurs were likewise more export oriented, although the domestic market constitutes their primary basis of business.

Financing

Most of the entrepreneurs, in addition to their dynamism, financed the creation of their enterprise with personal and family savings. What distinguishes dynamic enterprises is that they use a larger number of financing sources and devices, such as purchasing used equipment, to reduce the need for external

resources. In the international literature, this behavior of dynamic entrepreneurs is traditionally known as bootstrapping. Moreover, because the teams are larger, the amounts of their own capital for starting the enterprise tend to be greater.

The factors identified suggest that public policies for fostering the development of new dynamic enterprises should favor the formation of entrepreneur teams, give people access to professional experiences that will help them develop entrepreneurial skills and motivations, support networking, enable businesses to achieve a minimum starting scale so as to be able to compete and grow, and provide access to a varied range of financing sources and mechanisms.

LOCATION AND ECONOMIC SECTOR

Location

The perception that opting for an entrepreneurial career is desirable and feasible is more widespread in local areas in the region. Entrepreneurs who create dynamic enterprises in small or medium-size cities come from broader social segments, are less educated, and more often created their first business. In these cases, entrepreneurial models close at hand also had a more significant influence than in metropolitan areas, reflecting the leadership and visibility of small and medium enterprises in the local community. These enterprises are the "entrepreneurship schools" most valued by local entrepreneurs, and they make a larger contribution to shaping the calling and skills for starting a business.

However, local enterprises are less dynamic that those in metropolitan areas. This seems to be the result of the different profile of entrepreneurial projects, their networks, and access to financing sources. Local enterprises focus more on offering lower prices than the competition, and they are more likely to be one-person enterprises or have small teams; their networks also tend to be more concentrated in the entrepreneur's immediate social circle. These aspects ought to receive policy attention for creating enterprises aimed at local areas.

Economic Sector

Enterprises that are engaged in knowledge-intensive activities are distinguished from those that produce traditional manufactures by their greater ability to modernize and energize structures of production. Technology businesses are more dependent on specialized human capital (highly educated entrepreneurs), a business structure and universities that facilitate the formation of entrepreneurs and the identification of business opportunities, accessibility of technical information, availability of personal savings, and access to specialized financing sources. This combination is necessary for these businesses to be able to survive in markets that are very dynamic and cater to the needs of sophisticated customers, generally large companies in the service sector. These factors must be incorporated into policies to foster knowledge-based enterprises.

CONTRASTS WITH COUNTRIES IN SOUTHERN EUROPE AND SOUTHEAST ASIA

The new Latin American enterprises are far less dynamic than firms created in the countries of southern Europe and Southeast Asia. In their third year, for example, only one Latin American firm in four had surpassed sales of a million dollars a year, compared with two in three countries in Southeast Asia, around half in Italy, and somewhat more than a third in Spain. Moreover, the Latin American enterprises recorded lower levels of billing per employee and a much lower export orientation. These differences reflect a series of structural constraints of the Latin American entrepreneurial systems.

Social Factors

The social backgrounds from which entrepreneurs emerge are narrower in Latin America. Most entrepreneurs in the region come from the middle class, which is not as substantial as it is in the countries of Southeast Asia and southern Europe. Therefore, in Latin America, the platform for creating enterprises is narrower, especially for creating knowledge-based enterprises.[1] Moreover, fewer

[1] Most studies on entrepreneurship carried out in developed countries assign importance to structural issues related to demographic matters (such as age and gender) but do not place equal emphasis on the social origin of entrepreneurs, perhaps because of greater homogeneity of social structures in those countries. Analyzing such issues is particularly relevant for countries at lower levels of development.

dynamic entrepreneurs are born into lower-middle and lower-income households in the region than in Asian countries, where rising social mobility contributes more to entrepreneurship. Similar conclusions are obtained from considering the high education level of entrepreneurs, especially in Latin America, where access to higher education is more limited than it is in the countries of Southeast Asia and southern Europe. The contrast is striking when the education level of entrepreneurs in some Latin American countries is compared with that in Italy, which has a low presence of university graduates. Countries where social and production structures are more integrated seem to offer more widespread opportunities for entering an entrepreneurial career and prospering in it.

Another characteristic of dynamic Latin American enterprises is that a significant proportion of their founders already had previous business experience, whereas in Southeast Asian countries the usual case is that of first-time entrepreneurs. This means that the contribution of the entrepreneurial process to broadening the entrepreneurial base seems to be less in Latin American countries than in those of Southeast Asia. It is important to point out that this finding about the phenomenon of entrepreneurship often tends to be reduced to a question associated with the business climate, but it is also a process that involves people and their life decisions. Hence, it is critically important to examine the role played by the different settings in which entrepreneurs are formed.

Motivations for Starting a Business and Entrepreneurial Culture

Entrepreneurs are driven by both economic and noneconomic motivations. This is a general characteristic of the entrepreneurial process in the various countries. The need for personal development and fulfillment along with the desire to contribute to society are the main driving forces for becoming an entrepreneur. Within this context, some interesting differences were identified between Asian, European, and Latin American entrepreneurs. Those in Asia are significantly more influenced by role models who awaken the motivation to start a business. The media play a fundamental role in publicizing such models, reflecting a greater concern for spreading entrepreneurial culture. The lack of role models is especially important for knowledge-based entrepreneurs because such businesspeople have a lower profile in Latin America. By contrast, in local areas the presence of these models is more common because entrepreneurs of small and medium businesses are more visible to the rest of the population.

The desire to become wealthy and contribute to society is more common among Asian entrepreneurs. This may reflect their greater orientation to individual and collective growth and greater expectations of transforming the context in which they operate so as to obtain social esteem. The influence of the tradition of the family business is most important in Italian industrial districts. This source of motivation is also present in some Latin American countries, but because the participation of families of entrepreneurs in the Italian population structure is greater, it has a much broader impact on the entrepreneurial process in Italy.

Sources of Learning for Creating Enterprises

The main schools of entrepreneurs are the companies where they used to work, that is, where they acquired the entrepreneurial spirit and most of the skills needed to start a business. The contribution of the education system to the entrepreneurial process is limited to the contribution made by university teaching, that is, it is restricted to those who passed through its classrooms and its importance lies almost solely in training in technical knowledge, especially in Latin American countries. This source is more important than work experience in the region, which contrasts with the situation in the other countries where businesses also play a predominant role in the acquisition of technical knowledge. In Latin America, the fact that the university is out of reach for most people constitutes a constraint on the creation of knowledge-based companies.

This finding may be related to the profile of specialization of the different countries. Since the production structure of Latin American countries is less knowledge intensive, the university occupies a relatively more prominent place. In addition, entrepreneurs often do not find room to apply that knowledge in the jobs offered by already existing companies, and hence starting businesses emerges as an alternative for their professional and personal development. That is especially the case for those who set up companies in knowledge-intensive sectors and who have to pursue their own learning process in a much more self-taught manner.

Quantity and Quality of Business Opportunities

Most enterprises arise in order to serve other domestic firms, especially in the manufacturing and service sectors. Because the density of businesses per inhabitant in Latin America is far lower than in the more developed countries included in the study, potential sources of demand are also fewer. The fragmentation of production that characterizes the region makes it less likely that startup enterprises will have business ties to firms that are large enough to concentrate a great deal of purchasing power. Moreover, compared with Asian and European countries, Latin America has lower per capita income levels and more unequal distribution. These factors reduce the demand frontiers of people and companies for goods based on product differentiation, which would favor the creation of new dynamic enterprises.

Subcontracting is a special case of business opportunity. As a rule, the more dynamic enterprises were able to utilize these opportunities more intensively than the others, but subcontracting is far from being a widespread practice, especially in Latin America. The production structure in Latin America is characterized by high levels of vertical integration because of high transaction costs, the productivity gap, and the organizational capability separating different-size firms. During the 1990s, large companies in the region joined the international trend toward outsourcing activities, but this involved subcontracting unsophisticated services and included little manufacturing. Such deals, which are more common between dynamic enterprises, therefore constitute a restricted economic space, especially for new enterprises, which do not have a reputation on the market.

Sources of demand for knowledge-intensive enterprises are more restricted in Latin American countries. Despite a strong expansion during the 1990s, the presence of large companies in sophisticated services is limited, and in the case of the transnationals, their requirements are often met from their headquarters. Moreover, because Latin American countries do not have a platform of technology-based companies, the new enterprises arising in these sectors have to confront the barriers imposed on them by the mistrust of the rest of the business world about their technical capability. The demands of small and medium companies are a source that could be utilized to a greater extent if they were more up to date and technologically complex. The situation is different for knowledge-intensive companies in Asia because of their greater export orientation.

Business opportunities are of lesser quality for new local enterprises in Latin America. By contrast, in the industrial districts of Italy or Southeast Asian countries, linkage with firms based on specialized supply of differentiated goods is a source of opportunities for the creation and development of new enterprises, which over time become competitive even internationally. In Latin America, the typically low levels of complementarity of production mean that the platform of local demand for entrepreneurs is more limited. The new enterprises tend to be based on less ambitious projects because of the absence of networks to facilitate capturing business outside the area. They start out smaller, aim primarily at meeting the needs of consumers in the area, exploit price advantages based on proximity, and often take advantage of lower labor costs in the local setting.

The Role of Entrepreneur Teams and Networks

Latin American entrepreneur teams, in comparison with those of southern Europe and Southeast Asia, tend to be smaller, and their networks, in addition to being less stable, are more restricted to the immediate social circle. Building teams and networks depends largely on the prevailing attitudes and values in society. Levels of trust and the willingness to form associations create space for building networks and teams. Moving toward a more entrepreneurial culture and enhancing social capital should help to develop denser and more stable networks, benefiting entrepreneurs and their enterprises. Doing so will foster the possibility of identifying quality projects and having the support of more specific networks for businesses.

Financing of New Enterprises

In all cases, entrepreneurs were financed primarily with personal savings. However, the conditions for startup operations and getting through the early years are more unfavorable in Latin American countries than in those of southern Europe and Southeast Asia. In those regions, the use of external sources—like bank loans, offers from government agencies, and venture capital—is more common, depending on the country. The contrasts between regions are even greater when the comparison is between local and metropolitan areas. In this regard, the consequences of not having access to financing sources were greater for Latin American

Box 7.1
Policy Areas for Promoting Entrepreneurship in Latin America

- Broaden the social and gender bases from which dynamic enterprises emerge.
- Expand the number and quality of business opportunities.
- Facilitate potential entrepreneurs' access to work experience.
- Foster the development of entrepreneur teams and networks.
- Improve access to financing.
- Enhance the entrepreneurial process in local areas.
- Take advantage of the transformation power of knowledge-based businesses.
- Generate environmental conditions more favorable to the growth of new enterprises.
- Adopt a systematic approach based on complementary efforts between different areas and levels of government, with strong leadership from the private sector.
- Make development of entrepreneurs a social investment with a long-term vision.

entrepreneurs, who had to start their projects at a smaller scale and a lower level of technology. In addition, the restrictions on formal financing, which are more significant for Latin American entrepreneurs, force them to avail themselves of alternative sources that are more unstable in nature than formal sources. The result is a situation of financial vulnerability that is more problematic than that of entrepreneurs elsewhere.

Conditions of the Business Environment

Latin American entrepreneurs—with the exception of the Chileans—were far more likely to point to unfavorable conditions in their environment in starting and managing the new enterprise, especially in local areas. They particularly highlighted the red tape involved in going into business and the heavy tax load, which were mentioned most often. Other problems were finding qualified human resources, seeking suitable suppliers, and balancing the cash flow of the enterprise. This all points to poorer functioning factor markets and high transaction costs for new firms during the early years.

POLICY AREAS FOR PROMOTING ENTREPRENEURSHIP IN LATIN AMERICA

The conclusions of the study help reveal the main areas in which those responsible for elaborating policies to promote entrepreneurship in Latin America should be working (see Box 7.1). Likewise, the peculiar features of the entrepreneurial process in each country make it possible to reflect more specifically about the policies and programs needed for each country.

1. Broaden the social and gender bases from which dynamic enterprises emerge.

Latin American entrepreneurs belong to middle and upper-middle class sectors and are highly educated, and hence they come from a narrower social base. Thus, access to opportunities for entrepreneurs ought to be more equitable in order to increase the sources of economic wealth, increase the number of dynamic entrepreneurs, and enhance routes to social mobility. Moreover, the inclination to go into business can be intensified-even in the milieus that usually inspire entrepreneurs-if an overall cultural and economic context more favorable to enterprise creation is generated.

Furthermore, the platform of entrepreneurs is more restricted to the area of those who have previously created a business. Hence, special emphasis should be placed on supporting and promoting those who want to start their first business. These individuals have had fewer chances to learn based on experience, to meet potential partners, and to network, and hence their ability to identify opportunities and prepare projects with growth potential is more limited.

The education system and the media can play a much greater role than they are now doing in shaping the entrepreneurial spirit and skills needed to start businesses, for example, by publicizing exemplary entrepreneurial models and circulating more information on business opportunities.

2. Expand the number and quality of business opportunities.

The lesser presence of enterprises in Latin American economies, the fragmentation of production systems, low per capita income levels, and high inequality limit the quantity and quality of business opportunities for creating new dynamic enterprises in the region, especially high-tech enterprises. Possible alternatives for dealing with this problem include promotion of creativity, subcontracting, and outsourcing businesses; technology transfer; competitive import substitution; local research and development efforts; and outside markets. Likewise, enterprises in countries where large numbers of people have emigrated to more developed nations ought to take advantage of this potential as a source of information and export-business opportunities.

3. Facilitate potential entrepreneurs' access to work experience.

Work experience in sectors that are similar or connected to the activity of the new enterprise constitute a fundamental source for acquiring the entrepreneurial spirit and skills, and access to relevant information, technology, and business contacts. Hence, policies aimed at promoting the creation of new dynamic enterprises should make it easy for potential entrepreneurs to acquire relevant work experience. Policies should also focus on individuals who already have work experience and contacts to motivate them to go into business and help them to access increased business opportunities, knowledge, and resources.

4. Foster the development of entrepreneur teams and networks.

Creating dynamic enterprises requires a group effort. In addition to a team of entrepreneurs with complementary specialized skills, a network of contacts is needed to complement the knowledge, skills, and resources of the entrepreneurs. Networking plays a critical role throughout the entrepreneurial process in identifying the business opportunity, accessing technology and resources, and managing the company during its early years. Hence, entrepreneur development policies should focus on entrepreneur teams or facilitate and motivate their formation; they should likewise adopt and promote networking in everything they do.

5. Improve access to financing.

The analysis made clear the negative consequences faced by Latin American entrepreneurs due to restricted access to formal financing. Currently, there are few financial instruments available to these entrepreneurs, partly because of the general lack of depth of Latin American financial markets, and in particular because of problems resulting from the difficulty of evaluating the risk of new enterprises. Hence, more must be done to deepen financial markets in the region and design new financial products adapted to the needs and characteristics of Latin American entrepreneurs in accordance with the level of development of markets in each country or region. Finally, such formal financing instruments must provide funds during both the startup phase and the early years of the enterprise.

6. Enhance the entrepreneurial process in local areas.

The investigation demonstrated the disadvantages found in local areas in Latin America. Entrepreneur development programs should include components for fostering entrepreneurship aimed at enhancing conditions for creating businesses and making them grow. The key aspect in such programs is improving the growth possibilities of the projects, especially in nonlocal markets, and making them more innovative. Articulation with nonlocal networks and broadening sources of innovative technological expertise should be given special consideration in such actions.

7. Take advantage of the transformation power of knowledge-based businesses.

Knowledge-based enterprises are not very common in the region, and those desiring to create such enterprises are at a greater disadvantage than those creat-

ing conventional enterprises. There are fewer inspiring entrepreneurial models, narrower networks of suppliers and customers, more limited spending on research and development, and more limited financing and technical assistance. The investigation also revealed that the entrepreneurial process of knowledge-based firms displays distinctive features in terms of their formation and the profile of their customers, networking, and the problems they face in the early years.

In promoting knowledge-based businesses, consideration should be given to the following: formation of human capital, focusing efforts on university students and trained employees in medium and large companies; access to specialized financial resources; backing for developing strategic alliances and relationships of entrepreneurs with large companies; support for research and development; and broad and diversified entrepreneur networks. Actions to foster the emergence of such enterprises and entrepreneurs ought to be part of the government's science and technology policies.

8. Generate environmental conditions more favorable to the growth of new enterprises.

The investigation showed that dynamic Latin American enterprises face the most unfavorable conditions. This issue, which is now part of the public policy agenda in Latin America, should continue as a maximum priority. However, it is important that consideration be given to the specific impact of regulations and reforms on new enterprises. Likewise, exploration should continue into new methodologies for diagnosing and reducing the barriers in the environment that affect entrepreneurial activity. One possibility along these lines is to pay more attention to local or regional areas as a center of policies for improving the business environment.

9. Adopt a systematic approach based on complementarity.

The weaknesses identified in the Latin American entrepreneurial setting justify the importance of a strategy based on a comprehensive and systemic vision. Moreover, wherever it is applied, it is crucial that there be an adequate evaluation of the operation of the various factors affecting the entrepreneur development system. Policy initiatives adopted in isolation will undoubtedly be less effective than strategies based on a more comprehensive focus that takes into account the critical factors that impact the entrepreneurial process and stimulate or hinder the creation and expansion of new enterprises.

A comprehensive strategy for supporting entrepreneurship must be devised with strong levels of coordination between the programs comprising it and between the different agencies and institutions involved in carrying it out. The strategy should be articulated with educational, innovation, tax, and production development policies. It is particularly important to foster locally based initiatives in order to contribute to the process of economic development in the states or provinces and nations of Latin America. The key factors affecting the enterprise creation process presented in the study may be used as a guide for diagnosing the needs and conditions of the cities and regions where programs that promote entrepreneurship are to be designed and implemented.

10. Make development of entrepreneurs a social investment with a long-term vision.

Some programs can show results more quickly, for example, those that direct their efforts at supporting entrepreneurs with previous experience who have already conceived their business project. However, promoting entrepreneurship should be conceived as a long-term strategy. Indeed, the maturation of an entrepreneurial project from the beginning of the motivational process until the business is created takes several years.

Broadening the base of dynamic entrepreneurs in a society is as important as roads or bridges. Entrepreneurs must be socially valued as "strategic human resources." Hence, fostering the emergence of dynamic entrepreneurs ought to be regarded as a long-term social investment.

Some entrepreneurship promotion programs will demand efforts whose impact can be evaluated only over the long run. This is especially the case for programs that affect the acquisition of entrepreneurial motivation, one of the critical elements in the inception stage of new enterprises. ■

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PART II

INTERNATIONAL EXPERIENCES IN FOSTERING ENTREPRENEURIAL DEVELOPMENT

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CHAPTER 8

INITIATIVES FOR FOSTERING ENTREPRENEURIAL DEVELOPMENT

Hugo Kantis

Part 1 presented the main findings of the investigation into the entrepreneurial process in the countries of Latin America, southern Europe, and East Asia. The discussion identified factors that influenced the inception, startup, and early development of enterprises; highlighted distinguishing features of dynamic enterprises; and looked at contrasts between countries, sectors, and locations. The analysis made it possible to detect the relevant areas of action for fostering entrepreneurship. Part 2 complements the perspective gained through that investigation by summarizing a set of case studies on institutional initiatives for promoting entrepreneurship. This part also draws some conclusions for Latin America from a comparison with the other countries and regions.

This chapter proposes a possible classification of the policies for fostering entrepreneurship, describes some examples that are being carried out internationally, and comments on the criteria for selecting the experiences profiled and the core issues discussed in the studies.

ENTREPRENEURIAL DEVELOPMENT POLICIES

For this study, the meaning of fostering entrepreneurship is based on the concept of the entrepreneurial development system discussed in Chapter 1. A fundamental element of this concept is the set of institutional policies and initiatives aimed at promoting the creation and early development of entrepreneurs and enterprises.[1] It is assumed that the existence of policies and programs oriented toward such a purpose can influence the quantity and quality of entrepreneurial projects (Lundström and Stevenson 2001; Stevenson and Lundström 2002; Verheul and others 2001; OECD 2003a, 2003b).

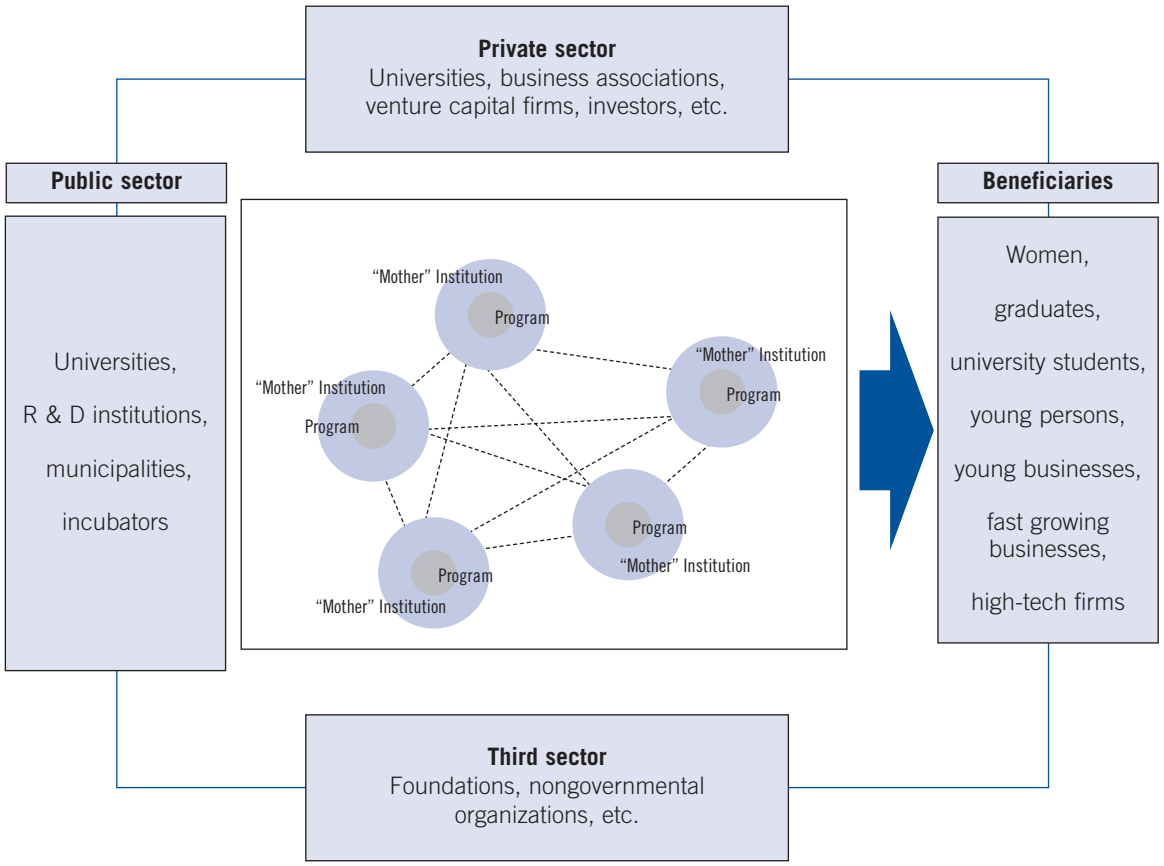
Key aspects to be considered in analyzing these policies are: (i) the extent to which public, mixed, or private sector initiatives or strategies aim at fostering the creation and early development of new entrepreneurs and enterprises; (ii) the objectives sought through these strategies and initiatives; (iii) the profile, range, and coverage of the beneficiaries; (iv) the type of institutions involved; (v) the institutional preconditions in which they are developed (the cultural environment, management practices, and incentives); and (vi) the specific organizational features of the programs (strategic-institutional model, scale of operations, human and financial resources, and relationships with other institutions).

Figure 8.1 illustrates the diversity of organizations (public, private, and third sector) and beneficiaries included in entrepreneurial development policies.

Although entrepreneurial development initiatives may be launched from any of the institutional actors considered, there is an increasing trend on the part of different levels of government to become directly involved in these initiatives by exercising the role of initiator, catalyst, and promoter that, generally, causes other civil society organizations to become involved. This trend

[1] The institutional concept adopted includes the public policies and formal institutions that offer support programs for establishing and developing enterprises and entrepreneurs. In its broader meaning, the term *institution* could cover most of the aspects considered among the factors influencing the entrepreneurial process (such as culture, regulations, values, and formal institutions). Nonetheless, this study opts for a more limited definition in keeping with previous studies (Urbano, Vaillant, and Veciana 2002).

Figure 8.1
Actors Involved in Entrepreneurial Development Policies



reflects an increasingly greater consensus among policymakers regarding the contribution of the new enterprises to economic growth, job creation, innovation, regional development, diversification of the productive network, competition, democratization of economic power, equality of opportunity, and shaping of the creative energies of the population.

In addition, many government studies reveal a low level of entrepreneurship or limited creation of growth-oriented enterprises. Such studies have awakened in governments a special interest in fostering entrepreneurial development.

Depending on the priority objectives and weaknesses to be addressed, the initiatives may be launched from different areas of government (agencies related to industry, science and technology, employment, education, or social development) that operate at different levels (central, state, or county). Nevertheless, given the diversity of factors at play in the entrepreneurial process, cooperation between the different areas of government and the private sector is becoming increasingly important. As asserted by Lundström and Stevenson (2002), the greater the commitment to entrepreneurial development, the more horizontal the government structure that supports it tends to be. Reaching an appropriate level of coordination between the diverse areas and spheres of action—from the central government to the local government as well as with the private sector and the third sector—constitutes one of the greatest challenges for the implementation of a

systemic and comprehensive entrepreneurial development strategy.

Entrepreneurial development policies are frequently confused with policies for fostering small and medium enterprises (SMEs). According to Lundström and Stevenson (2001), entrepreneurial development policies are a specific field and are becoming increasingly more differentiated from the traditional focus of action for promoting SMEs. A simple way of distinguishing between the two types of policies while at the same time identifying their intersections is to consider the development phases of an enterprise. The actions included in entrepreneurial development policies cover the phases of the entrepreneurial process (inception, startup, and early years) and focus on both the entrepreneurs and their projects/enterprises.

SME policies focus on providing support to already established enterprises and, at least conceptually, can also include assistance to companies in their first years. Nevertheless, for strategic and operative reasons, a large portion of the assistance to SMEs tends to be concentrated on companies that have already reached maturity. One reason for this approach is that the chances of survival of these companies are usually much greater than those of companies with limited experience and, consequently, investing public funds to strengthen them involves less risk. Another reason is that new companies typically do not have a "voice," given that in general their participation in institutions representing business owners is small and accordingly their demands and needs tend to be less known and are therefore given less consideration by policymakers.

Nevertheless, some countries have included measures deliberately aimed at aiding new or young enterprises and at offering greater support to persons wishing to open their own business. These types of initiatives, which originated as an outgrowth of SME policy, are a principal source of support for entrepreneurial development identified by Lundström and Stevenson (2002) in their typology of entrepreneurship policies, and are usually seen in countries that have a long history of promoting SMEs. The authors also point out a set of strategies and programs focused specifically on support for entrepreneurs and their enterprises that in some cases have given rise to the emergence of institutions specialized in this field.

Initiatives fostering entrepreneurial development may also be classified according to the profile of the population or enterprises that are the intended beneficiaries. From this perspective, it is possible to differentiate between generic and niche strategies. The aim of generic policies is to promote the creation of companies in general, for example, through fostering entrepreneurial spirit and skills in the population, easing access to financing, providing technical assistance, or simplifying bureaucratic procedures. Examples of this type can be found in Brazil, Finland, the Netherlands, Scotland, Spain, and the United Kingdom. Policies focused on niche businesses either define specific groups of the population as the intended beneficiaries based on the objective they are pursuing or promote a certain type of enterprise in particular, such as innovative or growth-oriented (see Box 8.1).

In some countries, it is possible to find holistic strategies that embrace both generic and niche initiatives and that are characterized by their comprehensiveness (Lundström and Stevenson 2001). That is, design and implementation factors influence the entrepreneurial development process. Examples of this type are found in Finland, the Netherlands, and Scotland. These strategies define a trend in the understanding of the entrepreneurial phenomenon and the degree of commitment on the part of governments.

In addition, the adoption of initiatives promoting entrepreneurship must take into account the characteristics of the context in which such initiatives will be implemented. A clear diagnosis concerning the functioning of the entrepreneurial development system is fundamental for defining the emphases and priorities to be established over time. For example, in countries or regions where an entrepreneurial culture is deeply rooted in the population, it is possible that deficiencies in other areas require relatively greater attention. There is also the case of those societies where the creation of innovative companies is very low despite the strong presence of technology-intensive institutions and enterprises. The institutional and cultural context or market factors, for example, may have a negative impact on "the supply of Schumpeterian entrepreneurs." In other words, the strengths and weaknesses existing in each society must be carefully calibrated so as to establish which "initiatives package" is the most appropriate for promoting the systemic development of entrepreneurship (OECD 2003).

It is also essential to define, based on the objectives pursued (employment, social inclusion, wealth cre-

Box 8.1
Niche Strategies for Entrepreneurial Development

Type 1:

Generally speaking, these strategies seek to address unemployment and/or promote social inclusion. The target group consists of specific segments of the population that have less entrepreneurship in relation to the average (such as women, ethnic minorities, young persons, the unemployed, or aborigines). The aim is to overcome the specific barriers that such groups encounter when establishing a new business. Examples of this type of initiative are those being implemented in Canada and the United States with ethnic minorities or aboriginal groups, and in Italy with young persons.

Type 2:

The objective is to foster the creation of companies with growth and/or innovation potential. The target group is usually formed by persons who have the greatest potential for starting up high-growth companies, such as researchers, inventors, university graduates, or persons with experience in technology. In Argentina, Australia, Brazil, Germany, Ireland, the Netherlands, and Taiwan, it is possible to find initiatives of this type that include measures supporting innovation, fomenting an entrepreneurial culture among specific population segments, providing venture capital, and creating university-based incubators and incentives for university graduates and researchers to establish knowledge-intensive companies.

Source: Based on Lundström and Stevenson (2001).

ation, and growth), the type of business whose creation and development the initiatives seek to promote. Actions aimed at benefiting growth-oriented companies are not identical to those that seek to foster entrepreneurs in general. Here the task is not only to adequately define the target population, for example, in order to adapt the aspects related to the mechanisms for policy delivery, but also to come up with the most appropriate initiatives package. The findings presented in the preceding chapters reveal several common aspects in the entrepreneurial process of both types of enterprises, but also those aspects that distinguish them from one another (see Chapters 2 and 3).

ENTREPRENEURIAL DEVELOPMENT POLICIES[2]

This section reviews the main areas of policy in which the governments of a number of countries are acting to strengthen processes for creating companies. The purpose is to illustrate the growing attention being paid to policies of this type as well to highlight the diversity of factors being taken into account to promote entrepreneurial development. The list of examples is not exhaustive; it aims to achieve a more practical vision of each policy area.

Promotion of Entrepreneurial Culture

In the United States, entrepreneurial culture is promoted in the media through numerous magazines, television programs, and newspaper supplements that deliver the entrepreneurial message to millions of homes. Similarly, Canada and Taiwan utilize a variety of mass media tools in their strategies: television programs, newspapers, stories of successful entrepreneurs, and conferences open to the public.

Some other countries organize events like Small Business Week (in Canada, Sweden, and the United States) or host award and recognition ceremonies for entrepreneurs who later serve as role models for the population (Scotland and Taiwan). Recently, the Japanese government decided to organize a National Startups Forum, which was conducted by the Japan Small and Medium Enterprise Corporation (JASMEC).

In Latin America and the Caribbean, promotion of entrepreneurial culture is also finding its way onto the agenda of the media. Television programs on entrepreneurs and enterprises are broadcast in a number of countries in the region. The print media also gives space to this subject. An interesting example is the

[2] This section is based on Internet searches for the cases of Japan and Scotland, and on Lundström and Stevenson (2002) for ten OECD countries.

business plan contest that the magazine Dinero in Colombia has organized since 2000. The awards presented to young entrepreneurs and the publicity given to them in this magazine help spread the entrepreneurial spirit among the young population of the country. Similar contests for entrepreneurs are held in Argentina, El Salvador, Peru, and Suriname, among other countries.

Entrepreneurial Education

Interest in establishing an entrepreneurial education curriculum is increasingly reflected in government agendas and includes actions that range from primary schools to universities. In Australia, Canada, Finland, the Netherlands, the United Kingdom, and the United States, ministries of economy and industry have already launched initiatives to introduce training activities to foster entrepreneurial spirit and skills through study programs. Canada has the most experience at the early school level. Since the early 1990s, the regional development agency Atlantic Canada Opportunities Agency (ACOA) has included entrepreneurial education in high schools as part of its entrepreneurial development strategy. In Latin America and the Caribbean, efforts to introduce entrepreneurial education at the primary and secondary levels of the formal education system are still in their early stages, although pilot programs are already in place in Argentina, Bolivia, Chile, El Salvador, Paraguay, and Peru, among other countries.

As for universities, the general opinion is that entrepreneurial education must be imparted in all curricula and departments, and not just in business schools. The inclusion of entrepreneurship courses in the universities is a phenomenon that has attracted significant interest around the world in the past 25 years since the United States first initiated this experience. In Latin America, the list of universities that have followed this trend is extensive and continues to grow. Some examples are the Technological Institute of Monterrey in Mexico, the ICESI in Colombia, the Adolfo Ibáñez University and the University of Development in Chile, and the University of San Andrés, the IAE, and the National University of General Sarmiento in Argentina.

Development of Networks

The most common ways of fostering the development of networks include the creation of clubs, associations, and forums that connect entrepreneurs with other relevant actors. For example, the governments of the Netherlands and Taiwan have made the promotion and development of entrepreneurial networks an important policy element. An example is the SMEA technical assistance network for entrepreneurs, an organization dedicated to SMEs. In the Netherlands, the ministry of economy has adopted a policy for fostering growth-oriented entrepreneur networks, while in Canada the government has given its support to the creation of an innovative entrepreneur network. Other examples are focused on networks of young entrepreneurs (Australia and Canada), ethnic minority entrepreneurs (Finland, the Netherlands, Finland, the United Kingdom, and the United States), and women (Canada and the United States). In Scotland, the Entrepreneurial Exchange program fosters the formation of networks among entrepreneurs, experienced business owners, and specialized consultants.

Initiatives for facilitating the development of networks in Latin America and the Caribbean are infrequent, although there are some examples such as Endeavor and EMPRETEC. In Argentina, Chile, and Uruguay, Endeavor's methodology is based on a rigorous process of identification and selection of entrepreneurs. It supports them by drawing up strategic and financial plans and forging links with local and international investors and local universities. EMPRETEC is present in most Latin American countries. It involves a training method that not only generates motivation and entrepreneurial skills, but also creates confidence and forges strong links between participating entrepreneurs and organizes them for mutual assistance and exchange of information and experience.

Support Infrastructure for Young and Small Enterprises

There is a tendency to create one-stop windows and online portals as much as there is to offer mentor and incubator support. The former seek to bring the supply of services and assistance closer to the potential beneficiaries, improve the flow of information, and make on-the-ground delivery of programs more efficient. Some examples are the Business Services Centres in Canada, the SME/Ventures Total Support Centres in Japan, the Business Counters in the Netherlands, the SME Guidance and Service Centres in Taiwan, the Business Links in the United Kingdom, and the One-Stop Business Information

Centers in the United States. There are also the specialized one-stop shops for certain types of aid, for example, financial assistance, and those focused on some specific category of beneficiaries, such as women or immigrants.[3] With the growth of the Internet, governments have developed a wide range of portals and web pages to provide information and services to entrepreneurs and businesses. Examples of this type may be found in Ireland, the United Kingdom, and the United States.

The governments of these counties, as well as those of Australia, the Netherlands, and Taiwan, have launched mentor programs that seek to bring together entrepreneurs who request assistance and experienced businesspeople willing to donate part of their time to help them. Development centers are incubators offering a wide range of regional and sector strategies and connecting entrepreneurs with experts (researchers, technology specialists, venture capitalists, experienced businesspeople, and potential customers). Entrepreneurs have access to information, consulting services, financing, R&D facilities, and advanced communications infrastructure. Countries like Australia, Ireland, Japan, Taiwan, and the United Kingdom have adopted national incubation strategies. For its part, the Japanese government has decided to invest significantly in the activities carried out by the Japan New Business Incubation Organization to strengthen its incubation structure as well as to promote the creation of new incubators.

Among the countries of Latin America and the Caribbean, Brazil has made the greatest advances in the area of incubators. Between 1997 and 2000, the number of company incubators rose from 68 to 135. A recent study indicates that as of 2001, the number of graduated companies was around 315, of which approximately 50 percent are in the information and communication technologies sector (Ministry of Science and Technology 2001). Other countries with experience in incubators are Colombia, Panama, and Uruguay.

Simplification of Regulatory Framework for New Enterprises

Many countries have launched initiatives to simplify procedures and reduce government requirements for creating an enterprise (using electronic communication tools, adopting "single registration" systems, and streamlining reporting requirements of government agencies). In some cases countries have established one-stop offices (Spain, the Netherlands, and Finland). Others have developed websites with information on government regulations and how to comply with them (United Kingdom). In addition, some countries, such as Finland, the Netherlands, Spain, and the United Kingdom, have begun to design systems to lower administrative barriers (created by red tape, registration procedures, or the tax system). Ireland, the Netherlands, and the United Kingdom have also made changes to their tax systems to relieve tax pressures on the cash flow of new companies in their first years in operation.

Initiatives are also being launched to simplify company registration systems in Latin American and Caribbean countries, such as Argentina, Brazil, Bolivia, Colombia, and Costa Rica, among others. Two trends emerging from these programs are, on the one hand, the transfer of registration services to the private sector (for example, to chambers of commerce) and, on the other hand, the initiation of simplification procedures at the local level (counties or provinces).

Specific Groups

Examples of policies aimed at specific groups are found in Australia, Canada, Finland, Germany, Ireland, the Netherlands, Scotland, Spain, Sweden, Taiwan, the United Kingdom, and the United States. The predominant target group is young persons, followed by women, and to a lesser degree ethnic minorities, immigrants, aborigines, Native Americans, and the unemployed. Canada had the largest number of target groups (7), followed by the United States and Finland (6); Australia, Ireland, Spain, and the Netherlands (4); Sweden (3); and Taiwan (1).

More recently, policies have targeted university graduates, researchers, and other scientists in the belief that they have great potential for generating new technology-based businesses. Examples of programs aimed at

[3] In some countries, such as Ireland, Sweden, and the United Kingdom, one-stop shops were created that offer potential entrepreneurs a first point of contact with the entire network of services to assist businesses.

knowledge-based companies can be found in Germany, Ireland, the Netherlands, Scotland, and the United Kingdom. In particular, Germany, the Netherlands, and the United Kingdom are actively fostering the creation and development of new growth-oriented businesses, placing emphasis on technological entrepreneurs from universities and public research and development laboratories to whom they offer training, technical assistance, financing, and incubation. Ireland and Taiwan have programs to encourage their highly qualified citizens who reside abroad to return home and create an enterprise in their own country. Canada and the United Kingdom have similar programs. At the institutional level, the past four years have witnessed the setting up of specialized centers for specific target groups. Accordingly, Canada, Ireland, Scotland, and the United States have opened entrepreneur centers for women; Australia, Canada, and the United States have set up centers for aborigines; and Australia, Canada, the Netherlands, Switzerland, and the United Kingdom have established centers for young entrepreneurs.

Easing Access to Seed Capital and Financing

Although the majority of governments are adopting policies aimed at improving access to financing, they differ, for example, in the direct provision of public financial assistance and/or in the emphasis on loans versus capital. Increasingly, however, such policies have tended to incorporate an increase in the supply of venture capital. To offset the regional imbalance in this supply, Ireland, the United Kingdom, and the United States have set up regional investment funds. The Japanese government has recently launched two initiatives that are specially designed to ease access to financing for new companies, chiefly technology-based enterprises. The initiatives are the Industrial Structure Improvement Fund (ISIF) and the New Business Investment Co. Ltd. (NBIC). The first initiative is a guarantee fund for loans or bond issues; the second is an investment fund. Both initiatives are combined in different forms with other programs and institutions to permit access to various sources of financing.

In addition, in 2000 the U.S. Small Business Administration (SBA) adopted three venture capital programs for firms created by women. In 2001, the governments of Australia and Ireland formed seed capital funds directed at universities to stimulate the marketing of their research results. Another strategy used for increasing venture capital contributions to the private sector is the implementation of tax incentives for angel investors, an initiative adopted in Japan, for example, through the Angel Tax System.

Initiatives in Latin America and the Caribbean to increase the supply of venture capital to new enterprises are not widespread. The Multilateral Investment Fund (MIF) has made the principal effort in this field in conjunction with regional and extra-regional private partners. During the 1990s, they formed more than 30 venture capital funds, some of which are directed at new businesses, although the majority is concentrated on existing SMEs.

Lastly, a number of governments have proposed supporting the development of private investment networks (business angels) as in the case of Canada, Finland, Ireland, Scotland, Taiwan, the United Kingdom, and the United States. Some have proposed hosting forums to improve the flow of information between individuals with money to invest and entrepreneurs in need of funds, such as in Japan, the United Kingdom, and the United States.

SELECTED EXPERIENCES

This section presents a set of experiences in fostering entrepreneurship in countries in Europe, North America, and Latin America. Case studies of policies and SME initiatives have been carried out in recent years following OECD recommendations that emphasized the importance of establishing benchmarks (OECD 1998b). However, no attempt has been made here to single out best practices. This concept is somewhat questionable from a contingent approach (Stevenson and Lundström 2002). What is better in one context is not necessarily better in another with different characteristics. Furthermore, the identification of best practices would require having to make rigorous evaluations in order to establish a ranking among such practices.

Although the criterion adopted in this study for the selection of cases studies is less ambitious, it nonetheless contributes elements of interest to the design of policies and programs to support entrepreneurship. The first criterion considered was that of diversity, guid-

ed by the principle of learning based on heterogeneity (Yin 1991). In this sense, the analysis seeks to include a variety of experiences carried out in diverse regional contexts (Germany, Italy, and Scotland in Europe; Canada and the United States in North America; and Argentina, Brazil, and El Salvador in Latin America).

The case presentations begin with the cases of Canada and the United States. Although the United States lacks a specific entrepreneurial development strategy, it nonetheless stands out prominently by exhibiting the conditions that are usually characterized as especially favorable for the creation of new companies. As early as the 1950s, the SBA included among its goals and initiatives the promotion of the creation of companies. Canada was the first country to implement a national entrepreneurial development policy (in 1988).

The case studies from Europe include experiences that have a certain track record, are recognized by specialists, and for which there are available evaluations or some type of mechanism for monitoring results.[4] The cases are the Scottish strategy of businesses creation (Business Birth Rate Strategy), the German initiative for fostering the university-based startup companies (EXIST), and the experiences of Sivulppo Italiana and the Business Innovation Centers in Italy.[5]

For Latin America, a database of experiences was lacking. Accordingly, an e-mail survey was sent out to specialists on subjects related to entrepreneurship. The survey requested identification of support initiatives for the creation of companies in Latin America whose innovative character would recommend them for study. In this way, the study sought to build a database from the responses that would guide the selection of the cases to be studied. Most of those consulted identified fewer experiences than the survey form allowed. They tended for the most part to include experiences in their own country.

The findings of the survey of specialists suggest that fostering entrepreneurship in the region is a policy area in an early stage of development. Nevertheless, the speed with which these initiatives are spreading among public, private, and third sector institutions indicates that it is indeed an expanding phenomenon. For example, an inventory of support initiatives for young entrepreneurs prepared by the Youth-IDB Program of the Inter-American Development Bank identified 180 institutions that are currently working on this subject in the Latin American region. The systematization and analysis of this set of experiences is a project yet to be carried out and far exceeds the boundaries established for this publication.

The Latin American cases selected for this study are the following: the initiatives of the government of the City of Buenos Aires in Argentina, which include promotion of entrepreneurial spirit among young persons, training and technical assistance for entrepreneurs, and project incubation in the areas of design and cultural and technology industries; the SOFTEX Program in Brazil, one of whose central tasks is fostering the creation of software manufacturing companies; and the Emprende Tu Idea (Sell Your Idea) program in El Salvador. The selection of these cases was based not only on the fact of having been referred by some of those surveyed, but also on other criteria such as differences in the contexts in which they were applied, the institutional and strategic profile, and the feasibility of accessing relevant information.

Most of the case studies were prepared on the basis of fieldwork carried out under the project. Common guidelines were accordingly established for the consultants responsible for the fieldwork, and who conducted numerous interviews with project directors and other actors. In the cases of Canada and the United States, the availability of extensive documentation enabled the creation of a survey based on secondary sources. The chapters that follow present summaries of the case studies and conclusions drawn from them. ■

[4] A criterion for selection was that the experiences had already been the subject of presentations at international conferences and/or of articles published, for example, in academic journals.

[5] It is possible, however, that other experiences not covered by this study (for example in the Netherlands or Finland) are just as valid as those included here but the greater availability of information concerning the former justified their selection.

CHAPTER 9

EXPERIENCES IN NORTH AMERICA

Hugo Kantis and Juan Federico

FOSTERING ENTREPRENEURSHIP INITIATIVES IN THE UNITED STATES[1]

The United States is regarded as a successful case of entrepreneur development, as may be seen by examining the various indicators of entrepreneurship. The rate of business creation and the proportion of adults who are taking steps to start up a business are among the highest in the world. In 1988-96, the rate of business creation was almost 11.5 percent and in 1999 and 2000, about 10 percent of adults were making moves to start a business. In addition, the country stands out for the emergence of a broad segment of new businesses in high-tech industries (OECD 2000; GEM 2000).

This remarkable performance of the United States economy seems to be the combined result of a set of factors, including government policies which were applied in a cultural context very favorable for creating businesses and which is why there has been no need to mention specific actions in this field. Both business careers and entrepreneurs enjoy wide esteem in North American society, so much that there is no social sanction for a business failure. Likewise the fostering of entrepreneurship does not depend solely on government initiatives, but there are many private sector organizations and foundations carrying out programs in this area. In this report we will limit ourselves to the main actions undertaken by the government at its various levels, many of which mobilize and coordinate joint efforts with the private sector.

The main areas and the tools for promoting entrepreneurship identified in the documentation reviewed are summarized in the following sections: (i) fostering the entrepreneurial spirit and skills through the education system; (ii) broadening opportunities for new and small businesses; (iii) facilitating funding; (iv) simplifying and reforming the regulatory and tax framework; and (v) supporting business management.

FOSTERING THE ENTREPRENEURIAL SPIRIT AND SKILLS THROUGH THE EDUCATION SYSTEM

A survey of the National Governors Association (NGA) offers an overview of how programs fostering entrepreneurship at different levels of the education system are set up (Kayne 1999). The study indicates that states are placing their greatest emphasis on programs that work with post-secondary and university-level institutions. However, at the secondary level, the experience of the state of Massachusetts through the Youth Tech Entrepreneurs (YTE) Program is outstanding. The Department of Education promotes and supports secondary schools in the development of academic content and extra-academic activities for training students with business inclinations and skills. The students start the program in the second year and commit themselves for the next three years to engage in activities including daily classes and monthly workshops, and to develop technology projects outside course schedules. The essence of the YTE program is based on involving students from different backgrounds in a program centered on preparing projects that make it possible to develop their abilities to solve problems,

[1] This section is based on Rubel and Paladino (2000) and Kayne (1999), as well as SBA internal information presented by John Cox of the SBA at the Institutional Management Seminar of the Masters in Economics and Industrial Development with specialization in SME given at the Universidad Nacional de General Sarmiento.

communicate, think critically, and provide technology support services to local businesses (for example, maintaining computers and equipment in general). Similarly, 43 states have set up the Mini-Society program in district schools. It was specially designed by the Center for Entrepreneurial Leadership of the Kauffman Foundation to teach entrepreneurial abilities through innovative methodologies at the secondary school level.

In colleges and universities the efforts of the states is manifested in the growing presence of entrepreneurship centers and educational programs that promote entrepreneurial careers. Of the states that responded to the NGA survey, 30 stated that they had aided post-secondary entrepreneurial education, and 27 indicated that such programs include working in companies in order to get business training through that experience. Some of these programs also seek to provide help to the company where the practice takes place in areas of needs defined by the companies and in which the students have knowledge.

BROADENING OPPORTUNITIES FOR NEW AND SMALL BUSINESSES

The Small Business Administration (SBA) has various programs aimed at expanding business opportunities for small companies by making it easy for them to gain access to government procurement markets (OECD 1995). The main mechanism for assuring their involvement in government procurement is the presence in the main government agencies of technical representatives who have the legal authority to foster the participation of small businesses. One example facilitating access is the Breakout Program, which consists of reviewing and breaking up government procurement packages when there is a possibility of partial supply by small suppliers, who tend to be overlooked by procurement officers even when they are competitive because of the total volume of purchases to be made.

Along with these programs there is a law that regulates payment by the government in order to protect the finances of small suppliers. There are also regulations that promote the presence of small businesses in contracts that the government makes with large companies. Those companies must present a plan for subcontracting with small businesses, and the execution of these plans is monitored by the SBA. This concern with fostering the participation of small and medium enterprises (SMEs) in government procurement is one way to create more space for new firms, which generally start small, to get more business.

Within this set of initiatives the one that has the greatest impact on business creation is the Small Business Innovation Research (SBIR) program, which the federal government created in 1982. Eleven government agencies are involved in it, and they have research and development budgets of more than $100 million a year. A small portion of the funds is set aside for the SBIR; the proportion rose from 1.2 percent in 1992 to 2.5 percent by 1996.[2] The innovative activities funded by this program must be in keeping with the needs of government agencies to stimulate the generation of innovative solutions. The government agencies designate the topics for research and development and decide on whether to accept the projects. The SBA coordinates the gathering of information on the needs of the agencies and organizes the Announcement of Pre-Request for projects.

The SBIR program includes three phases: the first is intended to fund the evaluation of the merit and scientific and technical feasibility of the ideas that seem to have commercial potential. The winning projects receive up to $70,000 and have a six-month period for carrying out these activities. Those that are successful in phase one enter into the research and development period, which generally ends with the prototype of the product or process. This phase lasts around two years and the winning projects receive up to $750,000. Priority is given to those projects that, in addition to being scientifically and technically viable, do not demand commitments of federal funds for the third phase, which is the commercial application of the results of the research and development. This is the key phase of the program. The projects must receive private investment for the prototype to be commercially viable. SBIR developed a computerized system that connects entrepreneurs to sources of capital. It may also happen that government agencies decide to make contracts for products or processes for their own use.

[2] The participating agencies are the departments of Agriculture, Commerce, Defense, Education, Energy, Transportation, and Health, and the Environmental Protection Agency, NASA, and the National Science Foundation.

Ten years after being set up, SBIR had awarded 18,824 projects totaling more than 3 billion dollars. The technological areas most benefited are information processing, laser optics, advanced materials, and biotechnology/microbiology. A recent study notes the positive effects of the SBIR program on the tendency of scientists and engineers to market their innovations by creating a business (Audretsch, Weigand, and Weigand 2002).

FACILITATING FUNDING[3]

Access to Credit

The SBA has various programs centered on granting loan guarantees that benefit both those who want to start companies and already established small firms. The most important are mentioned below.

Program 7 (a)

This is the SBA's main program. It guarantees loans to small businesses that have difficulty obtaining financing through other means, especially in low-income or high unemployment areas. Lending institutions approve the loans and request guarantees from the SBA. The financing obtained through the program funds can be used to start a business, expand it, buy equipment, as working capital, or to buy inventory or purchase real estate. The SBA generally guarantees loans to the private sector up to $750,000 (up to 80 percent for loans of up to $100,000, and 75 percent for loans of over $100,000).

Quick Loans in Small Amounts (Low Documentation Loans-LowDoc)

The documentation requirements for granting bank loans of amounts of under $100,000 have been streamlined. The application is only one page long, and the SBA has two days to analyze and begin processing it. When the loan is over $50,000, the applicant must include his or her income tax return. The SBA guarantees up to 80 percent of these loans, which can benefit both those who wish to start a business and businesses in operation with annual sales of under $5 million in the previous three years and whose payroll does not exceed 100 employees. The SBA sets a maximum interest rate above which proposals are not accepted. Like all SBA programs, it is managed in a decentralized manner.

Micro-loans

The micro-loan program grants loans of under $25,000 through local intermediary nonprofit organizations designated by the SBA. The loans may be applied to working capital or to the purchase of machinery and equipment. The evaluation of business skills may lead to special training for micro-loan applicants.

Venture Capital

Corporate Venture Capital

In the United States the venture capital market is governed by the Small Investments Act, which was passed in 1958. This legal framework legally defines small business investment companies (SBICs), which are private businesses or companies charged with providing long-term capital and credit to small businesses that need financing to develop, grow, and modernize. The federal government regulates these companies through the SBA, and they have to meet a series of minimum requirements, which include minimum private capital of $5,000,000, with a minimum participation of 30 percent from funds from outside parties not related to the management. SBIC funds come primarily from two sources: private investors (both individual and corporate) and the issue of SBA-guaranteed bonds purchased directly by this agency or sold on the open market. At present, these companies represent around 15 percent of all venture capital. SBICs play an important role, especially for small-scale projects with growth potential, and for those areas where other sources of capital are scarce.[4]

SBICs provide venture capital, long-term loans, and the aid of experts. They may be set up in any state as a corporation, or a limited liability company or partnership. Many belong to local investor groups, while others are owned by commercial banks. Currently there are 384 SBICs. This source has financed many projects, but the joint administration of the SBA has been forced to exercise stricter supervision over their operation and the quality of their management because

[3] This section is based on OECD (1995) and Ramírez, Tamborini, and Giudicatti (2001).

[4] In the past the program's customers have included companies like INTEL, Federal Express, Apple, and Sun Microsystems, which benefited from it when they were starting out.

questionable practices have been identified. A key factor in the performance of SBICs is the quality of their management team, which must be made up of people with experience in the venture capital industry.

SBICs that demand additional funds can get access to government financial leveraging to make it easier to attract other funding sources, but to do so they must demonstrate good management performance. In addition to these incentives, they can also benefit from tax advantages. The number of companies benefited and the amount financed by SBICs grew significantly in the 1990s. The number of firms served rose from 2,000 in September 1991 to around 5,000 in 2000, while the volume of investment rose from $500,000 to $5 billion. According to SBA data, the tax revenues generated annually by SBIC investments surpass the costs of the program.

Another key factor for the development of venture capital was the creation of NASDAQ in 1971 as a secondary national market for young and innovative companies. Secondary markets facilitate access to stock markets and public markets through lower admission requirements and costs than those of the primary markets; they offer an escape mechanism for investors in the phase when they want to recover the capital they have provided. The revision of regulations on pension fund investments in the late 1970s was also important. They were then allowed to participate in high-risk investments, and the tax burden on capital gains was lowered from 49.5 percent to 28 percent. As a result, by 1996 about half of venture capital was from that source.

Non-formal Venture Capital (Business Angels)

Steps have also been taken to foster the development of the market of individual investors, more commonly known as "business angels," who are individuals or groups of persons with business experience that invest their capital in new companies to which they also offer advice. While there are few statistics, this source of capital is estimated to be double the financing provided by venture capital companies.

As a rule there seems to be a division of roles between these investors and venture capital companies. The former tend to participate by providing capital for the early development phases of the company and in smaller amounts, whereas corporate venture capital is unlikely to invest at these stages or under certain amounts, which tend to be high. Hence, business angels play a key role for business creation. However, these investors are accustomed to handling themselves with a high degree of confidentiality and hence entrepreneurs do not know how to contact them, and as a rule they are not experienced in communicating their ideas. Consequently, this source of financing is underdeveloped in relation to its potential.

To promote their expansion the SBA has taken the initiative in creating the "Business Angels" Electronic Network. This is a national network that links the demands of small businesses to the supply of business angels over the Internet.

SIMPLIFYING AND REFORMING THE REGULATORY AND TAX FRAMEWORK

Regulation of Starting and Closing Businesses

The red tape involved in starting and closing a business is commonly cited as an aspect that hinders the entrepreneurial process. While it is difficult to imagine people being prompted to start a business merely by simplifying the steps for registering or closing it, streamlining these regulations clearly reduces the burden for entrepreneurs, who will be thereby be able to devote themselves more fully to the central aspects of creating the company.

The SBA Information Center answers questions on how to start or manage a business and how to obtain the support needed to do so. It is a system with computerized messages, available 24 hours a day, seven days a week, accessible to customers free of charge.

In addition, according to a document of the National Governors Association (NGA), most states have office systems (one-stop shops) that handle both the physical and virtual registry of new businesses. For example, the state of Washington has set up the Unified Business Identifier (UBI). Entrepreneurs who want to set up a business in Washington have to visit only one of the UBI offices located throughout the state and fill out a form. They receive an identification number, which will then be used by all the agencies involved in regulation, registration, and taxes;

the applicant does not have to present any further documentation. Moreover, businesses that need a license to operate receive a personalized package that includes a guide on the licenses needed for each kind of business, a description of the steps to follow, and the addresses of the UBIs where they can fill out the necessary forms. Both UBI services can be consulted and processed over the Internet.[5]

Another commonly recognized advantage for entrepreneurs in the United States has to do with bankruptcy. Unlike other countries, which are more concerned about preserving creditors' rights and punishing failed business owners, in the United States the commercial rehabilitation of a bankrupt businessperson takes place immediately.[6]

Tax Benefits

The previously mentioned NGA report points out that all states have used the tax structure to foster enterprise creation but under two alternative models of action. One uses universal benefits based on the tax structure, while the other applies focused tax incentives that serve the demands of entrepreneurs. According to this study, 39 percent of the states focus on the general tax structure, while 45 percent apply measures such as specific incentives, which include tax credits according to geographical location and credits on payroll or on amounts of investment in research and development (R&D).

In 1999, the state of Connecticut adopted two tax measures that allowed new companies to partially recover their initial investments. The first measure allows the sale to the state of unused tax credits for the initial investment or R&D. The second extends from 5 to 20 years the period for recovering the losses sustained by small businesses during their initial years (net operating loss carry-forward).

Hawaii also made changes in its tax structure. Recognizing the importance of nontangible assets in the entrepreneur process, the state exempted tax revenues from patents and copyrights. Furthermore, and bearing in mind that a good portion of knowledge-intensive companies adopted employee remuneration systems based on stock shares, the state made employee-held shares tax exempt as a way to promote this practice and encourage the establishment of such businesses. As in the state of Hawaii, in Rhode Island employees of software development companies are exempted from paying personal income tax on capital gains or sale of their stock share in the company.

Likewise, states such as Arkansas, Idaho, and Wisconsin applied reductions in rates or tax bases of the capital gains tax. In the first of these cases the capital gains tax for new companies was reduced to a maximum of 6 percent, while the other two states excluded 60 percent of capital gains from the tax.

Finally, according to a study by the State Science and Technology Institute, 35 states have some tax credit for the R&D activities of entrepreneurs. The tax tends to be determined as a percentage of R&D expenses that surpass a base period (usually the average of R&D expenses in the past 3 years).

Supporting Business Management

Assistance to new companies is part of the overall offer of services to SMEs; hence only two of the main programs in this field are described and only very briefly.

The Service Corps of Retired Executives (SCORE) is a program in which around 13,000 retired entrepreneurs and business executives serve as volunteers to provide management consulting through around 400 regional offices. SCORE advisors can be contacted in those offices, at Business Information Centers, and in some of the SBA's Small Business Development Centers (SBDCs), which provide updated services of advice, training, and technical assistance in management of small companies. For example, they provide assistance to small businesses for bidding and being part of the SBIR program. Their services are intended for those who wish to create an SME, or strengthen or expand their current business, and cannot make use of private consulting services. The SBDCs operate in a decentralized way, and have very broad outreach. The program is a joint effort between the SBA, the academic community, the private sector, and state and local governments. In each state there is an organization that conducts and sponsors the programs and services offered to small businesses through a network of branch offices and satellite locations in universities, colleges, vocational schools, chambers of commerce, and economic develop-

[5] See www.accesswashington.gov.

[6] Australia has a rehabilitation period of 3 years, the United Kingdom has a rehabilitation period of 2 years, and Germany has a rehabilitation period only after 7 years have passed since bankruptcy.

ment corporations in each state. There are more than 56 SBDCs located primarily in universities in the 50 states of the nation, with a network of around 1,000 offices.

SBDC services are adjusted to the needs of the local community and individual clients. Each center performs services in cooperation with the local SBA district office to assure coordination with other resources available at the state level. The working team of these institutions is composed of a director, staff members, volunteers, and part-time staff. The service is provided by experts from professional and trade associations, the banking and legal community, the academic environment, chambers of commerce, and SCORE, as well as hired consultants and other private sector organizations.[7]

RESULTS AND LESSONS

The study by Stevenson and Lundström (2002) presents some observations of interest in relation to the evaluation of initiatives taken to foster entrepreneurship in the United States. It first indicates the deficiencies existing in the area of impact evaluation systems, but it recognizes that the SBA keeps records and assigns studies that enable it to monitor the degree of satisfaction of those who receive its services, and the results attained in terms of creating and developing businesses and jobs created.

The totality of business support programs represents 1 percent of gross output of the United States, and fostering the creation of new business makes up part of the package of initiatives aimed at entrepreneurial development. Contrary to other experiences to be examined further on, the United States has no unified strategy to support business creation. However, the cultural and regulatory context favorable to small-scale businesses is combined with a set of initiatives that, while not well connected among themselves, show significant interventions in the main areas of factors that impact the entrepreneurial process. Examples of these areas of intervention are education, access to markets, encouraging innovators, financial assistance, technical support for management, as well as other measures that create a climate that is very stimulating for entrepreneurial activity.

The highly visible and active role played by the SBA represents a very clear signal for entrepreneurs about the importance that the government assigns to business development. Furthermore, legislation has been used extensively to facilitate the entry and exit of businesses to and from the market, to guarantee their involvement in government procurement, reduce tax pressure on them, and facilitate a supply of financing adequate to their needs.

It should be emphasized that in all these fields its initiatives are carried out with significant levels of decentralization as well as in partnership with private sector and nonprofit organizations. The SBA plays a leadership role in spurring initiatives on behalf of entrepreneurs, for example, by mobilizing management assistance from retired mangers, establishing centers for training entrepreneurs, leveraging private sector resources, opening up government procurement power and a portion of its demand for innovation, and making procurement rules and regulations responsive to the reality of the situation. Moreover these initiatives are complemented by what is done proactively by private sector and nonprofit organizations. The National Kauffman Foundation for Entrepreneurial Leadership and the National Commission on Entrepreneurship play a key role by advocating for the establishment of pro-entrepreneur initiatives. Along the same lines, the National Governors Association has a center for the spread of best practices that encourages the establishment of initiatives to raise the level of entrepreneurial activity in ten states.

[7] The SBA finances up to 50 percent of the operating funds of each state SBDC and the rest is provided by one or more sponsors. Those providing these joint funds include the state legislatures, private sector foundations, donations, and local and state chambers of commerce.

THE STRATEGY FOR PROMOTING NEW BUSINESSES IN THE ATLANTIC REGION OF CANADA

This section[8] concentrates on describing one of the pioneer international initiatives in the field of entrepreneur development: the experience of the Atlantic Region and the Atlantic Canada Opportunities Agency (ACOA) (see Box 9.1).

The ACOA experience is particularly interesting because it was one of the first that made the encouragement of entrepreneurship a state issue. The Canadian government developed a comprehensive strategy to make government support for new small and medium businesses more effective, including the creation of a specialized task force and the use of both public and private sector resources.

The aim was to achieve a significant impact on the rate of business creation, and hence to influence the attitudes of both potential entrepreneurs and the general population. Consequently, government programs for SMEs and the new services were designed to match the needs of different groups, ranging from women and youth to the unemployed. A primary component of the strategy, and perhaps one of its most salient points, consisted of programs developed to promote the entrepreneurial option among primary and secondary school students.

The next section describes the foundations and objectives of the ACOA strategy. The report presents the strategy's main programs and initiatives and some results from the experience.

THE ACOA STRATEGY: FOUNDATIONS AND OBJECTIVES

ACOA's long-term objective was to create a favorable climate for entrepreneur development in order to achieve a higher rate of business creation. The short-term objective was to increase the pool of persons with the skills and abilities needed to begin a business and increase the level and scope of support provided to entrepreneurs regardless of how far their project had progressed. The underlying conceptual model of the strategy highlighted three basic elements in the process of creating a business: motivation, opportunity, and skills. For the entrepreneur process to be successful these three elements had to appear together. Without the initial motivation, people would not adopt the proactive attitudes needed to carry a business forward. On the other hand, even if people were motivated, lack of opportunities or entrepreneurial skills could frustrate the process. The intersection between these three fields determined the space for entrepreneur development policies.

Once the space for policy action is delineated—in other words, "what to do"—the next step is to make explicit the "how," that is, the factors on which to act and how to act on them so as to achieve the established goals. The conceptual model used by ACOA posits that success in the accomplishment of a strategy of this nature lies in affecting not only the needs of the people who want to start a business, but also the general population, and doing so in a comprehensive manner. For that purpose it was important to have partnerships, particularly with the media, the education community, small business support organizations, and other government departments. Thus the main lines for implementing the strategy included: fostering the entrepreneurial option through the spread of role models and changing attitudes; providing guidance and training for potential entrepreneurs; strengthening the set of institutions and programs for helping small businesses (including access to consulting services and training); building and enhancing networks; facilitating access to financing; and increasing research and spread of expertise on the phenomenon of entrepreneurship.

Figure 9.1 sums up the general framework of the strategy, the main partners, and their lines of activity.

[8] In preparing this summary, various sources of secondary information were consulted, as well as ACOA research studies, publications, and internal documents, especially the works of Stevenson (1996) and Stevenson and Lundström (2001).

Box 9.1
The Atlantic Region of Canada

THE ATLANTIC REGION OF CANADA is composed of the following four provinces: Nova Scotia, Newfoundland, New Brunswick, and Prince Edward Island. Its estimated population in 1996 was 2.4 million inhabitants (8 percent of the country's total), 45 percent of whom lived in rural areas (cities with less than 10,000 inhabitants) with an economic structure strongly supported by transfers from the government (around 20 percent of its GDP) and industries based on natural resources. According to estimates for 1995, the GDP of the region was $42 billion (6.2 percent of the country's total), and total exports were nearly 19 percent of the region's GDP (6.2 percent of the country's total), most of which were shipped to the United States, Europe, and Japan. Over the past 20 years, the region has consistently lagged behind the growth rate of the country (2.1 percent versus 2.7 percent), but toward the end of the 1980s and in the beginning of the 1990s the economy of the region was slowly adjusting to the changes in the competitive conditions of the markets, while state involvement (transfers and public employment) and activities based on natural resources were losing importance, which triggered a major recession in 1990-91.

Approximately 75 percent of the businesses of the region have less than 5 employees and around 90 percent have less than 10 employees, a fact that highlights the strong presence of self-employment (whose participation as a percentage of the work force grew from 12 percent in 1980 to 14 percent in 1995). The sector distribution of these small firms shows that the main sectors of activity are agriculture and fishing (12 percent of the companies), construction (12 percent), retail (16 percent), and other services (21 percent). A salient feature of the productive infrastructure of the region after the recession was the growth of the number of businesses in the first half of the 1990s. In fact, during June 1993 to June 1995, the rate of business creation was 6 percent in Nova Scotia, 7.8 percent in New Brunswick, 6.4 percent in Prince Edward Island, and 2.5 percent in Newfoundland (compared with the country average of 5.2 percent).

The strategy got underway in April 1990, at the same time when the decision was made to create a specialized unit for entrepreneur development inside ACOA, and when its first director was hired. The kind of institutional configuration that the Strategy Coordination Unit should adopt was one of the first issues discussed in ACOA. The possibilities were to create a board in the ACOA structure or alternatively an outside, nongovernmental entrepreneur development center. In the end, the first option was chosen. Together with the partners, the board was responsible for developing the conceptual framework, deciding on the priority programs, establishing budgets, developing the necessary partnerships, starting and carrying out programs, and monitoring results.

The first eight months of the strategy were devoted to the advanced development and refinement of the strategy, and to identifying the potential partners, forming partnerships, and setting up prior programs for aid to SMEs, among other tasks. Especially noteworthy was the effort aimed at validating the strategy within other government departments and society. To that end, a consultation process was set up, including an initial workshop held in June 1990 where the conceptual model and strategy were first disclosed, together with its main programs. The idea of this workshop was to find partners that could co-finance these activities. After this event, a similar campaign was carried out across the entire region.

MAIN PROGRAMS AND INITIATIVES

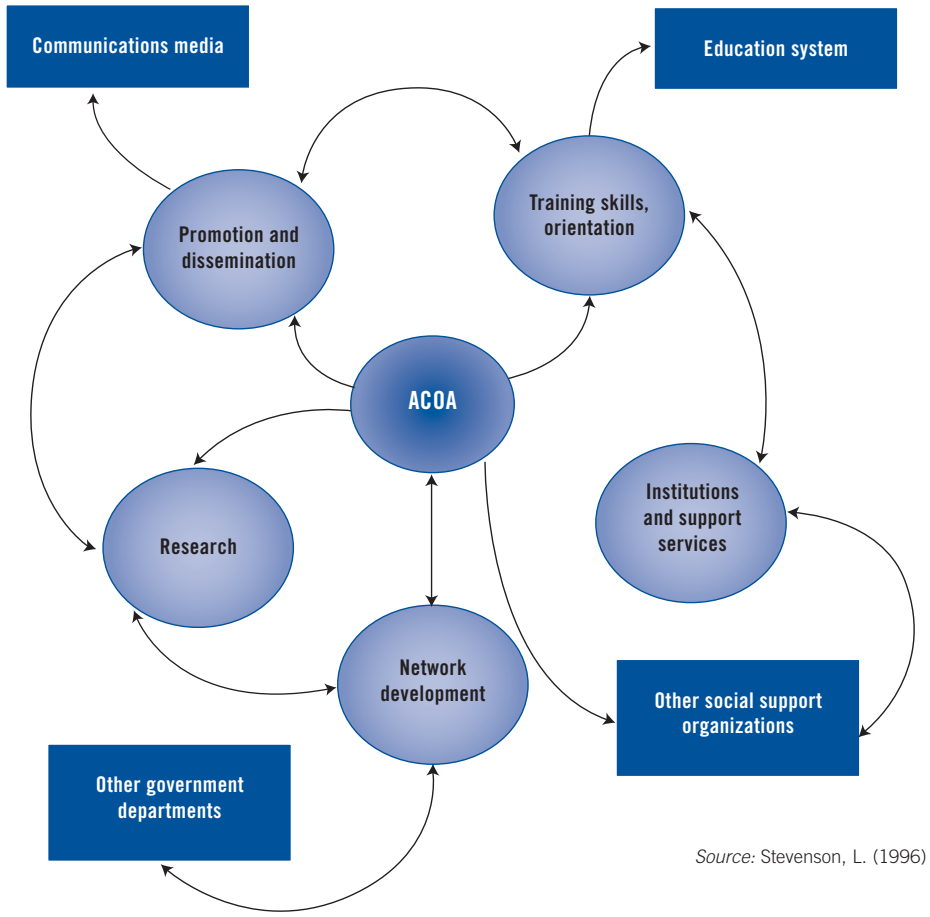
The target groups identified in the strategy were potential entrepreneurs (women, young people, employees, and unemployed), current entrepreneurs, support organizations for entrepreneurs, institutions in the education system, the media, large corporations, the public sector, and the business community outside the region.

The main programs may be classified into those aimed at spreading and promoting entrepreneurship; influencing, training, and forming entrepreneurs; strengthening institutions and programs of support for SMEs; developing networks; facilitating access to financing; and research and the dissemination of knowledge.

Programs Aimed at Spreading and Promoting Entrepreneurship

Media participation was included in order to change the attitudes and mind-set of the population. The aim was to move from a culture of dependency to one of

Figure 9.1
ACOA Strategy, Partners, and Lines of Activity



Source: Stevenson, L. (1996)

self-confidence, from an "employee mindset" to an "entrepreneurial mindset." In other words, the objective was to create a greater consciousness of the role of small businesses in the economy, promote entrepreneurship as a viable employment option, and raise the profile of entrepreneurs in society. ACOA put special emphasis on this area, creating significant partnerships with TV channels, radio stations, and newspapers. The idea of making massive use of the media to communicate positive role models and spread the entrepreneurial message within the population is one of the most remarkable aspects of the ACOA experience.

The first initiative in this sense was the production and broadcast in English and French of a weekly half-hour program over the two main TV networks in the region.[9] An impact analysis performed in the fifth broadcasting year showed that 51 percent of the television audience changed its view of entrepreneurs, 20 percent was

[9] The English version, *Leading Edge*, placed more stress on the personal characteristics of the entrepreneur. Every week two entrepreneurs were interviewed, emphasizing aspects such as the time for starting the business, the personal and business objectives, the challenges faced, their future plans, and so forth. By contrast the French version, *Temps d'affaires*, was more focused on aspects of the businesses such as opportunities in different industries, young entrepreneurs, new technologies, etc.

more enthusiastic about entrepreneurship, and 13 percent had become more familiar with the importance of small businesses for the economy of the region.

Another initiative that was channeled through the regional TV network was a video series consisting of 13 weekly chapters called *Posséder mon entreprise* (Owning My Own Business) produced jointly by a business association, a university (Université Laval in Québec), and a television channel. This series was accompanied by a textbook and a guide for preparing business plans. Interested viewers could register at the university and follow this video series as a distance-learning course. In addition, those who completed their business plan within a particular time period could participate in a business plan contest.[10]

Finally a publicity campaign was carried out under the slogan "Make It Happen," focused on women, youth, students, immigrants, and other minority groups (for example, indigenous people and the disabled).[11] More recently, ACOA began to sponsor a segment on young entrepreneurs that is broadcast on one of the most watched regional TV shows: Street Cents.

Other initiatives used for the purpose of spreading and promoting entrepreneurship and entrepreneurs more broadly among the population are prize award events. Their aim is to recognize the contributions of entrepreneurs to the economy, thereby promoting the spread of positive role models. Until 1990 there were no such initiatives aimed at entrepreneurs in the region, and hence a new institution was formed to be devoted to organizing award ceremonies of this kind. This was the origin of the Atlantic Canada Entrepreneurship Award Association (ACEAA). In 1992, 1993, and 1994 ACEAA organized its annual award ceremony, and more than 70 entrepreneurs were accepted into the ACEAA Academy of Entrepreneurs. In 1994, Ernst & Young partnered with the ACEAA to issue invitations to its Entrepreneur of the Year Award. Both the winners and the finalists are promoted through the media, and their cases are used to produce videos and educational materials. They are also sought as speakers at events held in the schools in the region.

Initiatives Linked to Orientation, Capacity Building, and Training

Orientation, capacity building, and training is one of the areas where the ACOA strategy has made the greatest advances. Programs and initiatives emerging within the framework of the strategy, especially in terms of entrepreneurial education in primary and secondary schools, are recognized in a number of countries as pioneering and successful experiences.

The four departments of education in the provinces of Canada's Atlantic Region, together with ACOA, were the first in the country to establish a deliberate strategy to formally incorporate entrepreneurial education into the school curricula. This entrepreneurial education program came out of the recommendations of a study in 1990. This study was called the Projet Entrepreneurship Project (PEP); it lasted for two years and cost about a million dollars. Around 5,000 twelfth-grade students, 1,500 teachers, 2,000 parents, and more than 100 small businesspeople were interviewed. The goals were, first, to identify within the school population the intention of being an entrepreneur, and to identify the main factors entering into that decision, and second, to analyze the curricula used at that time in order to make recommendations on the changes to be made, and through those changes to incorporate entrepreneurial values, attitudes, and skills into the curricula.

The results of the PEP served as the basis for beginning a period of consultations and discussions with the education community, various departments of the federal government, and other organizations, with the aim of posing possible projects for adopting the recommendations emerging from the study. This consultation process lasted approximately two years, and ended with the signing of various agreements between the federal government, the four provincial governments, the provincial departments of education, and ACOA to co-finance for a five-year period the following items: the development of a set of educational materials for teaching entrepreneurship at every level of the education system (from first to twelfth grade), and the formation and training of teachers and professors in new pedagogies, new materials in the curricula, and the creation of networks for exchanging entrepreneurial education materials, approaches, experiences, and information.

[10] This series was repeated five times, and more than 600 viewers signed up to take the course.

[11] While these commercials were on the air, more than 5,400 people called the 1-800 help line asking for the guide *Where to Go for Help*, a complete handbook with all the resources and programs for those wishing to start a business.

The first of these agreements was signed in 1992, and since then there have been significant achievements in the development and promotion of entrepreneurial education at all levels of the education system, with the help of more than $43 million provided by ACOA, the provincial governments, and other partners. These programs were spread throughout all the schools. According to the research, they reached more than 60 percent of students at all levels in the 1999-2000 period (approximately 250,000 students), both in the form of specific courses on entrepreneurship and in the form of modules incorporated into the various course materials. Although this process led to the adoption of many different initiatives, depending on the school and the level of education, there seems to have been some uniformity in all approaches. In primary school (from 5 to 12 years old) the focus is centered basically on entrepreneurial qualities: creativity, problem-solving ability, and decisionmaking. In the early years of secondary education (between 13 and 15 years), the focus consists of introducing students to the world of small business and entrepreneurship, by offering specific modules for the topic in various course materials. Finally, in the later years of secondary school (between 16 and 18 years of age) the attention is placed directly on courses in entrepreneurship where the students learn different tools for management and handling business while simultaneously experiencing "the real life of businesses," based on setting up a small school company or a community project.

Although there are still some gaps in the development of materials and resources, especially in French, the advances and investments made in the development and production of pedagogical materials and resources have been considerable. In this sense, training educators remains a priority, although it has been enhanced by the creation of new organizations such as the Centre for Entrepreneurship Education and Development (CEED).

The introduction of entrepreneurial education has been a little slower at the post-secondary level, but here as well the Atlantic Region was ahead of the rest of the country. In community colleges, the Atlantic Canada Committee for Entrepreneurship Development (ACCED), a joint initiative by ACOA and a group of professors from the various colleges of the region, was set up in 1996. Its objectives are: to position the colleges of the Atlantic Region as recognized leaders in entrepreneurial education and to assist professors and students in building a more entrepreneurial environment in their institutions. ACCED has been developing its own educational resources[12] and offering two or three-day training workshops that seek to encourage and convince professors to include teaching methods and contents related to entrepreneurship in all college programs.[13] In addition, ACCED holds an annual regional ceremony to recognize the achievements of these colleges, professors, and students in entrepreneurial activities.[14] Within the university environment 4 of the 17 universities in the region (Memorial, Acadia, St. Mary's and Dalhousie) have included courses on entrepreneurship in their business curricula.

Outside the education system, ACOA developed various initiatives in conjunction with other organizations in the community. The Student Venture Programs allow students to develop a business idea, request a small amount of seed capital to begin, and gain access to mentor and consultant programs. These programs generally take place during the summer: in the first stage, which lasts three weeks, the idea is analyzed and the business plan is presented; during the rest of the summer the enterprise is launched with the advice of a mentor or a member of some institution that supports local companies. Provincial governments often sponsor these programs and provide participants with small sums of credit to be returned in autumn of that same year. Since 1992, more than 2,000 students have participated in these summer programs.

Finally, it should be noted that Canada has an extensive network of government and nongovernmental agencies that offer training courses, consulting services, and counseling to small companies. In the Atlantic Region, ACOA acts as a representative of these national agencies, especially the Community Business Development Corporations (CBDCs) and the Canada Business Service Centres (CBSCs). More recently, together with other local institutions, ACOA developed the Entrepreneurship and Business Skills Develop-

[12] An example of these educational resources is *From Attitude to Action: Creating an Entrepreneurial Learning Environment*, a package that emphasizes the development of skills in the areas of communications, and developing projects/businesses and operations, and that allows students to connect their area of study with commercial activities.

[13] Since its creation ACCED has trained more than 500 professors from different colleges in the region.

[14] It has also developed a project that consists of a virtual course on entrepreneurship developed by a college in Nova Scotia.

ment Partnership (EBSDP), a fund of approximately $60 million that includes three key elements.

First, the Innovation Skills Development Initiative helps new and already existing businesses to meet their needs in the areas of staff training and choosing managers and so forth. Eligible companies must be aimed at fast-growing exports in traditional sectors and new technology sectors. The assistance consists of a contribution of up to 75 percent of the cost of the project and a maximum of $100,000 per project.

Second, there is the Young Entrepreneur Development Initiative, through which ACOA provides financing to local governments and for-profit or nonprofit organizations to increase the supply of training and development of skills among young people. This includes workshops, mentor programs, and online training programs.

The third initiative within the EBSDP is a three-year program with $17 million in financing, aimed at women and called the Women in Business Initiative. Through this initiative ACOA finances local organizations aimed at helping women entrepreneurs. In EBSDP's first six months, 125 projects were financed, totaling $13 million, of which 70 percent was provided by ACOA and the rest by other private sources.

Initiatives Aimed at Strengthening SME Support Institutions and Programs

The rural nature of the region means that an extensive institutional network is required in order to reach all the inhabitants. In the Atlantic Region of Canada there are approximately 160 offices belonging to 22 (public and private) institutions. Prominent among these are 41 Community Business Development Corporations (CBDCs), 52 Regional Economic Development Organizations (REDOs), 13 Development Bank of Canada offices, 11 ACOA offices, 5 Canada Business Service Centres (CBSCs), 4 economic departments or agencies (each of which has a network of local offices for distributing the programs), 5 university SME assistance centers, chambers of commerce, and 3 regional associations of business people.

This network of offices and agencies was rationalized and reorganized in 1995. In many cases this reorganization led to a change in their mandate, with a greater responsibility and commitment to local economic development through the development of small businesses. It was likewise recognized that there was a need for professional development and training of the staff of these institutions in order to work more efficiently, particularly in the area of consulting for SMEs.

In this sense, one of the most innovative initiatives emerging from ACOA was the creation in 1996 of the Canadian Institute of Small Business Counselors (CISBC). Its purpose was to set standards for consulting services for SMEs and to develop a professional development program that would enable people involved in consulting with small businesses to expand their knowledge and skills in providing advisory services for entrepreneurs. This initiative, inspired by the Institute of Business Counselors created in the United Kingdom, was led by ACOA and sponsored by the provincial governments, some key small business support agencies, and the educational community. The course is given under a self-administered modality and is designed around 52 modules representing the main skills that were identified as having deficiencies in providing advisory services. Upon completing this course, the participants receive a small business Advisor Certificate and become members of the CISBC. Since its creation the CISBC has granted more than 50 certificates and has more than 200 members.

Another initiative along the same lines is the University-based Business Counseling Internship Pilot Program, run by the University of Acadia in Nova Scotia. The mission of this program is to introduce small business consulting as a viable career option for recent graduates, by exposing students to specific actions and helping them to develop the expertise, skills, and attitudes for performing the role of a consultant either in a private organization or a government agency.[15]

Programs Aimed at Development Networks

The objective of programs aimed at development networks is to increase opportunities for interaction

[15] The Program has three components: (i) programming that allows students to acquire the necessary basic knowledge, skills, and aptitudes; (ii) a one-year practice internship; and (iii) the development of university programs related to consulting for small businesses.

between entrepreneurs and between them and those responsible for program implementation and policy-making. ACOA's network fostering activities have three target publics:

- *Existing and potential entrepreneurs.* Two-thirds of the networking activities are conferences and conventions where business owners and potential entrepreneurs meet with those responsible for programs and exchange information and knowledge, and agreements and joint ventures of various kinds are promoted.

- *Intermediaries, small-business support organizations, business associations, and educators.* Approximately a third of the activities are aimed at this group. This is primarily an annual event with workshops where more than 100 intermediaries meet to exchange experiences and "best practices." A report on these meetings is published at the end to encourage the replication of these experiences and promote partnerships.

- *Policymakers and (federal and provincial) government officials.* This program includes events and seminars for discussion and coordination of activities in the areas of entrepreneurial education, support for small businesses, and economic development.

Activities for forming and developing networks also include the ACOA's financial support for other organizations to develop entrepreneur support initiatives, such as the Atlantic Provinces Chamber of Commerce, the Association of Atlantic Women Business Owners, the Conseil Économique du Nouveau-Brunswick, and the Association of Collegiate Entrepreneurs.

Programs Aimed at Facilitating Access to Financing

Canada has a significant track record in developing policies to facilitate financing for SMEs. The Small Business Loan Act, passed in 1961, grants guarantees for small loans of under $250,000; the Business Development Bank of Canada, created in 1975, has the mission of providing financing to SMEs, offering a broad range of products including micro-loans and loans for working capital, investments, and venture capital.

The main innovations introduced by ACOA in this area have to do with micro-lending and venture capital. The Calmeadow Foundation and the Royal Bank of Canada have been working jointly to set up a system for making micro-loans (between $500 and $1,000) in rural areas. Moreover, the Business Development Bank has a new micro-lending program that includes an obligatory training and advisory program to offset the weaknesses observed in the areas of planning and administration. With the same design (credit plus obligatory training and advice), there is a loan program aimed at the population of young entrepreneurs (between 18 and 29 years of age) led by the Canadian Youth Business Foundation, made up of some of the main commercial banks.

Another outstanding initiative in the ACOA circuit is loans by the ConneXion Program, which provides loans of up to $15,000 for young entrepreneurs (persons under 30 years old) including a total of 40 hours of free consulting. By 1999, more than 1,500 young entrepreneurs were receiving loans from the program, averaging close to $10,000 per loan, with an average of 1.8 employed in these new businesses at a cost of close to $8,000 and with a 92 percent survival rate after 13 months. During 2002-2003, 382 loans were made, almost $4 million was loaned, and another $8 million was leveraged from other sources.

More recently ACOA launched the Business Development Program, an ambitious financing program aimed at both new and existing companies. In terms of financing for new businesses, this program finances up to 50 percent of the costs of launching, installation, startup capital, and working capital, and up to 75 percent of the costs of hiring experts, preparing studies, and developing marketing plans up to a maximum of $500,000. Projects eligible for this program are all linked to the manufacturing, tourism, services, and production sectors.

With regard to venture capital, in 1995 the main commercial banks, the four provincial governments, and ACOA set up a joint fund of $30 million, the Atlantic Investment Fund, with a view to closing the financing gap through capital contributions of between $200,000 and $500,000 for new growth-oriented businesses. ACOA is also participating in financing other more local funds like the PEI Capital Fund, a venture capital fund for assisting new and small businesses on Prince Edward Island, or the Workers Investment Fund, a venture capital company operating in the New Brunswick region.

The Research and Publications Program

The objective of including a research program and a strategy for publicizing its results is to create a broader base of knowledge and information on the state of entrepreneurship in the region. This information is useful for devising new tools and programs to help small companies, and for establishing the needs of this sector in the region vis-à-vis other regions or departments of the federal government. ACOA contracts and supports a range of research into SMEs in the region, the situation of young entrepreneurs, self-employed women, native peoples, new growth-oriented companies, etc. The best known of these research projects is the biannual "The State of Small Business and Entrepreneurship in Atlantic Canada."

SOME RESULTS AND LESSONS OF THE ACOA EXPERIENCE

ACOA's entrepreneurship promotion strategy has been in existence for over a decade, and the results achieved during this time are very encouraging. Various studies show that the percentage of people who are in some manner involved in entrepreneurial activity has grown. A measurement made in 1995 shows that the percentage of the population interested in starting a business doubled between 1991 and 1995, going from 7 to 14 percent, while the percentage of people showing no interest in starting a business fell from 80 to approximately 60 percent in the same period.[16]

Between 1989 and 1993, more than 40,000 new businesses were started in the region.[17] In the 1990-1998 period the average business creation rate in the region was 20.3 percent, 5 percentage points above the national average, thereby evidencing the entrepreneurial revitalization of the region.[18] In addition, according to the ACOA Report to Parliament, the survival rate of the companies aided was almost two and a half times higher than that of those that did not use the services of the Agency.[19]

Significant achievements were also noted in the education system. During the 1995-1996 school year, according to the departments of education of the four provinces, approximately 50,000 students at all levels were in contact with some entrepreneurial education initiative or content. This rose to almost 250,000 students in the 1999-2000 school year. Significant growth has been noted especially in the final year of school. In 1995, 99 percent of twelfth-grade students had participated in entrepreneurial education courses and experiences (in 1990 the figure was approximately 10 percent), and of these, around 45 percent did so on more than three occasions (compared with only 30 percent in 1990).

After more than a decade, the entrepreneur development strategy adopted by ACOA is regarded internationally as a standard for those countries or regions wishing to adopt a (national or regional) policy focused on developing entrepreneurship. However, when seeking to make comparisons with other regions of Canada or other places, it is important to keep in mind that the Atlantic Region of Canada displayed a set of preconditions that decisively contributed to the success of the strategy.

First, the level of economic and institutional development should be mentioned. In the area of financing for small businesses, significant access to loans already existed, despite the gap in the supply of venture capital. It is also important to highlight the existence of a network of support for small businesses and favorable regulatory and tax environments that were improved through the efforts of provincial and federal governments, further shortening the time and reducing administrative barriers in starting businesses. It is also important to mention the encouragement for promoting entrepreneurship provided by the National

[16] Another result on which information was provided is growth in the number of self-employed people, which was 15 percent between 1989 and 1995 (compared with 17 percent recorded nationally). Especially remarkable is growth of self-employment, which in 1995 represented 39 percent of the total of self-employed people in the region (compared with 32 percent recorded nationally). According to statistics from the most recent Population Census (2001), there were a little more than 90,000 self-employed people in the region, 8 percent of the labor force.

[17] This represents a gross rate of business creation of 48 percent over the total number of businesses existing in 1989.

[18] *ACOA Performance Report 2002-2003* in www.acoa.ca.

[19] *ACOA Five-Year Report to Parliament 1998-2003* in www.acoa.ca.

Policy on Entrepreneurship as an essential part of the Canadian national economic development policy and the conviction of the government about the need for a comprehensive long-term strategy for attacking it. Finally the existence of a National Statistics Institute mandated to gather, process, and release statistics on new businesses and self-employment should also be noted.

This strategy took a proactive approach, but that did not mean that it was free of obstacles. Obstacles that may be mentioned were the need to develop a comprehensive model of the entrepreneurial process to make the meaning of entrepreneurship known in order to demolish myths about it, as well as making known the margins of action in order to take policy actions in this field. There were also other obstacles connected with adapting institutions to the change of focus being sought for regional development policies, placing greater emphasis on promoting local human capital, with a long-term vision, as opposed to the previous emphasis on the spillover effects of investments from outside the region.

According to a review of the strategy carried out in 1996, the main reasons for success were: the decision to set up a unit specialized in the promotion and support of entrepreneurial development within the Agency, which had the sole responsibility for designing, implementing, coordinating, and managing the strategy; setting up an intervention model that took into account the many dimensions involved in the process of creating a business, highlighting the importance of networks; the adoption of a comprehensive approach to the entrepreneurial process; the segmentation of the policies (women, youth, minorities, etc.); and the creation and development of partnerships with the media, the educational community, and SME assistance institutions.

The report also notes the validity of promoting and publicizing entrepreneurship by intensive media use as well as accumulating significant intellectual capital by producing new materials and resources for the entrepreneurship courses given at various levels in the education system. Finally, a distinct aspect of the Atlantic Region experience has been the support for research on the issue of entrepreneurship and small businesses, along with the annual data collection and monitoring of progress in the various programs. These have been very important in the process for designing new programs and have been a useful information base on the situation of SMEs in the region. ■

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CHAPTER 10

EUROPEAN EXPERIENCES

Juan Federico, Hugo Kantis, Patrizio Bianchi, and Mario Davide Parrilli

THE SCOTTISH EXPERIENCE IN NEW FIRM FORMATION

The Scottish experience in new firm formation is a pioneering case among policies of a general type (aimed at creating businesses in general). It presents a set of particular features that justify studying it: it has been operating for a decade; it comes out of a prior diagnosis and a clear identification of the problem; it is based on a comprehensive conception of the entrepreneurial process; over the course of its evolution it has been quite dynamic in offering programs and services; and it is an interesting example of collaboration between the public and private sectors. Moreover, the Scottish experience is now regarded as a benchmark not only by other regions of the United Kingdom, but within the European Union as well. This chapter describes the process of forming, setting up, evaluating, and reformulating the Scottish strategy for promoting new companies: The Business Birth Rate Strategy.[1]

BACKGROUND AND FORMATION OF THE STRATEGY

In the early 1980s, Scotland had a significant set of programs and institutions—both public and private—offering services to assist small and medium businesses, some of which were oriented toward entrepreneurs. Two government agencies were aimed at economic development and supporting small and medium enterprises (SMEs). One was called the Scottish Development Agency, which concentrated on attracting investments and social infrastructure, while the other (the Training Agency) was basically focused on training youth, women, and the unemployed. The latter in particular did some work related to new firm formation. Other major actors were local governments (city councils), which had some small financial assistance or training programs aimed at companies already operating, some of which were used by new companies. Moreover, in some cases they were responsible for carrying out national programs.

In the late 1980s a review of policies connected to aid for creating new businesses showed that most were of a local nature. Few had a specific target population, and when they had one, it tended to be the unemployed. As a rule, assistance consisted of only financial support (Scottish Enterprise 1992).

Beyond their limitations this set of institutions and programs was somewhat helpful in enabling the issue of new firm formation to gain prominence in academic debate and on the agendas of politicians. It offered a basic institutional platform for supporting programs that were later incorporated into the strategy, and whose origin largely coincides with the creation of a new institution, Scottish Enterprise (see Box 10.1).

The first step in shaping the strategy was to define the problem. To that end, Scottish Enterprise undertook an ambitious diagnosis of the emergence of businesses in Scotland. The overall aim of this study was to reach a better understanding of the contribution of new businesses to economic development, review of the rates of new firm formation in Scotland in comparison with rates elsewhere, and investigation of the reasons for differ-

[1] In the preparation of this study various sources of information were consulted, including specialized publications, Internet sites, personal e-mail consultations, and academic works, which were complemented with fieldwork that included in-depth interviews with the main actors in the process of formulating strategy, managers and executives of the various programs, public employees, and other key persons in Scottish academic and business circles.

Box 10.1
The Structure of Scottish Enterprise

- Scottish Enterprise is a public agency that was created in July 1990 from the merger of two other public agencies: the Scottish Development Agency and the Training Agency. In accordance with the laws and regulations under which it was created, Scottish Enterprise has broad powers to organize and implement actions aimed at promoting economic development as well as to improve the efficiency and international competitiveness of the Scottish economy.
- The structure of Scottish Enterprise, namely the Scottish Enterprise Network, includes the Central Office in Glasgow and 12 regional offices called Local Enterprise Companies. Currently some 1,600 persons work at Scottish Enterprise, and its average annual budget is about US$600 million. Scottish Enterprise is part of the Scottish Executive Branch and is within the Ministry for Enterprise and Continuing Education from which it also receives approximately 90 percent of its budget.
- Scottish Enterprise's management team consists of 11 members (including the Chairman and the CEO) representing both the public and private sectors. All members are appointed by the Cabinet of Ministers for a fixed term, usually 3 years. Day-to-day activities are carried out under the responsibility of 8 interdependent management offices that report directly to the CEO.

ences. This prior diagnosis, performed in 1993 by a group of researchers from Scottish Enterprise and independent consultants, was called the Business Birth Rate Enquiry, and it was the prior step toward the strategy.

The initial findings of this research showed that the rate of new firm formation in Scotland was low in comparison to other regions in the United Kingdom, in line with the findings of other empirical studies (Ashcroft, Love, and Malloy 1991; Vaessen and Keeble 1995). In 1980-90 the number of new Scottish businesses, both as a percentage of the stock of existing firms and per inhabitant, was behind that of the central region and quite far from that of the prosperous southeast region (Table 10.1).

Table 10.1
New Businesses in Scotland, 1980-90

Region	New businesses	
	Millions of inhabitants	Percentage of business stock
Southeast	4,801	57
Central	2,818	53
Scotland	1,807	52

The study also made it possible to show that this situation was almost entirely due to the obstacles to creating new businesses and not so much to their rate of failure, because the survival rates of new businesses were generally similar to, or even better than, those of other regions. It was also shown that the region was less able to generate enterprises with a high growth potential.[2]

Based on the findings from this research, the group responsible for elaborating the strategy began a process of consultations and workshops with key figures in political, business, educational, and professional affairs in Scotland. This three or four-year process was aimed primarily at convincing society of the importance of the problem, attaining general knowledge of the issue, and jointly establishing a national strategy for dealing with it. The presence and commitment of the media was particularly important at this stage.

AIMS AND COMPONENTS OF THE STRATEGY

The final version of the strategy was published in October 1993, and its aims were to increase the number of new firm startups in Scotland, increase the number of new businesses surviving, and increase the number of new businesses achieving rapid growth.

[2] While as a proportion of the total of new businesses the percentage was relatively similar to that of other regions, the absolute number was low because the base of new businesses from which they were emerging was far lower. Although there were few of them, the dynamic businesses (approximately 350 in the 10 years studied) were responsible for almost 35 percent of the new jobs created by new businesses; this was more than those generated by the growth of oil development in the north of the country (Scottish Enterprise 1993a).

The strategy pointed out that the target for Scotland was to at least equal the annual average of new firm startups in the United Kingdom per inhabitant by the end of the 1990s. That would entail achieving a 50 percent increase in the number of new firm startups each year until the end of the decade, that is, creating 25,000 more new businesses by 2000 (Scottish Enterprise 1993b).

The core of the strategy was composed of a series of principles and a set of strategic lines. The principles of action that would govern the approach and implementation of the activities of Scottish Enterprise were drawn from past Scottish experience, the results of the previous research, and practices observed in other countries. These principles were the following: to posit a long-term horizon; to develop entrepreneurial potential; to carry out strongly interconnected actions; to get society involved; to take the variety of the needs of entrepreneurs into account; to reaffirm the importance of networks; and to try not to reinvent the wheel. These principles made up the basic platform on which the following strategic lines were designed and from which the programs would be drawn:

a) Unlock potential. Convincing a larger number of Scottish people to start up businesses and promote more positive attitudes toward entrepreneurship.
b) Improve the business environment. Support new companies through formal and informal, public and private networks.
c) Improve access to financing. Help potential entrepreneurs get access to appropriate (bank or venture capital) financing.
d) Broaden the entrepreneurial base. Include women, young people (under age 35), and those who do not own their own home.[3]
e) Develop new businesses in key sectors, such as in industry, high-tech sectors, and professional services.
f) Support fast-growing companies and increase the number of companies achieving a substantial growth rate.

THE STRATEGY'S PROGRAMS

Perhaps one of the most noteworthy aspects of the Business Birth Rate Strategy is the multiplicity of programs that began as part of its activities, from both the public and private realm. Likewise noteworthy is the energy displayed by this array of programs in terms of the rise of new initiatives or the cessation of others. In a quick review of the direction taken by the strategy, more than 25 programs can be counted at various levels and carried out by various institutions. The other characteristic of the programs making up the Scottish strategy is their comprehensive nature. Almost no event in the entrepreneurial process is not affected by some program in the strategy (Table 10.2). Following the strategic lines laid out earlier, there are initiatives and programs aimed at unlocking entrepreneurial potential, improving the business environment, easing access to financing, broadening the entrepreneurial base, developing new businesses in key sectors, and supporting fast-growing businesses.

Programs Aimed at Unlocking Entrepreneurial Potential

Among programs aimed at unlocking entrepreneurial potential are those that seek not only to convince a larger number of Scottish people of the feasibility of the entrepreneurial option, but also to promote a change of attitude of the population. To that end work was done on two time horizons. For short-term action, a broad major media campaign was launched titled Personal Enterprise Campaign, while from a longer-term perspective, work was started in the education system at all levels. Most of these actions began in the early years of the strategy and were driven and financed by Scottish Enterprise, although some initiatives came from the private sector, especially among those aimed at working on the education system at the primary and secondary level.[4]

One of the activities comprising part of the Personal Enterprise Campaign was the television series The Business Game TV, which was broadcast from 1992 to 1995. The main objective of these Scottish Enterprise

[3] The Scottish study detected that it was more difficult for nonhomeowners to go into business because they could not use a house as collateral to obtain bank financing.

[4] While there were indeed some previous experiences in this field, the advent of the strategy has strengthened and extended their scope.

sponsored programs was to publicize cases of successful Scottish entrepreneurs and create awareness in the population of the importance of entrepreneurs to the economy. A campaign in 1995 ("The Year of the Entrepreneur") made a similar contribution. It included many activities by way of promotion, conferences, and publicizing successful local cases that could serve as role models. Their aim was to impact the population locally and nationally.

Another initiative, perhaps one of the most successful of those carried out as part of the strategy, is that of the Personal Enterprise Shows (PES), which began in 1995 and is still taking place. The idea of PES is that of a traveling fair held in the various regions of Scotland for a two or three-day period. Currently there are two or three of these fairs a year with financing from the Royal Bank of Scotland.

The objective of PES is to help close the gap that exists, according to previous analysis, between the intention of being an entrepreneur and actually starting a new company. To that end, these events are aimed at the entire population, regardless of the state of its entrepreneurial project: those who never thought of being entrepreneurs, those who are just beginning to consider being one, those who thought about it but did not continue, those who have recently started businesses, and those who have been entrepreneurs for some time.

The fair is divided into five areas, each color-coded and related to a different stage of the entrepreneurial process. In each area the visitor can learn about specific topics related to starting up a business, watch videos of successful entrepreneurs, examine teaching materials on specific topics (including marketing, financing, and business plans), participate in interactive activities and seminars, exchange ideas and opinions with Scottish Enterprise consultants and successful local entrepreneurs, and gain access to information on programs and initiatives of the Scottish Enterprise support network in a space specially designed to "affect all the senses."

Another initiative aimed at promoting a more entrepreneurial culture and changing values and attitudes in the population is Local Heroes, a directory of Scottish entrepreneurs grouped by line of business and location. The primary aim of this initiative, which started in 1995, was to publicize cases of successful Scottish entrepreneurs (the local heroes). To do so a guide was compiled that, besides presenting the characteristics of their companies (line of business, size, and location), could serve as a tool for publicizing role models. Local Heroes started as a private initiative that received support from Scottish Enterprise and formed part of the Personal Enterprise Campaign. It continues today in private circles, although its importance has declined.

In addition to these initiatives aimed at making the public more aware, the strategy envisioned carrying out a series of programs and initiatives, the aim of which was cultural and attitudinal change. These programs seek to act within the education system and encompass the entire period of schooling. In primary education two packets of educational materials were utilized: Enterprising Infants for children ages 5 to 8, and *Go for Enterprise* for children ages 8 to 12. Both packets were designed by the National Centre for Enterprise Education of the University of Strathclyde with financial support from the Bank of Scotland. The content of these packets is organized around a set of key areas covering the main steps of planning and managing a business (finding funding, market research, creating the firm, production, sales, advertising, administration, and financing). The complexity depends on the age of the students.

On the basis of the results achieved by these educational packets, in August 2001 a group of prominent Scottish entrepreneurs decided to create a new program in conjunction with the Scottish government: The School Enterprise Programme. Its aim was to assure that every student in Scotland has the chance to participate in at least three entrepreneurial experiences during the period between 5 and 14 years of age.

The strategy's actions are not concentrated solely on the early education levels, but also include higher-level education. Noteworthy in this regard was the establishment in the early years of the strategy of the University Entrepreneurship Education Programme. This program consisted of granting a financial incentive from Scottish Enterprise for setting up Entrepreneur Centers and introducing subjects and courses on the issue in universities in Scotland. Scottish Enterprise's idea was to provide initial funding and training to those universities that wanted to set up entrepreneurship centers and incorporate the issue of entrepreneurship into their curricula.[5]

[5] The model to be imitated was that of Babson College of Massachusetts.

Finally, in 2000 a new initiative arose in the universities, with the creation of the Scottish Institute for Entrepreneurship. This is a joint project of the five most important universities in Scotland, which obtained a US$6 million grant from the government of the United Kingdom to draw up and start a program aimed at incorporating entrepreneurial education on a large scale among science and engineering students. The government grant will be used to set up and deliver courses, and to develop new methods and multimedia teaching materials and Internet-based distance learning materials.

Programs Aimed at Improving the Business Environment

These programs include both small initiatives emerging locally, along with others of a larger scale that were started nationally. Some have come from the private sector and others that were initially supported by the public sector are now in private hands.

One of the main private institutions participating in these activities is Entrepreneurial Exchange, which was set up in 1995 by a group of recognized Scottish entrepreneurs. The basic idea that led to its establishment was the realization that entrepreneurs learn most from contact with their peers. Hence its slogan is "For Entrepreneurs by Entrepreneurs." The basic objective of Entrepreneurial Exchange is to help make it possible for entrepreneurs to connect, share experiences, and learn from the lessons that already established successful entrepreneurs can teach them. Hence, Entrepreneurial Exchange offers a basic platform of events and services that promote the creation of informal networks among entrepreneurs. Some events take place regularly (those that are repeated throughout the year depending on demand) and others are a special occasion (taking place once a year and bringing together a significant number of persons). Some of the regular events are solely for members, while others are open to other entrepreneurs.

Although from the outset Entrepreneurial Exchange was part of Scottish Enterprise's strategy, from the Regional Office in Lanarkshire it received only a small initial sum, which served to finance the operating costs of the first year. Since then it has been self-financing through the dues of its members and the events that it organizes.

Another private institution is The Business Forum, which was set up when the strategy began (1993) and emulates the successful experience of the MIT forums in the United States, which seek to provide new entrepreneurs (and also established companies) the chance to present their ideas to an audience including bankers, investors, consultants, and business people, and to receive advice from them and exchange ideas. Nine forums a year are organized in which two companies make presentations. The companies participating in the forums may be in any line of business (industrial, commercial, and even nonprofit organizations) or at any stage in their development.

Business Forum is a nonprofit organization. Its activities were initially funded by Scottish Enterprise. Currently its main sponsor is the Royal Bank of Scotland. Business Forum also receives help from the Edinburgh Chamber of Commerce, which manages and organizes its events.

Also noteworthy is the creation of the Business Opportunity Development Groups, an initiative emerging from the regional office of Scottish Enterprise in Grampian (in the south of the country) as part of its program of assistance to rapidly growing companies. The Groups were set up because around half of the participants in the seminars said that they had problems identifying a business opportunity or had many ideas and did not know which one to choose.

This program is set up in six sessions in which various work methods are used to stimulate creativity (lateral thinking, brainstorming, etc.). The goal is that when the program ends all of the participants will have at least one business idea. The exchange of ideas among the participants and the networking that takes place between them are the main sources of learning. Following the example of the regional office in Grampian, other regional offices are developing similar programs that help entrepreneurs to identify and discover business ideas.[6]

Finally, mention should be made of one of the newest of the strategy programs developed by Scottish Enterprise: Business Mentoring Scotland, which was created in 2000 to fill a gap in the government assistance offered to entrepreneurs. As its name indicates, Busi-

[6] There are also private sector institutions engaged in carrying out initiatives with the same purpose, as is the case of Brainpool Ltd., which operates in the Edinburgh area.

ness Mentoring Scotland is Scottish Enterprise's national mentor program. The beneficiaries of this program are both people with a business idea seeking advice from an experienced entrepreneur as well as companies already in existence that can benefit from the assistance of a mentor.

Programs Aimed at Easing Access to Financing

With regard to access to financing it is interesting to note that at the outset of the strategy a large amount of public funding was released for lending to small businesses, some of which had its origin in policies from the late 1980s. An estimate made in June 1999 revealed the existence of approximately 70 of these funds throughout Scotland. No doubt the most important was the Small Business Loan Scheme set up by Scottish Enterprise between 1994 and 1996, with US$150 million in funding. The program consisted of fixed-rate loans of between US$30,000 and US$750,000 subsidized by Scottish Enterprise. These loans were provided through commercial banks and requested through the regional offices of Scottish Enterprise (LECs).

Another government fund, in this case from the Treasury of the United Kingdom and managed by Scottish Enterprise through its LEC, is the Business Growth Fund. Originally designed as a lending fund, today it serves for both loans and capital contributions, with a minimum of US$30,000 and a maximum of US$150,000.[7]

Among the financing alternatives through capital contributions, one of the most important innovations of the Scottish strategy was the creation of the LINC Scotland investors network in 1993 primarily in order to bring together entrepreneurs seeking financing and specialized consulting with those individuals who want to invest time and money in their companies, so-called business angels. LINC also has a small fund that it uses to subsidize the costs of preparing proposals and helping companies to improve the prospects of attaining outside funding (to reach what is called investment ready condition). Another activity carried out by LINC is that of exclusive investor forums for its members. LINC Scotland is set up as a nonprofit company, and receives aid from Scottish Enterprise, the private sector (basically the main commercial banks operating in Scotland), and the European Union.

Finally, the Scottish Equity Partnership was set up as a long-term capital fund aimed at the SMEs with rapid growth potential and that had the initial support of Scottish Enterprise. In August 2000 Scottish Enterprise decided to sell a portion of its shares and transform Scottish Equity Partnership into a new company with more private capital: Scottish Equity Partners Limited. In this new company Scottish Enterprise retained only 25 percent of the shares and some tasks aimed with the aim of bringing the Fund's activity into line with the company's development strategy. Fund management and administration remained in private hands.

Programs Aimed at Broadening the Entrepreneurial Base

In addition to generic programs, the strategy urged the importance of "attacking" certain segments of the population that are underrepresented among entrepreneurs, primarily women, youth, and ethnic minorities, in order to thereby help broaden the entrepreneurial base. Among these initiatives may be mentioned the Get into Enterprise Program created and set up by Scottish Enterprise. This program, which was translated into other languages so that it could be used by ethnic minorities and socially marginalized groups, consists of a training packet for entrepreneurs that is offered in virtual format over the Internet or on a CD that may be requested free of charge, so that it can potentially reach a much broader public than other initiatives for forming entrepreneurs through the education system. The training packet is based on 12 chapters (or classes) that allow the person interested to go over the various stages of the startup/entrepreneurial process.

The Women into the Network (WIN) program, created in the Scottish Enterprise regional office in Lanarkshire and then implemented nationally, is aimed solely at fostering entrepreneurship among women. WIN offers its beneficiaries information, assistance, training, support from mentors, and links to the entire Scottish Enterprise support network. WIN's activities

[7] The loans are generally for five years and with an interest rate around 10 percent, while capital contributions are also for a five-year period and may not exceed 30 percent of the company's shares.

are for women interested in starting up their own business and for heads of companies less than three years old. WIN includes a program of small loans for women (between US$750 and US$7,500) run by Scottish Enterprise through its network. It should also be noted that starting in 2000 Scottish Enterprise decided to strengthen the program by designing a new Internet site (*scottishbusinesswomen.org*) that offers access to services for women entrepreneurs, discussion forums, and cases of successful women who serve as inspiring models.

Noteworthy among the activities aimed at youth are those carried out by Prince's Scottish Young Business Trust (PSYBT), a charitable organization created in 1989 that is now part of the strategy. Through professional support, financing, and subsequent advising it seeks to help young entrepreneurs in Scotland (between 18 and 25 years old). In general terms the aim is to help young people start and develop a business, establish an entrepreneurial culture in Scotland, and make a significant contribution to reducing unemployment and poverty levels among young people. The PSYBT scheme is very simple and works on two levels of aid: financing and advice linked to financing. PSYBT offers two kinds of financing: a line of credit of up to US$7,500 with a 4 percent annual fixed rate, and a subsidy of up to US$1,500 for persons who have some disadvantage (being unemployed or from a marginal area) or some disability.

Programs Aimed at Developing New Businesses in Key Sectors

Like similar schemes in other countries, the Scottish strategy has some programs aimed at developing new businesses in key sectors. Defining the key sectors was a strategic decision by Scottish Enterprise, which also set up within its structure teams for following up and monitoring each of them. These sectors are: biotechnology, information and communications technologies (ICT), creative industries, electronics, optoelectronics and microelectronics, energy, food and beverages, forestry industries, software, and tourism.

These programs are aimed almost exclusively at the university population (researchers, professors, and graduate students), creating new systems of incentives toward the entrepreneurial career, making funds available for generating prototypes, and fostering networking. One example of these programs is the Enterprise Fellowship Programme, a Scottish Enterprise initiative in 1997, carried out and managed by the Royal Society of Edinburgh (a private nonprofit institution), whose main purpose is to foster the commercialization of products from Scotland's academic and scientific base by encouraging the creation of knowledge-based businesses out of universities and research institutes. This program consists basically of a competition for a one-year scholarship that will enable the candidate to develop his or her product (or business proposal) to a pre-competitive state, by obtaining specific training on management issues and tools for preparing the business plan.

Another initiative in this field but more linked to project financing is The Proof of Concept Fund, a public fund developed by Scottish Enterprise in order to close the financing gap for the pre-competition stage, especially in those products that have great commercial potential but involve a long period of maturation and high technological risk. This fund was set up in 1999 with a three-year horizon and capital of almost US$20 million. At the end of this period the government decided to renew its wager, taking on an almost US$50 million commitment for the next six years. All pre-competitive research and development (R&D) projects and activities carried out by researchers in the universities and research institutes in Scotland are eligible for this fund. The financing consists of a subsidy of up to US$300,000 and a two-year time period. The purpose is to finance projects that lead to one of three options: licenses for new technology; a spin-out from the universities; or a new fast-growing company.

Initiatives have also risen from the private sector in this area, such as CONNECT Scotland, a network aimed exclusively at technology-based companies made up of entrepreneurs, experienced business people, angel investors, and academics seeking to help young companies to improve their prospects for finding outside funding, develop their ideas, and make their companies grow. CONNECT was started in 1996 with the help of Scottish Enterprise and is part of its network.

Programs Aimed at Supporting Fast-Growing Businesses

These programs generally started with the strategy designed and carried out by Scottish Enterprise regional offices in the early 1990s. They are primarily initiatives that arose in the public sector. Their outstanding feature

is their flexibility and adaptation to the client's needs. On the other hand, and likewise due to their local nature, these are small-scale programs in comparison with those sketched above. Since the emergence of the strategy, around ten such programs have been set up. The two most important and most widespread are those that began in the Glasgow and Lanarkshire regions.

The first of them is Business Ventures, which went into operation in 1993 as an agency to help fast-growing companies in the Glasgow area. Its main purpose is to help launch new fast-growing businesses through technical and financial assistance. The definition of fast-growing businesses used by Business Ventures to select a target group includes those that have an initial investment of US$150,000 and the potential to reach annual invoicing of US$1,125,000 or 15 employees by the third year of operations.

The core of what Business Ventures does consists of help at the launching stage and guidance for financing. The help consists of a system of personalized consulting. A Business Ventures consultant takes responsibility for working closely with the entrepreneurial individual or team. The kind of assistance depends on the needs that the consultant identifies in each project. Usually the activities comprised in this personalized assistance include advice on preparing a business plan, and then sending it to other Scottish Enterprise programs that may be helpful. The financing guidance consists of a series of seminars and advice about outside financing sources for fast-growing companies and the presentation of the business plan to a variety of potential financing sources.

The other successful program in this field was the LDA Entrepreneurship Programme, which was carried out between 1991 and 1999 under the Economic Development Agency of the Lanarkshire region. This program was started as a response to the closure of a large company in the area. It consisted of a complete theoretical and practical training package and help for a period of six months. Also offered were advice, access to market research, and help in drawing up the business plan. On completion of this training period, the beneficiaries continued to be monitored and helped by agency staff for two more years. An outstanding feature of this program was the emphasis it placed on training entrepreneurial teams rather than on assistance to individual entrepreneurs. The program was fundamentally aimed at university graduates, primarily in engineering and business administration. The candidates were chosen by the agency with a maximum of 30 per course.

On the basis of this experience, the Lanarkshire regional office decided to redesign and relaunch the program in 2001. That was the origin of the High-Growth Start-up Programme, the aim of which is to help enable local companies with growth potential to obtain access to external financing, by assisting them so that they can be investment-ready companies or projects, that is, suitable for being financed by others. The core of this program is provided through a process of project selection and personalized assistance that initially has to do with tasks for prior analysis of the company and its market (due diligence). All aspects related to financing and financial management of the company are studied to assure that all its potential will be attained, while maximizing returns to investors. These specialized consulting tasks are performed by independent professionals, but with the support of members of the Scottish Enterprise team. Because the costs of consulting at this stage are quite high, companies can ask the Scottish Enterprise regional office for a half-cost grant for these costs. In addition this office has a small investment fund of its own: The Emerging Companies Investment Fund, which enables the Scottish Enterprise regional office to make investments or give loans for the early development stage in fast-growing companies.[8] In 2002 investments were made in 19 companies, which meant 141 new jobs. The amount invested by Scottish Enterprise in these companies was almost US$750,000, while private money was almost US$12 million. Hence the leverage effect was 16 private dollars for every public dollar invested.

STRATEGY AND CLIENTS

The on-the-ground arrival and coordination of the supply of programs was a matter that always concerned those responsible for the strategy. In 1993 Scottish Enterprise spurred the creation of the Business Shops Network, in an effort to simplify the structure and facilitate the flow of information to potential entrepreneurs.

[8] The maximum amount for investing or lending per project is US$750,000. No security is required for the loans. Since its beginning more than US$600,000 a year have been invested, and investments now total US$2.5 million.

Business Shops were basically offices where people received all the information needed about the programs that were unfolding in the various institutions aimed at fostering new small and medium businesses. The annual budget of the network, made up of almost 40 offices, was almost US$5 million, 80 percent of which was provided by Scottish Enterprise while the remaining 20 percent came from the private sector.

In 1999 an outside evaluation of the Business Shops network showed that despite its existence there were still significant defects in access to information and its availability (cf. DTZ Pieda Consulting 1999, Scottish Business Shop Network Evaluation, cited in Ashcroft 2001). That evaluation also pointed to a great deal of dispersion in the quality of the Business Shops throughout the network. These findings led Scottish Enterprise to redefine its strategy for connecting with potential beneficiaries. That gave rise to the Small Business Gateway (SBG) in July 1999.

With the appearance of the Small Business Gateway what changed fundamentally was the concept. It is neither a network of offices (or windows) nor a coordinating institution, but of an umbrella under which all activities for entrepreneurs are encompassed and listed (see Box 10.2).

Henceforth all activities for entrepreneurs performed by Scottish Enterprise and by other institutions that seek to have public support and national scope are gathered together under the Small Business Gateway brand, which as the name indicates is now the only gateway to the programs that form part of the strategy and offer entrepreneurs a single contact point with the Scottish Enterprise support network. Through Small Business Gateway, information and assistance are provided both to those interested in setting up a new company and to those who are seeking advice for the growth of their already existing business.

There are three alternative ways of contacting the SBG: by phone over a toll-free line; by Internet; or personally at any of its 40 offices in cities in the country. The services offered are organized in accordance with the target audience and hence there is a department responsible for providing general information about businesses, basically in the first contact with the beneficiary (Business Information), and other more specialized departments that provide not only information but also technical assistance through their own consultants. Among these should be mentioned one aimed at new businesses (Business Start-Ups), another at fast-growing businesses (High-Growth Start-Ups), and another at existing businesses (Business Growth).

EVALUATION OF THE STRATEGY

The total sum of money invested by Scottish Enterprise in the business creation strategy and programs linked to it is around 4 percent of its annual budget. Up to the year 2000, spending averaged between US$21 million and US$25 million per year, totaling between US$126 million and US$150 million during the period in question. The total sum per year (2000) was distributed approximately as follows: 71 percent in aid to new entrepreneurs through the Small Business Gateway, 15 percent in support for new fast-growing businesses (Business Ventures and other initiatives), and the remaining 14 percent in support to other initiatives (including PES and LINC).

An impact evaluation of the strategy made by the Fraser of Allander Institute of the University of Strathclyde highlighted the fact that the strategy did not involve a higher budget than what was being spent in the past for promoting new businesses, but that these funds were reallocated from programs aimed solely at self-employment toward a more modern conception of fostering new firm formation (Ashcroft 2001).

With regard to results obtained, in 2000 Scottish Enterprise published some statistics showing a significant increase in the number of new businesses in Scotland since the early years of the strategy. The high point was reached in 1997 when very close to the goal of 25,000 new businesses were created. However, after that time the pace of business creation slowed and only began to recover after year 2001 (see Figure 10.1).

In general, as shown in Figure 10.1, the strategy has had a positive and statistically significant impact on the number of new businesses in Scotland, although much less than what was anticipated and what had been set as a goal. Using the number of new businesses registered for the value-added tax, it is estimated that during 1994-99 around 2,124 additional new firms were created, that is, around 354 per year, a cumulative annual rate of a little over 3 percent, as opposed to the 5 percent envisioned as a goal (Ashcroft 2001).

Table 10.2
Stages of the Business Birth Rate Strategy Programs and the Entrepreneurial Process in Scotland

INCEPTION				STARTUP			INITIAL DEVELOPMENT	
Motivation mindset	Skills	Opportunities	Networking	Information	Technical assistance	Financing	Technical assistance	Networking
The Year of the Entrepreneur								
Business Game TV								
		The Personal Enterprise Shows					The Personal Enterprise Shows	
Local Heroes				Local Heroes				
Enterprising Infants								
Go for Enterprise								
School Enterprise Programme								
Young Enterprise Scotland								
University Entrepreneurship Education Programme				University Entrepreneurship Education Programme				
Scottish Institute for Entrepreneurship								
The Entrepreneurial Exchange			The Entrepreneurial Exchange					The Entrepreneurial Exchange
			Business Forum		Business Forum			Business Forum
		Business Opportunity Development Groups						

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<tr><td></td><td></td><td colspan="2">Business Ventures</td><td></td><td>Business Ventures</td><td></td><td colspan="2">Business Ventures</td></tr>
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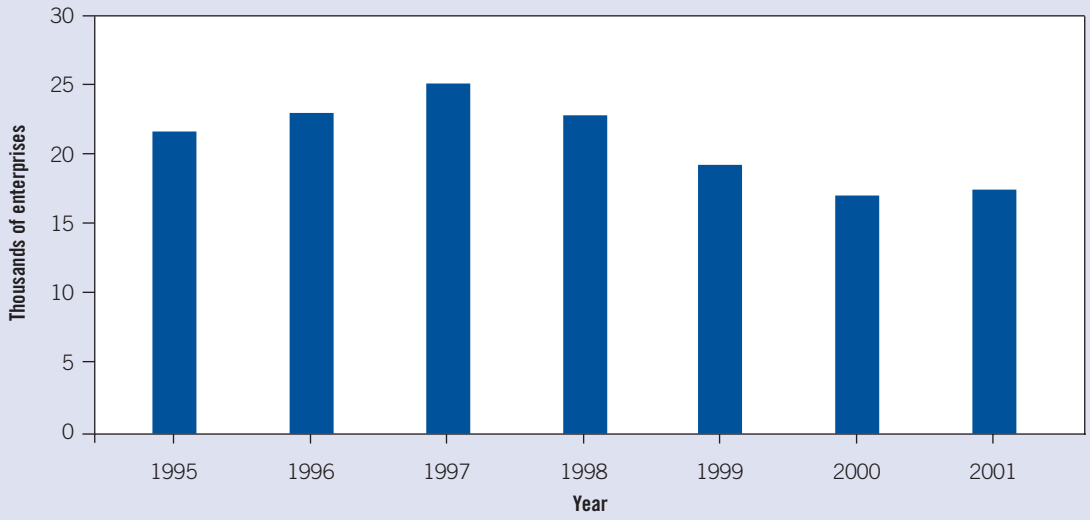
<tr><td></td><td></td><td></td><td></td><td colspan="4">High-Growth Start-up Programme</td><td></td></tr>
</table>

Box 10.2
The Small Business Gateway, 2001

- Staff: 175 persons working full-time
- Budget: Approximately US$20 million (100 percent financed by Scottish Enterprise)
- Business startups division:
  45,000 consultations conducted
  9,000 projects assisted
  2,500 new enterprises (project-enterprise conversion rate = 27 percent)
- High-growth startups division:
  500 consultations conducted
  160 projects aided
  90 new enterprises (project-enterprise conversion rate = 56 percent)

Figure 10.1
Trends in the Number of New Businesses in Scotland, 1995-2001



Source: Scottish Business Statistics (2002); The Committee of Scottish Bankers.

The most significant positive results of the strategy are quantitative in nature. One of them is the effect on the quality of the new businesses created. The availability of a larger support infrastructure, along with the action of positive role models in society had a positive effect of discouraging those projects with little viability, thereby fulfilling the second of the proposed objectives, which was to increase the number of new businesses that survive (Ashcroft 2001).

Other positive results highlighted in this evaluation have to do first with the greater interest currently awakened in entrepreneurship and the phenomenon of new firm formation in the population. Particularly noteworthy are the advances noted in the universities and research institutes, where centers for teaching entrepreneurship multiplied and the number of students and graduate students interested in starting a new company increased. Work done on the primary level in

both public and private schools is also considered to be a noteworthy point of the strategy.

Second, the report notes the greater availability of financing through credits, and especially through capital contributions. More funds are available for financing spinouts from the universities or research centers. Third, the evaluation notes the development and strengthening of networks of entrepreneurs through initiatives such as the Entrepreneurial Exchange or Business Forums.

Finally, it notes the importance of the Small Business Gateway as a single contact point between entrepreneurs and the Scottish Enterprise support network, facilitating entry into the network and lessening the confusion and lack of coordination formerly existing in the offer of institutions and support programs for entrepreneurs.

According to the evaluation, significant and positive advance has been made. However, there remain some areas that ought to be improved:

- Focus more on those startups with the greatest further potential and on those with an export orientation or with import-substitution possibilities.
- Improve the furnishing of professional services to those segments of the population that were identified as neglected (such as women).
- Evaluate the costs and benefits of the option of face-to-face consulting vis-à-vis other alternatives, such as using the Internet.
- Standardize distribution of programs through the LEC and develop a simpler and clearer national focus.
- Develop a system for monitoring and providing statistics on new businesses.
- Deepen private sector involvement in developing and carrying out the strategy.
- Develop programs of assistance for the stages after startup, along with initiatives linked to unlocking entrepreneurial potential within existing companies (corporate entrepreneurship).
- Stimulate the potential for the emergence of spinouts and technology transfer from multinational companies located in Scotland.
- Develop stronger links between the strategy and the policies for developing production being carried out from other agencies or ministries.
- Increase the participation of women and other socially excluded groups in new firm formation.

These conclusions of the Fraser of Allander Institute report are crucial for understanding the changes that took place in Scotland's strategy after the launching in early 2002 of the A Smart, Successful Scotland initiative, the new vision of the Scottish government administration and Scottish Enterprise for the next period. In terms of new firm formation, this new focus differs from the previous one because it entails a new relationship of powers between the executive branch of government and Scottish Enterprise (greater centralization of the decisions and less independence for Scottish Enterprise) along with a decisively greater orientation toward a niche policy (fast-growing companies, women, and youth), although it still retains some goals related to the more general focus of the previous strategy. One important detail to note is that, contrary to the previous strategy, in this case the goals proposed are seen as very conservative, and no specific time horizon has been set.

FINAL COMMENTS AND POLICY LESSONS

The Scottish experience in promoting new businesses offers interesting lessons. First, it is important to have a prior diagnosis of the situation and a clear definition of the problem, its causes, and its economic consequences. This prior analysis should feed into the process of preparing the strategy, indicating at each moment which factor or factors ought to be changed in which direction, and which results are being sought. In addition, the analysis ought to offer clear leads on areas for intervention, along with a review of best practices taking place elsewhere in the world.

Second, due to many and widely varying factors that influence the decision to start a business, a comprehensive strategic focus must be adopted. Moreover, starting a business is not a point in time but a personal process encompassing several stages, from identifying the business idea to managing the company when it is underway, in which the demands for support differ.

For those reasons, Scottish Enterprise defined a long-range horizon of activity, but short-term actions (improving the support infrastructure) as well those that are long range (change the culture) were included.

According to the strategy evaluators, a policy aimed at new firm formation should not be an island. It is essen-

tial that it be set in a context of broader policies and that there be a certain articulation and complementarity with pre-existing programs and structures.

In terms of internal management of the strategy, the Scottish experience has shown the importance of having a central coordination providing a degree of internal coherence and homogeneity to the strategy. There is need for significant recognition of the contribution that can be made from the local level, not only in carrying out programs, but also fundamentally in the design of initiatives emerging from local needs that are then gathered and harvested nationally.

Thus the Scottish experience shows that in practice the objective of a generic policy (fostering a significant number of new businesses) is compatible with a niche policy (encouraging the creation of some special kind of new, fast-growing, and knowledge-based firms). Indeed, it would seem desirable to have a combination of new approaches that would offer the possibility of a significant number of persons starting a business activity, at the same time as devoting special attention to those new firms that by their characteristics are more important for the economy as a whole.

In that regard, the Scottish experience shows that it is important to include actions with a sector orientation, even if it should not be exclusive. In any case preferences ought to be translated into special programs for preferred sectors, along with general assistance to other branches of economic activity.

A comprehensive strategy ought to focus both on unlocking the entrepreneurial potential lying in society—removing entry barriers, making it easy to embody ideas in businesses, etc.—and in broadening the entrepreneurial base, aiming at those segments of society that are underrepresented in the entrepreneurial population. For that to happen, the strategy must include actions aimed primarily at cultural change, skills acquisition, the development and enhancement of both formal and informal networks, and improving the infrastructure of support for entrepreneurs.

The combination of services and assistance offered to entrepreneurs should be dynamic and flexible, capable, and adjusting and changing approach if so required by the conditions of the environment, while continually seeking to satisfy the demands of support by the entrepreneurs at the various stages of their process. The foregoing does not imply that there should not be a certain standardization of services, but that there ought to be provisions for both systems to coexist where there is a standardized platform and a set of tailor-made, higher quality, and value-added services.

Likewise, systems for monitoring the program beneficiaries must be set up so as to be able to have a quantitative basis on which to perform evaluations of their impact.

Strategic development requires investing. Resources must be committed for long periods if a strategy of this kind is to have a significant impact. That is not limited to public financing. Both sectors, public and private, must be partners in this campaign. The Scottish experience shows that public and private partnership, along with the public leveraging of small private initiatives, constitute good practices of financing such policies.

Finally, and as important as the issue of money, for a strategy of this kind to be successful requires the commitment and involvement of the entire society: government, businesses, science and technology institutions, nongovernmental organizations, foundations, and so forth. A strategy aimed at new firm formation will be more successful the more it is conceived as a project of the entire society and not merely of a particular government.

THE EXPERIENCE OF THE GERMAN EXIST PROGRAM

Many international studies carried out in recent years highlight the role played by knowledge institutions (universities, technology institutes, research centers, etc.) as pools of dynamic new enterprises, especially those that are based on knowledge and technology. Aware of this phenomenon, governments have set up programs and initiatives aimed at developing the potential that exists in universities and research institutes for creating new technology and knowledge-based businesses. One example of such niche policies is the EXIST program (Existenzgründer aus Hochschulen) which could be rendered as "Entrepreneurs from Institutions of Higher Learning." EXIST was launched in late 1997 and it constitutes an important institutional innovation in relation to other similar programs aimed at technology and knowledge-based entrepreneurs and businesses.

This study describes how the EXIST program works, with an emphasis on the underlying strategy, background, primary components, how it was set up, and finally some results obtained thus far.[9]

BACKGROUND

In the mid-1990s the German university system was the subject of a major debate. The most important discussions revolved around how to adapt it to the new requirements of the business context at the turn of the century, and in particular how the universities could help spur the startup of new high-technology businesses to close the gap between Germany and its competitors (especially the United States). In this context, a research project carried out in late 1996 called Project Athene pointed to entrepreneurial and innovational potential that was not being realized in institutions of higher learning and research centers. In its final results this research found that 2,465 new technology-based businesses were created out of the universities and technology institutes during 1990-96, approximately 350 new startups per year (see ADT e.V. 1998). Although this figure seems significant at first glance, when one takes into account that the German university population (students, researchers, and graduate students) is approximately 850,000 people, the entrepreneurial fruitfulness seems considerably less significant: 2.9 new businesses for every 1,000 people involved in the university (see Koschatzky 2001).

In addition, Project Athene investigated interest in the entrepreneurial option among teachers, researchers, graduates, and students of these universities and research centers. The findings indicated that while there was potential interest, it was not very widespread, especially in the universities. In this regard, the report showed that approximately 5 percent of the university population (students, graduate students, and teachers) was committed in some fashion to start up a new business, and of this percentage, 31 percent was taking specific action in that direction.[10] However, the image was more positive among staff at research and development centers, where a quarter showed some interest in becoming an entrepreneur.

In terms of tools for promoting these new technological enterprises, Project Athene also surveyed some initiatives that were being developed within the universities at that time. One of the examples most mentioned by the study was the Extra Project, which began in 1994 at the University of Kaiserslautern and consisted basically of seminars and courses for students, graduate students, and scientists who were seeking to start up or develop a new company. Other examples mentioned in the study were the GO! project in the state of Nordrhein-Westfalen, and a business plan contest sponsored by the consulting firm McKinsey & Co. in the Munich region and in the universities of Berlin. Despite these isolated initiatives, various studies were

[9] Various sources of information were consulted for this study, such as specialized publications, Internet sites, personal consultations by e-mail, and academic studies, which were complemented by fieldwork that included a series of in-depth interviews with the main figures in the process of starting up and developing regional initiatives (KEIM, Dresden Exist, and GET UP), along with other key persons in carrying out the program nationally and political officials.

[10] Moreover, when asked about the moment when they thought of going into business, 47 percent of the students said they would do it 2 or 3 years after finishing their studies.

urging a nationwide program oriented solely at high-tech enterprises devoted specifically to the demands of supporting those entrepreneurs that existing programs were not managing to cover.[11]

Taking these findings into consideration, and within the framework of the aforementioned discussion on the need to adjust the university system to the new business scene, the Federal Ministry of Education and Research (BMB+F) in December 1997 launched the EXIST Program. Its main components are described below.

OBJECTIVES, PRINCIPLES, AND IMPLEMENTATION

The main purpose of EXIST is to stimulate entrepreneurial culture in institutions of higher learning (IHL) and to spur the emergence of innovative new businesses. The program has four main objectives (see BMB+F 2000): to create a permanent entrepreneurial culture in IHL teaching, research, and administration, focused on students, university staff, and their graduate students; to encourage greater ties between the findings of academic research and the production structure of the regions; to develop the great potential in the universities and research centers for generating business ideas and entrepreneurs; and to increase significantly the number of innovative start-ups and the creation of new jobs.

Since the focus of this program is on innovative new businesses, the target population was chosen carefully: students, graduate students, professors, and researchers at the IHLs, as well as the kinds of enterprises that were going to be assisted: high-tech products and services.

The first step taken in formulating this program was to take modules from successful North American universities, such as MIT or Stanford, but it was soon realized that what was lacking was the conviction of the university and local agents about the importance of including these topics in its structure. In this sense, the aim of the EXIST Program was to develop a set of best practices in areas where universities and research centers interact to attain the aforementioned objectives with various actors from business, industrial, and local government circles.

To meet this objective, the government (through the Federal Ministry of Education and Research) decided to issue an invitation for competitive proposals. All regions were invited to present proposals including models of intervention in their area. The intention was to spur cultural change in the universities and institutes of higher learning and to promote the rise of innovative new companies. The main requirement for being a candidate was that the proposals had to be made by an inter-institutional network of at least three associates, one of which had to be an IHL or an R&D center.

The idea of the proposal competition was an innovation in the design in comparison to most policies of this kind that were being carried out in other countries. In that sense, EXIST was set up as a bottom-up type of program and promoted nationwide. In other words, what was new in the EXIST model of intervention was that incentives were established nationwide for regions to make proposals and develop models of intervention, the most interesting of which were to be chosen to be tested over a three-year period.

The contest was formally launched in December 1997. A total of 109 proposals from all regions of Germany, involving 200 IHLs, were presented. The selection process began in March 1998 and was comprised of two stages that operated as a filter. The first consisted of a pre-selection where the concept was analyzed (its attractiveness and relevance) along with the proposed intervention model. The 12 most interesting proposals were chosen at this first stage to enter the second round.

The jury was made up of representatives designated by the ministry from academic, political, financial, and business circles. Also participating at this evaluation stage was the Fraunhofer Institute, through its Research Institute in Systems and Territorial Development, which has outstanding experience in research and consulting on productive development programs and innovation systems on a regional level.[12]

[11] It should be noted that for the rest of the startups (nontechnological) the federal government and the states and municipalities had tools for promoting and helping new businesses, focused especially on training and financial assistance.

Box 10.3
The EXIST Program

"…The objective was not to find the model of intervention, but rather to encourage the application of various models that would respond in each case to the particularities of the productive, social, and institutional fabric of the different regions (…). After these experiences, the lessons learned could be transferred to other regions with similar characteristics..."

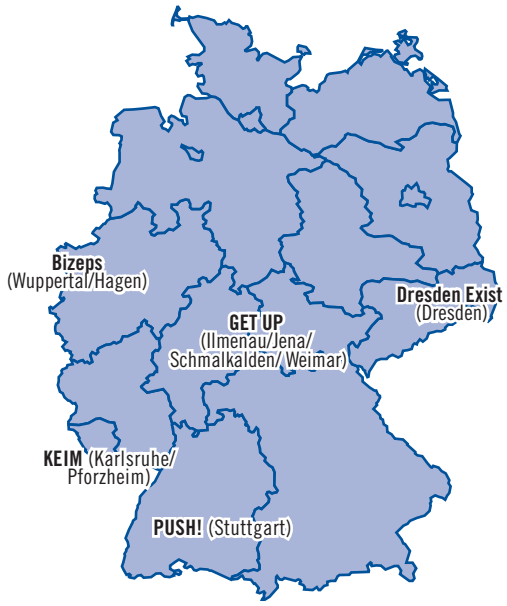
—Thomas Bausch, EXIST Program Coordinator

While there were no explicit criteria for selection, one of the interviewees at the Fraunhofer Institute said that what counted most was the concept and model of intervention, the extent to which each proposal contributed to EXIST's objectives, the quality and reputation of the institutions presenting, and finally the potential for development and success of each proposal.

The second stage of selection took place in July 1998. For this stage, the regions selected were asked to complete their previous presentation, including greater details on the work they do, the costs, the institutional arrangement, etc. In August that same year the jury reconvened and chose the five winning proposals.

As shown in Map 10.1, and in order to encourage the establishment of various intervention models, the selection made provision for some degree of diversity (for more details on the regions see Table 10.3). Thus among the five winning regions, one is from the western part of the country, located in a depressed industrial area characterized by the presence of mature industries (*bizeps*); two are located in the prosperous region of the south in the state of Baden-Württemberg (PUSH! and KEIM); and two are in regions of the new states, which used to be part of East Germany (GET UP and Dresden Exist). Each of the five regions was given a grant subsidy by the government through the Ministry of Education and Research, for the total budget requested to develop its concepts, ideas, and proposals over a three-year period. The EXIST Program likewise finances two initiatives of a supra-regional nature: EXIST-Seed and EXIST-HighTEPP, which we will consider in greater detail later.

Map 10.1
Locations of the Selected Regions



FINANCING

The total sum committed for the first three years of the EXIST Program was approximately US$25 million.[13] The funding was not distributed proportionally among the five regions, but in response to the needs that each had established in its proposal, with maximum amounts of approximately US$6 million for some regions (KEIM and PUSH!) and minimum sums of around US$4 million for others (Dresden Exist).

[12] The Fraunhofer Institution is a public sector organization that has institutes and departments in cities throughout Germany devoted to research and development.

[13] This sum includes only the regional initiatives.

INSTITUTIONAL CONFIGURATION

At the top of the organizational chart is the federal government, through the Ministry of Education and Research, which not only provides the funding for carrying out the various activities in each of the regions selected, but also is responsible for establishing EXIST's principles and strategic lines. The ministry is in turn responsible for the program vis-à-vis the executive and parliament, and must present these government bodies with periodic reports on its execution.

A seven-member Consulting Council made up of representatives from the academic, industrial, and financial worlds participates in defining strategy. Its role was much more important at the definition stage prior to launching the program and in selecting the winning initiatives. Currently its function focuses more on monitoring the evolution of the activities performed by each initiative and on the design of the second stage of the EXIST program, launched in March 2002, the main features of which will be spelled out further on.

Management and oversight of the program is in the hands of a specialized private consulting firm, chosen through a public credentials competition.[14] This consulting firm acts as an intermediary between the ministry and the regions, through the various ad-hoc bodies responsible for the project in each of them. The tasks of this consulting firm may be divided essentially into three groups. First, it handles administrative oversight over execution of the activities planned in each of the proposals. Second, it is responsible for handling and monitoring financing to the regions. Third, it is charged with gathering information and preparing reports on the work done and underway within the framework of the program. This consulting firm is also responsible for managing the EXIST-Seed subsidiary program, which is a supra-regional initiative aimed at financing researchers in their process of moving toward creating a business based on the results of their research work. Details on it will be examined in greater depth further on.

Evaluation and monitoring of the activities of the regions and advising them is handled by the Institute of Research in Systems and Territorial Development of the Fraunhofer Institute, which also acts as intermediary between the different regions and the ministry, but its role is focused exclusively on the strategic aspects of the proposal or on more general issues of development of the region. The Fraunhofer Institute likewise does studies and research on the initiatives being carried out in the various EXIST regions, thereby helping to make the activities known and to foster exchange of experiences. Finally, the Fraunhofer Institute holds seminars twice a year for those in charge of the regions where experiences are exchanged, common issues are discussed, and informal networking is fostered.

At the bottom of the EXIST organizational chart are the regional initiatives, which are organized according to their characteristics, institutional fabric, and partners. In this sense, it should be pointed out that in all the initiatives there is a hard core of partners (the founders, those who presented the original proposal) and a broader network of institutions, key agents, and local and regional government bodies, working together in carrying out the activities. The organizational forms adopted by the different regions range from outsourced management to an independent consulting firm (as in the case of KEIM) to centralized management in a single executing unit located in the university (Dresden Exist). In all cases, however, these are small structures made up of no more than ten persons.

SUMMARY OF THE EXIST PROGRAM'S REGIONAL INITIATIVES

The main actions carried out in each of EXIST's original regions are described below. The case of KEIM, in the Karlsruhe/Pforzheim region, will be described in greater detail because it has some features that make it particularly interesting (institutional configuration, focus, and results) and hence more information was gathered on it.

KEIM

The KEIM initiative operates in the Karlsruhe region, one of the most important technology areas in all of Europe,

[14] While this represents something new in comparison with entrepreneurship policies carried out in other countries, in one of the interviews it was noted that this practice of entrusting the management of government programs to specialized (private or mixed) consulting firms is common for the German government in other fields, such as energy and environmental protection.

which has many universities and R&D institutes, thereby making it a fertile area for developing and implementing new ideas, products, processes, and businesses. Contrary to other major German economic centers, the economic structure of this region is basically made up of small and medium businesses.

The KEIM network is comprised of the Technical University of Karlsruhe, the Fachhochschule of Karlsruhe and Pforzheim, the Karlsruhe Research Center, the local government of Karlsruhe, the Chamber of Commerce and Industry, and an intermunicipal consortium representing the region's small cities.[15]

KEIM's objectives are to pull together resources and isolated ideas in the area to develop a joint strategy; to establish comprehensive processes of stimulus and support for entrepreneurs in university organizations and research centers; and to reach a significant number of students and graduate students interested and trained in entrepreneurial activity.

In setting up the program, KEIM introduced something new with respect to the programs of the other regions and also with respect to similar initiatives in other countries, namely, a conceptual framework around what is understood by the entrepreneurial process to serve as a basis for its model of intervention and to articulate the array of activities and services carried out as part of it. This theoretical and practical conception of the model of intervention is what is known as the KEIM process, which involves three stages from creating a climate, to developing entrepreneurial skills and helping in launching the business, to supporting business expansion.

The first stage of the KEIM process has to do with creating a mindset, motivation, training, and guidance for potential entrepreneurs. Along these lines, a wide and varied number of motivational events were developed (such as presentation of successful cases or advertising campaigns), including seminars, training courses, conferences, special classes, and business simulation exercises. All these activities are organized and carried out in the centers that the KEIM network has in the university and in the Fachhochschule. Among the noteworthy activities aimed at forming and developing entrepreneurial skills are the entrepreneurial thinking cycle of seminars held at the KEIM Center of the Technological University of Karlsruhe, the Engineer as Entrepreneur Program given by the Fachhochschule Karlsruhe, and the cycle of seminars for entrepreneurs of the Fachhochschule Pforzheim (Gründerseminar). The PriManager initiative aimed at students in their next-to-last year of secondary education consists of a business simulation contest that began in the Pforzheim area and is now held throughout the state.

More than 60 teachers are involved in carrying out these events, approximately 10 percent of all the teachers in the three IHLs. According to information from the KEIM office, around 2,500 persons took part in more than 100 activities carried out in 2001 in the three IHLs. That figure represents coverage of 15 percent of the total target population (students, teachers, graduate students, and researchers). Forty percent of all participants came from the University of Karlsruhe, 35 percent from the Fachhochschule Pforzheim, 13 percent from the Fachhochschule Karlsruhe, and the rest from other research institutes and technical institutes in the region.

The second stage of the KEIM process has to do with supporting and accompanying those who want to start an entrepreneurial career. That is why what is known as the Company Founder Support Program was designed. It is not an activity created within the KEIM circuit, but consists of connected initiatives and actions that develop both inside and outside of the KEIM framework. Contrary to the previous stage where activities were basically organized and carried out within the university and the Fachhochschule, at this stage the KEIM office plays a key role in connecting the different program-related initiatives together.

The stock of services and assistance at this stage may be divided into those aimed at the preparation and evaluation of the business project, and those that make possible or assist the actual launching of the business. Among the former, the central initiative is the KEIM program for tutoring or mentors. The tutoring system consists basically of the possibility of having the guidance of a consultant or experienced entrepreneur who will help the potential

[15] *Fachhochschule* are institutions of higher learning with a more practical orientation than the universities, where students have to do some of their studies in businesses or institutions. In addition the teachers do not have to be career academics as they do in universities. In general, the aim is that they be professionals with long experience in the entrepreneurial sector and that they present their expertise and experience in the classroom. Hence it is a university-level education but with more interaction with, and relationship to, the real world.

entrepreneur to evaluate his or her idea or prepare a business plan. To that end, KEIM co-finances the cost of between 20 and 30 hours of consulting, in a 10 percent entrepreneur and 90 percent KEIM arrangement, up to a maximum of US$1,000. There is also a coaching program, the purpose of which is to assist the entrepreneur in starting a business and its entry into the market. While the program seeks to adapt to the particular needs of each entrepreneur, in general, assistance centers around three lines: specialized consulting for technology issues; (basically external) market studies; and handling patents and intellectual property rights. As in the tutoring system, coaching is organized around an arrangement of 90 percent of the cost paid by KEIM and 10 percent paid by the entrepreneur, in this case up to a maximum of US$25,000.[16]

The appearance of NewCome.de, which is devoted to providing useful information to entrepreneurs in the state of Baden-Württemberg, should also be noted. It is a portal that began at the KEIM Center of the Fachhochschule Pforzheim as a project of a group of professors who wanted to set up a platform for distributing information for entrepreneurs in the Pforzheim region. The original project was called Gründerland.net. The idea kept growing and spreading its scope to the Karlsruhe region to the point of awakening the interest of the state government, which decided to provide money to make this project grow to the point where it also encompasses the PUSH! initiative (Stuttgart) and other regions of the state, which since December 2001 comprise NewCome.de.

Approximately a third of KEIM's total budget is devoted to financing the tutoring and training (coaching) program, roughly between US$1.7 million and US$2.1 million over three years. According to KEIM's 2000 annual report, in that year 258 projects were aided, 84 of which became new businesses, a 32.5 percent success rate. While there is no yardstick against which to make a measurement, this rate projects becoming businesses seems high enough to validate the idea of the value added that the KEIM network adds to a region, which in itself had great potential.

The third stage of the KEIM process is focused on supporting the consolidation and growth of the company. Here the most important thing is networking and facilitating contacts. In this regard the business associations Cyberforum e.V. and Gründer helfen Gründern (GhG) are crucially important. The latter was created in 1998 as a nonprofit organization. Its primary purpose is training and qualifying students and graduate students in universities on matters having to do with creating and running businesses, and also advising them on economic and legal matters. The members of GhG are companies in the IT sector, engineering and electronic, as well as consulting companies and independent professionals (law and accounting firms). Its main activities include holding seminars and training courses, meetings or networking, information newsletters, and participating in training activities organized by the universities.

Cyberforum e.V. is a nonprofit organization that was set up in June 1997 by a group of experienced entrepreneurs in the city with the support of the local government and some academics. Its purpose is to contribute to the emergence and development of new enterprises in the areas of information and communications technology (ICT) and multimedia sectors in the Karlsruhe area. Its activities are directed at young entrepreneurs and include a wide range of formation activities and fundamentally a space for exchange and networking. It also acts as a network of business angels and has a small seed-capital fund, provided by the Baden-Württemberg state government. Among the most important of the activities organized by Cyberforum are monthly gatherings.

Bizeps

The *bizeps* initiative is located in Bergisch-Märkisch, one of Germany's oldest industrial regions (45 percent of employment is in this area, 10 percent more than the national average). Among the main lines of manufacturing in this region are the metalworking, electrical, chemical, automobile parts, and textile industries. In terms of company size, SMEs predominate in the region, although some large companies are also located there.

[16] KEIM has a total corps of 20 accredited tutors and coaches. In order to be a tutor or facilitator (coach) one must have had at least a year of experience in consulting with new businesses, or have worked in businesses. The tutors must be accredited with the KEIM office and generally be part of institutions of higher learning or other institutions in civil society that form part of the KEIM network, such as, for example, Cyberforum e.V. or the Gründer helfen Gründern (entrepreneurs help starting businesses) business association.

This project is coordinated from the Bergische Universität and it involves two more institutions of higher learning (the FernUniversität Hagen and the Märkische Fachhochschule). In general terms the primary aim of this network is to increase the rate of business startups among graduate students, especially in careers that have more underexploited potential (natural sciences and engineering). The groups targeted for developing new businesses are students, research assistants, professors, and university graduates.

The *bizeps* strategy has three main objectives: to create structures and working conditions that will facilitate the emergence of startups within the universities; to provide support, assistance, and promotion of new businesses while they are in formation and after they are launched; and to create a social and cultural environment that encourages and appreciates new firm formation.

The main activities carried out within the *bizeps* project can be grouped along three lines: forming entrepreneurs within the IHLs; forming entrepreneurs outside the IHLs; and providing support and technical and assistance for entrepreneurs. Noteworthy among the first is the Chair in Entrepreneurship and Economic Development established in 1999 at Bergische Universität with lectures for students majoring in economics. For students with other majors, the Chair developed an elective module. The main characteristic of this Chair is that it aims at formation in aspects relating to planning and business administration, and includes more macro topics such as the relationship between entrepreneurship and economic development.

For its part, the FernUniversität Hagen has its own set of courses for students who want to be entrepreneurs. It is composed of three courses: Becoming an Entrepreneur, which is aimed at people interested in going into businesses and deals with problems related to the decision to become an entrepreneur; Startup Management, which targets issues related to managing a business; and Startup Counseling, which is not aimed at students who want to be entrepreneurs but at people who assist entrepreneurs. In addition, a new course has been developed at this university: Startups and the next generation of entrepreneurs, which is to be included in engineering and natural science majors.

Within the second line of actions, those linked to training entrepreneurs outside the IHLs, the Training Alliance seeks to integrate and especially to coordinate the provision of training at 16 institutions in the region. A catalogue has also been developed containing more than 60 training courses and activities for entrepreneurs.

Finally, activities aimed at supporting and aiding entrepreneurs include the offices for assistance to startups. These offices are located in each of the eight Regional Technology Centers throughout the region of the bizeps network. They play a role similar to that of incubators, that is, places where for a specified period businesses can test their business idea and skills without having to incur major costs in terms of initial investments. During this period they also have the support of mentors from the bizeps network.

Dresden Exist

This initiative is located in the Dresden region in the state of Saxony, a major region in former East Germany. After German reunification and especially in recent years, many large transnational companies have located in this region, creating a favorable environment for setting up new businesses with innovation potential that can work with large companies in developing industrial networks.

Contrary to other regions, Dresden Exist is concentrated in a single university (the Technical University of Dresden), specifically in the Department of Economics and Business. The main objective of Dresden Exist, in keeping with the national program, is to increase the number of startups from the IHLs. To that end, two more specific objectives have been formulated: to develop an entrepreneurial atmosphere in the university, and to broaden the profile of the university, which is very much related to purely technical and engineering matters, to give more importance to entrepreneurship and innovation.

The main activities of this initiative are the Gründerfoyer, the enterprise rooms, and enterprise talk shows, which are optional courses for students in nonbusiness majors and the entrepreneurship lectureship (which is only for economics and business students).

Gründerfoyers are the most large-scale and important events that take place because they involve high exposure outside the initiative and the university. This series of events—two per semester—aims to put the students, graduate students, researchers, and the general public in

contact with noted figures in local business, political, and institutional affairs. In a setting similar to a trade fair, the participants have the chance to present their ideas, make contacts with support institutions, receive information, and so forth. In addition an important national figure always opens the event with a speech and is the main attraction of the event (examples of such figures may be managers of multinational firms or the minister of the economy). The first such event took place in late 1998, and since then approximately 400 people per event have participated.

In the university, Enterprise Rooms, offices or meeting places especially set aside for students to prepare their business plan, provide a place where students can use computers, phones, fax machines, the Internet, and even a library to elaborate and develop their business plans. The teams that participate in these Enterprise Rooms also have the ongoing help of the Dresden Exist staff and, if necessary, specific consulting advice (paid for by Dresden Exist).[17] There are five of these offices in various departments of the university (Economics and Business, Electrical and Mechanical Engineering, Chemistry, and Medicine) and new offices are planned for other departments. Each semester an invitation is issued for a business plan contest to participate in the Enterprise Rooms, and the Dresden Exist staff chooses those that it considers most promising.

According to staff members of this initiative, if a business plan presented turns out to be very interesting, they themselves organize a small closed forum with a jury of business people, banks, and other key agents. The business plans that reach this stage receive a card (Gründercard), which acts as a seal of quality and offers its holder a series of advantages, such as preferential access to bank loans or other forms of financial credit in the region (with no further need to go through loan evaluation). In the past three years, 25 teams of students went through this stage and received a card.

Another initiative carried out at the University of Dresden is the Enterprise Talk Shows, events aimed at capturing the interest of researchers in entrepreneurial activities. These are basically about technical questions and include the entrepreneurial dimension (for example, matters related to patents).

Training activities given for students include a course on economics for noneconomists (an elective course for engineering and natural science students) and the activities of the Entrepreneurship Lectureship. The latter is available only to economics and business students, and organized in three modules that are offered in different semesters. The subjects of the lectureship (basically external) are elective but they provide credits toward the major. Around 800 students take these courses each semester.

Get Up

The Get Up initiative is located in the Thuringia region in the former East Germany, and includes the triangle made up of the localities of Ilimenau, Jena, and Schmalkalden. Since German reunification this region has gone from the breakdown and disappearance of the traditional industries to the establishment of new and more dynamic sectors based on modern industries and technologies, such as microelectronics, optics (which has a long tradition in this region), electronics, precision technologies, and some traditional sectors such as lumber, glass, ceramics, and furniture.

This project presents a series of particularities that make it different from the other regions, especially because it is comprised of five institutions of higher learning, each very different from the others and located in four cities in the same region. The participating universities are the Technical University of Ilmenau, the Fachhochschule of Jena, the Friedrich Schiller University in Jena, the Fachhochschule Schmalkalden, and since June 2001 the Bauhaus-Universität in Weimar. Another difference is that since its beginning Get Up has received 70 percent of its funding from the EXIST Program and 30 percent from the state government. The main objective of Get Up is to motivate and train potential entrepreneurs.

Given the characteristics of this initiative—unlike the other cases—each university has its own programs, although there are provisions for coordination between them, and hence there are similar initiatives but with different modalities in each of the institutions in the region. For example, there are courses on entrepreneurship in all of them but follow different models: in Ilmenau they are elective for all students,

[17] The total permanent staff of the Dresden Exist project consists of 8 persons.

in Friedrich Schiller they developed a broad range of interconnected courses that are given throughout the year (including an intensive course during summer vacation) and that include students from all majors. This set of courses has been called the Jena model, whereas in Weimar they are incorporated into the curricula of majors and are required courses.

Another noteworthy initiative is the virtual entrepreneur-training center designed and set up by the Technical University of Ilmenau, which seeks to offer a platform of knowledge, training, and exchange of experiences for entrepreneurs in the region. Within the training offered by the center there is a basic interactive course on putting business plans together, which is supported by a system of online tutorials. In addition the virtual center offers public chat rooms between entrepreneurs and with some already established business people in the style of thematic forums, such as on marketing or financing, and the possibility of participating in teleconferencing with experts by Internet.[18]

In addition to the activities that make up part of the EXIST Program, in the Get Up region other programs complementary to EXIST are held, with financing by the state government. Examples are the business plan competition started in 1998 and held every year, and a contest of entrepreneurial projects held among students from the various secondary schools of the region.

Push!

The Push! network includes more than 100 institutions, businesses, and initiatives in the Stuttgart region, represents approximately 25 percent of the state of Baden-Württemberg (2.5 million inhabitants), and constitutes an economic structure that has its own administrative organization and parliament. Almost one-third of all goods and services, and likewise exports, of the Baden-Württemberg region are produced in the Stuttgart area. This area's strength lies in its industry, which is dominated by large multinational companies, especially the automotive industry, machinery, communications, and information technology.

Among the principal members of the Push! network are the universities of Stuttgart and Hohenheim, along with the incubators that operate in these institutions (TTI - Stuttgart and IBH - Hohenheim). Also included are the Stuttgart Regional Development Agency and an Association of Young Entrepreneurs (Neckar-Fils).

Push! activities are coordinated and carried out by the Push! Agency, which is located in the Stuttgart Regional Development Agency (a partnership between the local government and the private sector). The intervention model of this initiative is based on the Push! Entrepreneurs' Mall (seeking a parallel with supermarket models).

The process starts in the Push! Agency where potential entrepreneurs are offered an initial contact point and information. Currently a process is underway to standardize the information provided by the Push! Agency in order to be able to transfer this task to other institutions in the network and thereby increase its capillarity (that is, broaden the gateway into the process). The process continues with a series of training modules developed as an extension of the traditional materials that were previously used. These new training modules include presenting cases of successful entrepreneurs who went through Push! as well as offering a line of grants of up to 5,000 euros to pay the costs of more specific training courses (such as legislation, taxes, or patents). Another activity designed around Push! and set up in conjunction with the KEIM initiative is the Business Chance ideas contest, which was first held in 1999.

Currently a seed-capital type fund is being set up to finance new companies, so that through it 5 million euros can be collected from agents connected to the network, including the federal government, universities, and venture capital companies. To receive this financing, the universities must waive their rights on patents from new products and processes developed within them benefiting from the capitalizing of the new companies.

For their part University of Stuttgart graduate students have a training program and special support whereby those who want to earn a doctorate and at the same time prepare to start a business receive the possibility of using the university laboratories for two years free of charge, in addition to the other services that it provides in terms of training and support to those who wish to be entrepreneurs.

[18] The possibility of having interactive courses over the Internet spread throughout the five universities is also being explored.

SUPRA-REGIONAL INITIATIVES

Along with the regional initiatives, EXIST has two central programs available for the five original regions. These programs are EXIST-Seed and EXIST-HighTEPP which complement the range of activities carried out at the local level. EXIST-Seed, created in March 2000, basically consists of offering technical assistance and financing for developing a business idea. It is aimed at students, recent (within five years) graduates, and young researchers in the IHLs in five EXIST regions.[19] The beneficiaries may present themselves individually or as a group of entrepreneurs (with no more than three members).

The EXIST-Seed program assists these young, potential entrepreneurs in the process of moving from the business idea to preparing a business plan as a step prior to business startup. To that end, the beneficiaries of the program receive a yearly allocation for a period of no more than a year, in which they must devote themselves solely to preparing a complete business plan that demonstrates the technical and economic viability of the project. The amounts of the allocations vary depending on whether the individuals are students or graduates.[20] In addition to this stipend, the beneficiaries also receive a sum of approximately US$10,000 a year, which may be spent solely on aspects such as hiring specialized consulting services, patent filing and registry, purchase of materials, travel, or purchasing books.[21]

During the process, which moves from the idea to the business plan, the beneficiaries receive technical assistance through two routes. First, they must be guided by a mentor (a teacher at the IHL sponsoring them) responsible for following progress on the project. In addition, the sponsoring IHL must be committed to making installations and equipment available to the beneficiary insofar as the project so requires.

Second, participants in the program must go through a coaching session focusing on marketing aspects and lasting at least six days under the EXIST initiative for their region. This is to assure that the business plans do not end at the production (or prototypes) phase, but rather move toward the stages closer to marketing the products or services. The involvement of the regional initiative is very important because it enables the candidates to have access to all the services offered by the EXIST network, within the IHLs and elsewhere. In addition, it is the corresponding regional initiative that receives the applications and takes them to the consulting firm responsible for handling the program.[22]

According to one of the individuals running the consulting firm, from early 2000 to the time when the fieldwork was done (March 2002) 185 proposals were presented for financing by the EXIST-Seed program, and from them 108 were selected (58 percent). Most of them were in the areas of IT, biotechnology, environment, and engineering. Because many of the proposals were presented by groups of entrepreneurs, more than 100 people are currently beneficiaries.

The second supra-regional initiative (EXIST-HighTEPP) also began in early 2000 and consists of a graduate program that seeks to train young entrepreneurs and academics capable of managing and understanding the new generation of knowledge and technology-based businesses. This program is carried out jointly by three universities: Friedrich Schiller in Jena (member of the Get Up initiative) and Bamberg and Regensburg (the latter two in the Bavaria region) and financed by EXIST.

The design of this graduate program is based on two large modules, one instructional and the other practical, as well as a series of workshops. The instruction module is set up in keeping with the idea that running a technology business increasingly requires a set of interdisciplinary abilities. Thus the first module includes a course on matters of management and business for those students who come from the hard

[19] According to one of those in charge of the consulting firm that manages EXIST, additional funding will be sought in the European Union so as to extend the scope of the program to the new regions for the second stage of EXIST.

[20] Each beneficiary who is a graduate will receive a US$33,000 grant, whereas those who are students receive no more than US$17,500.

[21] For teams the amount of this additional aid is US$16,000 per entrepreneurial team.

[22] In some regions (for example Karlsruhe/Pforzheim), EXIST local initiatives offer advice for those who are applying to the EXIST-Seed Program by means of small seminars to explain the program, the steps to be followed, the information that must be presented, and how to present it.

sciences and another course with a technical or scientific content for students linked to business majors.[23]

The second module of the program is of an essentially practical nature. Here all participants must perform an exercise that consists of developing a business idea and planning in teams. The objective sought with this exercise is that through the simulation the participants acquire entrepreneurial abilities and skills, such as teamwork and planning. Since its inception in April 2000, 20 students have completed this course.

THE SECOND STAGE OF THE EXIST PROGRAM

In late 2001 there began a period of evaluation of what had been done in the first three years, leading to a publication highlighting the best practices of the five original regions, with the aim of facilitating the transfer of learning within the EXIST network. This evaluation was carried out by the Fraunhofer Institute (2002). In addition to this document, the ministry presented a more aggregated evaluation of what had happened in the first stage of EXIST (see BMB+F 2001), highlighting the presence of positive results in both the universities and research centers and the number of new businesses.

The first study noted an increase in the academic offerings on entrepreneurship in the universities. In the last semester of 2001, more than 250 educational events were organized in the regions, 130 more than the previous year. In most of the universities that are part of the program permanent entrepreneurship lectureships were established. A study made in July 2001 by the University of Regensburg throughout Germany, titled From Students to Entrepreneurs: Which Universities Offer the Best Opportunities? found that of the 78 universities studied, six of the top seven belong to the regions of the EXIST Program.

According to the second document, as a result of the various regional initiatives approximately 350 new businesses were created in the first three years. Compared with previous information, this figure indicates that the number of new businesses created by the five EXIST regions is one-third of those produced throughout Germany.[24]

However, it must be noted that these new businesses were not distributed evenly among regions, but were concentrated primarily in the Karlsruhe/Pforzheim and Stuttgart regions (approximately 130 new businesses in each), which were also recognized by the European Union—together with 13 others in Europe—with the Award for Excellence for innovative regions.

Based on this preliminary evidence of positive results obtained in the first stage, the ministry decided to launch a second stage of the EXIST Program, but with a somewhat different thrust from the previous one. Thus, EXIST-Transfer basically consisted of continuing to finance the original regions, and starting to transfer the experiences of these regions to other areas of the country.

The main difference compared with the first stage lies in the financing structure for the original regions, whereby, instead of presenting a grant for the total amount budgeted, in the next three years the ministry will fund only half of that sum.[25] The other half will have to come from contributions from the participating universities, municipal and state governments, and private companies. Thus, in November 2001, while the early results of the initial stage were being presented, the original regions were completely devoted to presenting a new proposal similar to the previous one, but in which they explicitly had to mention funding sources in addition to the federal government. Thus only when this step was ready and the commitment of the other financing institutions was guaranteed did the government approve the proposal and sign the initial portion of the new contribution.

There were two primary reasons for this change in the rules of budgetary allocation. The first was to gradually

[23] These instructional modules are complemented with internships done at the summer schools offered by Harvard and other major universities in the business area (for students of the hard sciences) and six-month practicums done in the laboratory of a biotechnology company or participating in the development of a product at a company in the ICT sector (for students in the business area).

[24] According to a previous study done for the 1990-96 period, the annual number of new businesses created by university graduates, students, teachers, and researchers was approximately 350.

[25] The aim was to distribute a total of US$14 million among the five original regions in the following three years.

start out on a path toward the self-sustainability of each of the original initiatives.[26] The second was to be able to finance the broadening of the group of regions benefited. In order to choose the new beneficiary initiatives, in late 2001 invitations were sent out for a new proposal competition. As in the previous invitation, each proposal had to include a set of institutions responsible, one of which had to be an institution of higher learning, and it also had to have sponsorship of one of the original initiatives responsible for making the transfer.

The criteria for selection were generally the same as in the first stage. Certain criteria of a political nature were also used, namely some depressed regions or some belonging to new states were chosen.

By February 2002 a total of 45 proposals had been presented, 20 of which went to the second stage of evaluation, and 10 were chosen: BEGIN (Potsdam/ Brandenburg), BRIDGE (Bremen), fit (Trier), G major (Dortmund), GROW (Bavaria), GründerFLAIR MV (Mecklenburg/Vorpommern), KOGGE (Lübeck/ Kiel), route 66 (Frankfurt/Wiesbaden), START (Kassel/Fulda/ Marburg/Goettingen), and TUCnet (southwest Saxony).[27]

Like the previous regions, starting in June 2002, these were to receive a three-year subsidy, although in this instance the amount is less, between US$0.9 million and US$1.5 million each (in other words, between US$300,000 and US$500,000 by year and by region). Hence, as in the case of the original regions, they will have to utilize additional funding in order to be able to complete the work planned. Thus the ministry is also assured of an orientation toward self-sustainability by the regions, and in late 2005, when this stage is to be completed, central financing will cease and each of the regions will be self-financing.

FINAL COMMENTS AND LESSONS OF THE EXIST PROGRAM

"The success of the EXIST Program will be that it can disappear but that each of the initiatives keeps functioning."
—Thomas Bausch, EXIST Program Coordinator.

The EXIST Program arose in the context of a broader reform of German universities, which gave rise to an important debate on the university system in general and how it could spur the creation of new businesses to close the gap separating Germany from its competitors. That was the background that led the ministry to launch the EXIST Program.

The program sought to create a permanent entrepreneurial culture in teaching, research, and administration of institutions of higher learning, focused on students, university staff, and graduates. It aimed to encourage a greater connection between the results of academic research and the productive structure of the regions, developing the great potential for generating business ideas and entrepreneurs within universities and research centers, and significantly increasing the number of innovative startups. In other words, the main objective was cultural change within these institutions. The number of new businesses started up would be an indicator of success attained in this respect.

Perhaps it can be said that if the starting conditions of some of the regions (especially the more developed ones) are taken into account, 350 new businesses in three years does not seem very remarkable. However, some clarifications must be made with regard to the time horizon established and the type of activities that constituted the heart of EXIST's actions. Three years is a limited time period for evaluating the contribution of programs of this nature, and even more so when taking into account the nature of the entrepreneurial process, especially in high-tech and knowledge-based enterprises. As recognized by most of those interviewed, EXIST's main contributions in the various regions has been to stimulate a change of mindset in

[26] According to an individual running the consulting company responsible for setting up the EXIST Program, the ministry announced that the end of the second stage (November 2005) would also mark the end of the EXIST Program, at least in terms of financing by the federal government.

[27] In any case the jury recommended that the other 10 finalist regions continue to be EXIST partners, that is, even though they do not receive the money, they may nonetheless participate in all activities developed for the network (workshops, seminars for exchange of experiences, etc.).

universities and research centers. Hence the number of new businesses started up from these institutions may be expected to increase significantly in the years to come.

Beyond the discussion on the significance of the impact, it is interesting to summarize and note the main lessons that may be drawn from this experience for designing and thinking about new tools for encouraging new firm formation, especially in innovative or knowledge-based sectors.

A first group of lessons has to do with the approach taken. The idea is to build an institutional space of experimentation and learning. Setting up a contest of strategic proposals was a good model in that direction, as were the twice-a-year gatherings held between those responsible for the various experiences and the current stage of transfer of experiences among the regions.

Closely related is the regional nature of the EXIST proposals. In all instances these are proposals for intervention that have arisen from below, thereby making it possible to take local features into account. That was especially reflected in the final form taken by the organization of the network and in the profile of the initiatives. This initial appreciation for the local and specific in each region was also combined with the fact that each initiative was felt to be the region's own. That was very important in adding new resources for funding the activities in stage two.

A third aspect that must be noted about the approach taken by EXIST is the identification and clear specification of its target population. While there were no sharp sector preferences, the initial document clearly posited that the "customers" of this program were students, graduate students, professors, and researchers. In this regard, the exact correlation between the determination of the beneficiaries and EXIST's primary objective must be highlighted.

The final element of the EXIST approach that should be noted is that it was based on building and developing networks between institutions, not only as a formal requirement for presenting the proposal, but as a concrete strategy of action. Coordination and collaboration between institutions was shown to be a powerful tool for embracing the complexity of the entrepreneurial process, and hence not only were networks created and strengthened within each initiative, but the EXIST network was established nationally and its scope was extended internationally.

A second set of lessons to be drawn from the German experience has to do with aspects of the program's financing and stability. While it arose within a conservative government, the transition to a center-left government did not affect the characteristics or the essence of the program in the least. Likewise the commitment to fund the initiatives 100 percent during the first three years was met. This political and funding stability allows for adequate planning of the activities to be carried out and the assurance that they will have the funding that has been committed.

It is also important to highlight the inclination toward self-sustainability noted in this new phase in the incentives applied to the regions. In other words, drawing an analogy with the stages of the entrepreneurial process, in the beginning the federal government sought to create a supply of models of intervention and to solve the initial financial (or experimental) gap. Then when each of the regional initiatives began to operate and was firmly established in the market, this central financing declined, in favor of seeking greater connection with other funding sources (local government, the universities themselves, the private sector, and international agencies). The final stage could even be one where EXIST could be self-financing in each of the regions.

As in other international initiatives, the government's initial intervention sought to stimulate private sector involvement, making it responsible for the results of its investment.

Finally two innovations introduced by EXIST vis-à-vis similar programs in other countries should be noted. The first is the outsourcing of the administration of the program to a specialized private consulting firm, and the second is outsourcing the evaluation and monitoring of activities carried out to a suitable institution. While delegated management seeks to assure greater transparency and professionalization in allocation and administration of public funds, the possibility of delegating evaluation allows for having ongoing information and analysis of the development of the program and a space for discussing and proposing improvements in what is being done. Here again there appears the element of group learning and collective institution building, which is no doubt one of the most significant and positive aspects of the EXIST experience.

Table 10.3
Characteristics of the Five Original Regions Selected by the EXIST Program

Initiative	Bizeps	Dresden Exist	Get Up	KEIM	PUSH!
Definition of region	Located between the Rhine Valley and the Ruhr, an old traditional industrial area	Centered in Dresden	Centered in four universities in Thuringia	Wide area of influence covering the Karlsruhe region and the city of Pforzheim	Wide area of influence around Stuttgart
Population (university population)	1.7 million inhabitants (17,500 university students)	1 million inhabitants (31,400 university students)	461,000 inhabitants (27,000 university students)	1.3 million of inhabitants (22,000 universities students)	2.55 million inhabitants (36,000 university students)
Number of universities	3	2	4	3	4
Characteristic of productive structure	Traditional industrial area undergoing structural reform; industrial SMEs predominate, little participation of the services sector	Area being restructured following the collapse of the socialist system transitioning from a traditional industrial area to a high-technology center	Area being restructured after the fall of the socialist system; new areas based on their endogenous resources are emerging	One of the principal technological areas of the country; region with an economic structure composed basically of SMEs	One of the most important industrial centers of the country with a strong presence of large companies and a high proportion of technology-based industries
GDP per capita	11,200 euros (regional average)	10,500 euros (in Dresden)	6,250 euros	15,000 euros (higher in Karlsruhe)	17,750 euros (higher Stuttgart)
Number of new innovative enterprises (2002)	4.8 per 100,000 inhabitants	7.9 per 100,000 inhabitants	11.5 per 100,000 inhabitants	10.5 per 100,000 inhabitants	11.5 per 100,000 inhabitants

THE ITALIAN EXPERIENCE IN FOSTERING ENTREPRENEURSHIP

In the current context of globalized markets, revising the entrepreneurial dynamism of SMEs has become more important than in previous decades. Large companies, very often adversaries of SMEs, have succeeded in overcoming the crisis of the Ford model by making their organizations more flexible, thereby avoiding the classic rigidities of production and commercialization. Hence, SMEs have to discover new ways to become more competitive.

This process can be facilitated if national and local institutes are able to motivate greater entrepreneurial energy through new programs to foster business startups. That is the aim of this investigation, which establishes how the most significant public sector business startup programs in Italy have impacted local entrepreneurship and the lessons that can be drawn from them and applied to other contexts, particularly to Latin America.[28]

The next section analyzes the Italian context in which the two programs selected have been set up. The program characteristics are then described and the results are considered. Finally, recommendations are drawn for the Latin American context.

THE ITALIAN CONTEXT

Business startup programs in Italy are relatively new, and that very much reflects the country's particular entrepreneurial fabric. Italy has a much higher level of business startups than the rest of Europe (ISTAT 1997), and the level of self- employment is 28 percent of the economically active population as opposed to 17 percent in the rest of Europe (EU-Unión Europea 2001). These data are based on the successful experience of the industrial districts that arose after World War II and have given shape to an economic model that is an alternative to that of the Ford Company, which was so successful in the early twentieth century (Bagnasco 1977; Schmitz 1995; Becattini 2000).

The concept of entrepreneurship is connected to the Marshallian industrial atmosphere, which is densely populated with industrial knowledge and relationships, and spurs younger workers on to start up companies. Thus the industrial districts operate as training gyms for young people, facilitating the ongoing process of business startups and incorporation of new dynamism into local economies.

At the same time, the atmosphere of trust and cooperation that has reigned for a long time, besides facilitating small business startups, has prompted various initiatives of cooperation between businesses (for example, production cooperatives and credit and export consortia). These aspects guarantee future entrepreneurs a collective and institutional strength that is no doubt greater than their individual initiative in a fragmented market.

Hence for decades a large portion of Italy has shown a very strong inbuilt tendency toward micro, small, and medium business startups, and that has led policymakers to stay out of this area.

The policies and programs for business startups have emerged as a consequence of some negative trends that appeared at the same time as the globalization process. The first trend is the lack of economic drive in southern Italy, which has led to the formulation of the first development program that we analyze. The second trend is the scant value added produced by the traditional manufacturing industry starting in the 1980s, which gave rise to the second development program.

[28] The authors thank the government agency *Sviluppo Italia* for its support in preparing this study and especially Gabriella Seazzu, which is responsible for employment policies, as well as the employees of BIC Friuli Venezia Giulia - Sviluppo Italia: Antonio Sfiligoj (Manager), Luca Chiapparino and Giorgio Gerometta. The authors also appreciate the comments of Fabio Boscherini, of the University of Ferrara, and of the participants in the seminar New Public Incentives for Business Creation, which was held at the University of Ferrara on June 20, 2003.

FOSTERING BUSINESS STARTUPS IN LESS DYNAMIC AREAS

After many years of attempts to solve the problem of economic sluggishness in southern Italy by investing in large projects and government and private factories, in the 1980s policymakers proposed a different, albeit complementary, solution, based on support for the creation of small businesses. To do so, policymakers decided to create legal frameworks to foster entrepreneurial capability. The well-known Law 44 aimed at fostering business startups among young people in southern Italy was passed in 1986.

Those responsible for policymaking recommended that any policy for encouraging business startups had to focus on human resources that were capable of changing deeply rooted customs and traditions, and so government efforts placed priority on young people. This meant that most of them had to be less than 29 years of age. In subsequent years, especially with the crisis that began in the 1990s, Law 44 was changed: the upper age limit for members was raised from 29 to 35. The area for applying the law was extended to reach some regions in central and northern Italy, which had been classified as less developed by the European Community, although the southern regions continued to receive most of the funding.

This program, headed by the governmental agency Sviluppo Italia S.A.,[29] is aimed at companies in the manufacturing and handicrafts sector, the production and marketing of agricultural produce, and the supply of services to business.

Thus far the program has operated as follows: businesses present an initial plan to be pre-selected by the Sviluppo Italia agency on the basis of its quality. Businesses that pass this stage receive the support of a mentor for preparing the final version of the business plan. The support is for a variable time period, generally less than 12 months. If the final project is approved, businesses can have financing for up to a maximum of 2.5 million euros, split between nonreimbursable financing and subsidized-rate lending. They also receive help for a year from a mentor who advises them and invites them—depending on need—to request services in training, professionalization, and technical assistance, which are provided by outside consulting firms. The beneficiary businesses have to provide a co-payment for these services.

To these program services have been added another one called post mentoring which begins after financial support ends (three years) and supports companies for one more year in various areas such as financial and trade advice and advice in the areas of production and organization. Businesses also have a co-pay in this instance, but it is small.

Program Results from an Economic Perspective

By June 2003, around 2,000 projects were approved with an investment of approximately 1.3 million euros per business (Seazzu 2003). Around 80 percent of the projects were set up in southern Italy; 60 percent of them are involved with industry, in response to one of the main objectives of the law. The rates of acceptance of projects in northern and central Italy (29.2 and 28.3 percent, respectively) and the south (23.8 percent) show a disparity that reflects the different entrepreneurial culture in these regions. On the other hand, the survival rate of the businesses selected (86 percent) indicates that the projects accepted are from entrepreneurial groups with a good potential, and that the selection process is carried out responsibly. From 1996 to 2001, approximately 470 businesses arrived at the follow-up mentoring stage with 8.5 million euros in public spending and joint participation from all companies of 1.3 million euros.

At the level of impact the picture is mixed because some businesses are very profitable, some have losses, and some break even. This information is relative because it comes from evaluations made when government spending ended, in other words, only three years after the businesses were created. Hence it is easy to find businesses that are still paying off debts. In terms of the rate of capitalization (in machinery), all the businesses that had access to the incentives provided by the law are performing much better than other companies from the same sectors of production and of the same age. When financial incentives end (three years) almost all businesses connected to the program encounter the same problems in financing their operating expenses as nonparticipating small companies.

[29] This governmental agency is dedicated to three main objectives: attracting investment, supporting business creation, and supporting public administration. It is currently financing 34,000 companies that directly employ 74,000 persons (Sviluppo Italia 2003, p. 5).

Results from the Standpoint of Program Administrators and Participants

Administrators at Sviluppo Italia say that this program has been extremely important in developing the productive network of southern Italy. If the people and youth previously did not even dare to think of the possibility of creating businesses, today this program has been able to promote greater security and to unleash energies that make doing so feasible and competitive in the south as well. Indeed, the importance of this program is not measured only on the basis of business startups, but also by trickle-down effects, as for example the emulation that the program has been able to inspire in those areas.

In terms of self-criticism, those who started the program point to a mistake made over these years. They think they spread too broad a message about the possibility of becoming entrepreneurs. Potential entrepreneurs ought to have been very clear that this is a business with risks and that it requires intense work. Financing works only where there are well-organized skills and abilities for entering competitively into a business. Hence in the past year, the managing agency has decided to make more use of the recall device, by which it asks noncomplying companies to return the aid. This is to combat the handout attitude of those who simply seek to benefit from nonreimbursable financing, which produces inefficiency and incoherence in the program and little overall impact.

That is also why the program has entered into a standby phase since last February. The funding available and the selection process were halted, awaiting the government and parliament to approve the new financing law. Substantial changes are likely to be made in how it operates in the future, including a notable reduction of funds donated in exchange for an increase in subsidized funding.

Another expected change has to do with the process of project approval and delivery of funding aid and technicians. For example, the entire pre-selection phase, with the support of the mentor for completing the project, will be eliminated and the project will have to be presented as a solution once and for all.

In the future, mentoring, which thus far has been a free service, will become semi-free, and businesses will have to pay a part of the cost. This entails a change of mindset needed in this age of globalization. The technical assistance that until now has been offered by consulting companies will be handled in the future by the managing agency, which will be able to directly monitor the help to companies and thus prevent unlawful agreements between businesses and consultants (for example, dividing the subsidy without any real delivery of service).

According to the opinions of some entrepreneurs who used the program, it has been beneficial. Although these companies are small they are in the market competitively, they invoice over a million dollars, and in some cases they sell overseas. They are generally high-tech companies (for example, telemanagement, basic and advanced electronics, and electronic medical devices) although they are also in more traditional sectors such as metalworking and publishing. These entrepreneurs note that the financial aid has been crucial for the take-off of their companies in the start-up phase. Without the financial aid envisioned in the law, their companies would never have been able to emerge. They also value the program's ability to quickly process financing, thereby facilitating the sustainability of entrepreneurial initiative in its early phases.

At the same time, these producers recognize that aid is not the key to success. All the tools provided for in the law last so short a time that they can only be useful when the entrepreneurial team has substantial prior knowledge. Especially in high-tech sectors, mentoring and financing will not be useful without highly qualified human resources able to efficiently make use of this support.

The producers also emphasize the role of the entrepreneurial team, without which it will not be possible to overcome the difficulties of the early phases and create a market for themselves, recover the initial losses and investments, find technical means for moving ahead, etc. They say that most of the businesses that did not have this ability were unable to take off.

The mentoring furnished in the program is also much appreciated, especially for the continual monitoring of accounting, production, and business organization during the early years in the life of the business, the effect of which is better management of the business activity.

ASSISTANCE FOR NEW HIGH-TECH BUSINESSES

Since the late 1980s and early 1990s business creation has been spurred through a new approach, more centered

on encouraging high technology. Such is the case of the Business Innovation Centers (BICs) and other more recent regional programs (for example, Spinner, Almacube, Galileo, Politécnicos, etc.).

These programs have emerged with the conviction that competitiveness in the globalized market is attained by promoting innovation in the local and national business system. Innovation makes it possible to get out of production sectors where there is low-profile competition (Pyke and Sengenberger 1991; Kaplinsky and Readman 2001) aimed at producing and selling the product by lowering production and sales costs. By contrast, the knowledge economy allows producers to enter sectors where more value added is generated because competition is not over prices but over the value added to the (new) product and/or service. This high-profile competition is not oriented toward generating employment immediately although the greater competitiveness of the business system may generate it as a side effect.

In any production system most companies are imitators. If they all are, the production system stagnates, as often happens in developing countries with scant capacity for innovation. Hence, the contribution of the agents of innovation becomes fundamental for advancing the technological frontier (Schumpeter 1961). These innovative entrepreneurs are key because they enable the system to advance toward more competitive levels.

For that reason, those responsible for policy in Europe and Italy have thought about empowering such innovation capabilities and promoting the formation of leaders who can have a towing effect on the network of local companies (EU-Unión Europea 2001; Bianchi and Parrilli 2002).

Hence, we decided to focus on a specific program, the Business Innovation Centres (BICs), which emerged in the framework of the European Business & Innovation Centre (EC BIC), which was created by the European Union Directorate General of Regional Policies and Cohesion (DG-XVI) in 1984. The BICs represent the first European and Italian program for promoting innovation in SMEs.

Initially the European designers of this program had thought of lifting up areas depressed by the crisis of entire sectors of production (for example, British Steel in England). Even today in Italy there are plans to create BICs and incubators in high-unemployment areas, such as Termini Imerese, Sicily, which is affected by the recent crisis at FIAT. However, the connection between the type of economy that used to lead the locality and the new economy is weak and few workers in the first type of industry manage to get work in the latter.

In Italy the BIC program began in the late 1980s based on an amendment of the 1988 Financial Law. Thus far the government has allocated 100 million euros, while another 100 million are available to increase the BIC national endowment. This program has two lines of action: it supports local institutions so that they can participate in national and European competitive bidding on tourism, culture, infrastructure, etc.; and it seeks to spur new firm formation through incubators. The latter aspect, which absorbs almost all the public funding, is the subject of the following analysis.

The incubators built in the country are of different sizes and characteristics. In northern Italy they are aimed at high-tech industries, while in the south they are aimed at more traditional sectors. The average size of an incubator is 6,000 m^2, but some are as large as 15,000 m^2 (for example, Genoa) and others are as small as 1,200 m^2 (for example, La Spezia).

After solid public sector effort in the construction phase of incubators, the BIC structure has to become self-sufficient in the short run. Incubators operate primarily through service contracts that consist of renting modules in the incubator (at a subsidized price of 6,000 euros a year for a 200 m^2 space) and the attached provision of mentoring, which is part of the contract or for specialized consulting, is provided through a separate contract. The support activities provided by local institutions (for example, to participate in European bidding processes) also help the financial sustainability of the BIC-FVG.

In general BICs should be conceived of as bodies acting as a catalyst of local resources and forces that come together to achieve regional development. Hence their natural partners are the regions, provinces, chambers of commerce, private banks, and local associations. In accordance with capital contributed, they can participate in the board and in decisionmaking on the strategic direction of the BIC (for example, deciding what kinds of businesses to accept in the incubator).

The incubation program works as follows. Businesses apply by presenting a proposal for obtaining a module to begin their productive activity in the incubator. Such an opportunity is significant because it offers a base of operations with subsidized costs and all the conditions required by the law, in addition to promoting collaborative work relationships, in an atmosphere that produces spillovers for the incubator and its associates.

Once selected, businesses may remain in the incubator for three years, during which they receive ongoing free consulting from the BIC employees/mentors in the administrative area, and also in marketing, training, and engineering, depending on the specific competencies of those officials. If they need even more specialized aid, the BIC staff connect the companies to national and international experts registered in directories of expertise.

Parallel to the technical assistance, the BIC national system has some financial instruments to make it easer to start operations. This is an important aspect of the program, which envisions three options. The first is a guarantee fund that facilitates the credit operations of companies in the startup phase. The amount guaranteed is up to 500,000 euros, 80 percent for new businesses and 50 percent for companies in early development. The second is a rotating venture capital fund. This has been the least used of nationally available instruments (half of the 20 million euros available have been utilized in the past ten years). The third option is an incentive fund for companies coming out of incubators, which has nonreimbursable financing of 19.5 million euros.

Our study is focused in particular on the successful case of the incubator in Trieste, which jointly with Gorizia, Spilimberg, and two more under construction, constitute the BIC of the Friuli-Venezia-Giulia (FVG) region. Currently the BIC-FVG has 13 persons who are directly under Sviluppo Italia, ten of whom are technicians and officials.

The BIC in Trieste, on the border with Slovenia and Croatia, is noteworthy for being the first BIC in the Italian network (1989) and also because of its particular success. It has office space and industrial laboratories in an area of 8,500 square meters and offers companies other logistical advantages such as reception services, meeting rooms, and shared equipment. In addition to these services and the monitoring/ mentoring from BIC employees (until departure from the incubator) the latter may direct specialized services at companies (for example, management and entrepreneurial development, financial engineering, management control, marketing, development of relations with the outside, search for commercial, industrial, and technology partners, innovative development, and project management) provided by outside companies at market prices.

The financial services provided by these BICs include minority financial participation in the capital of businesses, either as seed or venture capital, contribution to the investment of companies emerging from the incubator, and contracts for leasing equipment at a subsidized rate.

National and Local Program Results

As of 2003 this program had brought together a total of 700 companies with almost 5,000 workers nationally, with a 14 percent bankruptcy rate, which is much lower than the national bankruptcy rate (close to 50 percent) (Moggiano 2003). Currently, 18 BICs are active, while two more are in the final phase of construction. When the entire program is complete it will have 30-35 structures throughout Italy able to host 1,000 businesses directly employing 8,000-10,000 workers (Angelino 2003).

Forty-five percent of the companies operating have left the incubators, while 55 percent remain in their installations. Northern Italy has 55 percent of the companies while 45 percent are in the south. The average time for companies to stay in the incubators is four years (longer than the time envisioned by the program, which is three years). Each incubator hosts an average of 27 businesses each year: 70 percent of them are new businesses, while the remaining 30 percent are businesses in their initial development phase.

The occupancy rate of the network of incubators in Italy is high: 78.4 percent. Some incubators have lower percentages because they have been set up recently, as in the case of Sulmona, Settingiano, Spilimbergo, and Foligno. The BIC of the Friuli Venezia Giulia region (BIC-FVG) shows remarkable results, reaching 100 percent occupation in Trieste and 97 percent in Gorizia.

During the 14 years of operation of the Trieste BIC, around 40 businesses have created 200 jobs in highly

innovative sectors. Currently there are 40 new businesses in this incubator. As a whole BIC-FVG has made possible the start-up of 97 businesses, providing work to around 850 persons. These are competitive businesses that show a failure rate of 4 percent in the first three years of life, which is lower than the national rate (Chiapparino 2003).

As happens elsewhere in Italy and Europe, the BIC-FVGs have emerged as a solution to the crisis of traditional key sectors in the local economy (for example, steel and shipbuilding), which went into crisis in the late 1980s and hence led to the layoff of workers. However, the number of workers and technicians hired by the incubated companies is minimal.

This has to do with the specialization of companies now in the incubators, which operate in the sectors of pharmaceuticals, chemicals, electronics, information science, biogenetics, environmental emissions monitoring devices, business organization, shipbuilding, mechanical engineering, radio and telecommunications, printing, and steel. They represent high-technology industries that have expanded greatly on international markets in the past decade. The most dynamic companies are in the biomedical and pharmaceutical, information science, and aerospace sectors. In all these cases, the entrepreneurs and technicians show a high level of know-how and professional experience.

In this sense, one characteristic of the BIC-FVG is confirmed, namely its ability to respond to a regional strategy of local specialization. The incubator in Trieste, located in a city that has a number of scientific institutions, (for example, the Sincrotrone center, the university, the astrophysical observatory, the Area Science Park, SISSA, etc.), has been specializing in highly innovative companies; the same thing is happening in Gorizia. The Spilimberg incubator and the new ones located in production areas that include traditional lines of production (for example, furniture and agroindustry) are seeking to develop an innovative production profile.

Results from the Standpoint of Program Administrators and Participants

An old criticism from the European BIC network noted that the Italian BICs were not giving impetus to many businesses (UE 1998). In response to this criticism, the national heads of Sviluppo Italia indicate that this information is not necessarily negative because the quality of the businesses served has to be taken into account. BIC has received many applications, but few have received financing from the agency in charge (Ricciuti 2002). If the concern were simply to fill up the incubators, this figure would improve but it would also increase the difficulty of businesses being competitive when the aid provided for in the program ended (Angelino 2003).

This focus notwithstanding, in recent years the opposite situation has emerged. It seems that businesses stay in the incubator longer than planned. According to those in charge there are two reasons: on the one hand the selection process has become softer (perhaps to respond to the criticism from Europe) and has led a number of businesses to enter without having enough clarity on the time periods needed to become independent; on the other hand, it depends on the difficulty of businesses with high initial investment costs to recover in a short time (for example, naval engineering). If the first reason no doubt leads to inefficiencies for the BIC, which is looking for how to solve them, the second is treated more flexibly in order to be connected to sectors that need special attention.

The form of assistance most practiced by the BIC-FVG, besides the usefulness of a physical headquarters in which to carry out research, development, and production activities, is the ongoing exchange of information and suggestions between BIC administrators and entrepreneurs, which helps develop a greater entrepreneurial culture and avoid grave strategic mistakes.

In high-tech companies entrepreneurs have strong specialized expertise, but often little knowledge of economic and strategic management. Hence besides accompanying them in management, the BIC experts observe the structural flaws in the idea or leadership team of the company and suggest to entrepreneurs other persons to be brought in with experience in work areas that can strengthen the group.

In several cases businesses have drawn great benefits from the incubator to meet the demands of the legal requirements linked to the new law on environmental and work safety. The possibility of setting up the business in the incubator makes it less costly and difficult to meet the required standards.

Interviews with representatives of successful businesses located in the incubator indicate some interesting elements. For example, they do a strict accounting of costs

and benefits in entering the BIC. Thus they say that the support of the BIC has been key, and that without it they probably would not have been able to set up their business on a firm footing. This is important because it is easy to undertake initiatives, but it is also easy to be suffocated by the pressures that come from creditors, suppliers, and customers. The flexibility of the BIC-FVG on some operational aspects made it possible to relax this difficult operational condition, allowing companies to pay more attention to the technological and competitive aspects of their work.

Businesses very much appreciate being provided with a well-furnished space where they can have quality reception services, combined with an affordable price. The possibility of opening for business in a recognized institution has also proven to be very important because it gives businesses an image of seriousness and responsibility. Being able to meet with representatives from large companies on the BIC premises gives the entrepreneurial business a seriousness that facilitates the involvement of these businesses in the market.

Another interesting aspect is the process of spin-off from the incubator. Some businesses have been started within an incubator out of parent companies that discover new market niches in which they are not directly involved but the group of entrepreneurs decides to create another company aimed at this new sphere of production.

Among the strengths of the BIC in Trieste is the rich work environment of many high-tech companies, which helps them do their utmost to excel in this environment. Running into BIC experts and other entrepreneurs in the hallways fosters collaboration especially when there are complementarities of production and services (for example, IT services and production companies). Although this is a small infrastructure, the classical Marshallian industrial atmosphere is encouraged, prompting the creation of positive externalities and the reduction of significant transaction costs (Marshall 1920).

For financing, the BIC-FVG—besides promoting Sviluppo Italia's devices—works to facilitate relationships between entrepreneurs and local institutions. In particular, the BIC has sought to encourage venture capital by inviting the regional finance agency, Friulia, to help with the ideas and first steps on the market of incubated firms. Some entrepreneurs say that there are limits in this effort, claiming that they have not been able to awaken enough interest in the agency to support the economic and financial operations of companies in their initial steps: the amount that the agency is willing to finance is low and most companies decide not to take it. The same is true of the venture capital available from Sviluppo Italia.

This aspect is not a problem for successful companies because they manage to receive immediate support from the private sector for making their productive idea a reality. But for businesses whose entrepreneurial idea is less obvious (for example, when the technical skills are not accompanied by equal marketing skills) the BIC-FVG officials recognize the importance of having venture capital that can really reach the businesses and turn their ideas into reality.

Perceptions are divided over advisory services. Some appreciate the possibility of discussing specific aspects of the work with the BIC experts even informally, while others do not see it as important. All those who used specialized consulting services are satisfied. Of course, the more successful businesses prefer to use their own channels for providing specialized services because of the specific skills that they need.

LESSONS AND POLICY RECOMMENDATIONS

A first relevant conclusion is that the Italian experience, so rich in examples of success in other realms of operation, does not have a long history of policies and actions in business creation programs. This is because the spontaneous development of a multiplicity of businesses over the past 50 years has made it less necessary to step in to promote business creation.

Since the 1980s, more attention has been paid to the weakness of southern Italy in business creation and hence a law was drawn up to promote youth entrepreneurship: Law 44. In evaluating the support program linked to this law, people take different positions. Some say that there are no substantial differences between the performance of companies aided and companies outside the program and that the small differences existing are due to the subsidy received by the former. Moreover, recent data from Sviluppo Italia indicate that the cost of the program is around 93,000 euros per person employed. That sum raises questions about the yield and/or feasibility of the program itself (Seazzu 2003). This information fosters the idea that it is pointless to

insist on such types of intervention (Battistin, Gavosto, and Rettore 1998). However, on the other side, there are positive evaluations indicating how this program has been able to broaden the options of people in the south, promoting new energy among young people and better spreading the procedures for starting businesses.

As a result of this debate, the need to maintain this program seems to be emerging, but it will require a new orientation so as to enhance it and make in more efficient. This means that the grantmaking plan originally envisioned should be significantly reduced, while program management should achieve quicker response and selection.

In recent years, a new idea in European and Italian industrial policies has emphasized the role of high-tech sectors in economic and social development. Accordingly, national and regional programs for creating innovative companies have been emerging frequently in collaboration with universities. The most experienced example is the BIC, which set up its first incubator (Trieste) 15 years ago.

In the case of the BIC-FVG, those in charge have succeeded in having the incubators practically filled up. The results at the BIC in Trieste have been quite positive, as shown by the number of companies that have come from this incubator and the new expertise created and spread throughout the local area.

From these experiences some useful conclusions may be drawn for promoting business startup programs elsewhere (for example, Latin America). First, it is important to do an evaluation of the internal ability to create businesses in each territory. That would make it possible to understand where to start public sector development activity and how much aid to provide. In Italy this process began with a substantial amount of grants, which are now being reduced.

A second element is the importance of firmly establishing programs that envision the simultaneous use of different tools, such as financial support, mentoring, specialized training, and the strengthening of a series of economic externalities present in the environment. Such integration makes it possible to furnish future entrepreneurs with a set of fundamental tools for finding the most suitable solutions to the different kinds of problems that they encounter along the road.

A further element has to do with the priority of financial support, whether in the form of direct funding (Law 44) or as a reduction of investment and management costs (BIC). Many entrepreneurs have confirmed that without these benefits they would not have begun their entrepreneurial activity, thereby confirming the complaints often voiced by Latin American entrepreneurs for whom access to credit is especially difficult and who do not encounter the solutions envisioned in these Italian programs.

Another policy area confirms the difficulty that lies in combining a business creation program with the aim of creating employment. Programs that enhance local innovation capability affect only a limited number of companies, and the situation is not very different for programs in economically less dynamic areas, as posed by Law 44. However, in both instances there can be a significant imitation effect, which reinforces the motivation of young people to establish businesses.

The BIC program has made plain the success of high-tech companies. Surprisingly, in the program linked to Law 44 the most successful companies are knowledge-based (high-tech and also traditional, as is the case of the publishing industry). This means that it is essential to focus on businesses and entrepreneurs working with this approach and these skills, because they contribute toward building a more solid economic future for the local region.

Finally, this discussion makes evident the relative strength of one of the two programs analyzed, which ought to be taken into account for taking maximum advantage of the potentialities of small and medium businesses: namely the clustering of businesses, industrial districts, and networks of businesses. This enables small businesses to overcome the limitations imposed by their size and to benefit from the advantages of clustering in terms of joint actions and economic externalities. As shown by the experience of the BIC in Trieste, although incubators are not as large in these areas, they continue to include sets of businesses that make it possible to enhance their competitive position and the market opportunities for the SMEs involved. ■

CHAPTER 11

EXPERIENCES IN LATIN AMERICA[1]

Miguel Bacic, Luiz Antonio Teixeira Vasconcelos, Gustavo Baruj, and Julia Evelin Martínez

THE SOFTEX PROGRAM IN BRAZIL

The Brazilian Software Export Program (SOFTEX 2000) was created in 1992 with the objective of promoting the software sector's international competitiveness. Currently, exports are regarded as a consequence of the development of this industry, rather than as an objective per se. The primary focus is on promoting excellence in the Brazilian software industry in terms of quality and cost by stimulating the entrepreneurial culture and generating business. An important aspect of SOFTEX was its capacity to generate a strong expansion of Brazil's software industry, as shown through the creation of businesses and 73,000 jobs.

According to a recent study conducted by the Massachusetts Institute of Technology (MIT) and SOFTEX, Brazil is the seventh largest software market in the world, with sales of US$7.7 billion in 2001, rivaling India and China with their sales of US$7.9 billion and US$8.2 billion, respectively. Local software production accounts for 88 percent of this market. Between 1991 and 2001, the software sector's share of GDP tripled to 0.71 percent (MIT-SOFTEX 2002). Many of the Brazilian firms active in this market have benefited from the SOFTEX Program.[2]

The SOFTEX Program is the most important instrument supporting the production and marketing of Brazilian software. Among its most significant activities are: the dissemination of Brazilian software abroad; software production support; improving software quality; support for the emergence of entrepreneurial attitudes on the part of students in computer courses; and the development of financing sources for software enterprises and business incubation. These are all financed using public funds from the Ministry of Science and Technology (MCT) and the Financing Fund for Studies and Projects (FINEP). The major characteristics of the program, its outcomes, and the policy lessons learned from it are set forth below.[3]

BRAZILIAN INFORMATION TECHNOLOGY POLICY IN THE 1990S

The SOFTEX Program grew out of the set-asides policy for the information technology (IT) market applied in Brazil until 1991 (First Information Technology Law No. 7232/84) and was tied into other initiatives adopted since the late 1980s in the framework of the

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[1] The study on Brazil was conducted by Miguel Bacic and Luiz Antonio Teixeira Vasconcelos; that on El Salvador was prepared by Julia Evelin Martínez.

[2] Our references in the text to the SOFTEX Program are in the broad sense, without distinction between the various stages of the program, except whenever specific reference is made to a particular stage, such as the SOFTEX 2000 Program stage, for example.

[3] In preparing this text we interviewed the following participants in the SOFTEX Program, whom we thank for the information provided: Alexandre J. Beltrão Moura (software entrepreneur and Director of Light Infocom); Carlos Augusto Leite Netto (software entrepreneur and Director of Software Design); Fábio Pagani (executive coordinator of Business Development of the SOFTEX Company and software entrepreneur); Eratóstenes Edson Ramalho de Araújo (Deputy Coordinator of the SOFTEX Company); Erasmo Gomes (Director of the Development Company for the Campinas High Technology Pole-CIATEC, a former board member of the SOFTEX Company); Prof. José Alberto Sampaio Aranha (Director of the Genesis Institute, PUC-Rio); Giancarlo Stefanuto (Planning Coordinator of the SOFTEX Company); Austregésilo Gonçalves (executive coordinator of the Campinas SOFTEX agent); Renato Toi (software entrepreneur, VentureLabs); and the entrepreneur team at Inmetrics, a resident enterprise in the Incubator of the Campinas SOFTEX agent, namely Eric D. Maurício, Pablo Cavalcanti, and Marcos Salles.

Strategic Development Program for Computer Technology (DESI-BR).

In the context of the First Information Technology Law, the National Research Network Program (RNP) was launched in 1989 with a view to improving the communications infrastructure in the academic sector, bringing together the various actors in research and development (R&D), and stimulating cooperative activities for the national development of the IT sector. This program was of fundamental importance for the expansion of the Internet in Brazil. In 1990, the National Council for Scientific and Technological Development (CNPq) created the Multi-Institutional Thematic Program in Computer Science (ProTem-CC) with a view to enhancing technological training in the IT sector through cooperative research in the industrial sector.[4] The Second Information Technology Law (Law No. 8248/91 on Tax Incentives in Information Technology) confirmed the aim of the market set-aside for the period planned under the prior law (October 1992), revised the definition of a national enterprise with a view to increasing the participation of foreign capital, and created new tax incentives for R&D investment in the information technology industry.

The idea of developing the software production and export industry by 2000 took shape at the Brazilian Software Engineering Symposium in 1991. This aim was adopted, refined, and supported by the Special Programs Directorate of the CNPq, which then created the National Program on Software for Export, SOFTEX 2000, with the support of the Ministry of Science and Technology. In 1992, when the complementary nature of the three Programs (RNP, ProTem-CC, and SOFTEX 2000) was recognized, it was decided to consolidate them under one structure in order to realign and strengthen the national information technology policy. DESI-BR obtained financing of US$27 million over eight years from the United Nations Development Programme (UNDP). The three programs were placed under the joint coordination of the Information Technology Policy Secretariat (SEPIN/MCT), which is devoted to the so-called Priority Information Technology Programs for purposes of obtaining incentives in accordance with the terms of Law 8248/91.

In January 2001, a new Information Technology Law No. 10176 was promulgated, extending the benefits of Law No. 8248/91 for eight years. In 2002, the SOFTEX Program was considered a priority for purposes of applying the incentives of the new information technology law.

EVOLUTION OF THE SOFTEX PROGRAM

The Brazilian Program on Software for Export (SOFTEX 2000 Program) had the initial goal to gain a 1 percent share of the world software market by 2000. The program was implemented in two phases (see Table 11.1). The first was under the auspices of the CNPq, while the second was carried out by a nonprofit civil association. The idea of transferring the program to the private sphere emerged from a strategic planning process for the program, which reached the conclusion that this initiative should be oriented toward business and focused on results. This finding led to the conclusion that the government should turn over control of the SOFTEX 2000 Program to the private sector in 1997, when it was anticipated that the program would be mature.

The first phase covered the period from 1993 (when the program effectively began) through December 1996, when the SOFTEX Company was established to serve as program manager effective from January 1997. The second phase has two distinct stages, one from 1997 to 2000 and the other beginning in 2000, when the name of the program was changed to the Program to Promote Excellence in Brazilian Software while retaining the acronym of SOFTEX.

In the first phase, in addition to the UNDP resources, the program obtained funding from the federal government through the CNPq, McyT, FINEP, and SEBRAE. With a view to achieving its objectives, the SOFTEX 2000 Program was focused on developing appropriate infrastructure for software development in Brazil (laboratories, software, and the award of CNPQ grants to enterprises for collaboration in product development) and the promotion of exports through market research and export support activities. The customers were existing enterprises that the program assisted so that they could become exporters.

This first phase had mixed results. On the one hand, despite the significant increase in exports it was not pos-

[4] The National Council for Scientific and Technological Development (CNPq) is a foundation associated with the Ministry of Science and Technology (MCT) for supporting Brazilian research.

Table 11.1
Principal Stages of Institutional Development of the SOFTEX Program, 1993-2003

Period	Institutional profile	Program	General characteristics of actions
1993-1997	Priority Project of Federal Government (MCT)	SOFTEX 2000 Program (Brazilian Software Export Program)	Administered by CNPq. Funding from CNPq, PNUD, FINEP y SEBRAE. Project conceived together with RNP and Protem-CC. Customers: existing companies. Focus: existing companies, software development infrastructure and export promotion.
1997-2000	SOFTEX Company (Nonprofit civil corporation)	SOFTEX 2000 Program (Brazilian Software Export Program)	Funding: CNPq, PNUD, FINEP, BNDES y SEBRAE 1999-2002 Strategic Plan recognizes importance of domestic market and creation of new enterprises. Customers: existing companies, entrepreneurs and computer science students. Focus: entrepreneurial spirit, training, and business.
2000-2003	SOFTEX Company, (change of legal form in 2001 from a nonprofit civil corporation to a Civil Society Organization in the Public Interest —OSCIP)	SOFTEX Program (Program to Promote Excellence in Brazilian Software)	Funding: all of the above plus sector funds. 2001-2004 Strategic Plan: adaptation to changes at MCT, importance of innovation. Customers: existing companies, entrepreneurs and computer sciences students Focus: entrepreneurial spirit, innovation, excellence, financing and businesses.

Source: Prepare by authors on the basis of information by Fabio Pagani, former Executive Coordinator of Business Development for SOFTEX Company and data from Duarte and Ferraz (1998); Frick (1998); SOFTEX (1998); SOFTEX (2001a); SOFTEX (2001b); SOFTEX (2002).

sible to meet the targets. The target set had been unrealistic, as an increase to US$2 billion from a base of US$1 million was sought over an extremely short time span. The main difficulty was the small size of the software production firms in the country, which limited aggressive external market entry. Software exports in 2000 amounted to US$100 million (just 5 percent of the target, although 10 times greater than the initial value). On the other hand, the program was successful as regards the infrastructure and the interconnection of the actors, making it possible to create decentralized software development centers (SOFTEX agents) in the country and interconnecting the public sector, universities, and private software firms.

The second phase began with the transfer of program control to the private sector and the creation of the SOFTEX Company. December 1996 marked the founding of the Brazilian Software Export Promotion Company (SOFTEX),[5] a nonprofit institution under private law, which took over the management of the SOFTEX 2000 Program on January 2, 1997.

[5] The organizational structure of the SOFTEX Company consists of its Board of Directors, the highest decisionmaking body, the Audit Board, as an auditing body, and the Executive Board, the management organ. The Board of Directors of the SOFTEX Company has six members representing the public authorities, eight from civil society, five from regional SOFTEX agents, the company's Managing Director, and a former director of the SOFTEX System. The Executive Board of the SOFTEX Company comprises the Managing Director and President and two vice-presidents. There is also an Entrepreneurial Council made up of entrepreneurs that examine matters relating to competitiveness in software production.

It was anticipated that private resources would gradually supplement the public funding. In practice this did not occur, and the SOFTEX 2000 Program continued to depend on public resources. The transfer to the private sector in 1997 made it essential to obtain public resources as the financing from this source was no longer guaranteed. Consequently, in 2001 the company changed its legal form to that of a Civil Society Organization in the Public Interest, which facilitated access to public resources.[6]

The experience in the first stage of the SOFTEX 2000 Program enabled the company to negotiate for and attract resources from the various federal government programs providing funding for the activities of the company and its network of agents. It was also of fundamental importance to obtain resources offered to software firms by the National Economic and Social Development Bank (BNDES). The resources gathered are distributed among the network of regional agents on a competitive basis; the agents' specific projects compete with one another for the distribution of the resources.

The lack of realism of the export targets set at the outset of the program led to a change in focus in the SOFTEX 2000 Program. The strategic review undertaken in 1997 resulted in a change in the program's objective, including an orientation toward the domestic market and transforming Brazil into one of the five largest producers and exporters of software in the world in the longer term (10 to 30 years). Export operations would be a natural outgrowth of the power in the domestic market.

In 1997 the SOFTEX Company began creating new ventures, turning away from infrastructure questions and the preoccupation of obtaining financial resources for software firms. The actions defined for the SOFTEX 2000 Program were as follows:

- Generating new software firms by engaging in entrepreneurial stimulus activities;
- Developing of financing for software firms, that is, gathering resources for investment in and financing of software firms, and the selection of business plans for financing, through contact with venture capitalists and financial institutions for the establishment of new credit lines;
- Training software firms in export operations and conducting activities to facilitate exports, including support for businesses in the preparation of business plans for export operations and various training activities, from specific courses for the software area as well as participation in international business fairs and groups;
- Marketing Brazilian software abroad, encompassing the various services of SOFTEX agents abroad, and conducting events abroad, focused on supporting marketing and communication activities aimed at building the Brazilian Software brand name.

As a result of the strategic modification, the SOFTEX 2000 Program incorporated into its definition of customers those entrepreneurs and computer school students interested in opening a business, which led to the development of activities to support the emergence of software firms. SOFTEX, with BNDES, created PROSOFT,[7] a venture capital firm for software firms in which BNDES is a partner.

The second stage within this new phase began in 2000 and consisted primarily of refining the concepts developed during the prior stage, fine-tuning the strategic planning, and incorporating aspects relating to innovative activity. The revision of the strategic planning was carried out in response to two factors. One was the scarcity of public resources for financing the program and changes made by the MCT in the national software policy, which was shifted to consider the domestic and external markets equally. The other was innovative activities. The dependence on public resources for the functioning of the SOFTEX 2000 Program stemmed from the need to adjust the focus of the MCT's priorities, which were centered on innovation and sector funds.[8]

[6] This is a form of legal person provided for under Law 9790 of 3/23/1999, applicable to organizations from the tertiary sector that genuinely act in the public interest and are therefore authorized to sign association agreements with the public authorities. Law 9790 governs the designation of nonprofit legal entities under private law as Civil Society Organizations in the Public Interest (OSCIPs), and introduces and regulates the term "association." The status of OSCIP protects and legally recognizes civil society organizations whose activities are carried out in the nongovernmental public space.

[7] This is the sole financing mechanism created by the SOFTEX Company in Brazil for software enterprises.

[8] This is the funding modality for financing matters addressed by various MCT programs (including SOFTEX).

STRUCTURE OF THE SOFTEX SYSTEM

To support the operations of the SOFTEX Program, a logistical structure was developed that was made up of regional nuclei (which later came to be known as agents) in various cities throughout the country. These units were spread all over Brazil and fulfilled a fundamental role in the process of establishing and developing joint participation with businesses and various organizations in the information technology area, especially software, e-business, and the Internet. Each agent is a developer in the local productive center via a mechanism that brings together firms, universities, research institutions, and local organizations active in the information technology area, in conjunction with the agent who offers the services made available by the SOFTEX Company as well as business development services.

To be established as an agent, it is necessary that the locality concerned prepare a proposal setting forth the following: commitment of the parties to the project; inclusion of entities representing the government, private sector, and tertiary sector; indication of the professional responsible for contacts; description of the software industry in the region; and the capacity of local institutions. The SOFTEX Program undertakes to allocate resources to the agent, and the locality must provide an equal amount. Agents are evaluated by the SOFTEX Company and may be delisted in the event they fail to meet their goals.

SOFTEX agents are autonomous organizations such as foundations under private law or nonprofit civil societies. Their mission is to provide technical, managerial, and market support to associated and newly created software firms, using their own resources or program resources, with the objective of supporting compliance with the strategic objectives of the SOFTEX Program. The Program currently has 23 agents that have a total of 19 business incubators. The work of the agents is basically divided into two lines of action: the preparation of startup firms for entering the market, and support for previously established firms throughout the stages of producing and marketing their products.

The SOFTEX Program considers it extremely important that the agent contribute to the building of a network of contacts between firms and the potential purchasers and suppliers concerned. Together with each agent there is a set of associated software firms that receive information on the sector and are invited to participate in international events, business groups, training, and meetings to broaden the network of commercial relations. In 2003, the SOFTEX System had about 1,100 associated firms.

Each SOFTEX agent defines its own activity model, bearing in mind the general objectives of the program and the regional context (agents do not necessarily provide each and every one of the services offered by the SOFTEX Company). For this reason, there is no standardization of the activities and services offered by the various agents. The agents' activities must promote the development of the software industry in their region.

The Company relates to the agents, which serve as the direct bridge to the enterprises and other customers. The SOFTEX Company is responsible for the formulation of the macro-strategy and for gathering resources from the federal government. In other words, it takes care of the planning, supervision, and evaluation of the actions that will be carried out by the regional agents. Resources are transferred to agents in accordance with their annual work plans, consistent with the strategic planning of the SOFTEX Company. The transfer is not automatic and is conducted on a competitive basis, and there is no guarantee that agents' operations will be funded. The agents in turn may gather resources from the various levels of government (federal, state, and municipal) and from the associated firms in order to supplement the resources obtained through the SOFTEX Program. The final outcomes of the program are highly dependent on the actions of the agents.

STRATEGIC MODEL OF THE SOFTEX PROGRAM

The SOFTEX Company works with a multi-year strategic planning methodology (four-year horizon), which includes the participation of all agents. The strategic model for the period 2001-2004[9] (Table 11.2) assumes that the contribution toward increasing competitiveness, developing human resources in the Brazilian software industry, and consequently broadening participation in the global market will stem from activities in four levels of complementary relationships:[10]

[9] The data presented further on are extracted from the 2001-2004 Strategic Plan. Campinas, SOFTEX.

[10] Expansion of the World Class Model or 3 Cs model (see Kanter 1995).

Table 11.2
Summary of Objectives, Actions, and Projects by Operation

Operation	Objectives	Actions and projects
Innovation, entrepreneurial spirit, and new enterprises	Help to promote innovation, the entrepreneurial spirit, and the creation in Brazil of software, Internet, and e-commerce companies.	Actions in conjunction with universities and existing incubators, increase in the number of professors in information technology entrepreneurship. Creation of incentives and financing of knowledge related to the development of businesses, ideas and innovative projects in software companies.
Support for diversification of investment lines	Contribute to the diversification of funding sources to finance the needs of qualified enterprises.	Development of current lines of financing for software companies, development of new sources of financing and investment, disseminating existing mechanisms and fostering enterprises to prepare projects by using available financing resources.
Entrepreneurial training	Contribute to the training of software companies associated with the SOFTEX Program in the following fields: business management, improvement of quality and productivity, and innovative technologies.	Actions in conjunction with universities and with software centers to offer courses and seminars. Interconnecting projects to establish quality tools in enterprises, projects for developing new technologies, projects for software platforms.
Support for development of new businesses	Support business development associated with the SOFTEX Program, by promoting enterprise-university integration, assisting in the development of regional clusters and helping to create new business opportunities.	Working with universities, research centers, new and old economy companies in order to interconnect joint projects to increase competitiveness, quality, and innovation potential of regional clusters. Holding business roundtables, international missions, promoting businesses.
Marketing and communication	Strengthen and reinforce the *Brazilian Software* brand.	Implementing actions or communicating the results and assets of the SOFTEX Program, showcasing statistics, success stories, etc., by making full use of the media. Highlighting the excellence of the Brazilian product.
Planning and management	Plan, coordinate, implement, monitor and evaluate the actions of the SOFTEX Program.	Coordinating and interconnecting the activities of the software development centers by various mechanisms such as by research on the domestic and international software industry, study of competitive variables, etc.

Source: SOFTEX, 2001a.

- Concepts: development of the capacity to think, with investments in innovation and entrepreneurship
- Competitiveness: development of the capacity to perform, through investments in capacity building and quality
- Connections: development of the capacity to do business, through investments in network collaboration and development
- Capital: development of the capacity to gather resources for direct investment in firms.

The operations to interconnect the four levels of relationships are defined and organized into two groups. The first is comprised of actions for developing world-class enterprises: innovation, stimulation of entrepreneurship and new firms (concepts); resources to finance investment in firms (capital); entrepreneurial capacity building (competition); and business development support (connections). The second group contains support activities: marketing, communications, and institutional relations; and planning and management.

SERVICES OF THE SOFTEX PROGRAM

Entrepreneurial Stimulus and New Firms

The activities of the SOFTEX Program in the area of promoting the development of new enterprises in the software and IT services sector includes initiatives on various interconnected fronts. The Softstart project, through institutions of higher learning of recognized experience, engages in activities to supplement the training of students in computer science and engineering, electrical engineering, and electronics engineering with a view to providing an initial base and creating the conditions for the creation of new ventures. The basic tool used for this purpose is the course on Ventures and Entrepreneurs in Information Technology (which goes by different names in different institutions). The course was designed and developed through two complementary and mutually consistent modules: one to identify and develop the personal attributes of students interested in entrepreneurial activity and to provide the preliminary development of business ideas in Software and IT Services, and the other to produce a plan to guide ventures on the basis of business opportunities identified in the previous stage.

In addition, with CNPq support, the Genesis Project was introduced with the primary objective of financing the generation of new software and information technology ventures throughout the country, via the educational institutions. The Ventures and Entrepreneurs in Information Technology course would identify new projects and the action units for the Genesis Project (GENES) would incubate such projects (and others submitted independently from this process) that would be supported with CNPq grants for young entrepreneurs.

The major premises behind such interconnected actions were the following:

- The greatest shortcoming of the emerging firms is in the software area related to the nontechnical knowledge required by the venture. Activities outside the technological sphere (planning, financing, marketing, packaging, etc.) that pose the main challenges to the entrepreneur.
- To achieve insertion into the world market will require the creation of vast numbers of new firms.
- Graduates (or engineers) trained in computing in Brazil have already mastered the technology required to develop software in keeping with international standards. What is necessary is to stimulate their entrepreneurial and managerial spirit.

At the same time, SOFTEX has been publicizing the appropriateness of preparing business plans, through its agents, so that entrepreneurs gain awareness of the importance of this tool for managing their business, especially as regards obtaining capital, and supporting them with training activities and advice in the preparation of such plans.

Financing Support

Access to financial resources that are compatible with the profile of the sector has been regarded as one of the major problems posed to the insertion of the Brazilian software industry into international markets. In an effort to change this situation, the SOFTEX Company has been working to develop financing methods adapted to Brazilian software firms. Noteworthy among these programs is the pioneering initiative taken in 1997 that came to be known as the National Software Symposium (CNS 97) and the Software Sector Support Program (PROSOFT), designed by BNDES and SOFTEX in 1999 and still in force.

The aim of CNS 97 was to finance software-producing firms that, within a maximum of 12 months following

signature, were in a position to be marketing their products and/or services abroad. The resources for the symposium were provided by the CNPq (in grant form) and by FINEP (in the form of long-term financing). All told, an enterprise could request up to US$450,000 (a maximum of US$300,000 from FINEP and US$150,000 from the CNPq). Under CNS 97, 30 enterprises from various Brazilian states were selected (nine from the State of Río de Janeiro, eight from São Paulo, seven from Minas Gerais, two from Santa Catarina, two from Pernambuco, one from Paraíba, and one from Ceará). The total resources mobilized in the projects approved amounted to about US$14.5 million, with US$6.5 million distributed through FINEP, US$3.3 million through CNPq, and the remaining US$4.7 million by the selected enterprises themselves.

PROSOFT targets enterprises that are already active in the software sector, have clearly defined track records, and are in a condition to submit cohesive projects. The program offers loans of US$180,000 to US$2 million based on a review of the business plans prepared by the firms, without requiring them to provide real collateral, for enterprises that invoice up to US$35 million annually. To access the credit, the enterprise must open up its capital by converting to a joint stock company, and BNDES, instead of requiring the customary collateral, obtains rights to a specified number of shares in the enterprise. The process whereby this occurs involves evaluation of the firm's business plan. Credit is granted for six years (with two years of grace), with the debt corrected by the long-term interest rate.

Pursuant to the agreement signed with BNDES, SOFTEX conducts a technical, market, and financial evaluation of the business plan, and then submits it to BNDES for its negotiations. By acting as technical evaluator, SOFTEX helps the financers gain a greater understanding of the technological aspects. Since its launch in December 1997, PROSOFT has already benefited 26 enterprises, with the approval of US$30 million in financing; however, PROSOFT is not used for the development of startup enterprises. The role of business angel and seed grantor is played through government programs relating to scientific and technological projects with funds from FINEP type programs, such as FAPESP (PIPE program), and with sector funds. It should be noted that, strictly speaking, the business angel and seed money concepts are associated with private capital.

The average value of the projects was US$1.1 million, with the enterprises financing about 40.7 percent on average of the total investment while BNDES provided the remaining 59.3 percent. According to the entrepreneurs' statements regarding the financing requested, their use of funds was intended mostly for covering the costs of specialized labor for R&D activities (development of products and technologies) included in the deferred assets of the enterprises (with product life cycle as a reference point), and represented about 55.7 percent of the average value of the project applications.

In 2002, the investment lines for the sector were expanded and diversified through the creation of sector funds by the MCT, with particular emphasis placed on the program known as CTInfo, which provides investment lines for information technology firms in the preincubation, incubation, and graduation stages. In addition, CTInfo makes resources available for technology transfer projects between the university and entrepreneurial communities. Of the 80 projects approved in the CTInfo invitation and request, 41 were associated with the SOFTEX Program: 16 in the startup or graduation stage, and 25 for the creation of new enterprises or for technology transfer.

In tandem with the financing effort and with support for identifying sources of capital, SOFTEX maintains the Catalogue of Financing Sources and Venture Capital for Software Enterprises (FINANSOFT), created to address the demand for a comprehensive consolidated information system on the major financing lines for the software sector, whether domestic or foreign. This instrument provides access to a databank containing information on the financing modalities of various agents, the process of routing applications, the characteristics of access to financing, the aim of the various programs, and the limits and prerequisites for using resources, among other data.

Entrepreneurial Training

The program promotes software quality certification. To this end, it organizes research, forums, and workshops to promote exchanges of experiences, generate new business, and make entrepreneurs aware of the importance of quality for the sector. Every two years the software firms undergo an evaluation process, organized by SEPIN/MCT, in which the quality and productivity of the companies are analyzed by direct inquiries.

The numbers speak eloquently: in 1990, there were only 13 enterprises with 18 ISO 9000 certifications, whereas there are now 4,744 companies with 6,389 certifications. Furthermore, the agents are conducting efforts to introduce the Capability Maturity Model (CMM). The SOFTEX Company is consolidating its position as one of the major agents promoting quality software products (QPS) in Brazil. The entity supports the organization of events such as the Workshop on Quality Software (WQS), the publication of books, and other resources that serve as indicators of the sector's performance.

The development of skilled human resources for the software sector is one of SOFTEX's most important activities. Periodically, the agents make inquiries among their associates to identify needs for courses and training in the region. The classes can be conducted within the agents' own structures, as long as they can provide properly outfitted rooms and high-level consultants, or in academic institutions that are included in the agreements.

According to the SOFTEX 2002 Report on entrepreneurial training, there were 42,500 hours of short and medium-term training provided in 2002 by the associated enterprises, focusing on business planning, software technology, quality, business management, and marketing and sales (see Table 11.3), and some 34,000 persons were trained.

Support for Developing New Businesses

The objective of the program is to disseminate business opportunities and broaden the network of contacts available to software entrepreneurs. SOFTEX agents, through their network of contacts in Brazil and abroad, have access to business opportunities in the software field. This information is transmitted by means of contact lists reserved for executives of associated enterprises, giving them a competitive advantage in attending to these demands.

The program maintains a catalogue of Brazilian software that disseminates information on all the software firms and their products (available in Portuguese, English, and Spanish); trains enterprises on the forms of exporting software via a course on the Internet; disseminates and promotes Brazilian software on the domestic and international markets; supports enterprises in their participation in events; and acts in the governmental sphere to ensure better use of the government's purchasing power. It also conducts national and international business roundtables.

Other Activities

The program offers legal advice for associated firms on the issues of intellectual property, patent and trademark registration, and domains and contracts. To help firms with the legal aspects of business, SOFTEX agents provide legal assistance through specialized consultants, both in Brazil and abroad.

They also conduct studies on the software market, gathering strategic data that may serve to guide enterprises in the sector toward the best path toward expansion. According to the SOFTEX Annual Report for 2002, in that year the SOFTEX Program moved forward with the accumulation of information and analyses of the software industry in Brazil, including comparisons with other countries, as in the case of the project carried out with MIT on an international comparative study of Brazil's software sector (MIT-SOFTEX 2002).

In collaboration with the Information Technology Policy Secretariat of the MCT, it conducted an investigation of quality in the software sector, with a special section on the indicators on firms associated with SOFTEX. In addition, using data from the Ministry of Labor, unpublished statistics were generated on the software sector, such as the number of employees, their distribution by sector and by region in the country, the distribution of marketed volumes by region, the distribution of firms by size, etc.

RESULTS OF THE SOFTEX PROGRAM

The expansion of software production in Brazil cannot be explained without reference to the activities of the SOFTEX System. This program also contributed to the growth of software exports, which increased from US$1 million in 1990 to US$100 million in 2001 (MIT-SOFTEX 2002). According to the SOFTEX Annual Report for 2002, the program generated 73,000 direct jobs representing approximately 45 percent of total employment in the software sector and accounting for about 50 percent of all of Brazil's software exports.

This performance was made possible by the establishment of a network of 23 agents that worked with research centers and universities in all the major cities of Brazil, and 19 business incubators working with the

Table 11.3
Activities of the SOFTEX Program and Factors Required for the Entrepreneurial Process

Factors	Activities
Motivations	Encourages the entrepreneurial spirit by promoting courses on the entrepreneurial spirit in universities by showing that this option is a model worth pursuing. Stimulates the drawing up of business plans by students who, as guided by their professors, can have their plans incubated with the SOFTEX Program.
Skills	Stimulates technological skills as well as management and planning skills through courses and advice. The vast network of agents makes it possible to identify local skills in order to find a solution to any specific problem faced by a software company. Promotes improvement of software quality standards. Does not draw up the business plan but offers advice on how to do it.
Networks (and opportunities)	Promotes local networks to integrate students, professors, enterprises, and consultants. Promotes knowledge and study of the market. Organizes business roundtables and trips abroad. Mantains electronic lists for advertising opportunities for young and mature enterprises. Offers support for participation at strategic meetings and trade fairs. The SOFTEX agent is the main contact element. Using his network of contacts, he receives orders, surveys opportunities in Brazil and abroad, and distributes them to the associate companies. The Brazilian Software catalogue decreases marketing costs.
Financial resources	Offers the possibility that the enterprises develop new products through seed money from government funds, characterized by the mobilization of Sector Funds resources, Law (8248) incentives, and special lines such as CNPQ fellowships. Support with institutional assistance to companies who want to participate in competitive projects such as Innovar/FINEP. Acts as intermediary for financing arranged for the software sector, created in conjunction with BNDES. Works to bring software companies together with other enterprises and venture capitalists.

Source: SOFTEX, 2001a.

computer departments of the major Brazilian universities and associated with those academic institutions. This shows the significant spread of the program in just a few years. It was thus possible to weave relationships between the institutions and enterprises in each city, increasing the density of exchange of information and experience within the local productive schema. The business incubators already graduated more than 300 firms between 1997 and 2003, and the goal for 2004 is 450. The SOFTEX System is endeavoring to ensure that BNDES and FINEP create specific financing lines for software, making it possible to allocate more than US$44 million to 56 enterprises (US$26 million for PROSOFT).

The designation Information Technology Entrepreneur has been awarded to 100 computer science departments that have trained more than 4,000 students. There are 400 professors qualified to teach the discipline. Some students from these courses have become IT entrepreneurs whose businesses are already in operation.

There are now 1,065 firms associated with the SOFTEX System, and 80 percent of them are microenterprises (employing 1 to 9 persons) and small enterprises (employing 10 to 49 persons). However, the participation of large enterprises (employing more than 100 persons) is significant (13 percent), and the majority of the associated firms (60 percent) are young ventures that were started during the period when the SOFTEX Program was being created and developed (between 1992 and 2001).

There are 10,713 software firms in Brazil, of which 2,398 are software developers. In other words, the SOFTEX System accounts for approximately 10 percent of all enterprises in the software sector, or 40 percent of all software developers (the latter figure is more representative, as 90 percent of the associated firms are software developers).

In a general context in which export operations are still an incipient activity, the enterprises associated with the SOFTEX System have a slightly greater propensity to export than do those that are not associated. The former group exported 2.74 percent of its invoiced production in 2000, while the corresponding figure for the latter group was 2.26 percent.

According to the SOFTEX Annual Report for 2002, its associated enterprises are more productive (their annual invoicing per employee is 62 percent greater than that of firms that are not associated), hold more patents (18 percent versus 13 percent), have more qualified human resources, and have better quality processes than those that are not associated. Some 22 percent of the firms in the sector have some kind of quality certification; this figure is higher, at 47 percent, for those associated with the system. Four associated enterprises have CMM certification (the most difficult to obtain). No firm that is not associated has succeeded in obtaining this certification.

LESSONS OF THE SOFTEX PROGRAM

The SOFTEX Program is relatively complex, national in scope, and capable of tying together the major activities involved in developing the software industry, which everywhere in the country involves a sizable number of agents. Over time it has come to be maintained as a system, with some degree of organic structure and sound management, reflecting the capacity developed by the SOFTEX Company, which, in the course of its planning and management of the SOFTEX System, has succeeded in developing a complex network involving various important actors throughout the country who are engaged in clear projects on a competitive basis, making it possible to achieve the best possible distribution of resources.

Significant results have been obtained. The SOFTEX Program adopts the strategic planning methodology, allowing for changes of direction, and hence should be regarded as an operational process with potential for self-correction that has demonstrated competence in the use of scarce resources.

The network of agents and their extension throughout the national territory, interconnected with municipal and state secretariats, universities, research centers, enterprises, and other players, constitutes the greatest asset of the program. The ability to interconnect agents in a decentralized manner throughout the national territory, leading to the formation of software centers involving the participation of various parties, is the key factor explaining the program's vitality and success.

The program stands as Brazil's principal instrument for the development of a software policy. SOFTEX is important in the generation of a culture conducive to stimulating entrepreneurship and disseminating it, and results in higher quality standards for software and better training for software entrepreneurs. Even as it was working with the government to develop financing sources for the development of specific mechanisms and incentives for software firms, it was also successfully creating investment mechanisms (such as PROSOFT).

There are no experiences in Brazil comparable to the results achieved by the SOFTEX Program. The program has been visited by representatives of various countries in order to learn about it in depth. On the basis of an analysis of 190 development efforts throughout the world, the UNDP deemed that the program could be considered to be one of the most innovative experiments in the developing countries in the area of information technology.

As regards the entrepreneurial process the findings are generally positive, as there is evident interest in stimulating grassroots entrepreneurship, promoting

joint efforts involving universities, entrepreneurs, financiers, and support institutions. Bearing in mind that the prerequisites for the entrepreneurial process involve the combination of motivations, skills, networks (to enhance information, support, and the identification of opportunities), and financial resources, through stages that range from the birth of the idea through the consolidation of the venture, by way of the enterprise startup, the SOFTEX Program is involved in every stage and promotes all the relevant factors (Table 11.3). It bears noting that the actions mentioned in the table apply not only to startup firms, but to all software enterprises as well.

Among the criticizable aspects of the program's activities in the entrepreneurial process is the emphasis placed on students of computer science and engineering rather than providing incentives for the formation of multidisciplinary teams of students. It has been found that this concentration makes it more difficult to develop specialized products (vertical software) incorporating knowledge from other areas. This tendency characterizes the development of specialized products for resolving questions in the area of computer science (production software, tools, or methods) but diminishes the possibilities for creating software to address the demands of other fields of knowledge.

Another shortcoming is focusing attention exclusively on students for purposes of creating firms, and not providing incentives for the creation of ventures by persons previously trained and already working in the area. This precludes the possibility of attracting potential entrepreneurs that already have an established network of contacts and business opportunities identified on the basis of professional experience. Another criticism arising from the broad range of the program is the problem of defining the target population. Is previously consolidated enterprises, ventures in the startup phase, incubator enterprises, or students? This concern should be addressed by defining more specific programs for each segment.

A weakness of the program is the lack of support from private enterprises, making it dependent on governmental resources. In this regard, however, the program is endeavoring to adapt. It changed the process for creating new agents beginning in 2000 by requiring greater support from local agents (municipalities, research institutions, and local firms) and less dependence on federal government funding.

GOVERNMENT PROGRAMS OF THE AUTONOMOUS CITY OF BUENOS AIRES

Prior to 2000, the Autonomous City of Buenos Aires had not defined a clear support strategy for new ventures, although there were already two programs in existence that could be regarded as predecessors: the Microenterprise Support Center (CAM) created in 1996, and the Young Entrepreneurs Program dating from 1999. While the former basically offered technical and financial assistance to existing entrepreneurs and enterprises, the second was devoted to disseminating the benefits of the entrepreneurial culture in the educational institutions throughout the City of Buenos Aires. It was at this time (in mid-2000) when the effects of the economic recession affecting Argentina since 1998 came to have an obvious impact on the city's economic indicators. Indeed, during the 2000-2001 period, the gross domestic product (GDP) of the City of Buenos Aires dropped by 4.8 percent, from Arg$66,741 million to Arg$63,535 million.[11] Unemployment rose from 10.4 to 14.3 percent of the economically active population between October 2000 and October 2001, equivalent to the loss of 65,000 jobs in just 12 months. This difficult situation was compounded by the fact that 11.8 percent of the population was underemployed.[12]

At the same time, according to studies released subsequently, while the business failure rate in the City of Buenos Aires was similar to that of other cities throughout the world, the business startup rate was well below those of comparable cities in the industrial countries. In this delicate situation, the support for the more vulnerable social sectors was insufficient. Consequently, the Economic Development Secretariat of the Buenos Aires city government decided to promote the implementation of public policies aimed at promoting new ventures and spreading self-employment. Steps were also taken with a view to supporting micro, small, and medium-size enterprises already in place, given their extreme fragility owing to the crisis.

The strategic decision was clear: the economic recession, the gradual collapse of the productive apparatus, and rising unemployment would have to be combated by creating new firms, strengthening existing ones, creating new jobs, developing competitive advantages, and increasing productivity. However, this desire was not necessarily reflected in a specific strategic plan, with stipulated goals and target dates, but rather resulted in the gradual creation of new programs and the broadening and intensification of existing ones.

This report analyzes the experiences of the various programs and institutions for stimulating the entrepreneurial process that were active within the framework of the government of the Autonomous City of Buenos Aires: The Microenterprise Support Center; Young Entrepreneurs; the Metropolitan Design Center-INCUBA, and PrUEVE-BAITEC.

MICROENTERPRISE SUPPORT CENTER

The Microenterprise Support Center (CAM) is a comprehensive support mechanism for microenterprises in the City of Buenos Aires. Its primary objective is to promote the creation and/or consolidation of small businesses—in the production and services sectors—by means of various support instruments: technical instruments, financial instruments, and training. CAM operates under the auspices of the Directorate-General of Microenterprise of the Economic Development Secretariat of the Buenos Aires City Government (GCBA).

CAM currently has a staff of 31 persons: 16 full-time professional staff, 4 part-time, and 11 administrative personnel.[13] This multidisciplinary team has the capacity to assist with enterprise development in all

[11] Center for Metropolitan Economic Development Studies (CEDEM).

[12] Permanent Household Survey (EPH) of the National Institute of Statistics and Census (INDEC).

[13] The administrative personnel is also trained to carry out some smaller assistance tasks.

areas: business planning, economic feasibility, marketing plans, structure, legal and tax-related issues, and others. The organization receives a specific allocation from the budget of the City of Buenos Aires, which is approved by the local legislature. In 2002, the funding for the Center came to slightly over Arg$2,167,000, a figure that increased to some Arg$2,754,000 in 2003.[14]

CAM came into being in 1996 when Argentina's capital city was granted autonomy. However, its origins date back to the Municipal Microenterprise Program (PROMUDEMI), which was founded in the early 1990s and was limited to providing financial assistance—and in some rare instances technical services. Implementation of this program was spasmodic owing to its repeated reassignment from one city government agency to another.

Originally CAM followed the path of PROMUDEMI, giving greater priority to financial support than technical assistance, which continued to play a preponderant role. Not until mid-2000 did CAM adopt the structural form and services approach it now has, when it upgraded its technical assistance and training activities, bringing them into line with its financial support. This approach led to the strengthening of the three basic services provided by the center, balancing the relative importance of each, while strengthening their interconnections and mutual ties.

While CAM did not restrict its activities solely to the creation of new enterprises, it is important to note that, in 2002, more than half of its assistance was in fact directed toward startup firms.[15] As noted previously, the Microenterprise Support Center provides three basic services: technical assistance, training, and financing. In 2002 it also introduced a new service, commercial contacts. This service—through large meetings involving entrepreneurs active in a specific field—is intended to strengthen value chains and generate new business for the city's micro, small, and medium-size enterprises.

All persons disposed to develop a microenterprise are potential beneficiaries. Although the geographic origin or residence of the individual is not of relevance, it is essential that the business, whether it is new or existing, carry out its activities within the jurisdiction of the Autonomous City of Buenos Aires. Initial contact is through the Management and Participation Centers (CGPs)[16]—decentralized government agencies in the local community-where staff specially trained by CAM conduct on-site training courses, receive loan requests, or steer potential beneficiaries toward the most appropriate form of assistance. The party concerned must subsequently approach CAM headquarters to receive the services recommended.

It is important to stress that the services are aimed solely at those small firms, regardless of their productive sector or service, that effectively demonstrate the need for assistance to support their development. In the case of startup firms, this distinction is not so definitive, as of course it is quite likely that some kind of support will be needed. However, in the case of already consolidated firms in search of further development, the center conducts an analysis of the applicant firm to ensure that it is really unable to take on the project successfully using its own resources. This is a free, assisted, and personalized service. Each case involves the assignment of a project leader or tutor, who acts as a referral agent and provides a substantial proportion of the advisory services. CAM has a team of specialists prepared to assist with enterprise development in all areas: business planning, economic feasibility, financial feasibility, marketing plans, cost structure, and legal and tax-related issues, among others.

If the problem is general in scope, work is customarily focused on developing a business plan, as this will touch on all the problem areas of an enterprise. In so doing, the assistance may be headed up by any team member. If, on the other hand, the problem requires a given specialization, an effort is made to identify a specialist from the staff. The entrepreneurs receive technical assistance that is provided systematically through successive interviews based on an agreed working plan and is provided until such time as the problem or reason for the original query has been overcome or resolved, without any pre-established time limits coming into play.

[14] Information provided by the Management of the Microenterprise Support Center, 2003 Budget of the GCBA.

[15] Management of the Microenterprise Support Center, working paper, Statistical Report for 2002 on All Technical Assistance Performed.

[16] There are currently 14 Management and Participation Centers (CGPs) distributed throughout the city.

While most of the assistance is provided at CAM offices, to the greatest extent possible it is also conducted at the business site, which ensures greater familiarity with the actual circumstances facing the entrepreneur. This will occur when the enterprise already exists and has an established domicile. In the period from 2000 to 2002, CAM provided technical assistance in more than 12,000 instances,[17] of which 3,055 correspond to 2002[18] (Table 11.4).

CAM also offers a line of credit for financing profitable projects aimed at creating new enterprises and for promoting the growth/strengthening of existing firms in the Autonomous City of Buenos Aires. The credit has a rate of 0 percent and a maximum amount of Arg$6,000, and may be rolled over. It may be used for productive investment, machinery, and equipment, or for hiring project-related labor or expanding or improving facilities, but never to settle pre-existing debts or for personal purposes.[19] The amortization schedule for the credit line is limited to a maximum of 30 installments, with a grace period of up to 6 months. Beneficiaries may roll over the credit or request a new line so long as they have repaid at least 30 percent of the prior loan. In addition, in order to grant a new benefit or to extend more than one at a time, CAM advisors must determine that the profitability of the proposed business is sufficient to cover the payments of all the commitments assumed without affecting the normal implementation of the plan. This is not always feasible.

When formally requesting the line of credit, CAM assigns a project leader to the entrepreneur who will be available to assist him or her personally with all the steps necessary to ensure that it has a business plan, which is an essential instrument for determining whether the business is viable, profitable, and has growth prospects. Analyses of the market, potential customers, suppliers, etc., are conducted in the effort to narrow risk margins. Forecasts are also made of future investment and/or financing needs of the business based on anticipated revenues, and the time required to recoup the initial investment is calculated.

Table 11.4
Technical Assistance, 2002

	Technical assistance	%
Total technical assistance	**3,055**	**100.0**
Carried out in the company	**343**	**11.2**
Stage of microenterprise/business		
Existent	1,211	39.6
Startup	1,742	57.0
No information	102	3.3
Assistance by line of activity		
Services	1,105	36.2
Production	965	31.6
Retail	812	26.6
Professional services	11	0.4
No information	162	5.3
Assistance by type of advice		
General	762	24.9
Commercial/marketing	303	9.9
Accounting/tax	41	1.3
Financing	1,449	47.4
Legal	180	5.9
No information	320	10.5
Assistance by gender		
Female	1,500	49.1
Male	1,555	50.9
Type of organization of project/enterprise		
Partnership	806	26.4
Family members	695	22.7
Sole proprietorship	1,321	43.2
No information	233	7.6

Source: CAM management.

Historically, the entire process of administering the line of credit has taken two months on average, including

[17] See Government of the City of Buenos Aires (2003).

[18] Information provided by CAM management.

[19] In addition, joint and several guarantees were sought through a property deed or certificate of income of third parties, with personal guarantees not accepted in any case. The amount of the guarantee is stipulated on the basis of a comprehensive analysis of the proposal submitted.

preparation of the business plan: the time required from providing background materials to the Microenterprise Directorate to final project approval is estimated at approximately 40 days. When this information was gathered (in mid-2003), the center was dealing with an unusually high level of demand for loans, as a result of which the time required for the process had increased to about 3 or 4 months (primarily owing to the fact that no additional personnel were available to address this demand).

Over the 2000-2002 period, the Microenterprise Support Center granted roughly 500 zero-interest loans totaling Arg$3,000,000.[20] In 2002, 157 loans were extended for a total of Arg$615,900. In 2003, the CAM budget for granting loans was Arg$1,447,500, slightly over 50 percent of the organization's total budget allocation. Through April 11, 2003, 35 loans had been approved for a total of Arg$213,000.[21]

In the training area, CAM as initially designed functioned in isolation and was of less importance. It was not until mid-2000 that it was strengthened and that CAM's relative attention to the areas of technical and financial assistance was brought into balance, thus giving it its current makeup. This reflects the need to respond to new objectives, publicizing the benefits of entrepreneurship, the various aspects of the entrepreneurial process, and why the management experience demonstrates that many of the drawbacks associated with microentrepreneurship relate to the lack of theoretical and practical knowledge.

While the City of Buenos Aires offers an ample and varied range of training courses, seminars, and workshops, the fact still remains that these offerings are frequently not targeted at small businesses and are excessively costly to access on a systematic and regular basis. CAM's services are offered to microenterprises and entrepreneurs without age restrictions, and the courses and workshops are provided completely free of charge. Depending on the topic to be addressed, the courses bring other city government areas into play (for example, the Secretariat of Culture, the Food Security Subsecretariat, the Tourism Subsecretariat, the Education Secretariat, etc.).

Generally speaking, while the numbers of hours and sessions vary from one course to another, on average there are about four sessions of about 90 minutes each. These are attended by an average of 40-50 participants per course (actual numbers range from a minimum of 30 to a maximum of 120). There is a wide range of course offerings that properly reflects demand. Indeed, the courses were created in response to demand and are constantly being readjusted with each visit from CAM, which also uses end-course surveys of those receiving the training. This makes it possible to identify shortcomings in the course materials and programs, as well as the response to courses in terms of likes and dislikes.

Among its training services CAM also is considering offering workshops tailored to other areas of government and to certain nongovernmental organizations (NGOs). To this end, the Center is collaborating with other Programs covered in this study, such as Young Entrepreneurs, PrUEVE-BAITEC, and the Metropolitan Design Center-INCUBA. In the 2000-2002 period, CAM provided training to about 25,000 persons,[22] and to more than 9,070 in 2002 alone.[23]

The final component of the description of CAM activities is the Commercial Contacts Meetings. These are organized by field or subfield and are intended to bring together potential customers, suppliers, or partners for interchange of information. The aim is to develop a territorial network of microenterprises by promoting the establishment of suppliers' networks, purchasing pools, associations, etc. By May 2003, four meetings had been conducted, approximately once every four months, at CAM headquarters. Each meeting was attended by about 300 interested parties. Because this is a new service still in the developmental stage, the effort is currently focused on developing the foodstuffs and textile sectors, the areas in which the greatest number of entrepreneurs are registered. As part of this service, a virtual catalogue has also been created to list persons who wish to publicize and promote their commercial data. The catalogue is published on the city government's website, and the information in it may be accessed in various ways (by general field of business, product, etc.).

[20] See Government of the City of Buenos Aires (2003).

[21] Information provided by the management of the Microenterprise Support Center.

[22] See Government of the City of Buenos Aires (2003).

[23] Information provided by CAM management.

YOUNG ENTREPRENEURS

The Young Entrepreneurs program was launched in 1999 pursuant to Decree No. 2247-99 as a joint initiative of the Education Secretariat and the Secretariat of Industry, Commerce, and Labor of the Buenos Aires city government. Like the Microenterprise Support Center (CAM), it is now under the Directorate-General of Microenterprises in the local government's Secretariat of Economic Development. It is a program aimed at disseminating, at the secondary school level in the City of Buenos Aires, basic concepts of the entrepreneurial culture and developing new sociotechnical skills of relevance to the development of microenterprises and self-employment strategies.

The intended recipients are youths, more specifically those in the last two years of secondary school. It is this group, according to the assessment carried out by the city government, that is most seriously affected by the current economic and social crisis, as manifested in waning expectations, drug addition, and the school dropout rate. The program seeks to address two realities: on the one hand, the educational system's disconnect between its original objectives and current needs, and its inability to adapt to change. In the best of cases, schools continue to prepare students for future employment in relations of dependency, without recognizing that the profound productive transformations of the past decade have brought about a shift in the labor paradigm manifested in unprecedented unemployment and an intense crisis in professional training. On the other hand, the economic system is not generating sufficient job slots to absorb all the youth entering the labor market each year, prompting an increase in unemployment and levels of inequality never before seen in Argentine history.

Originally, Young Entrepreneurs had a budget of over Arg$200,000 a year and a staff of 12. However, following a change in local government authorities, its resources were cut back drastically. At present its budget is no greater than Arg$70,000 and its staffing level only three, including the Program Coordinator. As may well be imagined, the budget constraints resulting from this cutback naturally had an impact on the number and scope of the activities carried out. As initially designed, this initiative was intended for students, graduates, and teachers in the secondary schools; for micro, small, and medium-size enterprises in general, and those headed by youths in particular for family businesses; and for entrepreneurs (individually and in groups). The activities included a wide range of actions ranging from an intensive course on management and administration topics, a cycle of informal lectures on entrepreneurial topics, simulation workshops, and tutorials with entrepreneurs, to technical assistance for the development of project ideas or an entrepreneurs' fair. The activities were carried out by consultants hired for the purpose. The program also promoted the training of teachers to serve as facilitators. In addition, the tutorials were supported by a large network of private institutions and major enterprises that undertook to incubate several innovative projects that grew out of the programs conducted in the schools.

At present, Young Entrepreneurs basically provides three services: an ideas and projects competition; workshops on microenterprise management; and Internet seminars for entrepreneurs. However, most of its efforts are devoted to conducting the ideas and projects competition. Indeed, the workshops and seminars, which originally were the most developed services, have been seriously scaled back in terms of frequency owing to the scarce human resources for teaching them. For the same reason, the target participants in the program remain limited to students in their 4th and 5th years of secondary school in the City of Buenos Aires, youths between 16 and 18 years of age. In addition, in response to numerous requests from educational institutions, it also serves as a nexus between the requests of student graduates and the training and technical assistance activities periodically offered free of charge at the Microenterprise Support Center of the government of the Autonomous City of Buenos Aires. In general, these are youths between age 20 and 22 who are recent graduates and have stayed in contact with their educational institution.

In this context of scarce resources and owing to the impossibility of covering all the secondary schools in the city, in 2002 it was decided to launch an ideas and projects competition. The objective was to concentrate a number of the services previously offered by the program (stimulating entrepreneurial spirit, training workshops, and providing technical assistance for project formulation) in a single activity. The competition is initiated by a notice sent to the educational community. This is disseminated by notices on secondary school bulletin boards and by e-mails to

their directors and to students registered in their database.[24]

Interested students must register by using a form available at the educational institutions and in the program offices. The form must be submitted in person at the government offices. Registration, which is valid for a month, may be individual or for a group, with an allowable maximum of six members per team. In such a case, the group must designate a representative. After the registration process is completed, a portfolio is assembled on each project presented and an electronic database of the information contained in them is established. A week later the organization sends e-mails to the entrepreneurs to notify them that they have been registered and that the training stage is beginning, and introductory materials for the first module are attached.

The training, on the creation and management of a microenterprise, is carried out by teachers from the Microenterprise Support Center and program members. It is organized into five thematic blocks: how to initiate a venture; project formulation; marketing and market analysis; Internet for entrepreneurs; and costs. Each block is presented in a four-hour session held every three weeks. The courses are delivered at six locations throughout the city, and are attended by 30 to 40 students each time. It bears noting that only one representative of each team registered may attend. The training stage lasts about four months.

Ultimately, the end objective of the training is to provide the students with the tools needed for preparing an assisted business plan that makes the idea presented initially viable. To this end, the training courses address each of the topic areas making up the business plan. Alongside the training, the projects receive personalized technical support to bolster the various parts of the business plan. To this end, the program weekly sends supplementary material to them by e-mail, and they receive advice by phone and by electronic mail. Arrangements are also made for the entrepreneurs to personally visit the program offices. Like the training, the monitoring and technical advice are provided by program members and CAM professionals.

After the presentation deadline has passed, the evaluation phase begins. This is handled by two CAM specialists, the Director-General of Microenterprises and the Secretary of Economic Development (the program coordinator does not participate in this stage in order to avoid any conflicts of interest). The evaluation phase lasts about one month.

The evaluation process leads to a ranking of the projects. The program provides monetary prizes to the projects ranked in the top seven places: Arg$2,000 for first place, Arg$1,200 for second, Arg$800 for third, and Arg$250 for each of the four remaining places. This total of Arg$5,000 is funded by the budget allocated to the program. The competition held to date took place in August-December 2002. It involved 135 projects submitted by 548 students and 62 educational institutions, 32 of them public and 30 private. Finally, 79 business plans were in competition during the evaluation stage (Table 11.5).

In addition to the ideas and projects competition, a series of workshops on enterprise management is conducted within the framework of this program. These workshops have a view to stimulating the entrepreneurial spirit of young students and enhancing their awareness of developing their entrepreneurial capacities. At the same time, they are provided with general knowledge about the labor market, self-employment, and the management of microenterprises. As in the case of all the other activities currently carried out by the program, the intended recipients are students in the last two years of the upper cycle of secondary schools in the City of Buenos Aires.

The workshops on enterprise management consist of an 80-minute lecture in the facilities of each educational institution, conducted by a CAM professional and the program coordinator. For these lectures to be scheduled, the institution must contact the program and make an explicit request. For a time, an official letter from the school was required for this to occur, but experience demonstrated that a complicated bureaucratic procedure excessively delayed taking action. For this reason, arrangements are now made informally and, at the end of the workshop, the school and the students receiving training sign a document verifying that it has been held.

The topics addressed are: aspects of the entrepreneurial culture; the attitudes and aptitudes of entrepreneurship;

[24] Any student who has had personal, telephonic, or electronic contact and/or has participated in any other program activity is recorded in a contacts database.

Table 11.5
Projects by Line of Business and Type of High School

Line of business	Registered				Projects submitted			
	Academic high school graduate	Business high school	Technical high school	Total	Academic high school graduate	Business high school graduate	Technical high school graduate	Total
Crafts	3	5	1	9	2	4	1	7
Training	2	2	1	5	1	1	1	3
Design	3	0	4	7	1	0	1	2
Ecology	5	2	1	8	4	1	1	6
Electronics	0	1	7	8	0	1	4	5
Aesthetics	1	1	3	5	0	1	2	3
Gastronomy	16	8	5	29	9	4	4	17
Clothing	6	3	3	12	3	2	3	8
Information technology	2	0	4	6	2	0	4	6
Advertising	3	0	3	6	1	0	2	3
Services	7	7	3	17	2	4	3	9
Tourism	3	3	2	8	1	2	2	5
Other lines	6	3	6	15	3	0	2	5
Total	57	35	43	**135**	29	20	30	**79**

Source: Results obtained at 2002 Young Entrepreneurs Projects Competition. Project Management.

the profile and definition of the entrepreneur; interconnection between education and work; concepts of employment and self-employment; the formulation of ideas and projects; and how to start a microenterprise. About 30 students participate and, according to data provided by the organizations, only 5 percent demonstrate entrepreneurial inclinations. Since they were first organized, some 5,000 students have participated in the workshops. Despite the existence of sizable demand, during the first quarter of 2003 they were discontinued owing to the lack of staff available to teach them.

Finally, Internet seminars for entrepreneurs are organized. The primary objective of these seminars is to associate specific knowledge with the possibility of developing a microenterprise. The intended recipients are specifically those students who have initiated communication with program members showing an interest in one of their activities. It is thus a more select group made up of students from various schools. Generally, these seminars are held every two months for about 30 students. They are intensive, lasting three hours, and are conducted by program personnel and CAM professionals. The topics addressed are: the potential of the Internet; market trends on the Internet; hardware and infrastructure requirements; the various types of Internet connections; the Web, e-mail, and electronic bulletin boards; marketing on the Internet; digital firms, and entrepreneurial possibilities on the Internet. Like the workshops on microenterprise management, the shortage of available personnel made it impossible to conduct seminars on the Internet for entrepreneurs during the first quarter of 2003.

METROPOLITAN DESIGN CENTER—INCUBA

The Metropolitan Design Center (CMD) was created in 2000. It reports to the Directorate-General of Technol-

ogy and Design of the Economic Development Secretariat, and the Secretariat of Culture, of the government of the Autonomous City of Buenos Aires. While it was originally designed as a space for exchanging creative ideas, over time its services were expanded. At present it is devoted primarily to the promotion and dissemination of industrial design and clothing design.

It was decided to locate it in the southern part of the city for a strategic reason: to stimulate revitalization of the southern area of the city, which traditionally lagged behind. The CMD currently operates in an area that has been refurbished for the purpose (approximately one-third of the total surface area) and two expansion projects are currently in progress.

The Metropolitan Design Center provides the following services: research and development on products and designs used as inputs for enterprises and designers; technical and financial assistance for the development of products, services, and value-added business in design; the promotion and dissemination of designers, enterprises, and related events; interconnecting the various parties involved in the production of goods and services; and providing a link between production and design for equipment and furniture, clothing and fashion, packaging, toys, footwear, and audiovisual products.

The target population is enterprises from the city, especially micro, small, and medium-size firms, and skilled human resources (designers, managers, teachers, researchers, and entrepreneurs). It is estimated that there are 600 firms in a position to be included in an innovation system that would enhance their capacity to generate value. Effective demand (revealed need) is 400 firms.

Furthermore, its activities are focused on the generation of a network that serves to support the design industry and comprises its various links: suppliers, producers, designers, marketers, exporters, and investors. The process involved is complex, given that each of its components must adhere to different codes. The CMD endeavors to serve as a facilitator among the parties, promoting common interests. The primary objective of this strategy is to enhance the competitiveness of industry in general.

According to the 2003 budget passed by the local legislature, the CMD has slightly more than Arg$11,143,000, but it should be borne in mind that approximately Arg$10,303,000 (92.5 percent) of this amount is allocated for construction. The remodeling of the building used by the center is estimated to cost about Arg$14,000,000, of which about 40 percent is the infrastructure investment intended for its incubator operation.

INCUBA, founded in 2001, is a business incubator specialized in the design, tourism, and cultural goods industries, an integral part of the CMD designed jointly by the Economic Development Secretariat and the Culture Secretariat of the government of the Autonomous City of Buenos Aires. The idea did not stem from prior international experience, but rather is intimately related to the specific realities of the sector in the city.[25] The INCUBA Program was introduced with a view to generating, providing incentives, and strengthening-through an enterprise incubation process-enterprises intending to engage in design, tourism, and/or the production of cultural goods; developing the entrepreneurial spirit of new generations of entrepreneurs; and serving as a nexus between the most innovative projects of the new enterprises, entrepreneurs in related activities that already have a market presence, and distribution channels, while strengthening the relationships between them.

The Program is aimed at entrepreneurs, designers, producers, and creative personnel able to formulate a project for generating or empowering economically sustainable enterprises in the City of Buenos Aires whose products or services are focused on design, tourism, or cultural industries. These may be new ventures or previously established enterprises requiring permanent assistance in order to resolve conflicts relating to their development.

INCUBA provides support to new enterprises through training programs, technical, commercial, and legal assistance, and advice on obtaining credit lines, registering trademarks and patents, and obtaining quality certification, in the conviction that such support will make it possible for new ideas to be converted into established and sustainable businesses. Moreover, the simultaneous

[25] According to reports from the Center for Metropolitan Economic Development Studies (CEDEM), tourism activity, cultural industries, and design-related industries account for 17 percent of the gross product of the City of Buenos Aires and 16 percent of its jobs. In addition, about 5,000 professionals graduate annually from the Faculty of Architecture, Design, and Town Planning of the University of Buenos Aires.

incubation, in the same physical space, of enterprises from different sectors and with different focuses makes it possible to bring together the various products and disciplines, "giving rise to a matching of talent and business, an area for exchanging experiences and potentials."[26]

According to the program's ground rules, the incubation should not cover a period of more than 3 years. In the years ahead, when the entire block has been reconditioned, there will be a sizable space with space for 60 projects, two laboratories (one for IT resources and another style workshop), and common areas (assembly hall, meeting rooms, etc.). Currently, the program employs six professional staff: a general coordinator, an administrative coordinator, two assistants, and a team composed of one incubation manager and a senior assistant, responsible for daily activities and the permanent support of the enterprises being nurtured. At the same time, numerous related specialists and specialists from other areas of the government of the Autonomous City of Buenos Aires collaborate in program operations.

Proposals are selected through an open project competition announced jointly by the Economic Development Secretariat and the Culture Secretariat of the government of the City of Buenos Aires. The terms and conditions for submissions are announced through the mass media (newspapers, magazines, and public posters) and on the local government's website. Participation in the competition involves three stages: registration, completing the project portfolio, and the submission of projects. Registration functions as a declaration of interest in participating, and is the first step that must be taken by all those who, a priori, are interested in taking part in the competition. The process lasts about two months. For each competition announced, specific fields of interest that the projects submitted must cover are defined.[27] Projects may be submitted by individuals or by groups.

Once the project submission stage has been completed, the portfolios are separated and sorted by topic areas and the evaluation stage begins. The evaluation process is carried out in stages, and has four separate phases. Basically, the evaluation is focused on "the entrepreneurial quality of applicants and their capacity to develop highly forward-looking or cultural projects; the technical feasibility conditions and economic scalability of the projects; and the extent to which the proposal takes advantage of competitive opportunities."[28] In addition, the production of potentially exportable goods or services is looked upon positively, and special consideration is given to those projects that generate a greater numbers of jobs and use domestically produced inputs.

In the first (pre-selection) phase, the files and projects are analyzed from the conceptual standpoint only. This phase lasts approximately 30 days. The evaluation team for this stage is internal. As there is no specific office for this function, it is carried out using staff from the Economic Development Secretariat and Culture Secretariat, over 20 of whom participate in making an initial selection of the projects submitted. All projects that fail to meet the mandatory requirements are disapproved.

In the second phase, the focus is on the Business Plan, and takes about 40 days. For this stage, INCUBA requests assistance from an outside evaluator, the Association of Technology Incubators, Parks, and Centers of the Argentine Republic (AIPyPT). This entity assembles a team of evaluators who analyze the projects free of charge at the program's offices. In this process, an economic, financial, and technological evaluation of the projects is carried out, and their legal and commercial feasibility are assessed. Based on agreed criteria, the AIPyPT evaluators also grade the projects and a given point score is required to move on to the following phase.

When the second (evaluation) phase has been completed, the portfolio containing personal information on the project leaders is opened; they are notified and called in

[26] See Government of the City of Buenos Aires (2003).

[27] Currently the intervention areas deemed to be of strategic interest are the following: production design in fashion (textiles, clothing, footwear, costume jewelry, leatherwork); production design for outfitting systems (urban equipment, household, offices, health and education, transportation, and sales outlets); tourism products and services; games, educational devices, and toys for children and adults; printing activities applied to the graphics and recording industries; and audiovisual production undertakings (film, video, television, radio, and live shows).

[28] See Government of the City of Buenos Aires (2002).

for the third phase, in which the entrepreneurial aptitude of the participants is evaluated. This phase lasts approximately one week. In this stage, the program requests collaboration from the Endeavor Foundation, whose staff conduct individual 45-minute interviews, at the program offices of each of the managers responsible for the various projects. It bears noting that Endeavor receives no monetary compensation for this service.

As in the preceding phases, point scores are awarded, in this case in accordance with a series of items that reveal the managers' entrepreneurial traits.[29] The projects approved move on to the last step, where they are examined by a panel. In the fourth and final phase, INCUBA establishes a panel of recognized specialists successful in each of the topic areas, which is responsible for the final selection of the projects for incubation. All the specialists provide their services ad honorem.[30]

The first competition of projects for incubation was held in mid-2002. There were 369 projects registered, of which 159 submitted portfolios for competition purposes and only 46 reached the final evaluation stage. Although it was planned to accept a maximum of 18 projects, only 13 ventures were selected because the remainder, in the opinion of the panel members, failed to meet the necessary quality requirements. Of the 13 projects selected, more than half were new undertakings. In addition, the majority of the established firms that were selected were young companies in their first years of operation (Table 11.6).

Table 11.6
Projects Submitted, 2002

Project	Amount	%
Total projects	159	100
By thematic area		
Publishing enterprises	34	21
Toys and instructional games	10	6
Tourist production and services	59	37
Audiovisual production	26	16
Equipment system	16	10
Fashion system	14	9
By gender of managers		
Female	59	37
Male	100	63
By age of managers		
Under 25	6	4
From 25 to 35	85	53
From 36 to 45	41	26
Over 45	27	17

Source: 2002 Statistics First Competition, Working Paper, INCUBA Management

Once a project has been approved and selected, a fundamental requirement for incubation is the formal establishment and registration of the enterprise by the member(s) of the group that will be responsible for project development. Without exception, all projects must complete the physical incubation on the Barracas premises, including those firms that were previously established. INCUBA offers numerous assistance services to the enterprises selected. It collaborates on monitoring and controlling the targets and objectives (evaluation of project quality and growth management), advises on formulation of the master plan, provides various training courses, and establishes contacts with venture capitalists, other enterprises, distribution channels, nongovernmental organizations, and universities.

It also offers advisory work on obtaining credit lines, registering trademarks and patents, and obtaining ISO 9000, 9001, and 14000 certification. During the internal incubation, the program offers physical space (office areas, security, and maintenance) and covers the costs of basic public services (including the equivalent of Arg$60 a month for telephone). When this period is completed the external incubation stage begins. Here, the enterprises receive the following support services: coaching, sector meetings, courses, technical assistance, and interviews with successful entrepreneurs (role models).

[29] The items reviewed by Endeavor during this phase are: background; leadership; openness; capacity to learn; capacity to change; execution capacity; creativity; and business vision.

[30] Each member of the review panel personally and individually examines the portfolios containing the projects relating to his or her area of activity. Approximately one week later, all members of the panel meet and discuss each project and the reason for its approval or elimination. The winning ventures are consequently selected by consensus of all panel members.

The assistance is all provided by INCUBA staff and by personnel from other areas of the government of the Autonomous City of Buenos Aires. In no case are external consultants engaged.[31] The enterprises selected are not required to pay for the services received. In the event any extra service is required, the program advises participants and accompanies them to ensure that they can obtain the best possible price.

Recently, the Program Board of Directors has begun securing funding from other sources: in one case, from the Inter-American Development Bank (to purchase computers and other necessary hardware). In another, the Board is processing the activation of its own credit line with the authorities of the Banco Ciudad de Buenos Aires for purposes of offering financial assistance at suitable interest rates for its beneficiaries.

UNIVERSITY PROGRAM FOR STIMULATING THE ENTREPRENEURIAL SPIRIT—BAITEC

The University Program for Stimulating the Entrepreneurial Spirit was established in 2001 by the Directorate-General of Technology and Design, under the auspices of the Undersecretariat for Production of the Economic Development Secretariat of the government of the Autonomous City of Buenos Aires. The aim of the program is to identify and stimulate the entrepreneurial spirit of students, teachers, and university graduates, for the establishment of innovative and knowledge-intensive ventures.

The City of Buenos Aires has a sizable population group with advanced studies (university and/or tertiary instruction), which is one of the fundamental factors in the development of innovative activities in knowledge-intensive sectors. However, there is nothing linear or automatic about generating businesses from knowledge in the face of a number of restrictions, stemming both from the market and from the capacity of entrepreneurs to achieve successful performance. The program seeks to overcome these limitations through training, assistance, and personalized support to entrepreneurs, helping them formulate an innovation project and a business plan that makes it viable.

In essence, PrUEVE is a competition aimed at "providing incentives for the development of innovative projects that are clearly oriented toward the generation of new, technology-based enterprises, for the development or improvement of a process, product, or service, with successful economic insertion into the local, regional, and international market."[32] There are only four staff members, two professionals and two assistants, specifically assigned to PrUEVE. Its funding from the budget of the City of Buenos Aires basically covers the wages of its four employees, as well as the investment in the physical infrastructure of the incubator (BAITEC), which amounts to Arg$400,000 in the first stage.[33] It is estimated that fully completing the works will require further investment of about Arg$400,000 (in furnishings and air conditioning, among other items).

In its first edition, the competition was restricted to students and graduates of universities or tertiary institutions, both public and private, situated in the City of Buenos Aires. However, the organizers observed that this restriction left out many innovative and viable projects proposed by the students/graduates from outside the city, for which reason this condition was lifted for the second iteration. It is now considered important only that the enterprise be established and pay taxes in the City of Buenos Aires. To participate in the competition, an Idea-Project must be submitted that is oriented toward establishing a technology-based firm and introduces innovative ideas.

Proposals are selected through an open project competition announced jointly by the Directorate-General of Technology and Design (Economic Development Secretariat). The projects must be knowledge intensive, technically feasible, and economically viable. They may relate to products, services, productive processes, and entrepreneurial management, and apply to all areas of knowledge.

[31] For example, the training programs are carried out by professionals from the Microenterprise Support Center (CAM), quality courses are taught by the local government's quality laboratory, and the accountant is part of the staff of the Metropolitan Design Center.

[32] See PrUEVE Program (2003).

[33] This first stage involves the complete reconditioning of the building to be used by BAITEC. Information provided by the Directorate-General of Technology and Design.

During the first three competitions (in mid-2001, mid-2002, and late 2002), registration was required by a previously set deadline. Now, by contrast, it may be filed at any time, without fixed terms or deadlines. Once the projects have been registered, they are assigned to the next call for a competition.

Once the open call period is concluded, the processing/evaluation of the submissions focuses on three factors: the idea-project; the project for innovation; and the business plan. The first stage consists of the presentation and evaluation of the ideas-projects. In this phase, the general characteristics and potential of the proposals are evaluated, and in no case are submissions rejected owing to noncompliance with any formal aspect.[34]

In the second stage, the projects that clear the first phase and wish to continue must formulate their project for innovation. These must be prepared in accordance with an assistance guide found on the Internet, and delivered in person to the program offices in a sealed envelope within 90 days following the start of this stage. The projects for innovation must explain in detail all matters relating to the process running up to the existence of the business, with emphasis on entrepreneurial strategies, business opportunities, and the environment in which the business will be conducted, as well as explain each of the alternative technologies selected, among other information.

Along with the completion of the projects for innovation, the program offers the option of an informal lecture-seminar on economic topics and entrepreneurial strategies as well as personalized advice on project formulation, conducting market studies, marketing, strategy formulation, market segmentation, etc. Once the projects for innovation have been submitted a new evaluation process begins. The projects selected then move on to the third and last phase, namely the formulation of the business plan. Here, the teams benefit from technical support at no cost through training workshops and personalized counseling from qualified professionals. In addition, the Economic Development Secretariat assigns a tutor to each of them from the internal roster of local government employees, with a view to providing them continual assistance until the business plan is in its final form. As a culmination to this stage, the tutors prepare tutorial reports expressing their views in writing.

Formulation of the business plan takes two to three months, after which the concerned parties submit their plans. This begins the final stage of evaluation, which takes about two more months. The final evaluation is carried out by an internal ad hoc team of staff members from the Economic Development Secretariat and the Director-General of Technology. The views of the Consultative Committee for the Promotion of Technological Innovation, part of the city government, are also sought. The issues assessed include the degree of innovation, the technological impact, the expectations and requirements of those proposing the venture, and its technical and economic feasibility. All the projects that succeed in surviving this final evaluation process focused on business plans are regarded as having won the competition.

In its first iteration (2001), 143 idea-projects were initially registered. The competition spanned about 12 months, and ultimately 11 winning projects representing a total of 29 entrepreneurs were selected. The second iteration, in mid-2002, involved 70 idea-projects registered and is now in the final evaluation stage. The third iteration, in which there are only 28 idea-projects participating, was launched in late 2002. It bears noting that the average age of the participants is in the 35-40 range.[35]

The projects selected have access to the following incentives:

- Inclusion in Buenos Aires Technological Innovation (BAITEC), the Incubator for Technology-Based Enterprises run by the government of the Autonomous City of Buenos Aires
- Free assistance and advisory services
- Financing with city funds
- Inclusion in incubation arrangements with scientific and/or academic institutions
- Presentation to public and/or private institutions to seek sponsorship or support for the project
- Presentation to private venture capital funds
- Contacts with existing enterprises to offer the future entrepreneurs the option of associating with others

[34] For example, if some omission is found in the submission or if the special form for the program was not used, the project still continues its examination in an effort to learn the essence of the entry. In this stage and to the greatest extent possible, formalities are not grounds for rejection.

[35] Information provided by PrUEVE management.

Table 11.7
Idea-Projects Submitted in the Three Iterations of PrUEVE

	PrUEVE 1		PrUEVE 2		PrUEVE 3	
Line of business	I.P.	%	I.P.	%	I.P.	%
Agriculture and livestock	6	4	1	1	1	4
Food	10	7	5	7	1	4
Architecture and construction	2	1	4	6		0
Biotechnology	4	3	1	1	1	4
Education	13	9	5	7	3	11
Alternative energy	2	1		0		0
Pharmacy and biochemistry	4	3		0		0
Information technology and Internet	25	17	11	16	5	18
Engineering	12	8	9	13	5	18
Medicine and health	12	8	9	13	3	11
Environment	4	3	5	7		0
Administrative and/or financial organization	27	19	6	9	4	14
Other	18	13	6	9	2	4
Chemical	3	2		0	1	4
Robotics	0	0		0	1	4
Telecommunications	1	1	4	6		0
Tourism	0	0	4	6	1	4
Total	**143**	**100**	**70**	**100**	**28**	**100**

Source: PrUEVE management.

- Financing through such new mechanisms as may arise in the future.

The Buenos Aires Technological Innovation (BAITEC) project was created in December 2002 following finalization of the first iteration of the University Program for Stimulating the Entrepreneurial Spirit (PrUEVE). Its objective is to use an incubation process for transforming the projects selected in the PrUEVE context into actual businesses. It bears noting that access to BAITEC is limited to business plans that have been favorably evaluated by PrUEVE. To access the first stage of incubation—at present external incubation—the selected firms must prepare a short-term work program that is approved by program officials. The business plan approved in the course of the competition serves as the backdrop for the work plan, and the tutors continue collaborating in this new cycle, now providing assistance with preparing the work plan, the aim of which is for the firm to succeed in completing at least a first sale. Once the work plan has been approved, the selected enterprises may sign an incubation instrument-agreement and gain access to a subsidy of Arg$15,000 to Arg$36,000 (of the 11 winners of PrUEVE 1, only 9 enterprises signed the incubation instrument in December 2002 and accessed some Arg$22,000 in subsidies). The time allotted for carrying out the work plan is five to nine months, and the funding can be used for purchases of goods and inputs and for the payment of current expenditure, but not for the compensation of the entrepreneurial team's members. It may also not be used for consulting, in that the program provides technical and financial assistance.

Table 11.8
Stages in the Evolution of PrUEVE

Stage		PrUEVE 1	PrUEVE 2	PrUEVE 3
Idea-project	Submitted	143	70	28
	Approved	55	28	13
	% approved	38	40	46
Innovation project	Submitted	35	18	
	Approved	13	10	In progress
	% approved	37	56	
Business plan	Submitted	13		
	Winners	11	In progress	
	% approved	85		

Source: PrUEVE management.

Effectively, BAITEC will offer training and commercial, accounting, legal, and administrative counseling. These free and personalized services are rendered by relevant professional staff from the city government. The firms selected may sign co-incubation pacts with scientific institutions relating to the undertaking, providing them access to their facilities (2 of the 9 firms in the incubation process to date did so with the Faculty of Exact and Natural Sciences of the University of Buenos Aires). Connections with relevant business chambers are also provided.

The incubation process is carried out at the facilities of a building located in Puerto Madero, near the Rio de la Plata in the center of the City of Buenos Aires. The remodeling work, which will be completed in mid-2003, will give the building a total surface area of 1,300 square meters, intended to house up to a total of 30 enterprises and provide space for program coordination and training activities. While this is not stipulated, it is estimated that the incubation period is not to exceed a maximum of three years.

While the PrUEVE-BAITEC Program is quite new to be able to speak of evaluation results, the program coordination team did conduct a satisfaction survey among the 70 teams that submitted idea-projects in PrUEVE 2. The responses provided indicate, on the one hand, a high degree of satisfaction with the government initiative to provide incentives and channel resources to entrepreneurial projects in general. Moreover, there was broad approval of the organization and conduct of the program in particular. Most of the suggestions mention that "there should be more promotion," "there should be greater clarity and assistance with reading the forms," "the benefits should be more clearly explained," "the process could be quicker," and "more details should be provided on the way the Incubator works,"[36] among others.

FINAL THOUGHTS

Despite the fact that the programs discussed in this study have been introduced quite recently, their impact could not be evaluated, and many of their tools are still not widely applied, the experience of the government of the City of Buenos Aires has a number of interesting aspects that should be highlighted.

First, from the strategic point of view, it bears noting that there was not (and still is not) any single strategy in the area under review that has been implemented by various government units. Quite the contrary, the emergence of the various programs was in large measure a response to individual efforts in various government units motivated by the need to do something—based on a few existing experiences—in view of difficult economic and social situation through which the city has been struggling since mid-2000.

However, this initial lack of interconnection is being reversed (to some extent) with the passage of time, although the situation still is far from having a common strategy. Indeed, a number of interesting efforts to supplement what is offered by the various programs bear mentioning, for example the offer of CAM financial assistance with the INCUBA design incubator. In other words, while there was no comprehensive approach when these initiatives began, the city government is

[36] Responses to the satisfaction survey (September 2002); see PrUEVE Program (2002).

now gradually moving to achieve this in its offer of assistance to entrepreneurs.

The main consequence of this origin for the city government's programs is that they (with the exception of CAM) start on a small scale in relation to the objectives pursued. Indeed, the majority of the programs reviewed are experiencing problems with respect to monetary resources and the availability of human resources. Paradoxically, while the scarcity of resources highlights the limits of this experiment, it also invites analysis of just how those in charge of the programs have engineered those resources in order to overcome these barriers.

Noteworthy in this regard, on the one hand, is the degree of commitment of the staff to the various initiatives and the willingness they have shown in some cases to ensure that they not be terminated (as in the case of Young Entrepreneurs, for example). In addition, the staffs of the various programs have a high degree of creativity and professionalism. Both these characteristics were surely critical for the development of the city government's support infrastructure for entrepreneurs. Another positive aspect of these initiatives is their strong ties to various private sector participants, which brings them closer to the needs of entrepreneurs and enables them to respond more satisfactorily.

In sum, the most important aspect of this initiative is that it is an embryonic and innovative experience for the City of Buenos Aires whose most noteworthy characteristic is its amplitude, ranging from the dissemination of the entrepreneurial culture in the final years of secondary school and personalized support for small businesses to the promotion of ventures in leading-edge fields, such as design and technological innovation.

This is a building phase, in which the major strategic paths and the policies for pursuing them are laid out. Because Argentina has not been previously characterized by building institutional frameworks and promoting long-term public policies—each new government seeks to retrace the path of the previous one—the greatest worry of those supporting the programs under study is their continuity and strengthening.

"EMPRENDE TU IDEA" IN EL SALVADOR

The background of the Emprende Tu Idea (Invest in Your Idea) experiment dates from 1997, when the international nonprofit corporation Technoserve decided to get involved in the promotion of the entrepreneurial process in urban areas as part of its institutional strategy for combating poverty.

Based on an experience of observing the preparation of business plans for new enterprises being organized in South Africa by the international consulting firm McKinsey & Co., Technoserve decided to transfer this methodology to a Latin American country that met the requirement of having a stable macroeconomic and political environment conducive to entrepreneurial development and the emergence of new enterprises. According to Technoserve, El Salvador met this requirement at the time, for which reason the Technoserve-El Salvador Program was assigned the task of conducting a methodological transfer and adaptation process, and of training the local staff involved in a business plan competition project for new entrepreneurs.

In this context, Technoserve established an institutional alliance with the Salvadoran Foundation for Social Action (FUNDEMAS), which in turn served as franchisee of other methodology for the development of entrepreneurial capacities as EMPRETEC, which had the support of the United Nations Conference on Trade and Development (UNCTAD).

The Emprende Tu Idea (ETI) competition blends the McKinsey methodology with EMPRETEC methodology and is moving forward as part of an alliance between Technoserve, FUNDEMAS, the Salvadoran Foundation for Economic and Social Development (FUSADES), and the public agency for micro, small, and medium-size enterprises, namely the National Commission on Micro and Small Enterprise (CONAMYPE).

The first version of the ETI competition was carried out in 2002 through a national call for submissions with a limit of 300 entries. On this occasion, four finalists received cash prizes of US$15,000. Based on the results of the first competition, a second call for submissions took place in 2003. On this occasion several changes in the approach were introduced, such as: increasing the limit on entries to 360 participants, and segmenting the participants and prizes to promote the inclusion of agricultural activities and the eastern part of the country.

For the second version of ETI, there were thus five cash prizes of US$12,000 for the best business plans, distributed as follows: two prizes for national participants in any economic sector; two prizes for national participants whose business plans incorporated agricultural innovations; and one prize to a participant from the eastern part of the country in any economic sector.

STRATEGIC FRAMEWORK

The strategy for the ETI competition is based on searching for and identifying individuals with entrepreneurial traits[37] with a view to providing them with the tools whereby they can create new enterprises or introduce innovations in the enterprises they already own.

The competition is open to all ideas that might make it possible to create sustainable employment; it is not limited to new entrepreneurs, but also includes established entrepreneurs who seek to expand or incorporate innovations in the enterprises they already own that result in an impact on job creation and economic development. The objective is to contribute to the competitiveness of Salvadoran small and medium enterprises through training, consulting services, and financing for the creation or expansion of dynamic businesses with the potential to create sustainable employment.

The three principal activities of the ETI competition are to provide participants with training on the way to begin and manage an enterprise and for strengthening entrepreneurial behaviors; to facilitate participants' access to specialized and experienced consulting services as well as to information and institutions that offer entrepreneurial development services; and to expose participants' business plans to

[37] Possession of entrepreneurial traits is associated with the potential to create and operate an enterprise successfully.

organizations with financial capital, experienced entrepreneurs, and institutions that support small and medium enterprises.

As regards the characteristics of the participants in this competition, registration is open to all adults, whether Salvadoran or foreign nationals, who have a business idea for an industry or service, for starting up a small or medium-size enterprise, or for expanding and/or diversifying an existing enterprise that employs at least 100 workers. In both cases, it is stipulated that the business must have economic growth and employment potential, meaning that it must have a minimum goal of US$30,000 in sales in the first year of operation and creation of at least five new jobs in the first two years of operation.

According to ETI's statistical records, the participant profile is as follows: 70 percent are males living in the metropolitan region of El Salvador, age 24 to 40, who have university educations. This profile was not a deliberate aim, but rather the consequence of the characteristics of the prevailing social structure in El Salvador.

Promotion of the entrepreneurial process has five stages: motivation, training, identification of opportunities, access to resources, and follow-up. The ETI competition includes four of the five phases of this process.

First, ETI includes the motivation of new entrepreneurs, carried out through visits to universities, business chambers, and other institutions to provide detailed information on the competition. This is in addition to the spontaneously generated motivation of the cash prizes, training opportunities, and free advisory services that the competition provides to participants. Motivation also stems from a far-reaching publicity campaign that includes press conferences, launch events, the printing of pamphlets and other promotional materials, interviews with the media, and other activities.

The training phase is based on EMPRETEC workshops and the specialized consulting provided for the process of preparing business plans. The EMPRETEC program provides training in three basic areas of human behavior, including personal success, planning and self-confidence, and the exercise of power. The 56 hours of training are spread over seven workdays lasting 8 hours each. The training uses modules that make it possible to understand, recognize, practice, and strengthen entrepreneurial behavior, which is classified into three areas or sets:

- Success: the search for opportunities and initiative, persistence, seeing the job through, drive for efficiency and quality, and capacity to assume risks
- Planning: goal-setting, searching for information, and systematic planning and follow-up
- Power: persuasion and support networks and self-confidence and independence.

The other training resource used by ETI to promote entrepreneurs is the support provided to competition participants throughout the process of preparing business plans. This support is provided by consultants who offer direct and ongoing assistance to participants as they develop the contents of their business plans, as well as by experts who address specific questions raised by competition participants on specific topics. The relationship between competition participants and experts is generally maintained electronically.

The project also has an impact on the identification of opportunities, but only indirectly because when the competition participants register, they must have previously identified the business area in which they are going to work. This first approximation is refined as invitations are extended to participants to attend activities subsequent to the course, in which exchange of experience is encouraged among new entrepreneurs and between them and other entrepreneurs and/or experts. Participants are given the opportunity to establish new business contacts and to glean information that might result in new business opportunities or broaden the business opportunity that the competition participant had identified when his or her idea was registered with ETI.

Finally, the competition contemplates facilitating the availability of resources for starting up the business ideas and plans more feasibly, primarily financial resources. This access to financial resources is carried out at two levels: cash prizes are paid to winners of the business plan competition, and credit lines are made available to finance business plans that were not winners but that were finalists in Phase III of the competition.[38]

[38] It bears noting that obtaining the loan is not automatic for Phase III finalists; rather, they are subject to the evaluation and credit analysis process established by the financial institution that administers the credit line, in compliance with the same requirements that must be met by all the other clients of the institution.

INTERVENTION MODEL

The project's intervention model is based on completing three phases in succession over a total period of eight months.

Phase I: Entrepreneurial Spirit

This phase begins with the public invitation to participate in the competition and with the participant registration process. Each participant must make a financial payment for registration purposes (US$15), and registration is closed when the predetermined ceiling on participation is reached.

In the 2002 version, 300 persons participated, while participation increased to 360 in the 2003 version. At the same time, the profile of the project idea submitted is evaluated.

Based on the scores awarded to the participants, the 150 highest profiles are selected to continue on to the second stage of the competition. In order of importance, the business ideas presented in this stage relate to the following sectors: personal or professional services (21 percent), manufacturing (20 percent), agriculture and fisheries (15 percent), information systems and programming (14 percent), advanced technology application (13 percent), advertising and marketing (13 percent), restaurants and fast food (9 percent), hotels and tourism (8 percent), health (6 percent), financial services and real estate (4 percent), franchises (3 percent), trade (2 percent), and other (9 percent).

As regards gender of the registrants, 70 percent are male and 30 percent are female. The occupations reported by participants at the time of registering for the competition are: enterprise owners (33 percent), employees of private firms (23 percent), students (15 percent), unemployed (13 percent), employees of family owned businesses (9 percent), and public employees (7 percent). The educational profile of the Phase I participants indicates that the majority are university educated (78 percent), while geographically the majority of requests are from the San Salvador metropolitan area (67 percent).

Phase II: First Draft of the Business Plan

In this part of the competition, the emphasis is on preparing the first draft of a business plan, focused principally on the definition of the project's marketing strategy and financing.

In Phase II, the participants must take and pass an EMPRETEC course and also attend the cycle of lectures delivered on topics relating to the preparation of a business plan.

The EMPRETEC training course lasts seven full workdays, after which all participants are provided with a format for preparing a business plan consistent with their entrepreneurial idea. The effectiveness of the EMPRETEC workshops has been evaluated on the basis of entry and exit surveys of the participants concerning the aspects involved in starting and managing a firm. The evaluation results indicate improvement in the participants' knowledge on the order of 54 percent, as the average score rose from 45 points to 69 points out of a maximum grade of 100.

Once the EMPRETEC course has been completed, each participant is assigned an advisor and provided with a list of mentoring institutions to which he or she may turn to resolve specific issues relating to the plan preparation process. The competition participants have 30 days to produce the first draft of the business plan. At the same time, the participants must attend a series of lectures prepared to support the process of preparing that document. Some of these lectures double as contact events in which participants can share experiences and meet legal experts, consultants, successful entrepreneurs, as well as potential sources of financing for their ideas.

ETI 2002 included five lectures devoted to various topics relating to the preparation of a business plan. The topics covered were: presentations on two cases of Salvadoran entrepreneurs; marketing; finance; legal aspects; and venture capital in El Salvador.

According to experiences with the ETI 2002 and 2003 competitions, some 65-75 percent of the total number of participants in this phase will submit their business plans. The reasons most frequently cited for participants' failure to do so relate primarily to the lack of sufficient time for the work.

The final stage of this phase is the filing and evaluation of the plans. A panel of reviewers evaluates the business plans on the basis of a predefined form and selects the 30 best ones; these plans are returned to

the competitors with comments that must be addressed when the final version is submitted.

All the competition participants selected for the next phase must sign a document in which they undertake to invest the prize money, should they win it, in the business described in the plan.

Phase III: Final Business Plan

The 30 finalists reaching this phase have 8 weeks in which to redraft and/or improve the business plan on the basis of the observations made by the panel of reviewers. The process ends with the written and oral defense of the plan before the review panel that selects the competition winners. The oral defense lasts 20 minutes, divided into 15 minutes of exposition and 5 minutes for answering questions from the reviewers.

The review panel has 5 members, the majority of which are bankers. The reason for this profile for panel members is the desire to have a realistic analysis of the projects using evaluation factors identical to those commonly applied to similar projects, namely risk analysis by a bank or financial institution.

The winners of the competition receive their prizes at a public event, at which they are given a diploma and a symbolic check for the funds awarded. The funds themselves are provided later, as the business plan is implemented, and are disbursed against the presentation of invoices and price quotations for expenses incurred.

The profile of the finalists builds on the trends observed for Phase I: 73 percent are male; 77 percent live in the San Salvador metropolitan area; 47 percent are business owners; and 90 percent have studied at the university level.

INSTITUTIONAL ORGANIZATION

The institutional organization of the project is structured in three types of organizations.

Organizing Committee

The Organizing Committee is headed by Technoserve, with membership by three entities engaged in supporting micro, small, and medium-size enterprises in the capacity of strategic partners. The Technoserve-El Salvador Program belongs to an international nonprofit corporation whose mission is to support persons with an entrepreneurial spirit in the poor rural areas of the developing world, helping them to create profitable enterprises that generate incomes, opportunities, and economic growth for families, communities, and countries. In El Salvador, Technoserve is active with two subprograms: the Agribusiness Initiatives Program, and the Entrepreneurial Leadership Initiatives Program. The second of these subprograms promotes new business ideas and develops entrepreneurial skills.

The strategic partners are FUNDEMAS, FUSADES, and CONAMYPE. FUNDEMAS is a private nonprofit foundation established in 2000, made up of individuals from the private sector, business, entrepreneurial associations, foundations, and higher education institutions. Its objective is to contribute to El Salvador's economic and social development by enhancing the social responsibility of private enterprise, promoting entrepreneurial philanthropy, and fostering entrepreneurial values. The role of FUNDEMAS within the Organizing Committee of the ETI competition is to support the dissemination of knowledge; conduct interviews of the participants in the first phase; select the participants for the second phase; and organize the EMPRETEC workshops for the participants in the second phase.

The Salvadoran Foundation for Economic and Social Development (FUSADES) is a nonprofit institution that functions as a study and research center and development facilitator by channeling entrepreneurial services and social promotion. In order to promote the development of micro and small enterprise, FUSADES conducts the Small Enterprise Promotion Program (PROPEMI), which offers loans and entrepreneurial development services such as training, technical assistance, entrepreneurial counseling, technology transfer, and business associations. Through the PROPEMI program, FUSADES offers competition participants the support of consultants on the preparation of business plans and makes a credit line of up to US$15,000 available to Phase II finalists for financing the startup of their plans.

The National Commission on Micro and Small Enterprise (CONAMYPE), the third strategic partner, is an entity reporting to the Ministry of Economy. It was created in 1999 and assigned the mission of promoting,

facilitating, and coordinating the implementation of policies, strategies, programs, and actions favoring the comprehensive development of micro and small enterprises. The Board of Directors of CONAMYPE is chaired by the Minister of Economy, and its members are representatives of professional associations and private organizations supporting the micro, small, and medium-size enterprise sector.

Sponsors

The sponsors are private enterprises or institutions that provide resources for the competition budget and in turn receive as benefits the exposure of their brand names in the competition's publicity campaign and at its events, as well as the possibility of gaining access to a new customer base.

The sponsors are subdivided into institutional sponsors and corporate sponsors. The first group is made up of national or international entities that provide technical and financial cooperation for the development of micro, small, and medium-size enterprises, while the second group comprises national or foreign private enterprises.

Depending on the amount of financial resources provided by corporate sponsors, they are classified as platinum, gold, or silver sponsors.

Mentors

The mentors are private development entities or private enterprises that make their experience and/or knowledge available to competition participants in support of the business plan preparation process.

The enterprises and institutions serving as mentors are the principal source of consultants, experts, and review panel members participating in the competition.

The project financing is derived from two revenue sources: cash contributions[39] by the member institutions of the Organizing Committee, and contributions in kind from the sponsor institutions and enterprises. The total budget for the competition in 2002 came to approximately US$500,000.[40]

RESULTS AND LESSONS LEARNED

The winning ideas in the ETI competitions were not necessarily those that were most innovative, but rather those enterprises or ideas deemed the most bankable. This is the logical consequence of the membership of the review panel for the competition, as its majority comes from banks and financial institutions. The absence of entrepreneurs on the review panel tends to favor the selection of projects that have a lower degree of financial risk, relegating the innovative aspect of the idea contained in the project to second place.

While the competition participants are clearly cognizant of the quality and relevance of the contents of the training and the advice provided by the mentor institutions during the competition, it has been suggested that it is necessary to delve deeper into some topics related to the enterprise implementation stage. In particular, the following topics need to be developed more thoroughly: procedures and requirements for registering and formalizing an enterprise, procedures for the personnel selection and hiring process, and the design of sales strategies.

The lack of activities for connecting entrepreneurs to networks constitutes a weakness of the ETI model according to participating entrepreneurs. In view of the requirements for the implementation stage of new enterprises, it may be advisable to incorporate activities that help entrepreneurs establish trade and entrepreneurial contacts.

It would appear that ETI is not stimulating participation on the part of female entrepreneurs. If the percentage of female participation in Phase I is used as a reference point, there was a decline of 5 percentage points from 2002 to 2003.[41] In this connection, it would appear to be advisable to introduce into the design of the call for submissions, and into the strategic framework for the

[39] The cash contribution includes the organization of courses, workshops, advisory work, and advertising.

[40] The largest sponsor is USAID, which contributed US$400,00 for ETI 2002 and US$200,000 for ETI 2003.

[41] According to ETI statistics, the first iteration of the competition entailed participation by 91 women, equivalent to 30 percent of total competitors registered in Phase I. In the second version, female participation dropped to 65 competitors, equivalent to 25 percent of the total.

competition, measures aimed at promoting greater participation by female entrepreneurs.

Of all the finalists in the ETI competition, only 10 (33.33 percent) submitted financing requests to PROPEMI-FUSADES. Of these, only 6 were approved for a total amount of US$63,857, for an average loan amount of US$10,643. Moreover, of the six projects financed, only two established new enterprises. These results demonstrate the low degree of effectiveness of the program's credit component, and could indicate that the supply characteristics of the credit and/or the systems for evaluating credit risk used by the PROPEMI-FUSADES Program are not adapted to the characteristics of the demand for financial resources on the part of new entrepreneurs. These results therefore merit a greater in-depth study of the limiting factors that may be impacting this behavior of credit demand and supply.

The experience of the ETI competition on its financing side makes it necessary to devise a strategy aimed at making the project sustainable. At present, no funds have been committed to financing future competitions, nor is there a strategy for seeking resources.

However, there is consensus among the participants and sponsors of the ETI competition regarding the great potential it would have for replication in any country of Latin America, provided that strategic partners can be identified and the roles and responsibilities of each participant in the institutional alliance is defined clearly and formally.

ETI's principal limitation from the standpoint of the entrepreneurs and organizers is, for the time being, the lack of follow-up on the enterprises that win the competition and the new enterprises created on the basis of their participation in it. This keeps the project from providing comprehensive attention to the entrepreneurial process and/or capitalizing on the experience of new ventures for purposes of strengthening the training activities for competition participants.

Finally, one of the greatest added values from the competition as regards entrepreneur training and the development of their business plan is the targeted advice and consultation the participants received free of charge from consultants and experts at the highest level that work and/or are associated with the institutions serving as mentors within ETI's organizational structure. These are high-level professionals of recognized prestige, and it would be difficult for the participants to have access to their services under other circumstances. However, the investment of time required for advisory activities for the participants may ultimately represent too high a cost for the future sustainability of the project with the existing quality standards, principally owing to the nonremunerated nature of the services of the consultants and experts called upon to participate as tutors during Phases II and III of the competition. ■

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PART III

CONCLUSIONS

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CHAPTER 12

OVERVIEW: MAIN LESSONS FOR LATIN AMERICA

Hugo Kantis

This research project has included case studies of various experiences with the aim of furthering the learning process based on those studies and complementing the lessons learned from the comparative study of the entrepreneurial process in Latin American and East Asian countries and in Spain and Italy.

The aim of the ideas presented below is to guide those who have responsibilities in the policy field and in programs for fostering entrepreneurship. First, the main lessons from studying experiences of entrepreneurial development are presented. Second, more specific implications from both parts of the study are presented.

LESSONS FROM EXPERIENCES OF ENTREPRENEURIAL DEVELOPMENT

1. There Is No Single Recipe or Objective

Above and beyond the possibility of capitalizing on the lessons from the cases, there are no standard recipes or single objectives. As a rule, entrepreneurial development is regarded as a way of attaining higher-level objectives. Where they have been spelled out, they embrace a wide range of aims related to regional development, job creation, development of small and medium enterprises (SMEs) and fostering innovation. However, by way of anticipation it may be noted there is a tendency to consider achieving an entrepreneurial society as an objective in itself.

The experience of the SOFTEX program in Brazil provides a lesson for the rest of the region. Although its original aims did not include fostering entrepreneurial activity, it ultimately came to place a strong emphasis on business startups as the result of learning that occurred throughout its implementation. For Brazil to become an international player in this sector—the initial and ultimate goal of the program—would not have been possible without the creation of a strong base of software producing companies. This lesson learned by Brazilian policymakers can be generalized to other fields of productive development in the region. The entrepreneurial base of Latin American countries is narrow. Consequently, many of the policies implemented (for example, to strengthen a particular sector, to construct value chains, or to spur the development of clusters) should be evaluated in order to determine the extent to which achievement of their objectives requires an increase in the number of businesses. Whatever work needs to be done, there have to be actors and often—as in the SOFTEX case—actions to foster entrepreneurial development must be included.

2. If There Is No Overall Strategic Framework, Ex Post Actions Must Be Taken to Coordinate Efforts

The study made it possible to show that even in a country like the United States, which is internationally recognized for its conditions favoring business creation and development, policies play a very important role. Even if, unlike the situation in Scotland, Germany, and Canada, the United States does not have a single, articulated, and deliberate entrepreneurial development strategy, an emerging ex post strategy can be discerned. It is based on actions and programs carried out at various levels of administration, whether to promote innovative activities (the Small Business Innovation Research program) or foster the development of small businesses in general (the various Small Business Administration programs). Something similar takes place in the various kinds of

training in business skills in the education system and in other fields that affect entrepreneurial development (for example, tax structure). Some experts suggest that progress must be made toward interconnecting and coordinating these efforts, moving toward a more integrated and deliberate national strategy. A completely different kind of activity on another scale is taking place with the initiatives of the municipal government of Buenos Aires in Argentina, which serve as a focal point around which to build an overall vision and to coordinate efforts in order to make them more effective.

3. Initiatives Differ in Strategic Scope, Budget, and Geography

On the one hand, there are initiatives that seek to modify the very conditions of the system of entrepreneurial development (for example, the cultural context, the educational institutions, or the supply of financing). Such is the case of experiences in the United States, Canada, Scotland, Germany and Brazil (see Box 12.1). The most ambitious draw together efforts scattered in different areas of government (both horizontally and vertically) and interconnect with the institutions of society (representatives of the private sector, the nonprofit sector, and the media).

At the other extreme, activities are focused solely on the microenvironment of a chosen group of entrepreneurs and projects, helping them to become a reality and to survive. The cases of El Salvador and of the municipal government of Buenos Aires are based fundamentally on working with people who already have a project. Starting with idea/project competitions, they focus their services on those that are selected. Thus they concentrate on accelerating and facilitating the process of those who already have a vocation for starting a business and have a specific project in mind.[1]

In Italy, both Law 44 and the Business Innovation Centers are based on the notion that the entrepreneurial process of persons who have a viable project must be accelerated, and that requires facilitating access to factors markets (fundamentally technical and financial assistance in the case of Law 44) and the physical infrastructure of incubation in the Business Innovation Centers. The expectation in the latter case is that concentrated location will foster the development of networks and other externalities (in Marshallian fashion) between companies housed with other businesses and institutions. Thus change in the conditions of the regional environment is promoted based on the strategy of setting of focal points that seeks to bring about indirect demonstration effects on the rest of the population. Because these initiatives are greater in scale and ambition than those in El Salvador and Buenos Aires, they can be classified in an intermediate category.

4. Initiatives That Extend the Boundary of Business Opportunities Minimize the Risk of Causing Displacement Effects on Other Existing Businesses

One way to classify the different initiatives is by examining their international reach. Some seek to widen or shift the boundaries of entrepreneurial space while others are centered on promoting greater exploitation of the opportunities and resources existing in the current borders.

When market access is facilitated (for example, through government purchasing in the United States or exports in Canada) and development of innovative businesses is promoted (for example, in the United States, Scotland, Germany, and Brazil), the boundaries of business opportunities for entrepreneurs are expanded. Some entrepreneurial projects in general gain technical and/or financial assistance without considering their potential for innovation, import substitution, or exports. A likely undesired result, in the latter case, is the generation of displacement effects as new enterprises overtake other companies that are not firmly established in the market.

5. Combining Generic and Niche Policies Is Common

The cases studied show that it is possible to combine both types of initiatives. Atlantic Canada and Scottish

[1] Constructing clear-cut frameworks of classification with no gray areas is always a complex matter. Moreover, it could be argued that maintenance during the time of business plan competition (as in El Salvador) helps improve the conditions of the cultural context or (as in the case of the municipal government of Buenos Aires) that performing activities of encouraging businesses around the topic of design or facilitating financing and technical assistance to those who want to start a business improve the conditions of the entrepreneurial process for the target population served. The scale of the initiatives is an additional criterion that helps define the character of the initiatives in terms of their potential to affect the conditions of the entrepreneurial environment in general versus the alternative of improving the microenvironment of a selected group of entrepreneurs and projects.

Box 12.1
Initiatives That Seek to Have an Impact on Systemic Conditions

In the **UNITED STATES** various initiatives seek to affect both the demand for and the supply of enterprises and entrepreneurs. Specifically, the various Small Business Administration (SBA) initiatives aimed at facilitating government procurement or the Small Business Innovation Research (SBIR) program widens the space for opportunities for startups and small companies. In addition, the SBIC program fosters the development of the venture capital market and, together with the SBA loan guarantee system, generates a supply of financing for entrepreneurs. The Service Corps of Retired Executives (SCORE) provides management consulting services to entrepreneurs, and the education or tax initiatives carried out by most of the states influence the conditions of the entrepreneur development system.*

ATLANTIC CANADA seeks to have an impact on the conditions of the cultural context (through major media campaigns), on the educational system (through introduction of courses on entrepreneurship at the different levels of education), on the supply of financing (through an expansion of venture capital and loans), and on the dynamics and quality of networks that support entrepreneurs. Similar comments may be made regarding the Scottish or German strategy; in the latter case the strategy is focused on the creation of companies from institutions of higher learning.

In **BRAZIL** there is a similar strategy with the SOFTEX Program, which is active in 23 regions with a view to impacting the cultural context and the university education system and to developing institutional networks that seek to offer legitimacy, technical assistance, networking, and infrastructure to new entrepreneurs in the software sector. In all cases a deliberate attempt is made to improve the conditions of the context by awaking in the target populations entrepreneurial vocations and competencies and by facilitating the conditions for starting up a business.

* A greater level of articulation between these various initiatives in both the public and private sectors would allow the U.S. case to be identified as one of comprehensive and systemic strategic behavior.

Enterprise carry out generic programs along with more focused actions that seek to increase the rate of new firm formation among minorities in specific segments of the population. Indeed, the programs increase the creation and development of specific types of companies that receive support.

In Latin American countries these definitions are important for designing strategies and entrepreneurial development programs, because resource limitations are significant and hence priorities must be set. That entails knowing the starting situation in order to define the extent and emphasis of a generic and/or niche strategy and, in the latter case, its focus (for example, youth, women, or fast-growing or technology companies).

6. Knowing the Starting Conditions Is Key to Defining Strategy

The conditions of the context of the cases are very different. Entrepreneurial culture, for example, is especially intense in the United States and northern Italy; the regulations for starting up or shutting down a business are very favorable in the United States and Canada; the SME institutional support infrastructure in North America and Europe is far superior to what it is in Latin America. These differences may not be ignored when thinking strategically. The more obstacles there are in the various factors affecting the operation of the entrepreneurial development system, the more comprehensive and systematic the strategy must be. Hence it is very important to have an adequate diagnosis of the specific conditions of each context. Some countries, such as Scotland, Canada, and Germany, started out with this kind of prior evaluation.

7. There Must Be Appropriate and Strong Institutional Foundations

In several of the cases studied, there were some pre-existing conditions of an institutional nature that facilitated implementation of the initiatives (for example, Scotland, Canada, and Germany), and hence it must be emphasized that in many Latin American countries the pre-existing institutional foundations and experience in the field of support to small businesses are more precarious or embryonic. Hence, one of the aspects that must be included in the analysis of the system for entrepreneurial development has to do with identifying and evaluating the organizations that work or can work in fostering entrepreneurship. An institu-

tional value chain might bring them together around their respective competencies and past experience. On a small scale, the Incuba program of the Buenos Aires municipal government is an interesting example of utilizing pre-existing institutional capabilities. In choosing projects for incubation, it obtained help from various institutions with experience in evaluating entrepreneurs and businesses.

In those cases in which there was a significant pre-existing small business support infrastructure, institution-building and enhancement processes were found, either to guarantee the quality of the technical assistance (for example, in Canada) or simply to respond to the specific needs of the entrepreneurs (in most cases), which are not the same as those of mature SMEs. Communication and setting up the services required significant efforts to invite entrepreneurs through clear messages, avoiding the confusion generated when services are dispersed and atomized (for example, in Scotland).

Moreover, the inclusion of actions in the field of shaping entrepreneurial ability—through the formal education system or among adults in general—made it necessary to develop an appropriate array of courses and activities as well as materials (for example, cases of successful local entrepreneurs) and human resources able to work with innovative pedagogies (for example, trainers, facilitators, and mentors). In addition there must be an examination of the extent to which the conditions of the institutional context of educational institutions (the cultural framework and incentives) foster entrepreneurship or may require institutional changes. Latin American countries have a long road ahead in this field.

8. The Commitment of the Private Sector and Civil Society Is Key for Sustainability

An entrepreneurial development strategy must have strong involvement by the private sector—and by civil society in general—if the intention is to change the conditions of the context, and hence it is crucial that actions be taken to achieve its commitment from the strategy design phase onward. The Scottish and Canadian experiences are good examples of the effort to be put forth to achieve a framework of social consensus around the issue of entrepreneurial development. In both cases, after the analysis many activities were scheduled with representatives of the business sector to bring about its commitment to the problem and the strategy, which first requires adequate understanding. The case of Scotland is interesting in this regard. Building a collective strategic vision translated into a proliferation of initiatives emerging from the private sector itself to foster entrepreneurial culture and support business startups. In some areas of activity private sector institutions took institutional leadership. In other areas the initiative arose from the Scottish entrepreneurial development agency and was later continued by the private sector.

This commitment is very important for several reasons. Some activities achieve better results when they are set up from the private sector. That is the lesson drawn from the evaluation of the Scottish strategy, which recommended making the business sector responsible for carrying out actions to foster the development of networks for entrepreneurs. Moreover, the tasks of publicizing information about exemplary entrepreneurial models or mentors require active participation by the private sector, which must nourish them. Such is the case, for example, of the networks of entrepreneurs of the Entrepreneurial Exchange in Scotland or of Grunder Helpf Grunder in Germany. The same may be said of the Local Heroes Program in Scotland, which identified, studied, and massively publicized cases of local entrepreneurs as part of its campaign to foster entrepreneurial culture. A good portion of these local heroes became directly involved in the activities of Entrepreneurial Exchange.

In addition, the resources available for carrying out the strategies must be leveraged through direct support by the private sector. Thus, the different levels of response and even the proactive stance of the private sector and of the nonprofit sector in countries like the United States, Canada, and Scotland may be contrasted with the problems faced, for example, by the SOFTEX program in getting private sector financing. That is why a good portion of its funding still comes from various public sector programs and lines. Those designing the initiatives must particularly keep this aspect in mind to assure the long-term sustainability of the programs.

9. The Intervention Style Should Itself Be Entrepreneurial

The strategy must itself be entrepreneurial both in the way it promotes the mobilization of the institutions of

civil society and in the way it works with the beneficiaries of the initiatives. It is crucial that local capabilities be awakened and that work be done in a decentralized manner under oversight systems that assure that efforts are coordinated and rationalized. In this regard, the contrast between some of the cases studied is very interesting.

The German case was based on a system of incentives for setting up regional and inter-institutional initiatives to foster an entrepreneurial culture, that is, the aim was for a deliberately bottom-up system, giving priority to developing and utilizing local capabilities and respect for the specific features of each territory. The SOFTEX program also promotes programs that come from the ground. The cases of Atlantic Canada and Scotland emphasize building a collective strategic vision and setting up inter-institutional alliances. At the other extreme, Law 44 in Italy is characterized by a significant degree of centralization of the actions in Sviluppo Italia. In any case, the type of institutional framework to be adopted must be adapted to the characteristics of the context. It is quite possible that where there are no basic local institutional capacities, the level of response to German-style incentives would be low, and hence prior work strengthening institutions will be needed.

With regard to the work with entrepreneurs, the Italian case provides interesting lessons that point to the need to avoid the temptation to overprotect would-be entrepreneurs. One of the conclusions reached by those responsible for the Law 44 initiative was that the margin of tolerance granted to potential entrepreneurs to meet their commitments ought be reduced. Setting up a "paternalistic umbrella" tends to produce attitudes that are not very entrepreneurial, and hence it sets up an institutional framework that runs counter to the values and attitudes that are intended to be instilled. When this was discovered in the Italian case, procedures were set up to recall the benefits granted to those who were not living up to their agreement. The same observation is valid for incubators. One of their typical problems is that when the end of the incubation contract arrives they have problems getting the new businesses to relocate and start operating under normal market conditions. In Italy this situation has led to the creation of direct incentives for the new businesses to leave their installations.

10. A Flexible Strategy Demands That There Must Be an Evaluation and Learning System

Analysis and systematic evaluation procedures are especially needed for a young and complex field such as entrepreneurial development (see Box 12.2). An evaluation system must be designed at the beginning of the initiative and it must be revised periodically. The goals to be attained must be established in a balanced manner. The case of the Scottish strategy or that of the SOFTEX program in Brazil illustrates the dangers associated with overambitious goals. In both cases, setting exaggerated goals had a negative impact on the possibility of adequately weighing program achievements vis-à-vis society.[2]

A system of indicators that allows for monitoring these goals ought to include both quantitative and qualitative variables. The former (the increase in rates of new businesses per inhabitant) are the most obvious, but others of a qualitative nature are also required so as to make it possible to examine the profile of the businesses created, their potential for dynamic growth and value added, their degree of addionality, and so forth. Likewise—and depending on the objectives being sought by the strategy—it is well to establish indicators that measure the evolution of intermediate variables related to the operating conditions of the entrepreneurial development system (for example, changes in the attitudes of the population toward the entrepreneurial option or the existence of institutional support networks for entrepreneurs).

IMPLICATIONS AND SPECIFIC RECOMMENDATIONS

This section complements the policy implications discussed in Chapter 7. The aim is to obtain possible sources of practical details and examples for already identified work areas on the basis of the cases studied in Part II.

[2] Latin American countries have an obstacle in this area due to the lack of statistics on the opening up and shutting down of businesses. Having such statistics available is a pending task that the various countries of the region ought to take up in order to learn the pre-existing conditions of the entrepreneurial context, facilitate goal setting, and verify achievements in the area of new firm formation.

Box 12.2
Evaluation Systems in Practice

The information gathered did not allow confirmation that in all the initiatives studied evaluation and learning systems were in place. The U.S. case includes studies and reports that follow some of these guidelines, but it is far from having an impact evaluation system (Zacharakis, Reynolds, and Bygrave 1999). More complete and rigorous evaluations have been identified in the cases of the Scottish, Canadian, and German initiatives.

An evaluation and strategic learning system is not achieved solely with the definition of goals, indicators, and monitoring and evaluation processes. The program set up in Germany included the creation of a space for reflecting on and learning from experience, and this helped to get feedback for the strategic process. A noteworthy example of building a learning and institutional exchange network formed by the different regions that set up strategies under the EXIST Program is the well-known forum established around the Fraunhaufer Institute.

Publicize Positive Role Models to Foster Entrepreneurial Callings

In East Asian countries, the United States, and the various entrepreneurial development initiatives set up in Canada and Scotland, the mass media publicize successful experiences and examples of entrepreneurs that promote entrepreneurial aspirations among the population, but that does not happen in the Latin American countries. Hence, publicizing cases of entrepreneurs who created and developed dynamic companies, created quality jobs, and helped modernize the production structure of the country will help awaken entrepreneurship and broaden the base of potential dynamic entrepreneurs.

Carry Out Actions for Groups with Less Entrepreneurial Inclination

Designing specific programs for population groups that show less of an entrepreneurial inclination or find it more difficult to create businesses may be an effective way to broaden the social base from which entrepreneurs emerge. Such actions were included in Atlantic Canada, Scottish Enterprise, and the United States.

Promote Entrepreneurial Vocations and Competence through the Education System and Foster Greater Connection between the Academic and Work Worlds

The findings of the study show that the education system at the secondary, technical, and university levels does not foster entrepreneurial vocation and competencies among students. However, the experiences of Canada, Scotland, Germany, and the United States show that educational institutions can play a very important role in the entrepreneurial process, especially when profound changes are promoted at the various levels of the system. Secondary school can promote the development of attitudes and values favorable to entrepreneurial development, while universities and other institutions of adult learning can not only motivate students, but also promote the development of skills such as the ability to handle ambiguous situations and accept risk, creativity, negotiating ability, teamwork, networking, sales, and problem solving. So that this learning will really be based on the experience of teaching methodologies, provision should be made for direct linkage with businesses because, as the study shows, businesses are the main entrepreneur schools.

Widen the Space for Opportunities to Start a Business

In order to widen the space for opportunities to start a business, efforts must be made to promote innovation, access to international markets, and utilization of opportunities for competitive import substitution. It is important that systems of innovation be enhanced because their weakness in Latin America constrains business opportunities and thus hinders the emergence of new dynamic firms. Likewise, improving information flows and interrelations between actors who share systems of entrepreneurial development and innovation can help foster new knowledge-based businesses. The programs developed in Germany and Brazil offer evidence of the importance of including business creation as a fundamental vehicle of innovative activity. It is crucial that incentives be

established so that institutions of research and higher learning be committed to fostering the creation of innovation-based companies.

Promote the Development of Entrepreneur Networks

The importance of networks comes not only from the study made of around 2,000 entrepreneurs in different countries, but also from the place they occupy in some entrepreneurial development strategies (in Scotland, Canada, and Germany). Social and commercial interaction with other people is one of the entrepreneur's main resources. Program designers and policymakers in general should learn from these experiences, placing special emphasis on promoting networks of contacts. Universities and other institutions for adult education in conjunction with organizations representing the private sector should stimulate exchange and linkages with experienced entrepreneurs, creating a spirit of cooperation that will be useful for preparing the project and launching the business.

Generate Appropriate Settings for the Emergence of Entrepreneur Teams

Teamwork can be promoted through training programs or through competitions to award business plans prepared by entrepreneur groups. Multidisciplinary educational programs make it possible to work with business administration and engineering students to promote business plans prepared by entrepreneur teams with specialized and complementary capabilities. The experiences studied indicate that, coinciding with the findings of the research, initiatives that promote the creation of growth-oriented companies usually include incentives for creating entrepreneur teams.

Improve the Environment and Financing Conditions

Latin American entrepreneurs in particular pointed to the lack of financing and, in some countries in particular, costs and red tape that make business startups difficult. Their initially smaller-scale operations, the lack of a track record to generate trust in their commercial ability among already existing firms, and their subsequent rapid growth generate high transaction costs in highly imperfect factors markets (financial, labor, technology, and professional services markets). Most of the cases studied already had strategies to transform the entrepreneurial development system or had particularly favorable conditions.

In Latin America, when financing is available it serves only the needs of mature firms. Initiatives must be promoted to develop financing aimed at new companies due to the negative consequences entailed in the restrictions on the supply of financing. The experiences studied show the importance of having a diversified supply of tools (for example, corporate venture capital, business angels, and simplified loans) and of the need to leverage public and private funds to foster an increase in the supply of financing.

In some Latin American countries entrepreneurs have a negative view of the influence of regulations and of the costs of starting a new business. The business environment could be made more friendly to new companies if the procedures and regulations for creating and engaging in a new line of business were reduced or simplified to the point where the costs and time for starting a business would not be too burdensome.

Set Up Training, Consulting, and Advisory Programs Adequate to the Demands of Dynamic Young Companies

Many of the existing business service programs do not serve the needs of entrepreneurs during the early development of their businesses (for example, attracting new customers, identifying reliable suppliers, and hiring qualified workers and managers). Taking this situation into account, policymakers should proceed carefully to design new training, technical assistance, and mentoring programs tailored to fit the needs of new companies and carried out by networks of organizations able to serve companies in their early stages of development. Such services may not exist in some countries, and hence it will be necessary to take steps to develop them. Some of the experiences studied provide lessons on how important it is to include initiatives of this kind (for example, Canada and Scotland).

Adopt Strategies with a Systematic Focus Based on Institutional Value Chains

To increase entrepreneurial fertility and enterprise quality there must be a comprehensive strategy that can connect the short and long term. That can only happen by encouraging alliances between institutions

able to add value and complement their abilities and experiences around a shared strategic vision. Several of the cases studied shed light on the key role played by such strategic partnerships (for example, Germany, Scotland, Canada, and Brazil), which are particularly vital for strengthening the entrepreneurial process in local spaces and supporting the emergence and development of knowledge-based businesses because these are the instances where the advantages are greatest.

Implementing a strategy of this nature requires strong participation by the public, private, and nonprofit sectors, which is not easy. This requires the presence of actors willing to work together who share a vision and strategic agenda, and the ability to commit themselves for the long run. The experiences studied are enlightening on the need to make major efforts to achieve consensus in civil society about the importance of taking action to promote entrepreneurial development (for example, in Canada, Scotland, and Germany).

Start from a Diagnosis of the Entrepreneurial System and Incorporate Learning Mechanisms

This study has presented a series of specific areas and recommendations for promoting new firm formation in Latin America. However, policy design must start by considering the particularities of the context in which they are intended to be applied. The starting point for policy and program design must be a deep diagnosis of the performance, strengths, and weaknesses of the entrepreneurial development system. The specificities of local environments must be known, and preference must be given to developing strategies that can take them into account when initiatives are designed and implemented (for example, Canada, Scotland, and Germany). Likewise, once policies and programs have been launched, it is crucial that there be evaluation systems to make it possible to learn the results that are being achieved and provide feedback on the design and on what went right and what went wrong. ■

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ABOUT THE AUTHORS

Pablo Angelelli
Has a degree in economics from the Universidad Nacional de Cordoba in Argentina; a master's degree in economics and industrial development, specializing in small and medium enterprise, from the Universidad Nacional de Mar de Plata and the Universidad Nacional de General Sarmiento, both in Argentina. Mr. Angelelli works at the Inter-American Development Bank in the Micro, Small and Medium Enterprise Division as a specialist in enterprise development.

Miguel Bacic
A public accountant from the Universidad Nacional del Sur in Argentina, Mr. Bacic is a specialist in consultancy for small and medium enterprise. He has a master's degree in economics from the Universidade Estadual de Campinas in Brazil and a doctorate in administration from the Universidad Nacional del Sur in Argentina. He is an associate professor with the Institute of Economics at the Universidade Estadual de Campinas.

Gustavo Baruj
Has a degree in economics from the Universidad de Buenos Aires and a master's degree in economics and industrial development, with a specialization in small and medium enterprise, from the Universidad Nacional General Sarmiento in Argentina. Mr. Baruj is an independent consultant and professor of industrial economics at the Universidad de Lomas Zamora.

Patrizio Bianchi
Graduated from the Universidad de Bologna and the London School of Economics and Political Sciences. Mr. Bianchi has served on numerous editorial and scientific committees and on various occasions as advisor to the Italian government and other international institutions, mainly on industrial development and small and medium enterprise. He is a professor of applied economics and Dean of the School of Economics at the Universidad de Ferrara.

Juan Federico
Has a master's degree in economics and industrial development, specializing in small and medium enterprise, from the Universidad Nacional General Sarmiento in Argentina. Mr. Federico is a researcher and student in the Development Enterprise Program at the same university.

Hugo Kantis
Holds a doctorate in economics and enterprise sciences from the Universidad Autónoma de Barcelona. Mr. Kantis is a director of the Master's Program in Economics and Industrial Development specializing in Small and Medium Enterprise and of the Entrepreneurship Development Program at the Universidad Nacional General Sarmiento in Argentina. A professor and consultant, he is also an educational researcher at the Universidad Nacional de General Sarmiento.

Juan José Llisterri
Has a degree in law from the Universidad de Deusto and has been a visiting scholar with the Institute of Urban and Regional Development (IURD) at the University of California at Berkeley in the United States. Mr. Llisterri has been a general director of small and medium enterprise in Spain and is principal enterprise development specialist and in charge of the policies area in the Micro, Small and Medium Enterprise Division at the Inter-American Development Bank.

Julia Evelin Martínez
Graduated with a degree in economics from the Universidad Centroamericana José Simeón Cañas in El Salvador and has a post-graduate degree in economic development from the Universidad Nacional Autónoma de Honduras (UNAH). Ms. Martínez works as manager of the Development Program at FUNDAPYME and develops educational activities in the Economic Development Department of the UCA of El Salvador.

Virginia Moori Koenig
Has a degree in economics from the Universidad Nacional De Buenos Aires and a master's degree in economics from CIDE in Mexico. Ms. Moori Koenig works as a senior consultant with FUNDES Internacional in the Entrepreneurial Competitiveness Managing Department.

Mario Davide Parrilli
Holds a master's degree in development studies from the Institute for Development Studies (IDS) at the University of Sussex in Great Britain. Mr. Parrilli is a coordinator of the Central American School of Policies in Industrial Development and Small and Medium Enterprise at the Universidad de San José, Costa

Rica, and the Universidad Centroamericana, Managua. He is in charge of the Latin American Department in the School of Economics at the Universidad De Ferrera.

Rogerio Studart

Holds a doctorate in economics from the University of London with a specialization in finance. Mr. Studart has worked as a macroeconomics professor at the Universidad General de Rio de Janeiro, and later for the Comisión Económica Para América Latina (CEPAL) of the United Nations in Santiago, Chile. He is a financial specialist with the Infrastructure and Financial Market division at the Inter-American Development Bank.

Claudia Suaznábar

Has a degree in entrepreneurial from the Colegio Universitario de Estudios Financieros in Madrid, and a master's degree in public administration and international development from the Kennedy School at Harvard University. Ms. Suaznábar works on entrepreneurial development with the Micro, Small and Medium Enterprise Division of the Inter-American Development Bank.

Luiz Antonio Teixeira Vasconcelos

Holds a bachelor's degree in computer science and a master's degree in economics from the Universidade Estadual de Campinas in Brazil. Mr. Teixeira Vasconcelos was a professor of entrepreneurship (with the Softstart program in SOFTEX) in 1996-2001. He is an assistant professor at the Institute of Economics and a consultant in high-tech enterprise development at the Universidade Estadual de Campinas.

ECONOMIC DEVELOPMENT

This publication discusses an important source of employment, growth, and competitiveness: the development of entrepreneurship. It analyzes the role of entrepreneurs in Latin America in a convincing theoretical framework and a meticulous empirical international analysis. Policy specialists and policymakers should read this pioneering publication, which identifies policies for developing entrepreneurship as a new mechanism for promoting economic development.

—David Audretsch
Director, Institute for Development Strategies at Indiana University and Research Fellow,
Center for Economic Policy Research, London

Developing Entrepreneurship is an outstanding presentation of the results of a comparative study on the creation of new enterprises in three regions. It unquestionably contributes to the knowledge of the enterprise creation process with valuable information both at the scientific level and for policymakers.

—José María Veciana
Director, European Doctoral Program in Entrepreneurship and Small Business,
Autonomous University of Barcelona

This publication, based on rigorous and solid research, presents the entrepreneurial phenomenon in a fascinating and easy-to-read manner. It contains a series of well-founded conclusions that provide an excellent platform for developing effective policies to promote the creation of enterprises from all levels of government (national, regional, and local). It is essential reading for researchers and policymakers interested in the development of Latin America.

—Colin Mason
Professor, Hunter Center for Entrepreneurship,
University of Strathclyde, Glasgow, United Kingdom

For the first time in Latin America, a group of researchers has undertaken the task of scientifically analyzing the various programs for promotion of entrepreneurial spirit that are currently being implemented in the region. While identifying, analyzing, and describing these programs, these researchers also compare them with the best initiatives launched in countries outside the region. This brilliant work will be of valuable use for the formulation of policies aimed at promoting entrepreneurial spirit and culture, which will encourage innovative new enterprises in a variety of Latin American settings, and consequently will make a significant contribution to the process of social and economic development of the region.

—Rodrigo Varela Villegas
Director, Center for Development of the Entrepreneurial Spirit,
Icesi University, Cali, Colombia

Inter-American Development Bank
1300 New York Avenue, N.W.
Washington, D.C. 20577

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