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Competitiveness and Entrepreneurship in Latin America*

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Abstract

This paper reviews the empirical evidence on the critical factors impinging on the success or failure of enterprise development policies in Latin America. Guidelines are proposed to integrate novel initiatives into a coherent strategy for entrepreneurship development. The proposed approach encompasses four building-blocks: incubators, entrepreneur development, business development services, and incentive mechanisms to promote cooperative behavior. The notion that entrepreneurial development is one of the key links in the transmission mechanisms between the conception stage and the implementation phase of competitiveness policies is stressed.

Keywords: Competitiveness, Entrepreneurship, Innovation, Economic Development.

Introduction

Francois Marie Arouet, better known as Voltaire, was a mathematician, a scientist, and the leading philosopher of the French 18th century Enlightenment. As recounted by Gopnik (2005), he also happened to be a successful entrepreneur:

> He took several dozen Protestant watch-making refugees and supplied them with venture capital to start a watch factory in the village of Ferney. The thing… was a huge success, making as much as six hundred thousand pounds a year, and supplying watches to the Empress of Russia.

Are entrepreneurs born or made[1]? Like talent in any realm of human endeavour—science, music, or the arts—there is undoubtedly an innate component linked to temperament, genetic makeup, attitudinal profile, and early life experience. Successful entrepreneurs are indeed risk takers, but the propensity to accept potential hazards must be tempered by good judgment and, more often than not, professionalism.

Entrepreneurial talent is to be found sprouting even among the most adverse institutional settings, such as those prevalent in less developed nations. However, it is true at the same time that environments marked by strong traditions of cooperation, contractual enforcement, and general observance of the rules of the game tend to favor entrepreneurship and new business creation. This is because, in these environments—to use the terminology from capital asset theory—to the idiosyncratic risk inherent in any business project, a high level of systemic risk must be added. Thus, weak institutional frameworks inhibit the emergence and growth of entrepreneurial talent.

In the context of weak institutional settings such as those found in Latin America, there is an emerging tradition that seeks to surpass these impediments by means of innovative institutional designs. These institutional innovations include incentive mechanisms that reward cooperative behavior and public-private contract enforcement mechanisms that contribute to

lessen the impact of weak judicial systems. This is the basis for the belief that targeted and selective policies can be successful in having a measurable impact in the development of entrepreneurship and an increase in the competitiveness and welfare of localities and regions.

The spirit of entrepreneurship is traditionally equated with the propensity for risk taking and the ability to execute and transform business opportunities into real value. The links between innovation and entrepreneurial activity thus become evident. Innovation from a business standpoint is defined as new knowledge—technological or organizational—which creates opportunities for value creation.

These perspectives, while largely accurate, are incomplete. Successful entrepreneurs not only seize opportunities: they are able to discriminate between promising and undeserving prospects. The fundamental underpinning of this process of discrimination is the ability to conduct strategic analysis. Whether they use intuition or schooled learning, successful entrepreneurs base their decisions on strategic thinking. They develop a strategic vision, transform it into an action plan, and execute it. Strategic analysis involves, on the one hand, assessing the opportunities and threats present in the environment external to the potential business venture and, on the other hand, assessing the strengths and weaknesses that exist within the assembled set of resources internal to the potential enterprise. It involves, finally, deploying internal resources so as to match the array of external conditions in achieving the strategic vision (Hnyilicza, 2004a, 2004d). It is this ability to think strategically that, by and large, distinguishes successful entrepreneurs from their less prosperous counterparts. This central fact is virtually absent from discussions on entrepreneurship. This omission is primarily due to the existence of wide gaps between various disciplines and the fact that interdisciplinary dialogue is incomplete.

In this paper, the empirical evidence on the critical factors impinging on the success or failure of enterprise development policies in Latin America is reviewed. By far the largest portion of assessments and documented evidence on entrepreneurship development in the region is reported under the rubric of systems for the delivery of technical and financial services directed at small to medium enterprises (SMEs) and microenterprises. These initiatives, while undoubtedly important, are far from configuring the whole picture. New avenues are rapidly being explored in Latin America which aim to leverage the traditional approaches. We propose guidelines to integrate these novel initiatives into a coherent strategy for entrepreneurship development. The proposed approach encompasses four building-blocks:

1. The first component consists of pre-incubators and incubators which, through networks of academic institutions, private firms, nongovernmental organizations (NGOs), and public agencies seek to generate a set of concrete business opportunities.
2. Human capital formation is needed in the form of a broad-based platform directed at entrepreneur identification and skill formation, thus enabling the nurturing of capabilities required to absorb services delivered.
3. Traditional enterprise development practices are required based on delivery of technical assistance, training, and financial support services.
4. The fourth component of this integrated strategy is a set of incentive mechanisms designed to compensate for institutional weaknesses in contract enforcement and directed at dampening the effects of coordination and cooperation failures.

Entrepreneurs are one of the main channels through which prescriptions to promote competitiveness are transmitted to practical outcomes. New entrants to the private sector possess a comparative advantage in the absorption of technological and organizational innovations. Given their access to state-of-the-art techniques, they can gain instant positioning on the frontier of knowledge. Even in the case of entrepreneurs who intervene through restructuring of existing firms or by strategic alliances between companies, the result is an increase in competitiveness through functional, product, or process upgrading.

Throughout the paper, the notion that entrepreneurial development is one of the key links in the transmission mechanisms between the conception stage and the implementation phase of competitiveness policies is stressed.

Enterprise Development Policies in Latin America

Entrepreneurial activity in Latin America spans a wide range of firm sizes, organizational modalities, and levels of technological sophistication. The net balance of private sector development policies over the past decade, despite selected success stories, is not entirely encouraging if measured by the steady decrease of most of the region's economies[2] in global competitiveness indices.

Following the liberalization of domestic and foreign trade transactions in the region which occurred in the late 1980s and early 1990s, it was expected that output, productivity, and employment would be naturally propelled forward by the creation of natural resource-based manufacturing industries with increasingly larger components of value added. With the notable exception of Chile, this has generally not happened. The transition of manufacturing activity from the *"low-road"* based on cheap labor to the *"high-road"* of skill-based manufacturing is largely unfulfilled.

A recent study sponsored by the Inter-American

Development Bank (IDB) reported a comparative evaluation of entrepreneurial development strategies in Latin America, North America, Europe, and East Asia. The study pointed out that "policies aimed at entrepreneurship development are frequently confused with those aimed at promoting SMEs" (Kantis, Angelelli, & Llisteri, 2005, pp.101-110). Lundström and Stevenson (2001) stressed that entrepreneurship development is a specific field which is becoming increasingly differentiated from traditional SME promotion strategies. Policies in Latin America can be differentiated according to whether they are aimed primarily at traditional manufacturing sectors or at high-tech, leading-edge industries such as those based on information and communication technologies (Angelelli & Kantis, 2005). Entrepreneurial development can also be distinguished as between growth-oriented modern firms and those traditionally associated with survival strategies in the microenterprise and rural sectors (Kantis, 2005). Prominent among the findings of the international comparative study conducted by the IDB were several features that were common to most successful approaches[3]:

1. There is no single prescription or formula for success, and adequate strategies are always context-dependent.
2. In the absence of an integrated strategic framework, it becomes necessary to establish ex-post linkages between initiatives.
3. There are significant differences in the strategic, geographic, and budgetary reach of the various initiatives.
4. Initiatives aimed at expanding the business frontier with new firms reduce the risks of adverse effects on existing enterprises.
5. It is common to combine generic and niche-based strategies.
6. Knowledge of the initial conditions is essential for strategy development.
7. Institutional frameworks must be strengthened when they are weak.
8. Sustainability depends crucially on involvement of the private sector and representatives of civil society generally.
9. The style of interventions must be in itself entrepreneurial.
10. A flexible strategy requires a monitoring and evaluation system.

A review of the empirical evidence of successful strategies for new business creation conclusively suggests that development of more complex and knowledge-intensive products destined to be competitive in world markets necessitates increased layers of sophistication and requires an entire array of obstacles to be overcome (Echecopar, 2003).

1. Design of new products and innovation of product lines
2. New production processes with increasing sophistication
3. Opening new marketing and distribution channels for global markets
4. Obtaining resources and competencies to implement required changes

Because of the heterogeneity of inputs and services required for sophisticated, skill-intensive products aimed at global markets, no single firm is likely to provide them all, and it appears necessary to link up input and service providers in close proximity to the exporting manufacturers. This is one of the key motivations for the construction of physical agglomerations of productive units into clusters.

Clusters are not mere groupings of firms in close physical proximity. To qualify as a cluster, an assembly of enterprises must function as a living organism, with relations of association and information exchange, giving rise to what has been labelled *collective efficiency*. In the most successful clusters of Northern Italy, Scandinavia, and elsewhere in Europe and the United States, what can be observed is the coexistence of cooperation and competition. For instance, cooperation may exist between components of a vertical value chain inside a cluster, and, at the same time, horizontal competition develops between production chains or between individual components of different chains. This pattern of simultaneous competition and cooperation can also be observed in most of the successful clusters in Latin America (Hnyilicza, 2004c).

It is probably significant that it is in Chile, one of the more successful of the Latin American economies, where the most aggressive policies in favor of enterprise development and cluster building have taken place. A representative example is the case of the wine manufacturing industry. It is generally recognized that the turnaround and ultimate boom in the Chilean wine exporting cluster was due to the investment decisions undertaken in 1979 by a single entrepreneur, Miguel Torres. He was a wine maker from the Cataluña region in Spain who established 100 hectares of vineries in the Valley of Curicó in Chile at a time when the local wine industry was undergoing a severe decline and was, in fact, at risk of disappearing (Farinelli, 2003). Torres introduced new production techniques and processes that were in common use in Europe at the time but were entirely unknown and considered entirely revolutionary: stainless steel tanks instead of the usual concrete receptacles, strict temperature controls, and small oak wood barrels in place of the large containers built from cheap woods. Torres caused an important demonstration effect, due primarily to the almost instant success he gained in export markets (Visser, 2003).

A second wave of expansion followed in the late

1980s with the adoption by a group of local entrepreneurs of foreign innovations in marketing and technology. One of the most innovative wineries in the industry, Viña Montes,[4] appeared; it specialized in premium quality brands with increased skin concentration and improved aroma and flavor.

The role of entrepreneurial start-ups in the diffusion of production innovations followed a pattern which depended on the stage of maturity of industry structure. Two phases can be distinguished. In the first phase, 1980-1996, industry growth came primarily from new firms linked to established producers: 44% of overall growth came from former local bulk producers and cooperatives that switched to exports, 13% from subsidiaries of traditional wineries, and 30% from foreigners through partnerships or strategic alliances with established local producers[5]. In the second phase, 1996-2003, 49% of export growth was attributable to new entry start-ups. The first wave of start-ups opened up market opportunities by enhancing comparative advantages and building competitive advantages. The second wave took advantage of the broadened markets and of the positive spillover effects caused by learning and diffusion of marketing and technological know-how. The chief conclusions of the patterns of industrial growth are fairly typical of innovations-driven upgrading and expansion (Walters, 1999):

1. In the initial stages, new entrants are related to industry participants with specialized knowledge.
2. As the industry matures, entry barriers are lowered, and increased profit expectations attract new entrants.
3. Higher margins are the result of upgrading of product quality and increased cooperative behavior, feeding back into construction of enhanced export facilities and improved distribution networks.

Traditional producers initially play a key role in developing market opportunities; branching out of innovators occurs gradually and attracts new entry start-ups. The sequence of events following the growth of the Torres winery after 1979 is illustrative of entrepreneurial dynamics driven by an enterprise that acts as a *coordination anchor.* This is a modality of business development that is emblematic of an entire category of growth strategies:

1. Initially, a large enterprise establishes a domestic presence and develops linkages to export markets. The large firm acts as a *coordination anchor*.
2. Entrepreneurs are attracted by the demonstration effect and give rise to a set of medium-sized enterprises, typically emphasizing product differentiation and specialization in market niches.
3. Networks of small input and service suppliers arise in the neighboring vicinities, giving rise to patterns of horizontal competition and vertical cooperation between distinct components of the production value chain.
4. The coordination anchor may actively participate in establishing training and technical assistance platforms to ensure product quality standards required by global markets.

Entrepreneurship, Role of the State, and Economic Growth

Entrepreneurship, from the standpoint of the theory of industrial organization, deals with new entrants and barriers to entry. From the vantage point of the theory of investment behavior, entrepreneurship can be regarded as investment at the *extensive* margin. That is to say, for a given universe of firms within a given locality or region, the creation of new businesses expands the existing frontier. In contrast, investment at the *intensive* margin is usually associated with capacity expansion within a given productive unit or with technological or organizational improvements leading to product, process, or functional upgrading. Despite this Ricardian dichotomy, there exist externalities of scope between these two processes. Investments at the intensive margin, because they increase productivity and competitiveness will, through spillover effects, contribute to enhancing the prospects of investment in general. That is to say, the agglomeration of externalities and network effects brought about by improvements at the intensive margin open the way for the entry of new businesses at the extensive margin, that is to say, entrepreneurial activity.

The links between entrepreneurship, investment, and growth, while pervasive, have not always been made explicit in economic theory. Analysis of entrepreneurship as a driver of prosperity is typically approached from the vantage point of management, psychology, or sociology, but seldom economics[6].

Entrepreneurship is essentially a discovery process. The dominant view holds that entrepreneurship is the "exploitation of perceived opportunity by individuals based solely on personal judgments and visions that others either don't see or can't bear the risks of acting on." (Formaini, 2001). Thus, the returns to investment in the form of entrepreneurial profits are the rewards for making correct judgments in the face of uncertainty. As emphasized by Frank Knight, uncertainty which surrounds the determinants of entrepreneurial profit are intrinsic, nonquantifiable, and distinct from risk described by quantifiable probabilities. The formalization of Knightian uncertainty in investment decisions remains an unmet challenge.

Closely related to this perspective is the work of Hausmann and Rodrik (2002) on economic development as a process of self-discovery[7]. The authors set out to reexamine the role of government in setting patterns of specialization. If choosing the right investment decisions is the key to growth because it determines the pattern of specialization, then finding out what one is good at

producing is a discovery process that warrants investment effort. Because of diffusion and imitation effects, the social returns on investment in discovery are higher than private returns, and therefore, discovery is undersupplied by the private sector, calling for government intervention. Hausmann and Rodrik (2002) further pointed out that, in general, there is a lack of incentives for competitive firms to invest in R&D because they cannot capture rents and a strictly positive production of innovation requires that the innovator have some monopoly power. This notion that imperfect competition is a prerequisite for strategic competitiveness has been argued by Mytelka (1999), among others, and is closely linked to the literature on market structure and dynamic competitive advantage. But in the particular case of developing economies, Hausmann and Rodrik (2002) additionally stressed that the incentive problem is made worse by free entry and nonappropriability—because of weak institutional mechanisms for patent rights enforcement—and laissez-faire cannot be the optimal response.

Ultimately, it is the entrepreneur that emerges as the prime mover behind the cycle of natural selection from which the market system derives its power. It is precisely the network of rewards and punishments based on performance that confers the market system of production and exchange its unsurpassed supremacy as a form of economic organization.

A clarification of the linkages between entrepreneurship and economic development necessitates an understanding of institutions as systems of incentives. Institutions provide a metric according to which actions are judged and evaluated. The exploitation of available opportunities, which is the guiding principle of entrepreneurial action, is encouraged by certain kinds of institutional structures and not by others. "Simply put, economic growth, driven by entrepreneurship, cannot be explained without reference to institutions." (Boettke & Coyne, 2001).

At an analytical level, the entrepreneur, by discovering previously unexploited investment opportunities, can drive the economy from an inefficient point to an efficient point within an existing set of production possibilities or, by innovating in technology or production, can expand the frontier of production possibilities, giving rise to increases in total factor productivity. Either or both processes lead directly to economic growth.

The central tenet of Keynes's (1964) well-known theory of investment behavior was predicated upon the prevalence of the *animal spirits* of entrepreneurs,[8] which became the driving force behind the expansion of economic activity. Schumpeter (1934) is perhaps the best known economist associated with the notion of the entrepreneur as the driving force behind innovation and business growth. The Austrian school, particularly Hayek (1948) and von Mises (1947), in their rebukes of the centralized planning prescriptions of Lange-Lerner socialism[9], drew a model of capitalism as the engine of a discovery process driven by the entrepreneur.

The connection between individual and collective investment decisions is, of course, clearest in the coordination of investment plans and demand expectations. The failure of these linkages lies at the heart of the celebrated coordination failures of the kind studied by Rosenstein-Rodan (1943) among shoe manufacturers in Rumania in 1947. The key element that inhibits investment in new business units, according to this perspective, is a lack of confidence that the level of demand will be sufficiently high for production to take place profitably, given fixed costs and increasing returns to scale. This failure of expectations is a coordination failure which inhibits business creation and investment. How to devise remedies against these obstacles is a matter that lies at the center of entrepreneurial strategy design.

After decades of debate in the development literature, little doubt remains that the private sector is the engine of economic growth. What remains in dispute is the extent and nature of the role of public policies in promoting market-based expansions of investment and employment. In the developing world, and in Latin America particularly, the debate has often been couched in the context of a polarizing rhetoric (Hnyilicza, 2004d). A strategic vacuum regarding the role of the state emerged in the wake of the populist excesses of the 1970s and 1980s and the less than complete success of first generation reforms launched by the coalescence of the Washington Consensus in 1989. A symptom of this void is the prevalence of simplistic dichotomies between a minimalist neoclassical state and an interventionist developmental state that permeate policy debates.

Within this strategic void, several theoretical and empirical strands have begun to emerge which point to market and state not as substitutes but as complements.

The options for substitution do not include only the traditional incursions of the state in productive activity, which are, in principle, outside the domain of the innovative state. There is also the possibility of reverse substitution, as evidenced in instances when the private sector has taken up some of the coordination functions traditionally associated with the public sector (Hnyilicza, 2004b). In several Latin American countries, there are, for example, public service private enterprises. The World Bank has several technical assistance programs devoted to institutional strengthening of SME development, which operate through private entities in charge of the delivery of business development services[10]. On the other hand, private business trade associations have taken up the coordination functions left unmet by weak public institutions. According to Doner and Schneider (2000), from a theoretical perspective, business associations have the potential capacity to "reduce transaction costs, reduce rent-seeking behavior and exert influence over the State for the protection of property rights." (Doner & Schneider, 2000). Pérez-Alemán described various examples of business associations in Chile that have

been active in coordination functions previously carried out by public sector agencies (Pérez-Alemán, 1997). In Colombia, the government created an export tax and delegated the authority to administer the tax revenues to an association created to this end, the Federation of Coffee Producers. The tax revenues have been employed for the development of transportation infrastructure and upgrading of marketing and production functions (Doner & Scheider, 2000, pp. 1-25).

What is the role that belongs to the state in the promotion of innovation in order to transform comparative advantages into competitive advantages?

Historical experience suggests that in those countries where the state has undertaken a strong partnership role in promoting private sector development—for example, Chile, Finland, Canada, Ireland, and Australia—there is evidence of sustained expansion of economic activity and competitiveness in industries based on natural resources.

Creating the conditions for the emergence of new businesses and new enterprises necessitates putting into place mechanisms to solve failures of coordination and cooperation. North attributed the failure of conventional economic theory to explain the disparities between advanced and backward economies to an exclusive emphasis on competition and scarcity. "What has been missing is an understanding of the nature of human coordination and cooperation." (North, 1990). These notions are pervasive in the recent literature on the design of public-private contract enforcement mechanisms and self-enforcing contract design under weak institutional settings. Strategic uncertainty derived from the perceived risks of ex-post hold-up and inequitable distribution of rents acts as a deterrent to investment. The threat of cooperation failure thus results in a barrier to investment that can be resolved only through creative contract design and private-public contract enforcement mechanisms.

Innovation and Entrepreneurship

Entrepreneurship development policies and innovation policies are closely interrelated. New business creation is one of the major channels for the transmission and adoption of innovations. Conversely, innovations increase competitiveness and improve the climate for business development. Entrepreneurs are the agents that transform opportunities created by innovations into value creation.

What is an innovation? Is it the development of new genetic varieties of plague-resistant crops? This is certainly one example, but new conceptions for the design of technical assistance delivery platforms aimed at SMEs would also qualify as an innovation. An original design for an association among farmers, business groups, and local authorities aimed at expanding access to overseas markets would also merit the designation of an innovation.

Particularly in the context of developing economies, it is essential to distinguish between innovation as an entrepreneurial activity that expands the global knowledge frontier, which could be denoted *G-innovation*, and, on the other hand, *L-innovation* which involves adaptation and absorption of know-how from external sources and which is the most relevant notion for developing countries[11]. Most of the literature on appropriability and enforcement of intellectual property rights is framed in terms of G-innovation in industrialized countries, and, in attempting to transfer these results to a developing country context, it turns out that the implications are radically different from those applicable in the context of L-innovation. These distinctions are often overlooked[12].

Despite a lack of unanimity on the matter, there is a growing consensus that the second type of innovation, centered on technology and knowledge adaptation, also belongs within the class of innovation activities. For example, Maloney (2002) argued, "We use the term 'innovation' not only to denote the process of generating new knowledge, but also to put in place suitable adaptations to techniques developed abroad." Mytelka (1999) made a similar point:

> Innovation can be defined more broadly as "the process through which firms acquire mastery over the design and production of goods and services that are new to them, independently of whether they are new or not to their competitors—be these domestic or foreign…."

There is a second set of widely held misconceptions regarding the notion of innovation. Contrary to commonly held views, innovation is not restricted to the domain of scientific and technological advances but extends to improvements in institutional design, organizational design, and modernization of production processes encompassed in the concept of *upgrading*[13]. In the light of increasing competitive pressures stemming from the globalization of production networks, the response of enterprises and networks of firms in developing countries must include the sequence of steps contained within the notion of *upgrading* (Humphrey & Schmitz, 2000).

1. Process upgrading: Increased efficiency in the transformation of inputs by means of new technology adoption or reorganization of production systems
2. Product upgrading: Shifting of the patterns of production towards lines of greater design sophistication or higher unit value added
3. Functional upgrading: Adoption of new functions within the value chain, such as product design or marketing

In the region of Huánuco in Perú's central highlands, a strategic alliance was recently formed between palm oil farmers, an NGO, UNDP, and a French government

agency which was aimed at reducing costs and increasing the number of hectares cultivated. The immediate goal was the installation of a local germinating plant.[14] Until recently, blocks of 50 thousand germinated seeds were imported from France, with about 30% reported lost on the average during handling and transport. Once the new plant is installed, only dry seeds will be purchased abroad for germination in the new plant, thus avoiding handling losses. This is a perfect example of process upgrading.

For developing economies, innovation as learning, adaptation, and diffusion of technologies is more relevant than innovation as expansion of the global knowledge frontier. Options for expansion of dynamic efficiency and dynamic comparative advantage are closely linked to learning effects at the local technology frontier.

Linkage of domestic producers with foreign markets is one of the chief transmission channels for innovation and upgrading. New business creation in export-oriented sectors is therefore a key component of innovation and competitiveness policies. Strategies for entrepreneurial development in free trade zones, must take into consideration the distinction between static and dynamic comparative advantages. Whereas from static efficiency considerations, it might be justified to promote low-cost manufacturing units, a different approach is warranted when dynamic learning effects are taken into consideration: industrial clusters including backward linkages to natural resource production units might merit special incentive measures even if, in the short term, this might mean the application of net subsidies.

In Latin America and in other developing economies, the chief barriers to innovation are related to financing, infrastructure, and skilled human capital. If innovation in developing economies is taken to include imitation, diffusion, and adaptation of foreign technologies, then it could be argued that the implications of patent law provisions are radically different than for advanced economies. In fact, insofar as patent law protection inhibits the diffusion of new technologies, it could be argued that patent law protection applied to innovations in industrialized nations tends, in the first instance, to increase the technological gap relative to the developing world. This potentially introduces an intertemporal trade-off between the costs and benefits of patent protection insofar as it is a tool that can be used for strategic restrictions on competition. This trade-off merits closer examination.

Access to capital remains one of the chief barriers to technological innovation among small and medium-sized enterprises in the Andean region and in Latin America generally. The problem has some of the attributes of a coordination failure involving, as it does, informational asymmetries and diseconomies of scale. Pooling of a set of small enterprises into an agglomeration or virtual cluster to gain access to commercial banking financing or venture capital financing is one of the institutional design mechanisms that are available to deal with this coordination failure[15].

Entrepreneurship, Clusters, and Global Value Chains

The potential for entrepreneurial development is closely linked to the spillover effects stemming from interfirm linkages in a given locality as well as from the cross-border links connecting domestic enterprises with global production networks. The geographic region as the unit of analysis for economic development is increasingly emerging as the dominant view in strategy design for entrepreneurial development. At the same time, business relations with foreign customers or suppliers have been repeatedly shown to be an important nexus in the transmission of technological and organizational know-how. Thus, these considerations are an integral component of any entrepreneurial development strategy.

Local economic development is conceived as a process which establishes horizontal and vertical linkages in the context of private-public partnerships involving trade associations, local governments, and nongovernment organizations[16]

Industrial clusters in Latin America are very heterogeneous as to genesis, firm structure, organization principles, development trajectory opportunities, and bottlenecks (Altenburg & Meyer-Stamer, 1999). Altenburg and Meyer-Stamer (1999) grouped industrial clusters in the region into three main categories:

1. Micro and small-enterprise clusters producing low-quality consumer goods for local markets, in activities with low entry barriers[17]
2. Intermediate-level differentiated mass producers targeted predominantly at domestic consumers[18]
3. Clusters of transnational corporations in technologically more complex industries such as electronics and the automobile industries[19]

In natural resource sectors, there are very few isolated instances where collective action has resulted in improved performance. Some well-known cases include, for example, apple growers in Santa Catarina, Brazil, melon clusters in Mossoró-Barauna, Brazil, sugar clusters in the Cauca Valley, Colombia, and pineapple clusters in Veracruz, Mexico. The Sinos Valley footwear cluster in Brazil and the salmon cluster in southern Chile are also well-known and have been examined as examples of progressive improvements in upgrading cluster performance. The conclusion from a review of these selected case studies is that generally there are some benefits from collective efficiency and from linkages with global value chains.

The promotion of production clusters as a vehicle of innovation and growth, especially for SMEs, has recently

received increasing attention from policy makers and other stakeholders in developing countries. Insofar as the promotion and implementation of innovation policy, networks, and clusters offer three advantages relative to individual firms (Schmitz, 2000):

1. Delivery of targeted policies is made easier to a group of firms that share similar structure, opportunities, and concerns.
2. There are economies of scale in the delivery of policy support and business development services to a network of firms.
3. Learning networks offer a comparative advantage when they are superimposed on a preexisting agglomeration of firms.

As in most aspects of economic policy, there is a significant gap between the performance of the cluster concept in industrialized economies and in the developing world. It is far from guaranteed that the mere formation of an industrial cluster will result in a boost to innovation and growth. Clearly, there is room for the application of a carefully crafted government policy in support of these goals. Additionally, a significant gap can be detected between promise and performance of global value chain linkages in underdeveloped nations.

There is no single universal definition of a cluster but, generally, the concept involves an agglomeration of interconnected firms in a contiguous geographical area. Frequently, the firms are sectorally specialized, for instance, in the manufacture of articles of clothing, and establish forward and backward linkages based on both market and nonmarket mechanisms of interaction. It is usual to have the presence of a network of public and private institutions that provide support services to the economic agents.

Local linkages in industrial clusters can be the source of competitive advantage for exporting firms. Competitive advantage from cluster formation has its origin in the notion of collective efficiency. Collective efficiency results from two major properties of cluster formation: positive spillovers and cooperative behavior. Positive spillovers are generated from the effects of agglomeration and network externalities acting through the following channels: (a) customers are attracted by concentrated availability of suppliers, improving overall market access; (b) positive technological spillovers arise from faster and more widespread dissemination of technical and specialized knowledge; (c) reduced transactions costs flow from more effective backward integration with suppliers of specialized inputs. Cooperative behavior manifests itself by establishing horizontal linkages between local produces for joint purchasing of inputs, vertical linkages with suppliers and buyers, and cooperative undertakings for marketing through trade associations.

The logic of globalization has created centrifugal forces that have led to the spatial and functional segmentation and disaggregation of business activities which used to take place within a single enterprise. *Global value chains* is the term used to describe this evolving trend. The occurrence has been described as the intersection of the competitive advantages of firms with the comparative advantages of places. According to Kogut (1985), the logic of comparative advantage helps determine where the chain should be broken across national borders, while the competitive or firm-specific advantages set the stage for determining segmented specialization, that is to say, the make or buy choice between core competences and outsourcing at each stage of the value chain. There are two polar cases that summarize the spectrum of options available for organizing segmentation and placement decisions: at one extreme is full vertical integration of multinationals and, at the other end, coordination by the market through arm's-length trade between firms.

Local producer clusters, in order to participate in the international markets, need to become integrated into global value chains.

The global value chain (GVC) framework evolved in the context of multinationals centered in industrialized nations. However, the GVC framework constitutes an essential tool for analyzing the opportunities and threats that firms in developing countries face when confronting integration into the world markets. An understanding of how firms are linked in the global economy and the associated institutional issues related to trade policy, regulation, and product quality standards is critical for strategy development and for an assessment of the consequences of production and distribution networks which offer possibilities of access to global markets, upgrading opportunities, innovation, and growth. For firms in developing countries, the emergence of GVCs constitutes both a risk and an opportunity, and the overall outcome will depend in large measure on the knowledge that private entrepreneurs and public policy makers can command about this new environment.

In practice, it turns out that the entities in charge of the governance of the global value chains seldom take an interest in promoting the upgrading of SMEs upstream, and this support typically will have to come from trade associations, the government, or multilateral organizations. This is an additional and very specific opening for the application of an active public policy stance.

Towards an Entrepreneurship Development System

There is a widespread tradition, not only in Latin America but also in the industrialized nations, of addressing the requirements of enterprise development within the framework of the delivery of business services, that is, technical assistance and financial services delivery.

Very few enterprise development organizations, even in the First World, have been traditionally devoted to the task of developing entrepreneurs.

Whereas personnel training and skill formation are generally included within the tradition of business development services, building entrepreneurs entails a qualitative shift that can be described as *a transformation* that represents "a leap to a higher level of functioning." (Lichtenstein & Lyons, 2001) With very few exceptions, existing programs in Latin America are not designed to build the required skills and competencies in potential entrepreneurs.

Entrepreneurs are the recipients of business development services. Creating a supply of entrepreneurs is therefore an integral component of strategies aimed at SMEs and microenterprises. The evolution of the need to direct resources to entrepreneur formation can be illustrated by the shifts that have occurred in the perceptions of the functions and usefulness of business incubators. First, incubators were viewed simply as providers of low-cost, below-market-price space and associated physical resources. Then, the value of incubators was seen to originate from the provision of business services—such as specialized staff and office support and accounting and business planning services. Additional beneficial effects were recognized to flow from interactions with peers and advisors (Lichtenstein & Lyons, 2001, pp. 3-20). Most recently, incubators are being viewed as facilitators of a comprehensive transformation of skill profiles inherent in the entrepreneurial function.

Incubators can be distinguished from other enterprise development agents primarily by their emphasis on the role of the entrepreneur.

An entrepreneurial development system (EDS) can be said to consist of four basic building-blocks:

1. The first component consists of pre-incubators and incubators which, through networks of academic institutions, private firms, NGOs, and public agencies, seek to generate a set of concrete business opportunities.
2. Human capital formation is needed in the form of a broad-based platform directed at entrepreneur identification and skill formation, thus enabling the nurturing of capabilities required to absorb services delivered.
3. Traditional enterprise development practices are required based on delivery of technical assistance, training, and financial support services.
4. The fourth component of this integrated strategy is a set of incentive mechanisms designed to compensate for institutional weaknesses in contract enforcement and directed at dampening the effects of coordination and cooperation failures.

An entrepreneurial development system is usually implemented through a coordinating agent, which typically provides interventions in the three phases of new business creation:

1. Gestation phase: During the business design phase, specialized guidance is provided through experienced businessmen acting as tutors. This includes assistance in the preparation of a business plan suitable for presentation to potential investors.
2. Start-up phase: During the start-up phase, guidance is provided for the organization of corporate governance bodies, including the board of directors, as well as strengthening of the entrepreneurial team with specialized officers. Access is provided to networks of financing agents, including venture capital funds, corporate networks, and angel investors.
3. Take-off phase: During the take-off phase, continued assistance is provided on sources of financing. Additionally, specific guidance is targeted towards market development including creation and expansion of commercial networks and various marketing initiatives. Additional assistance may be provided in the areas of corporate image, legal proceedings, and trademark registration.

During the start-up and take-off phases, specialized financial services firms offer entrepreneurs the option of matching their requirements with those offered by potential investors. These firms seek to leverage the services of venture capital enterprises by providing an additional linkage between potential investors and entrepreneurs.

There have been several recent attempts in Latin America to exploit the incubator concept. In Ecuador, a network of private and public agents led by an interinstitutional committee[20] created the *Emprender* Enterprise Incubator in the city of Quito in 2003. Linked to local universities and business groups, the incubator network aims at identifying business opportunities, building skills for potential entrepreneurs, and establishing venture capital-funding sources and seed capital-financing schemes for prototype projects. INCOVAL (Fundación Incubadora de Empresas de Innovación, Competitividad y Valor) in Guayaquil is a related successful incubator agency. Patricio González, owner of Ultravioleta S.A., tells the story of how as a result of an epidemic alert, he came up with the idea of sterilizing the water supply tank in his home using ultraviolet light bulbs. The success of this technique led him to develop his current business, with the help of INCOVAL. In Colombia, the Antioquia Technology-Based Enterprise Incubator in the city of Medellín, which specializes in ICT and other technology-intensive projects, offers corporate strategy development and strategic partnership identification services to potential entrepreneurs and includes pre- and post-incubation services. In Venezuela, a new entrepreneurial

service center (ESC) has been set up with the aid of three universities in the Caracas area, centered on the delivery of skill formation to potential entrepreneurs, including identification of potential opportunities, development of business plans, launching of enterprises, and follow-up throughout the postincubation phase. The ESC has developed three major product lines:

1. Direct entrepreneurial assistance, focusing on measurement of entrepreneurial capacity and delivery of targeted modules
2. Entrepreneur Development Unit, encompassing a handbook for the identification of business opportunities, a business entrepreneurship simulator, a strategic planning guide, and a set of entrepreneurship case studies
3. Training of entrepreneurship instructors, including a model of entrepreneurial capacity development, entrepreneurial capacity stimulus program, and a handbook for entrepreneurial capacity multiplier agents

In industrialized nations, the structure of entrepreneur development systems has recognized at least six layers of specialized personnel involvement (Lichtenstein & Lyons, 2001):

1. Scout: In charge of recruiting potential entrepreneurs to participate in the system
2. Diagnostician: Assesses potential entrepreneurs' skills and aptitude levels
3. Mentor: Functions as a performance coach, providing guidance to individual clients as they seek to improve their skills
4. Team manager: Responsible for coordinating the activities of a group of entrepreneurs in similar or related sectors
5. Alliance broker: Identifies market opportunities and facilitates alliances that help firms reduce costs by resource pooling
6. General manager: Integrates all the various critical functions of the EDS and takes care of performance evaluation and monitoring

Conclusions

To sum up, one should stress that a comprehensive approach to entrepreneurial development must focus simultaneously on the supply side and on the demand side of entrepreneurial dynamics. Policies to develop entrepreneurs cannot be successful if implemented in isolation. They must be integrated with local and regional planning efforts, SME promotion, and export-promotion strategies. Indeed, many attempts directed at private sector development frequently fail because they overlook the need for a coordinated deployment of complementary assets, resources, and actions aimed at opening up access to markets. When export promotion programs have been attempted in isolation from entrepreneurial development and SME promotion, they have usually ended up in failures or incomplete successes. The strategic axes implicit in the new approaches that emphasize organizational and institutional innovations demand that entrepreneurial developers keep in mind the need to identify and coordinate the potential export supplies from SMEs, stressing incentives for increased associativity and facilitation of technology transfer.

The confluence of the twin forces of globalization and localization signals the need to regard geographic regions as entities as the locus for coordination actions between the private and public sectors aimed at entrepreneurship development.

An examination of empirical evidence of business growth and stagnation in Latin America over the past decades suggests that one of the main obstacles to the promotion of entrepreneurial activity and to the development of the private sector generally is the pervasive presence of coordination and cooperation failures. Cooperation and coordination failures are present in interactions of small businesses, large enterprises, governmental entities, and networks of private and public agents. Overcoming these shortcomings requires a process of policy formation that is firmly anchored in the theoretical underpinnings of innovative organizational and institutional design.

Coordination failures within a market system also appear in the context of configuring production networks composed of exporting units and related industries. A result which is collectively optimal may fail to be attained as a consequence of deficiencies in information exchange, in the design of incentive structures, or in the isolated decisions of individual agents.

In particular, entrepreneurial development of export-oriented firms in a particular region requires the presence of suppliers of raw materials and various business support services. But entrepreneurs in the service and raw material sectors will not make the required investments in the absence of exporting firms to whom to sell their products and services. An exporting entrepreneur, on the other hand, may not take the risk of establishing a business in a locality without essential services. Thus we arrive at a vicious circle which is the essence of a *coordination failure*, one of the greatest obstacles to entrepreneurial growth and development.

In order to break this vicious circle, what is required is the presence of a coordinating agent which could be public or private[21]. Among the set of coordinating actions that are available to remove the obstacles posed by coordination failures are the following: transmission of information and setting of incentives to encourage communication between individual agents; the design of mutually beneficial financing schemes; the commitment

of public investments; the configuration of strategic alliances and partnerships between local governments, NGOs, and business trade associations; and the concession of contingent rents, contingent guarantees, and other incentive schemes.

Frequently, the most effective coordination scheme is the one flowing from the demonstration effect that goes with the installation of a major firm in a given locality. A leading enterprise, acting as an anchor, can serve to attract groups of smaller entrepreneurs in the associated support services sectors. Typically, this first large enterprise will have international experience and slowly will serve to gather circles and layers of medium and small entrepreneurs around it. The result is entrepreneurial growth and a virtuous circle of increased competitiveness.

Thus, innovations in the design of organizations and institutions are the primary anchors in the formulation of strategies and action plans to turn round the growing divergences in productivity and the widening gaps in competitiveness between Latin America and the industrialized economies.

The case of Chile is a clear example of some of the principles of the innovator state in promoting private sector and entrepreneurial development based on competitiveness enhancement. The success of productive upgrading in agro-industry and the implementation of vertical and horizontal linkages in mining clusters have been the result of institutional and organizational innovations that made it possible to correct coordination and cooperation failures. The development of the capacity to construct local technological skills and competencies, reorganize production, secure supplies of high quality raw materials, and prompt the diffusion of knowledge necessitated a process of reconfiguration of the relationships between private enterprises, public agencies, and trade associations. Productive upgrading and access to international markets were gained as a result of institutional innovations in three main domains (Hnyilicza, 2004b):

1. Public-private strategic partnerships with active involvement of state entities in promoting production networks aimed at organizational innovations, upgrading, and connections to global value networks
2. Transformation of trade associations from rent-seeking agents to promoters of technological change and organizational learning
3. Large enterprises serving as coordination anchors for networks of small and medium-sized firms

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Notes

1 Lloyd Shefsky is one of the best known proponents of the view that entrepreneurship skills can be acquired (Shefsky, 1996).

2 The chief exceptions to this trend are Costa Rica and Chile.

3 The main policy recommendations outlined in the study include the following: Successful business creation models must be disseminated in order to promote entrepreneurial growth; Groups with a lower propensity for entrepreneurship must be targeted for special action in order to expand the business frontier; Links between the academic and business worlds must be strengthened; Innovation systems must be encouraged and promoted; Entrepreneurial networks should be promoted; Training programs should be targeted at the development of entrepreneurial teams; Barriers and obstacles to financing must be removed; Entrepreneurial development systems must include active learning mechanisms; Training and technical advisory services must be tailored to the needs of young, dynamic enterprises (Kantis et al., 2004).

4 Douglas Murray teamed up with a local wine maker, Aurelio Montes, adapting production technologies from foreign

producers such as Rothschild-Lafite and Marnier Lapostolle (Galleguillos, 2003).

5 For further details on industrial restructuring in Chile and Argentina, see Walters (1999).

6 As Mark Blaug has noted, "Let us…return to the subject at hand: the neglect of entrepreneurship in modern, mainstream economics…It is a scandal that nowadays students of economics can spend years in the study of the subject before hearing the term "entrepreneur", that courses in economic development provide exhaustive lists of all the factors impeding or accelerating economic growth without mentioning the conditions under which entrepreneurship languishes or flourishes" (Blaug, 1986).

7 For an insightful discussion of economic development as learning and self-discovery, see Hausmann and Rodrik (2002).

8 Keynes argued, "Most probably, of our decisions to do something positive, the full consequences of which will be drawn out over many days to come, can only be taken as the result of animal spirits—a spontaneous urge to action rather than inaction." Keynes was discussing the difficulties of arriving at quantifiable estimates of the probabilities of future events as a basis for decision making (Keynes, 1936/1964). Marchionatti points out that, whereas animal spirits have traditionally remained outside the scope of neoclassical economics, they can be addressed within the framework of bounded rationality and "can be considered as a typical entrepreneurial impulse, depending on political, social and economic atmosphere: the latter being analysed in terms of motivations of innovative behaviour" (Marchionatti, 1999).

9 Oskar Lange and Abba Lerner developed ideas aimed at demonstrating the feasibility of efficient resource allocation governed by means of a centralized planning authority (Lange & Taylor,1938; Lerner, 1944).

10 Phillips (2004) contains a discussion of the market-based approach to entrepreneurial development and contrasts it with alternative views.

11 The inclusion of L-innovation within the general category of innovation is an emerging consensual view, albeit not free from dissent. For instance, Amsden states that: "Anyone who learns by definition is not innovating" (Amsden, 1989).

12 Patent rights and intellectual property rights protection legislation might have opposite effects from the standpoint of primary innovators in industrialized nations and secondary adopting users in developing economies.

13 For some authors, *upgrading* should be interpreted as the capacity to innovate in a relative sense, that is, master or absorb new techniques better than one's competitors (Pietrobelli & Rabellotti, 2002).

14 Plant construction is proceeding with the aid of the United Nations through the Incagro agency. The strategic alliance includes the producers association Nuevo Amanecer, the Tocache Pal Growers Central Association, a company with export facilities and a representative from the French scientific group that provided the germinated seeds. It is estimated that a farmer who owns only 5 hectares would make a profit of over US $2,000 per month, with a production level of 35 tons per year during 30 years.

15 For an example of one such institutional design for an associative financing mechanism, see: Oko Institute for Applied Ecology, Oslo (2003).

16 Competitive advantages of a geographic region can be explained in terms of agglomeration economies, usually classified into economies of localization—positive externalities derived from interfirm links—and urbanization economies—positive externalities associated with physical infrastructure and local institutional infrastructure. Several econometric studies corroborate the interrelations between agglomeration economies and productivity growth. (Chen, 1996; Henderson & Juncoro, 1996; Lee & Zang, 1998; Mitra, 2000; Richardson, 1993; Scott, 2001).

17 Examples are footwear clusters in San Mateo Atenco and San Francisco del Rincón in Mexico, furniture making in Sarchí in Costa Rica, garments and clothing manufacturers in Gamarra, Lima, and in Netzahuaycoyotl, Mexico City.

18 Examples are textiles and knitwear in Itajai, Brazil, men's leather footwear in León, México, and ladies' leather footwear in Sinos Valley, Brazil, and Guadalajara, Mexico.

19 Examples are automobile production in Puebla, Ramos Arizpe, and Aguascalientes, Mexico, and in Curitiba, Resende, and Juiz de Fora, Brazil.

20 Participants include four local business groups, four universities, one NGO and the local governments of the city of Quito and of Pichincha province.

21 This coordination action is precisely the role displayed by the *Big Push* in the industrialization theories espoused by Paul Rosenstein-Rodan.

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