

Research on Entrepreneurship

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§1 Introduction

Entrepreneurship has become a popular career path all over the world and here has been intense interest in the subject shown by researchers and policymakers in both developed and developing countries. Research relating to entrepreneurship has been expanding rapidly and has touched upon a diverse range of issues. In 2003, for example, Richtermeyer published the results of her review of seventy-seven abstracts of articles that had then been recently published in academic journals and compiled the following extensive list of the areas of emerging research on entrepreneurship at that time: culture/ethnicity; economic growth; education/learning; entrepreneurship theory and practice; ethics; family-owned businesses; finance; firm performance/planning; gender; human resources; intepreneurship versus entrepreneurship; international entrepreneurship, cross-national comparisons and individual country studies; internationalization, exporting and small business; motivation/firm creation or dissolution/founder characteristics; quality systems; resource-based views of the firm; social networks/business groups/alliances; strategic planning and product development; supply chain management/distribution; teams; technology and technology-based firms; and venture capital.¹ In addition, the interest in entrepreneurship is no longer confined to developing countries and it is now well established that encouragement of entrepreneurial activities, including new venture formation, can and should be an important policy tool for governments in emerging markets looking to stimulate economic growth and development.²

According to Austin et al, it is possible to identify three streams of research relating to entrepreneurship that focus on the results of entrepreneurship, the causes of

¹ G. Richtermeyer, *Emerging Themes in Entrepreneurship Research* (University of Missouri, Business Research and Information Development Group, 2003), 2. Richtermeyer also include a comprehensive list of the articles that were reviewed.

² See, e.g., M. Harper, "The role of enterprise in poor countries", *Entrepreneurship Theory and Practice*, 15(4) (1991), 7–11; A. Gibb, "Small business development in Central and Eastern Europe—Opportunity for a rethink?", *Journal of Business Venturing*, 8 (1993), 461–486; D. Audretsch, *The role of small business in restructuring Eastern Europe* (Vaxjo, Sweden: 5th Workshop for Research in Entrepreneurship, 1991). Other studies that have identified entrepreneurship as a critical factor in national economic development include S. Birley, "New ventures and employment growth", *Journal of Business Venturing*, 2(2) (1987), 155-165; P. Reynolds, "New firms: Societal contributions versus survival potential", *Journal of Business Venturing*, 2(3) (1987), 231-246; M. Morris and P. Lewis, "Entrepreneurship as a significant factor in societal quality of life", *Journal of Business Research*, 23(1) (1991), 21-36; and S. Shane, L. Kolvereid and P. Westhead, "An exploratory examination of the reasons leading to new firm formation across country and gender (Part 1)", *Journal of Business Venturing*, 6(6) (1991), 431-446.

entrepreneurship and entrepreneurial management.³ A well-known example of research on the results and impact of entrepreneurship is Schumpeter's theory of the entrepreneur as a "change agent" who identifies and attacks opportunities to harness innovation to engage "creative destruction" that overturns the way business has been done in entire industries and markets.⁴ Research on the causes of entrepreneurship includes work on understanding the personal drives and motivations of entrepreneurs themselves and relies heavily on psychology and sociology.⁵ Research on entrepreneurial management focuses on the practical steps that must be taken to execute exploitation of opportunities in an entrepreneurial manner and includes research on the dynamics of startups and venture capital⁶, intrapreneurship (i.e., entrepreneurial innovation inside established companies)⁷, organizational life cycles⁸, and predictors of entrepreneurial success⁹.

Austin et al. were particularly interested in the last of three research streams mentioned above, which they described as the "how" of entrepreneurship (i.e., how opportunities are recognized, the process of committing to an opportunity, the steps taken to gain control over resources, the steps taken to generate success and new information that can be used in the pursuit of additional resources, management of a network of resources that may or may not be within a single hierarchy and the decision made about allocating rewards among the participants).¹⁰ They suggested that in order to better understand the process of entrepreneurial management reference should be made to an analytical framework proposed by Sahlman that is based on four interrelated elements that are crucial for entrepreneurial activity¹¹:

³ H. Stevenson and J. Jarillo, "A new entrepreneurial paradigm" in A. Etzioni and P. Lawrence (Eds), *Socio-economics: Toward a new synthesis* (Armonk, NY: M.E. Sharpe, 1991), 185.

⁴ J. Schumpeter, *The theory of economic development* (Cambridge, MA: Harvard University Press, 1934).

⁵ See, e.g., O. Collins and D. Moore, *The enterprising man* (East Lansing, MI: Michigan State University, 1964); and D. McClelland, *The achieving story* (Princeton, NJ: D. Van Nostrand, 1961).

⁶ See, e.g., J. Timmons and W. Bygrave, "Venture capital's role in financing innovation for economic growth", *Journal of Business Venturing*, 1 (1986), 161

⁷ See, e.g., R. Burgelman, "Corporate entrepreneurship and strategic management: Insights from a process study", *Management Science*, 29 (1983), 1349; and R. Burgelman, "Designs for corporate entrepreneurship in established firms", *California Management Review*, 26 (1984), 154.

⁸ See, e.g., R. Quinn and K. Cameron, "Organizational life cycles and shifting criteria of effectiveness", *Management Science*, 29 (1983), 33.

⁹ See, e.g., A. Cooper and A. Bruno, *Predicting performance in new high-technology firms* (Academy of Management, Proceedings of the 35th Annual Meeting, August 1975), 426; and M. Dollinger, "Environmental boundary spanning and information processing effects on organizational performance", *Academy of Management Journal*, 27 (1984), 351.

¹⁰ H. Stevenson, "The heart of entrepreneurship", *Harvard Business Review*, 63 (1985), 85; and H. Stevenson and J. Jarillo, "A new entrepreneurial paradigm" in A. Etzioni and P. Lawrence (Eds), *Socio-economics: Toward a new synthesis* (Armonk, NY: M.E. Sharpe, 1991), 185.

¹¹ Adapted from J. Austin, H. Stevenson and J. Wei-Skillern, "Social and Commercial Entrepreneurship: Same, different, or both?", *Entrepreneurship Theory and Practice*, 30(1) (2006), 1 (citing W. Sahlman, "Some thoughts on business plans", in W. Sahlman, H. Stevenson, M. Roberts and A. Bhide (Eds), *The entrepreneurial venture* (Boston: Harvard Business School Press, 1996), 138); and P. van Eijck, *Sustainable Entrepreneurship: Institutional profile and cross-country comparison Denmark & US and its Viability* (Rotterdam: Bachelor Thesis in Entrepreneurship, Strategy and Organizations Economics from Erasmus School of Economics, January 2012).

- *People*: This element is defined as those who actively participate in the venture or who bring resources to the venture and includes both those within the organization and those outside the organization who must be involved in order for the venture to be successful. This element includes not only the personal characteristics of the entrepreneur such as his or her skills, attitudes, contacts, goals and values, but also the cumulative skills, attitudes, knowledge, contacts, goals and values of all participants that provide the mix of resources that contribute to the success of the venture.
- *Context*: This element includes relevant factors that are generally outside of the control of the entrepreneur but which be expected to have an impact on his or her activities. Examples include the general economy, taxes and other regulations and the socio-political institutions in the areas in which the entrepreneur intends to operate. Specific contextual factors identified by Austin et al. included economic environment, tax policies, employment levels, technological advances, and social movements such as those involving labor, religion and politics. Entrepreneurs need to understand that context frames the opportunities and risks for every new venture and need to determine which factors must be consciously addressed from a strategic perspective and which are best left to play out as they will since the entrepreneur has limited time and ability to attend to everything that might have an impact on the venture.
- *Deal*: Austin et al. used the term “deal” to refer to the substance of the bargain that define who among the participants in a venture gives what, who among the participants in the venture gets what, and how and when those deliveries and receipts will take place. The deal emerges from a bargaining process that normally addresses topics such as economic benefits, social recognition, autonomy and decisions rights, satisfaction of deep personal needs, social interactions, fulfillment of generative and legacy desires, and delivery on altruistic goals.¹²
- *Opportunity*: In order for the entrepreneur to spring into action he or she must perceive an opportunity, which Austin et al. defined as “any activity requiring the investment of scarce resources in hopes of a future return”.¹³ The entrepreneur must have a vision of a future that is better for him or her and must be able to develop and implement a credible path to change the current situation to that desired future state. Austin et al. observed that “change” is generally difficult and it is challenging for entrepreneurs to bring followers together to agree on a common definition of opportunity and change that can be shared and used as motivation for joint action by the multiple constituencies that must work together in order to create change. For example, change usually impacts power relationships, economic interests, personal networks, and even the self-image of participants.

While each element of the framework above, which is often referred to as the “PCDO” model, is introduced and described separately, Austin et al. made it clear that they must be understood and applied as being interdependent and situationally determined and that

¹² R. Martin and S. Osberg, “Social entrepreneurship: The case for definition.” Stanford Social Innovation Review, Spring 2007, 28.

¹³ J. Austin, H. Stevenson and J. Wei-Skillern, “Social and Commercial Entrepreneurship: Same, different, or both?”, Entrepreneurship Theory and Practice, 30(1) (2006), 1,5 (citing W. Sahlman, “Some thoughts on business plans”, in W. Sahlman, H. Stevenson, M. Roberts and A. Bhide (Eds), The entrepreneurial venture (Boston: Harvard Business School Press, 1996), 138, 140).

the fit among them is continuously changing and must be carefully monitored. For example, Austin et al. pointed out that changes in “context” often require bring in new people with different skill sets and jettison other people whose skills have become obsolete and that these changes will usually trigger the need for bargaining around a restructured “deal” among the new group of participants. Changes in context can also cause entrepreneurs to perceive new opportunities that require a different strategy and path to change that will impact each of the other elements.

Mueller and Thomas have observed that while entrepreneurship has clearly become a popular topic around the world a number of interesting and important questions regarding entrepreneurial activities and formation of new ventures remain to be answered with respect to countries other than the US.¹⁴ In fact, one of the most interesting and promising areas of entrepreneurship research is “international entrepreneurship”, which Oviatt and McDougall defined as “(...) the discovery, enactment, evaluation, and exploitation of opportunities—across national borders—to create future goods and services”.¹⁵ Hessels has explained that, as a field of research, international entrepreneurship involves “research into entrepreneurship in multiple countries (cross-country comparisons of the nature and extent of entrepreneurial activity) and research into cross-border entrepreneurship (international activity of SMEs and new ventures)”.¹⁶

It is believed that international entrepreneurship first appeared in the literature in the late 1980s and began as a response to evidence that technological advances and cultural awareness were driving new ventures beyond their more familiar domestic environments toward entering previously untapped foreign markets.¹⁷ McDougall and Oviatt noted research activities under the umbrella of international entrepreneurship expanded beyond “new venture internationalization” to include topics such as national culture,¹⁸ alliances

¹⁴ S. Mueller and A. Thomas, “Culture and Entrepreneurial Potential: A Nine Country Study of Locus of Control and Innovativeness”, *Journal of Business Venturing*, 16 (2000), 51-75, 53.

¹⁵ B. Oviatt and P. McDougall, “Defining International Entrepreneurship and Modeling the Speed of Internationalization”, *Entrepreneurship Theory and Practice*, 29(5) (2005), 537-553, 540.

¹⁶ J. Hessels, *International Entrepreneurship: An Introduction, Framework and Research Agenda* (Zoetermeer, The Netherlands: Scientific Analysis of Entrepreneurship and SMEs, 2008), 4 (citing J. Lu and P. Beamish, “The Internationalization and Performance of SMEs”, *Strategic Management Journal*, 22(6/7) (2001), 565-586; N. Coviello and M. Jones, *Methodological Issues in International Entrepreneurship Research*, *Journal of Business Venturing*, 19(4) (2004), 485-508; and B. Oviatt and P. McDougall, “Defining International Entrepreneurship and Modeling the Speed of Internationalization”, *Entrepreneurship Theory and Practice*, 29(5) (2005), 537-553). McDougall and Oviatt explained that “the scholarly field of international entrepreneurship examines and compares--across national borders--how, by whom, and with what effects those opportunities are acted upon”. P. McDougall and B. Oviatt, “Some Fundamental Issues in International Entrepreneurship”, *United States Association for Small Business and Entrepreneurship*, <http://www.usasbe.org/knowledge/whitepapers/mcdougall2003.pdf>, [Accessed March 31, 2012].

¹⁷ Morrow, *International Entrepreneurship: A New Growth Opportunity*, 3 *New Mgmt.* 59-61 (1988); S. Zahra and G. George, *International entrepreneurship: The Current Status of the Field and Future Research Agenda*, in M. Hitt, R. Ireland, S. Camp and D. Sexton, *Strategic Entrepreneurship: Creating a New Mindset* (2002).

¹⁸ R. McGrath and I. MacMillan, *More Like Each Other than Anyone Else? A Cross-Cultural Study of Entrepreneurial Perceptions*, 7 *Journal of Business Venturing* 419 (1992); A. Thomas and S. Mueller, A

and cooperative strategies,¹⁹ small and medium sized company internationalization,²⁰ top management teams,²¹ entry modes, cognition,²² country profiles,²³ corporate entrepreneurship,²⁴ exporting,²⁵ knowledge management,²⁶ venture financing,²⁷ technological learning²⁸ and entrepreneurship in developing countries. They also reported that international entrepreneurship research had quickly become multi-disciplinary and attracted the interest and resources of researchers in the areas of international business, entrepreneurship, anthropology, economics, psychology, finance, marketing and sociology. Another indicator of growing interest in international entrepreneurship has been the increased coverage of the topic in leading academic journals and the launch of a completely new journal, the *Journal of International Entrepreneurship*, dedicated specifically to the field.²⁹ In any event, international entrepreneurship is a field that remains relatively new and immature from a research perspective and holds great promise for informing policymakers and educators about how best to encourage meaningful new business formation that contributes to economic growth and development.

§2 Global Entrepreneurship Monitor

Case for Comparative Entrepreneurship: Assessing the Relevance of Culture, 31 *J. Int'l Bus. Stud.* 287 (2000).

¹⁹ Steensma, L. Marino, M. Weaver and P. Dickson, The Influence of National Culture in the Formation of Technology Alliances by Entrepreneurial Firms, 43 *Acad. Mgmt. J.* 951 (2000); H. Li and K. Atuahene-Gima, Product Innovation Strategy and the Performance of New Technology Ventures in China, *Acad. Mgmt. J.* 1123 (2001).

²⁰ Lu and Beamish, The Internationalization and Performance of SMEs, 22 *Strategic Mgmt. J.* 565 (2001).

²¹ A. Reuber and E. Fischer, The Influence of the Management Team's International Experience on the Internationalization Behavior of SMEs, 28(4) *J. Int'l Bus. Stud.* 807 (1997).

²² Mitchell, Smith, Seawright and Morse, Cross-Cultural Cognitions and the Venture Creation decision, 43(5) *Acad. Mgmt. J.* 974 (2000).

²³ Busenitz, Gomez and Spencer, Country institutional profiles: Unlocking entrepreneurial phenomena, 43 *Acad. Mgmt. J.* 994 (2000).

²⁴ Birkinshaw, Entrepreneurship in Multinational Corporations: The Characteristics of Subsidiary Initiatives, 18 *Strategic Mgmt. J.* 207 (1997).

²⁵ W. Bilkey and G. Tesar, The export behavior of smaller-sized Wisconsin manufacturing firms, 8 *J. Int'l Bus. Stud.* 93 (1977).

²⁶ W. Kuemmerle, Home Base and Knowledge Management in International Ventures, 17 *Journal of Business Venturing* 99 (2002).

²⁷ J. Roure, R. Keeley and T. Keller, Venture Capital Strategies in Europe and the U.S. Adapting to the 1990's, in N. Churchill et al. (eds.) *Frontiers of Entrepreneurship Research* 345 (1992).

²⁷ S. Zahra, R. Ireland and M. Hitt, "International expansion by new venture firms: International diversity, mode of market entry, technological learning and performance", *Academy of Management Journal*, 43 (2000), 925-950.

²⁸ S. Zahra, R. Ireland and M. Hitt, "International expansion by new venture firms: International diversity, mode of market entry, technological learning and performance", *Academy of Management Journal*, 43 (2000), 925-950.

²⁹ For useful reviews of international entrepreneurship literature and research issues, see P. McDougall and B. Oviatt, International entrepreneurship literature in the 1990s and directions for future research, in D. Sexton and R. Smilor (Eds.), *Entrepreneurship 2000* 291 (1997); S. Zahra and G. George, International entrepreneurship: The current status of the field and future research agenda, in M. Hitt, R. Ireland, S. Camp and D. Sexton, *Strategic Entrepreneurship: Creating a New Mindset* (2002).

The Global Entrepreneurship Monitor (“GEM”) is a partnership between the London Business School and Babson College that administers a comprehensive research program to produce annual assessments of national levels of entrepreneurial activity. The project was first launched in 1999, when it covered just ten countries, and has since grown to cover as many as 85 countries in subsequent years and is recognized as the largest ongoing study of entrepreneurial dynamics in the world. The main objectives of the GEM program are measurement of differences in the level of entrepreneurial activity between countries, uncovering the factors that lead to appropriate levels of entrepreneurship and making suggestions for policies that may lead to enhancement of national levels of entrepreneurial activity. The GEM, like other models, has always been focused on exploration of the link between entrepreneurship and economic development and its original model attempted to integrate several variables thought necessary to enable business activity including entrepreneurial capacity, entrepreneurial opportunities and certain “entrepreneurial framework conditions” discussed in more detail below. Recently, the GEM model was revised to take into account that the contribution of entrepreneurs to an economy varies according to its phase of economic development, with those phases being defined in the manner suggested by Porter et al. and described elsewhere in this chapter, namely “factor-driven economies”, “efficiency-driven economies” and “innovation-driven economies”. A large amount of information regarding the work of the GEM researchers is available at its website and in addition to the annual global reports, such as the one for 2011 referred to herein, there are a number of country-specific “national reports” that provide international benchmarking, local context and recommendations for national entrepreneurship policies.

The GEM is based on a conceptual model of the institutional environment and its effect on entrepreneurship. The model recognizes the importance of the social, cultural and political context in which entrepreneurial activities occur and assumes that these contextual factors influence three sets of conditions: basic requirements, which include institutions, infrastructure, macroeconomic stability, health and primary education; “efficiency enhancers”, which include higher education, goods and labor market efficiency, financial market sophistication, technological readiness and market size; and the “entrepreneurial framework conditions” discussed below. Entrepreneurship itself is measured by looking at the entrepreneurship profile of prospective and actual entrepreneurs, including their attitudes, activities and aspirations; and at the entrepreneurship process itself. The GEM researchers acknowledge that entrepreneurship is a process that extends over multiple phases, thus allowing opportunities for assessing the state of entrepreneurship in a particular society at different phases. These entrepreneurship phases can be briefly summarized as follows³⁰:

- Potential entrepreneurs: These are persons who see opportunities in their areas, believe they have the abilities and resources to start businesses to pursue those opportunities and who are not deterred by fear of failure in pursuing those opportunities. The level of broader societal support for entrepreneurship is also

³⁰ D. Kelley, S. Singer and M. Herrington, Global Entrepreneurship Monitor: 2011 Global Report (Babson Park, MA: Global Entrepreneurship Research Association, 2012), 5.

important at this phase. The GEM survey uses a variety of measures of entrepreneurial perceptions, intentions and societal attitudes including perceived opportunities, perceived capabilities, fear of failure, entrepreneurial intentions, entrepreneurship as a “good career choice” high status to successful entrepreneurs and media attention for entrepreneurship.

- Expected entrepreneurs: Expected entrepreneurs are those persons who have not yet started a business but who have expressed an expectation that they would start a business within the next three years.
- Nascent activity: This phase covers the first three months after the entrepreneur establishes a new business to pursue the identified opportunities.
- New business owners: These are persons who have successfully emerged from the nascent phase and have been in business more than three months but less than three and one-half years.
- Established businesses: These are businesses that have been operating for more than three and one-half years, thus moving beyond “new business owner” status.
- Discontinued businesses: Discontinued businesses, regardless of how long they were operating, are factored into the analysis because they are a source of experienced entrepreneurs who may start new businesses and/or use their expertise and experience to support other entrepreneurs (e.g., by providing financing and/or business advice).

Data collection for the GEM project includes a minimum of 2,000 adult (i.e., 18-64 years of age) population surveys in each GEM country to track the entrepreneurial attitudes, activity and aspirations of individuals; and input and assessment from a minimum of 36 experts in each GEM country on “entrepreneurial framework conditions”, or “EFCs”, that are thought to reflect major features of a country's socio-economic milieu that are expected to have a significant impact on the entrepreneurial sector. The adult population surveys provide a means for measuring individual involvement in venture creation, identifying the motives of entrepreneurs, measuring the aspirations of entrepreneurs with respect to pursuing high growth and/or activities in foreign markets and understanding the societal climate for entrepreneurship. The “climate for entrepreneurship” includes not only the perceptions of prospective entrepreneurs regarding the availability of opportunities around them, their ability to start businesses and the value of doing so but also the availability of positive support from others regarding entrepreneurship as measured by “societal perceptions” of entrepreneurship and the willingness of vendors and investors to supply tangible and financial resources. The national expert surveys measure the following nine EFCs:

- Finance: The availability of financial resources—equity and debt—for small and medium enterprises (“SMEs”) (including grants and subsidies);
- Government policies: The extent to which taxes or regulations are either size-neutral or encourage SMEs;
- Government programs: The presence and quality of direct programs to assist new and growing firms at all levels of government (national, regional, municipal);

- Entrepreneurial education and training: The extent to which training in creating or managing SMEs is incorporated within the education and training system at all levels (primary, secondary and post-school);
- R&D transfer: The extent to which national research and development will lead to new commercial opportunities and is available to SMEs;
- Commercial and professional infrastructure: The presence of property rights and commercial, accounting, and other legal services and institutions that support or promote SMEs;
- Entry regulation: Contains two components including “Market Dynamics”, which is the level of change in markets from year to year, and “Market Openness”, which is the extent to which new firms are free to enter existing markets;
- Physical infrastructure and services: Ease of access to physical resources—communication, utilities, transportation, land or space—at a price that does not discriminate against SMEs; and
- Cultural and social norms: The extent to which social and cultural norms encourage or allow actions leading to new business methods or activities that can potentially increase personal wealth and income.

The GEM researchers measure “total early-stage entrepreneurial activity”, or “TEA”, for each country by identifying and combining entrepreneurs who are either engaged in nascent activities or acting as new business owners. In addition to a TEA rate for each country, the GEM researchers also score and rank countries with respect to established business ownership rate, discontinuation of businesses, necessity-driven entrepreneurship as a percentage of TEA and improvement-driven opportunity entrepreneurship as a percentage of TEA. Countries are grouped by their phase of economic development so that comparisons can be made among comparable countries and researchers can also track how entrepreneurial activities change as countries develop economically and socially. As noted above, the GEM researchers borrowed from Porter by suggesting that countries go through three stages of economic development: a factor-driven stage; an efficiency-driven stage; and, finally, an innovation-driven stage.³¹ Acs and Szerb have provided the following brief descriptions of each of these stages:³²

- The factor-driven stage is marked by high rates of agricultural self-employment and countries in this stage generally compete based on low-cost efficiencies in the production of commodities or low value-added products. Countries in this stage do not create knowledge that can be used for innovation nor do they use knowledge to engage in exporting activities. In the 2011 GEM survey, for example, seven of the 54 countries fell into the factor-driven stage including Guatemala (with the highest TEA among the group) and Pakistan (with the lowest TEA among the group).³³

³¹ M. Porter, *Global Competitiveness Report* (Geneva: World Economic Forum, 2002).

³² Z. Acs and L. Szerb, “The Global Entrepreneurship and Development Index (GEDI)” (Paper presented at Summer Conference 2010 on “Opening Up Innovation: Strategy, Organization and Technology”, Imperial College London Business School, June 2010).

³³ D. Kelley, S. Singer and M. Herrington, *Global Entrepreneurship Monitor: 2011 Global Report* (Babson Park, MA: Global Entrepreneurship Research Association, 2012), 10.

- The efficiency-driven stage requires that countries engage in efficient productive practices in large markets so that firms are able to achieve and exploit economies of scale. Industries in this stage are generally manufacturing-based and focused on the production and distribution of basic goods and services. Self-employment tends to decline during this stage and capital, labor and technology begin to emerge as the key drivers of productivity. In the 2011 GEM survey, for example, 24 of the 54 countries fell into the efficiency-driven stage including China, Chile and Peru with the highest TEA rates among the group and Hungary, Malaysia and Russia with the lowest TEA rates among the group.³⁴
- In the innovation-driven stage, the key input is “knowledge” and decisions about embarking on new projects are based primarily on expected net returns and the likelihood that economic activities can generate high value added products and services. In the 2011 GEM survey, for example, 23 of the 54 countries fell into the efficiency-driven stage including Australia and the US with the highest TEA rates among the group and Denmark, Japan and Slovenia with the lowest TEA rates among the group.³⁵

As discussed below, as countries transition between stages of development there will be changes in their entrepreneurship profile. Even among comparable countries, countries at the same stage of economic development, the rate and profile of entrepreneurship may vary significantly due to environmental constraints that are specific to a given country. For example, a country may have a high rate of start-up activity but fail to maintain that rate at the established business phase due to societal factors that make it difficult for nascent entrepreneurs to maintain their momentum and get their businesses to the point where they are sustainable. In addition, the GEM researchers have often cautioned that higher TEAs do not necessarily imply better economic conditions. For example, certain nations with higher levels of TEA, such as the United Arab Emirates, Iceland and Greece, experienced severe economic distress in the early 2010s and some innovation-driven economies, such as Japan, have historically had low levels of TEA.

For 2011 survey results obtained from interviewing over 140,000 adults in 54 countries led the GEM researchers to make the following estimates³⁶:

- 388 million entrepreneurs were actively engaged in starting and running new businesses;
- There were 163 million women early-stage entrepreneurs; however, in most of the surveyed countries the entrepreneurship rates for women were significantly lower than for men;
- There were 165 million young early-stage entrepreneurs (i.e., between the ages of 18 and 35) and, in general, early-stage entrepreneurs tended to be young to mid-career (i.e., from ages 25 to 44) and entrepreneurs tended to be younger in the efficiency-driven economies;

³⁴ Id. at 10-11.

³⁵ Id. at 11.

³⁶ Id. at 4.

- 141 million of the early-stage entrepreneurs expected to create at least five new jobs in the next five years;
- 65 million of the early-stage entrepreneurs expected to create 20 or more new jobs in the next five years;
- 69 million of the early-stage entrepreneurs offered innovative products and services that are new to customers and have few other competitors; and
- 18 million of the early-stage entrepreneurs sell at least 25% of their products and services internationally.

The results reported by the GEM researchers reflect some of the nuances in their assessment of entrepreneurial activity. In particular, the researchers who prepared the results of the 2011 GEM survey noted the interest in identifying the “profile of entrepreneurs”, rather than just the number of entrepreneurs, and that the report focused on three profile factors: inclusiveness, including the availability of entrepreneurial activities to women and people of various ages; industry, realizing that the skills and other attributes of entrepreneurs will differ from industry-to-industry; and, finally, impact, which looks at the role of innovation in an entrepreneurial endeavor and the aspirations of the entrepreneur with respect to internationalization and growth.³⁷

The 2011 GEM survey also generated data that allowed the researchers to reach various conclusions regarding entrepreneurial activities in the 54 countries that were part of the survey. Highlights included the following³⁸:

- With regard to potential entrepreneurship, countries included among the factor-driven economies displayed higher average perceptions about entrepreneurial activities in their area than countries falling into the other two development levels and also displayed higher perceived capabilities to start a business than countries classified as efficiency- or innovation-driven economies. The researchers explained that these differences could be attributed to individuals having different ideas about what kind of businesses to establish based on their level of development and noted that consumer-oriented businesses were the most popular in factor-driven economies while innovation-driven economies had a higher proportion of business services enterprises than countries in the other two development levels.
- Potential entrepreneurship varied significantly among countries in the same level of economic development. For example, the researchers pointed out that while Bangladesh, a factor-driven economy, scored highly on perceived opportunities the pool of entrepreneurs in that country was reduced by a high lack of confidence in ability to start a business and a high fear of failure. On the other hand, another factor-driven economy, Venezuela, displayed only an average level of perceived opportunities but had strong positive opinions regarding ability to start a business and a low fear of failure.
- A number of European countries who had been pummeled by adverse economic conditions at the time of the survey had relatively low perceptions of opportunities

³⁷ Id. at 6, 15-21.

³⁸ Id at 7-18.

and low rates of opportunities and capabilities were also found in some of the innovation-driven Asian economies such as Japan, Korea and Singapore. The score from the respondents from the US with respect to perceived opportunities fell near the average of the innovation-driven economies; however, they were generally quite confident of their abilities to start a new business and had a relatively low fear of failure.

- The researchers asked respondents whether they felt that entrepreneurship was a “good career choice” and found that the percentage of respondents answering affirmatively declined as economic development improved. This finding was supported by the fact that perceptions about the status of entrepreneurs were higher in the factor-driven economies than in the other two development levels.
- Entrepreneurial intentions, as measured by the percentages of individuals who had not yet started a business but had expressed an intention to start a business within the next three years, were highest in factor-driven economies. Entrepreneurial intentions declined as the level of development increased. There was evidence that entrepreneurial intentions were influenced by the types of economic activities typically carried out in a country with countries that placed a high emphasis on extractive resources (i.e., Russia and the United Arab Emirates) having relatively low entrepreneurial intention rates.
- From 2010 to 2011 there was a significant increase in TEA rates in many economies across all development levels, an interesting trend given the turbulent economic conditions that countries all over the world were experiencing during that time.
- Consumer-oriented business (e.g., retail enterprises) tended to dominate entrepreneurial activities at the factor-driven and efficiency-driven stages; however, business services, which rely and compete on knowledge and technology, were the most prominent among entrepreneurs in the innovation-driven economies.³⁹
- Among factor-driven economies necessity- and improvement-driven opportunism as a percentage of total TEA is roughly the same; however, as the level of development increased the necessity-driven opportunism became less important as a motivator to start a new business and improvement-driven opportunism became more important as a motivator.⁴⁰
- Comparing TEA rates to the rate of established business ownership, the GEM researchers found that TEA rates were highest in the factor-driven economies and decreased as the level of development increased and necessity-driven entrepreneurship declined. There were significantly more early-stage entrepreneurs than established business owners in the factor-driven economies; however, on average, by the time a country reached the innovation-driven stage it could be

³⁹ Id. at 18. In addition to consumer-oriented businesses and business services, the GEM survey also tracked extractive and transforming activities.

⁴⁰ The GEM defined “necessity-driven” entrepreneurs as those persons who start new businesses because they have no other work options and need a source of income while improvement-driven entrepreneurs are defined as those persons interested in pursuing an opportunity and who do so in order to improve their incomes and/or independence in their work. Id. at 13. For further discussion of necessity-driven entrepreneurship and other methods for classifying “types of entrepreneurship”, see “Definitions and Types of Entrepreneurship” in “Entrepreneurship: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

expected that the TEA rate would drop slightly become the level of established business ownership.

- Business discontinuance declined as the level of economic development increased, a finding attributed, at least in part, to the higher proportion of entrepreneurs at the earlier development phases and the higher levels of risk that those entrepreneurs must overcome. Business closings among factor- and efficiency-driven economies were often blamed on a lack of profitability and sources of financing while business discontinuances in the innovation-driven economies were more likely due to retirement, sale or the desire to pursue another opportunity.

The GEM researchers also focused on three other important measures of entrepreneurship: entrepreneurs' expectations regarding growth in terms of number of persons that will be employed in five years, the degree of "innovation" involved in the entrepreneur's product or service and "internationalization" (i.e., the extent to which entrepreneurs sell to customers in foreign countries).⁴¹ Innovation was measured by looking at the extent to which an entrepreneur's product or service was new to some or all customers of the entrepreneur and whether there were few or no other businesses offering the same product or service. Measured in this way innovation is context-dependent and determined by the entrepreneur's main customer market. Accordingly a product or service offered for the first time in one country would be deemed innovative with respect to that country even if the product or service is commonly sold by number of competitors in other countries. Internationalization was measured by looking at what percentage of the entrepreneurs in a given country had at least 25% of their customers in foreign countries.

The survey results included growth expectations for the 54 countries at three levels: 0-4 employees in five years (low growth expectations), 5-19 employees in five years (medium growth expectations) and 20 or more employees in five years (high growth expectations). While factor-driven economies had more entrepreneurs, most of them were in the low growth category. On the other hand, innovation-driven economies had a lower percentage of entrepreneurs but those entrepreneurs were much more likely to have high growth expectations. As for innovativeness, it is not surprising that the researchers found that it increased along with the level of economic development. Finally, internationalization, like innovation, was lowest in the factor-driven economies but rose as economic development improved. Internationalization appeared to be influenced by factors other than just economic development such as the size of the population and land mass in the "home country" and the size and diversity of the local market.

The GEM researchers suggest that the nature of entrepreneurship and its contribution to the national economy changes as economies development and development should be accompanied by changes in emphasis of governmental policies. For example, since economic development in factor-driven economies is largely driven by the "basic requirements" in the GEM conceptual model of the relationship between the institutional

⁴¹ D. Kelley, S. Singer and M. Herrington, *Global Entrepreneurship Monitor: 2011 Global Report* (Babson Park, MA: Global Entrepreneurship Research Association, 2012), 18-21.

context and entrepreneurship, emphasis during that phase should be placed on development of institutions, infrastructure, macroeconomic stability and health and primary education. Once an economy transitions into the efficiency-driven phase, government policies should be focused “efficiency enhancers” including the proper (i.e., “efficient”) functioning of goods and labor markets, development of higher education systems, enhancement of technological readiness and increasing the scope and sophistication of financial markets. While these initiatives may not have an immediate direct impact on entrepreneurship they will provide the foundation for attracting and enabling higher levels of entrepreneurship in the future. Finally, economies in, or about to enter, the innovation-driven phase requires governmental attention to each of the various EFCs mentioned above in order to create jobs and spur technical innovation.

The highest ratings for EFCs in the 2011 GEM survey came from the experts in the innovation-driven economies, which confirmed the assumption that the basic requirements and efficiency enhancers included the GEM theoretical model are more developed in those economies and thus it is appropriate to focus on the EFCs. Three of the EFCs were also considered to be quite important by experts from the factor-driven economies: post-school entrepreneurship education; internal market dynamics; and cultural and social norms for entrepreneurship. Significant differences between innovation-driven economies and factor-driven economies were found with respect to the following EFCs: government programs, physical infrastructure, R&D transfer, finance and national policy.⁴²

§3 Global Entrepreneurship and Development Index

Acs and Szerb believed that the GEM project and its focus on the business formation process in a large number countries, while impressive and valuable, fell short due to its failure to incorporate the different impacts of new businesses and its ranking of countries based primarily on the number of new businesses without regard to their success from a financial perspective or in terms of job creation, improving the local knowledge base and increasing the level of development and innovation.⁴³ Specifically, they were critical of the tendency of empirical investigations of entrepreneurship to take “simple, one-dimensional approaches” even as modern research theories implicitly acknowledged that entrepreneurship required a multi-dimensional definition.⁴⁴ For example, they argued that indexes such as GEM’s TEA that are based solely or primarily on measures of “self-employment”, business ownership, new business creation or the percentage of the adult population willing to engage in “entrepreneurial” activity⁴⁵ neglected important

⁴² Id. at 22-23.

⁴³ Z. Acs and L. Szerb, “The Global Entrepreneurship and Development Index (GEDI)” (Paper presented at Summer Conference 2010 on “Opening Up Innovation: Strategy, Organization and Technology”, Imperial College London Business School, June 2010).

⁴⁴ Id.

⁴⁵ With regard to self-employment, see Z. Acs, D. Audretsch and D. Evans, “Why does the self-employment rates across countries and over time?” (CERP Working Paper No. 871, Center for Economic Policy Research, 1994); D. Blanchflower, A. Oswald and A. Stutzer, “Latent entrepreneurship across nations”, *European Economic Review*, 45(4-6) (2001), 680-691; and I. Grilo and R. Thurik, “Determinants

differences in the “quality” of entrepreneurial activity (e.g., skills, innovation and high growth); differences in environmental factors; and the efficiency and level of the society’s institutional setup (e.g., property rights, size and role of government and regulatory conditions to new venture formation). Acs and Szerb believed that it was important to distinguish entrepreneurship from small businesses, self-employment, craftsmanship and “usual businesses” and defined entrepreneurship as “a dynamic interaction or entrepreneurial attitudes, entrepreneurial activity, and entrepreneurial aspiration that vary across stages of economic development”.⁴⁶

Using their definition of entrepreneurship, Acs and Szerb set out to address and overcome the above-described shortcomings of the GEM project and other then-existing measures of national entrepreneurship based primarily on business formation by creating the Global Entrepreneurship and Development Index (“GEDI”).⁴⁷ Acs and Szerb explained that their goal in constructing the GEDI was to contribute to the understanding of economic development by providing a measuring tool that “captures the essence of the contextual features of entrepreneurship and fills a gap in the measure of development”.⁴⁸ The initial GEDI covered 71 countries around the world and was based on both the quality and quantity of the business formation process in those countries and designed to incorporate both individual and institutional level variables.⁴⁹ In a report prepared for the

of Entrepreneurship in Europe and the US”, *Industrial and Corporate Change*, 17(6) (2008), 1113-1145. With regard to business ownership rate, see M. Carree, A. van Stel, R. Thurik and S. Wennkers, “Economic Development and Business Ownership: An Analysis Using Data of 23 OECD Countries in the Period 1976–1996”, *Small Business Economics*, 19(3) (2002), 271-290; and A. Cooper and W. Dunkelberg, “Entrepreneurship and Paths to Business Ownership”, *Strategic Management Journal*, 7(1) (1986), 53-68. With regard to new venture creation, see W. Gartner, “A Conceptual Framework for Describing the Phenomenon of New Venture Creation”, *The Academy of Management Review*, 10(4) (1985), 696-706; and P. Reynolds and D. Storey and P. Westhead, “Cross-national comparisons of the variation in new firm formation rates”, *Regional Studies*, 28(4) (1994), 443–456. For information on the TEA, see Z. Acs, P. Arenius, M. Hay and M. Minniti, *Global Entrepreneurship Monitor: 2004 Executive Report* (Babson Park, MA: Babson College and London: London Business School, 2005); and N. Bosma, K. Jones, E. Autio and J. Levie, *GEM executive report 2007* (Babson College, London Business School, and Global Entrepreneurship Research Consortium, 2008).

⁴⁶ Z. Acs and L. Szerb, “The Global Entrepreneurship and Development Index (GEDI)” (Paper presented at Summer Conference 2010 on “Opening Up Innovation: Strategy, Organization and Technology”, Imperial College London Business School, June 2010).

⁴⁷ Id. Acs and Szerb did note that the original GEM model had been updated to incorporate a number of “contextual” factors that impact entrepreneurship including education, infrastructure, government support, venture capital and research and development transfer and that the GEM was also beginning to recognize individual differences in the “quality” of new ventures (i.e., “startups”). N. Bosma, K. Jones, E. Autio and J. Levie, *GEM executive report 2007* (Babson College, London Business School, and Global Entrepreneurship Research Consortium, 2008); N. Bosma, Z. Acs, E. Autio, A. Coduras and J. Levie, *GEM executive report 2008*, (Babson College, Universidad del Desarrollo, and Global Entrepreneurship Research Consortium, 2009).

⁴⁸ Z. Acs and L. Szerb, “The Global Entrepreneurship and Development Index (GEDI)” (Paper presented at Summer Conference 2010 on “Opening Up Innovation: Strategy, Organization and Technology”, Imperial College London Business School, June 2010).

⁴⁹ Acs and Szerb explained that all of the institutional variables used in compiling the indexes that are part of the GEDI were taken from the Global Competitiveness Index. For further information on the Global Competitiveness Index, see X. Sala-I-Martin, B. Bilbao-Osorio, J. Blanke, M. Hanouz and T. Geiger, “The

US Small Business Administration Acs and Szerb explained that the GEDI captures the contextual features of entrepreneurship by focusing on three broad areas referenced in their definition of “entrepreneurship” referred to above: “The first is entrepreneurial attitudes, a society’s basic attitudes toward entrepreneurship through education and social stability. The second area of focus is entrepreneurial activity, what individuals are actually doing to improve the quality of human resources and technological efficiency. The final area is entrepreneurial aspirations, how much of the entrepreneurial activity is being directed toward innovation, high-impact entrepreneurship, and globalization.”⁵⁰

The GEDI created by Acs and Laszlo was a “super-index” based on societal scores on three sub-indexes measuring activity, aspiration and attitudes⁵¹:

- The entrepreneurial attitude sub-index, or “ATT”, focuses on identifying and measuring “entrepreneurial attitudes” associated with a society’s entrepreneurship-related behavior. Among the areas of interest with respect to ATT are the potential for perceiving novel business opportunities, “fear of failure”, “startup skills” and personal networks. Acs and Laszlo believed that several institutional factors would influence ATT including the size of the market, education, business risk, Internet usage and culture.
- The entrepreneurial activity sub-index, or “ACT”, makes the GEDI distinguishable from other empirical measures of entrepreneurship through its focus on measuring “high growth potential start-up activity”. Among the factors taken into account are “opportunity start-up motives”, sophistication or intensity of technology involved, level of education and product/service uniqueness. Acs and Laszlo believed that the relevant institutional factors relating to ACT included ease of doing business (referred to as “business freedom”), the availability and absorption of the latest technology and the level of human development (i.e., education and training).
- The entrepreneurial aspiration sub-index, or “ASP”, relates to what Acs and Laszlo called “the distinctive, qualitative, strategy related nature of entrepreneurial activity” and incorporates “the efforts of the early-stage entrepreneur to introduce new products and services, develop new production processes, penetrate foreign markets, substantially increase the number of firm employees, and finance the business with either formal or informal venture capital, or both”.⁵²

Global Competitiveness Index 2011-2012: Setting the Foundations for Strong Productivity” in K. Schwab (Ed), *The Global Competitiveness Report 2011-2012* (Geneva: World Economic Forum, 2011), 3-50.

⁵⁰ Z. Acs and L. Szerb, *Global Entrepreneurship and the United States* (Washington, DC: US Small Business Administration Office of Advocacy, September 2010) <http://www.sba.gov/content/global-entrepreneurship-and-united-states> [Accessed April 30, 2011]

⁵¹ Z. Acs and L. Szerb, “The Global Entrepreneurship and Development Index (GEDI)” (Paper presented at Summer Conference 2010 on “Opening Up Innovation: Strategy, Organization and Technology”, Imperial College London Business School, June 2010). The article includes an extensive discussion of the methodology used in compiling and weighting the indexes and a description of the institutional variables used in the indexes.

⁵² Z. Acs and E. Autio, “The Global Entrepreneurship and Development Index: A Brief Explanation”, www.imperial.ac.uk/business-school [Accessed April 30, 2011] One of the institutional variables used by Acs and Szerb was “business strategy” and referred to “the ability of companies to pursue distinctive strategies, which involves differentiated positioning and innovative means of production and service

Acs and Szerb concluded that public policy makers must take steps to strengthen institutions before a country's entrepreneurial resources can be fully deployed.⁵³ Thus, for example, steps must be taken to increase "business freedom" by easing restrictions on the ability of entrepreneurs to start, operate and close a business and making governmental processes with respect to business approvals more efficient and transparent. In addition, the government must take appropriate action to improve the society's human capital, through education and training to increase the capacity to absorb and apply new technologies, and reduce corruption and business risk by creating a legal framework that provides investors with a higher level of trust in entering into business transactions. Institutional building should also be targeted toward activities that have been identified as drivers of development such as technology-based ventures and enterprises that pursue distinctive business strategies and seek to become fully integrated into a global marketplace.

Acs and Szerb, like others⁵⁴, observed that an understanding of entrepreneurship requires going beyond the traits and characteristics of the individual entrepreneur to also consider institutional variables and they noted that "[t]he dynamics of the [entrepreneurial] process can be vastly different depending on the institutional context and level of development within an economy".⁵⁵ They explained that entrepreneurship occurs within an environment that is influenced by economic development and that development directly impacts and strengthens institutions that eventually affect characteristics that are considered to be vitally important to the phenomenon of entrepreneurship such as quality of governance, access to capital and other resources, the perceptions of entrepreneurs and incentive structures for prospective entrepreneurs. Researchers have found evidence that the strengthening of institutions causes more entrepreneurial activity to be shifted toward "productive entrepreneurship" which, in turn, strengthens economic development.⁵⁶ Entrepreneurial activity reaches its highest level of intensity as countries go through the innovation-driven stage and eventually levels off as institutions are fully developed and the country has achieved a high level of innovation.⁵⁷

Acs and Szerb reported the rankings of the 71 countries in their survey and noted that their findings were significantly and highly correlated with other well-known measurement tools such as the Global Entrepreneurship Index, Index of Economic

delivery". See Z. Acs and L. Szerb, "The Global Entrepreneurship and Development Index (GEDI)" (Paper presented at Summer Conference 2010 on "Opening Up Innovation: Strategy, Organization and Technology", Imperial College London Business School, June 2010).

⁵³ Id.

⁵⁴ See, e.g., L. Busenitz and J. Spencer, "Country Institutional Profiles: Unlocking Entrepreneurial phenomena", *Academy of Management Journal*, 43(5) (2000), 994-1003.

⁵⁵ Z. Acs and L. Szerb, "The Global Entrepreneurship and Development Index (GEDI)" (Paper presented at Summer Conference 2010 on "Opening Up Innovation: Strategy, Organization and Technology", Imperial College London Business School, June 2010).

⁵⁶ D. Acemoglu and S. Johnson, "Unbundling institutions", *Journal of Political Economy*, 113(5) (2005), 949-995.

⁵⁷ F. Fukuyama, "The End of History?", *The National Interest*, 16 (1989), 3-18.

Freedom and Global Competitiveness Index. When reporting the rankings Acs and Szerb placed the countries into their appropriate stage of development using the aforementioned categories developed by Porter (i.e., factor-driven, efficiency-driven and innovation-driven).⁵⁸ Acs and Szerb pointed out the following notable findings from the 2010 rankings:

- Nordic and Anglo-Saxon countries in the innovation driven stage of development were in the front ranks. Denmark and Sweden led the GEDINDEX, Iceland and Norway joined them in the top ten and Finland was 13th overall. The US and Canada were third and fourth and Australia, Ireland and Switzerland also did well although they were weak in at least one of the sub-indexes.
- The most populous EU countries were in the middle part of the rankings, with the United Kingdom at 14th, Germany at 16th, France at 18th, Italy at 27th and Spain at 28th. Acs and Szerb suggested that there was a relationship between low levels of entrepreneurship in those countries and their relatively weak economic performance over the decade leading up to the rankings.
- The bottom of the rankings hosted a number of low GDP-level factor-driven countries such as Jamaica, Bosnia-Herzegovina, Venezuela, Brazil, Philippines, Iran, Bolivia, Ecuador and Uganda.

Entrepreneurial performance of the innovation driven countries was significantly different from the efficiency-driven countries, with the largest differences observed with respect to indicators of new products, “non-fear of failure”, internationalization and risk capital. Factor-driven and efficiency-driven countries were more similar regarding entrepreneurship indicators, but notable differences could be identified with respect to attitudinal indicators of “non-fear of failure” and “cultural support”.

Acs and Szerb also used “cluster analysis” to divide the surveyed countries into five country groups that possessed similar entrepreneurial features. The first group included most of the factor-driven economies in the survey with low scores on measures of international connections and development of human resources. A number of the efficiency-driven economies were in the next cluster and Acs and Szerb noted that these economies were involved in trying to increase entrepreneurship from what was currently a relatively low level of development. The remaining three clusters were home to most of the innovation-driven economies and broke down into innovation leaders, such as the US and the Scandinavian countries who topped the list for several reasons including the availability of formal and informal venture finance and excellence in technology application and adaptation; innovation followers that generally took a “follower” approach in identifying and pursuing innovation strategies first launched within the “leader” group; and innovation challengers who possessed some relative advantages that

⁵⁸ For further discussion of the views of Acs and Szerb on the contributions of entrepreneurship to development and relative importance of institutional factors in promoting entrepreneurship at different stages of economic development, see “Factors Influencing Entrepreneurial Activities” in “Entrepreneurship: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

would allow them to compete with the leaders in certain instances. The most significant differences among the three “innovation” clusters could be found in the area of “entrepreneurial attitudes”, which included opportunity perception, startup skills, “non-fear of failure”, networking and cultural support.

In general, the innovation leaders were the same countries who led the GEDINDEX rankings; Latin American countries appeared in the factor-driven cluster; and most of the Eastern European and Balkan countries and five out of six of the African countries appeared in the efficiency transformers cluster. An interesting, although not totally surprising, finding was the tremendous diversity among the Asian countries with respect to entrepreneurship. Acs and Szerb observed that the poorer Asian countries fell into the resource- or factor-driven clusters while highly populated Asian countries such as China, India and Indonesia could be found in the efficiency-driven cluster. Among the richer Asian countries, Hong Kong was an innovation challenger and Japan, Korea and Singapore were innovation followers. None of the Asian countries appeared in the innovation leader cluster. Acs and Szerb concluded that the cluster analysis provided further confirmation of a strong and positive relationship between economic development and entrepreneurship.

In 2010 the five highest ranking countries on the entrepreneurial attitude sub-index, or “ATT”, were, in order, New Zealand, Australia, Canada, Sweden and Denmark. The US was 6th. The five lowest ranking countries were Guatemala, Indonesia, Russia, Syria and Uganda. The five highest ranking countries on the entrepreneurial activity sub-index, or “ACT”, were, in order, Denmark, Canada, Puerto Rico, Ireland and Norway. The US was 8th. The five lowest ranking countries were Bosnia and Herzegovina, Morocco, the Philippines, Serbia and Uganda. The five highest ranking countries on the entrepreneurial aspiration sub-index, or “ASP”, were, in order, the US, Iceland, Singapore, Israel and Sweden. The five lowest ranking countries were Bolivia, Guatemala, Iran, Kazakhstan and the Philippines. Sub-index scores of a few of the other major global economic players were as follows: China—54th on ATT, 53rd on ACT, 26th on ASP and 40th overall on GEDI; Japan—47th on ATT, 23rd on ACT, 22nd on ASP and 29th overall on GEDI; and India—62nd on ATT, 51st on ACT, 40th on ASP and 53rd overall on GEDI. Not surprisingly, there were several instances of significant deviations, upward and downward, on one of the sub-indexes in relation to the other sub-indexes and overall GEDI. For example, Germany placed 7th on ASP but its ranking of 24th on ATT drove its overall GEDI placement down to 16th. Israel, not surprisingly, was 4th in ASP but its placement as 38th and 21st in ATT and ACT, respectively, led to an overall GEDI for this famously entrepreneurial society of 21st.

§4 Research issues in cross-country comparisons of entrepreneurial activities

It has generally been assumed that entrepreneurship plays an important role in national economies and is particularly important as a mechanism for national economic development to the extent that the creation of new economic activity by entrepreneurial actors contributes to increases in employment and greater innovation. However, researchers focusing on cross-country comparisons of entrepreneurial activities have

found considerable differences between countries on a variety of factors including the extent to which entrepreneurship is “growth” or “innovation” oriented.⁵⁹ As a result, commentators have recommended that it is essential for scientists, policy makers and entrepreneurs to collect and analyze additional information on the factors that influence the emergence of the various types of entrepreneurship and the economic outcomes of each type.⁶⁰

Mueller and Thomas noted that much work needs to be done in understanding whether various theories regarding human motivation and performance developed in North America can be usefully applied in other countries where cultural, social and economic conditions are quite different.⁶¹ Another interesting question they raised is the need to identify whether, at the national and regional level, there is an adequate supply of “prospective entrepreneurs” (i.e., individuals with the requisite personal characteristics and ambitions to identify and exploit opportunities and initiate new business ventures) to justify programs that might be implemented to encourage entrepreneurial activities.⁶² Unfortunately, at least in the eyes of researchers such as Mueller and Thomas, “with a few exceptions, international comparative studies of entrepreneurship are rare, hampered by barriers such as difficulty in gaining access to entrepreneurs in other countries, high expense, and lack of reliable secondary data”.⁶³

⁵⁹ J. Hessels, *International Entrepreneurship: An Introduction, Framework and Research Agenda* (Zoetermeer, The Netherlands: Scientific Analysis of Entrepreneurship and SMEs, 2008), 4 (citing E. Autio, *Global Entrepreneurship Monitor. 2007 Global Report on High Growth Entrepreneurship* (Wellesley, MA/London: Babson College and London Business School, 2007); and J. Hessels, M. van Gelderen and A. Thurik, “Drivers of Entrepreneurial Aspirations at the Country Level: The Role of Start-up Motivations and Social Security”, *International Entrepreneurship and Management Journal*, 4 (2008), 401-417).

⁶⁰ Id.

⁶¹ S. Mueller and A. Thomas, “Culture and Entrepreneurial Potential: A Nine Country Study of Locus of Control and Innovativeness”, *Journal of Business Venturing*, 16 (2000), 51-75, 53. For further discussion of cross-cultural transfer of management theories, see “Globalization: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org). See also N. Adler, *International dimensions of organizational behavior* (2nd Ed) (Boston, MA: Kent Publishing, 1991) and N. Boyacigiller and N. Adler, “The parochial dinosaur: Organizational science in a global context”, *Academy of Management Review*, 16 (1991), 262–290.

⁶² S. Mueller and A. Thomas, “Culture and Entrepreneurial Potential: A Nine Country Study of Locus of Control and Innovativeness”, *Journal of Business Venturing*, 16 (2000), 51-75, 54 (citing Schumpeter’s observation that the overall rate of new venture creation and entrepreneurial activity depends not only on the presence of an “entrepreneurial climate” but also the availability of prospective entrepreneurs).

⁶³ S. Mueller and A. Thomas, “Culture and Entrepreneurial Potential: A Nine Country Study of Locus of Control and Innovativeness”, *Journal of Business Venturing*, 16 (2000), 51-75, 53. Mueller and Thomas did cite the following examples of cross-cultural studies that had been completed: S. Shane, “Why do some societies invent more than others?”, *Journal of Business Venturing*, 7(1) (1992), 29–46; S. Shane, “Cultural influences on national rates of innovation”, *Journal of Business Venturing*, 1993, 59–73; R. McGrath, I. MacMillan and S. Scheinberg, “Elitists, risk-takers, and rugged individualists – an exploratory analysis of cultural-differences between entrepreneurs and non-entrepreneurs”, *Journal of Business Venturing*, 7(2) (1992), 115–135; J. Baum, J. Olian, M. Erez, E. Schnell, K. Smith, H. Sims, J. Scully and K. Smith, “Nationality and work role interactions: A cultural contrast of Israeli and U.S. entrepreneurs’ versus managers’ needs”, *Journal of Business Venturing*, 8 (1993), 499–512; D. Huisman, “Entrepreneurship: Economic and cultural influences on the entrepreneurial climate”, *European Research*, 13(4) (1985), 10–17.

One example of an attempt to conduct a cross-border comparative study of entrepreneurship is the work done by Kantis. Kantis proposed a conceptual framework to be used to analyze and understand the “entrepreneurial process” and facilitate comparison of the conditions confronting prospective entrepreneurs in different countries.⁶⁴ As part of this framework, Kantis suggested that a model of an “entrepreneurial development system” could be created that takes into account a combination of elements and factors that have an impact, both positive and negative, on the process and, ultimately, on the efficient development of entrepreneurs and entrepreneurial firms. Kantis grouped these factors into a short list of categories which included social and economic conditions, societal culture, productive structure and dynamism, personal aspects, networks, factor markets and regulations and policies.⁶⁵ These factors then served as the basis for analyzing data collected from several comparative studies of entrepreneurial activities and development overseen by the Inter-American Development Bank, including an extensive study reported on in 2005 that involved the following countries: Argentina, Brazil, Chile, Costa Rica, El Salvador, Mexico, and Peru in Latin America; Japan, Singapore, South Korea, and Taiwan in East Asia; and Italy and Spain in southern Europe.⁶⁶ Kantis provided the following description of the some of the key differences among the countries in the study⁶⁷:

- Based on output per capita and income distribution patterns, it was apparent that socioeconomic conditions are extremely dissimilar and this likely explained differences among the countries with respect to the level and profile of demand, the scope for business opportunities and the supply of opportunity-based entrepreneurs. New Latin American enterprises were less dynamic (i.e., growth-focused) than firms created in other regions based on a variety of measures include overall sales and sales per employee.
- Opportunity-based entrepreneurship was lower in areas, such as Latin America, where individuals did not have ready access to the information and savings necessary for successful and effective opportunity-based entrepreneurship and were forced by lack of work options to settle on necessity-based entrepreneurship.
- As discussed elsewhere in this publication, there were differences between countries on cultural dimensions identified with entrepreneurship. The “entrepreneurial spirit”

⁶⁴ H. Kantis, “A Systematic Approach to Enterprise Creation” in H. Kantis (Ed.), *Developing Entrepreneurship: Experience in Latin America and Worldwide* (Washington, DC: Inter-American Development Bank, 2005), 17-27.

⁶⁵ For further discussion of each of these categories, see “Factors Influencing Entrepreneurial Activities” in “Entrepreneurship: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

⁶⁶ For a detailed discussion of the study, see H. Kantis (Ed.), *Developing Entrepreneurship: Experience in Latin America and Worldwide* (Washington, DC: Inter-American Development Bank, 2005).

⁶⁷ H. Kantis, “A Systematic Approach to Enterprise Creation” in H. Kantis (Ed.), *Developing Entrepreneurship: Experience in Latin America and Worldwide* (Washington, DC: Inter-American Development Bank, 2005), 17-27, 22-25; and H. Kantis, “The Entrepreneurial Process: Main Contrasts Between Latin America and East Asia, Italy and Spain” in H. Kantis (Ed.), *Developing Entrepreneurship: Experience in Latin America and Worldwide* (Washington, DC: Inter-American Development Bank, 2005), 47-60, 47, 59-60.

was stronger in those countries where cultural values tolerated higher levels of risk and celebrated individualism; however, countries in Latin America tended to have cultural characteristics that are deemed unfavorable to entrepreneurship. Especially in East Asia, the mass media frequently publicized entrepreneurial models and business opportunities, thereby helping to forge entrepreneurial vocations and identify ambitious business ideas. 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.

- The projects undertaken by entrepreneurial firms in the various regions could be differentiated in terms of their initial scale and also in the profile of opportunities on which they were based. Knowledge-based, subcontracting, or export businesses were significantly less common in Latin American countries and they also had less of an edge on their competitors with respect to differentiation (quality, service, or marketing), which is the main source of opportunities for creating dynamic enterprises. Latin American teams tended to be smaller and their networks are both less stable and more restricted to the immediate social circle and the data indicated that building teams and networks depended largely on predominant attitudes and values in society.
- Export sales were considerably greater among firms from the Asian countries, Italy, and Spain as opposed to those from Latin America. In the same vein, the technical content of exports and sophistication of design features were higher in Asia and Europe than in Latin America. These findings were consistent with the much higher ratio of personnel in research and development to the total population in East Asia when compared to Latin America.
- Small- and medium-sized firms from the East Asian countries and some regions in Italy and Spain had achieved international competitiveness and were strongly involved in complex networks that linked them with major firms; however, the productive sector in Latin America generally was fragmented and lacked integration between large firms and small- and medium-sized firms.
- Latin American firms were severely disadvantaged in relation to Asian firms with respect to access to financing, such as venture capital and obtain bank loans, and the ease of formally starting new businesses (i.e., registration procedures). As a result, Latin American entrepreneurs were forced to scale down their projects in terms of startup size or technology level, and to seek alternative financing sources, such as credit from suppliers and customers or purchasing used equipment.
- The importance of the middle class, and the emergence of entrepreneurs from lower socioeconomic strata, was more limited in Latin America than in East Asia, where social mobility is fostered more. 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.
- Variations among countries were identified with respect to the primary sources of learning for entrepreneurial activities. For example, in Latin America universities played a more important role in the acquisition of technical knowledge than on-the-

job training; however, in other countries the companies in which entrepreneurs had worked previously were the main source of this kind of learning.

The results of the survey led to the following recommendation to policymakers in Latin America interested in promoting entrepreneurship⁶⁸:

- 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 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.

§5 Research issues in cross-border entrepreneurship

A number of scholars have observed a widespread increase in cross-border entrepreneurship in the last decades and commented that, for a variety of reasons, the acceleration of international trade and investment has been fueled more and more by SMEs and new ventures as opposed to the multi-national corporations that had previously dominated in this area.⁶⁹ They have attributed this phenomenon to what Hessels described as “substantial changes that took place in the past decades and that resulted in a reduction of transaction costs for undertaking international business”.⁷⁰ Among the changes most commonly cited are reduction of trade and investment barriers in the context of the World Trade Organization and regional economic cooperation agreements; technological advancements, such as the Internet and e-mail, that have increased communication and the flow of timely information around the globe; and decreased in transportation costs.⁷¹ Taken together, it is now possible for small and new ventures

⁶⁸ H. Kantis, P. Angelelli and J. Llisterri, “Conclusions and Policy Implications” in H. Kantis (Ed.), *Developing Entrepreneurship: Experience in Latin America and Worldwide* (Washington, DC: Inter-American Development Bank, 2005), 101-107, 105.

⁶⁹ Ø. Moen and P. Servais, “Born Global or Gradual Global? Examining the Export Behavior of Small and Medium-Sized Enterprises”, *Journal of International Marketing*, 10(3) (2002), 49-72; B. Oviatt and P. McDougall, “Toward a Theory of International New Ventures”, *Journal of International Business Studies*, 25(1) (1994), 45-64; M. Rennie, “Global Competitiveness: Born Global”, *The McKinsey Quarterly*, 4 (1993), 45-52; and P. Reynolds, *New and Small Firms in Expanding Markets*, *Small Business Economics*, 9(1) (1997), 78-84.

⁷⁰ J. Hessels, *International Entrepreneurship: An Introduction, Framework and Research Agenda* (Zoetermeer, The Netherlands: Scientific Analysis of Entrepreneurship and SMEs, 2008), 5.

⁷¹ Id. (citing also E. Autio, “Creative Tension: The Significance of Ben Oviatt's and Patricia McDougall's Article 'Toward a Theory of International New Ventures'”, *Journal of International Business Studies*, 36(1)

everywhere to collect information about foreign markets and identify niches in those markets for their products and services, communicate with foreign customers and other business partners and gain access to resources in foreign markets that they can use in both their domestic activities and in building their international businesses. In fact, the forces of change have been so strong that internationalization is occurring at an increasingly faster pace and this is not expected to abate given that firms are now vulnerable to foreign competition in their home markets and must therefore aggressively pursue opportunities outside of those markets in order to survive and grow.⁷²

During the decades following the end of World War II the internationalization process for most firms was generally thought to follow the linear path of the product life cycle. Under this model, companies initially developed their products for the domestic market and once the products had been successfully introduced in that market they began to look for export opportunities and, if all went well, eventually moved on to foreign product and distribution activities.⁷³ This progression, often referred to as “incremental internationalization”, was the foundation of the well-known “Uppsala model” developed by Johanson and Vahlne based on their study of manufacturing firms in Sweden in the 1970s.⁷⁴ Those researchers were interested in how the firms in their study approached their internationalization activities and observed that firms tended to begin by focusing on physically close markets using simple and less risky methods of entry, such as exporting. Once the firms had become experienced in foreign markets and increased their knowledge they were then sufficiently confident to increase their international commitments and expand their activities into markets that were located farther away from their home market.

(2005), 9-19; and P. Reynolds, *New and Small Firms in Expanding Markets*, *Small Business Economics*, 9(1) (1997), 78-84)

⁷² Z. Acs, L.-P. Dana and M. Jones, “Toward New Horizons: The Internationalisation of Entrepreneurship”, *Journal of International Entrepreneurship*, 1(1) (2003), 5-12; P. McDougall and B. Oviatt, *International Entrepreneurship: The Intersection of Two Research Paths*, *Academy of Management Journal*, 43(5) (2000), 902-906; and F. Root, *Entry Strategies for International Markets* (Lexington, MA: Lexington Books, 1994). Within the research path focusing on cross-border entrepreneurship there has been a steady increase in the attention paid to “new venture internationalization”, as opposed to “SME internationalization”. SME internationalization, which first became the subject of research in the 1970s, is concerned with the expansion of international activities by firms that were initially formed with a domestic focus while new venture internationalization, which caught the interest of researchers beginning in the late 1980s, includes firms “that, for inception, [seek] to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries”. Z. Acs, L.-P. Dana and M. Jones, “Toward New Horizons: The Internationalisation of Entrepreneurship”, *Journal of International Entrepreneurship*, 1(1) (2003), 5-12, 10 (definition of “new venture internationalization” provided by B. Oviatt and P. McDougall, “Toward a Theory of International New Ventures”, *Journal of International Business Studies*, 25(1) (1994), 45-64, 49).

⁷³ R. Vernon, “International investment and international trade in the product cycle”, *Quarterly Journal of Economics*, 80 (1966), 190-207; and R. Vernon, “The product cycle hypothesis in a new international environment”, *Oxford Bulletin of Economics and Statistics*, 41 (1979), 255-268.

⁷⁴ J. Johanson and J.-E. Vahlne, “The internationalization process of the firm: A model of knowledge development and increasing foreign market commitment”, *Journal of International Business Studies*, 4 (1977), 20-29; J. Johanson and J.-E. Vahlne, “The mechanism of internationalization”, *International Marketing Review*, 7 (1990), 11-24.

McDougall and Oviatt commented that the incremental internationalization model may no longer be universally applicable in light of factors such as growing regional and global integration of trade and production and accelerating changes in technology that have allowed companies all around the world to enter into global trading activities more quickly and efficiently. In particular, they noted that researchers have documented numerous cases of new ventures that skipped the incremental stages in the traditional model described above and/or became “international” from the very moment they were launched.⁷⁵ These ventures have been referred to by various names such as “international new ventures”⁷⁶; “born globals”⁷⁷; “infant multinationals”⁷⁸, “instant internationals”⁷⁹ and “global start-ups”⁸⁰. Oviatt and McDougall attempted to identify some of the elements associated with the accelerated internationalization of “international new ventures” and their initial list included ownership of certain valuable assets, use of alliances and network structures to control a relative large percentage of vital assets and control over a unique resources that provided a sustainable advantage and was transferable to a foreign location.⁸¹ In a later article, however, they noted that this list of static elements did not provide much insight into the dynamic process of formation of international new ventures and commented that a useful process theory would likely need to take into account factors such as changes in communications and transportation technology, the political and economic environment, industry conditions, firm effects and the management team.⁸²

⁷⁵ P. McDougall and B. Oviatt, “Some Fundamental Issues in International Entrepreneurship”, United States Association for Small Business and Entrepreneurship, <http://www.usasbe.org/knowledge/whitepapers/mcdougall2003.pdf>, [Accessed March 31, 2012]. The McDougall and Oviatt article includes extensive citations that should be reviewed for further information on the cited research.

⁷⁶ P. McDougall, S. Shane and B. Oviatt, “Explaining the formation of international new ventures: The limits of theories from international business research”, *Journal of Business Venturing*, 9 (1994), 469-487. These ventures were defined by Oviatt and McDougall as “a business organization that, from inception, seeks to derive significant competitive advantage from the use of resources and the sale of outputs in multiple countries”. B. Oviatt and P. McDougall, “Toward a theory of international new ventures”, *Journal of International Business Studies*, 25(1) (1994), 45-64, 49.

⁷⁷ G. Knight and S. Cavusgil, “The born global firm: A challenge to traditional internationalization theory”, *Advances in International Marketing*, 8 (1996), 11-26; and T. Madsen and P. Servais, “The internationalization of born globals: An evolutionary process”, *International Business Review*, 6 (1997), 61-583.

⁷⁸ M. Lindqvist, *Infant multinationals: The internationalization of young, technology-based Swedish firms* (Stockholm School of Economics, Stockholm: Unpublished doctoral dissertation, 1991).

⁷⁹ S. Preece, G. Miles and M. Baetz, “Explaining the international intensity and global diversity of early-stage technology-based firms”, *Journal of Business Venturing*, 14 (1999), 259-281.

⁸⁰ B. Oviatt and P. McDougall, “Toward a theory of international new ventures”, *Journal of International Business Studies*, 25(1) (1994), 45-64.

⁸¹ Id. Oviatt and McDougall hypothesized that since international new ventures lacked sufficient resources to control many assets through outright ownership, they needed to rely on alternative means of control that might be available through participation in network exchange structures that allowed them to gain access to valuable resources without incurring the often prohibitive expense associated with vertical integration.

⁸² P. McDougall and B. Oviatt, “Some Fundamental Issues in International Entrepreneurship”, United States Association for Small Business and Entrepreneurship, <http://www.usasbe.org/knowledge/whitepapers/mcdougall2003.pdf>, [Accessed March 31, 2012]. The McDougall and Oviatt article includes extensive citations that should be reviewed for further information on the cited research.

Hessels observed that “[e]xisting research on cross-border entrepreneurship is concentrated on investigating antecedents of internationalization at the micro-level and pays only limited attention to outcomes of internationalization”.⁸³ Antecedents of internationalization include both facilitating and inhibiting factors and were divided by Hessels into three categories with the following descriptions⁸⁴:

- Individual-/entrepreneur-specific factors, which are normally factors related to characteristics of the entrepreneur such as demographic characteristics (i.e., age and the level of education)⁸⁵ and factors relating to the knowledge and experience of the entrepreneur and/or his or her top management team with respect to international business and foreign institutions (i.e., foreign laws, norms, standards and languages)⁸⁶.
- Firm-specific factors, which might include firm size, as measured by number of employees and sales volume⁸⁷; and firm resources such as possession of a unique product and/or a proprietary technology; and the possession of specific management capabilities.⁸⁸

⁸³ J. Hessels, *International Entrepreneurship: An Introduction, Framework and Research Agenda* (Zoetermeer, The Netherlands: Scientific Analysis of Entrepreneurship and SMEs, 2008), 11.

⁸⁴ Id. (citing B. Antoncic and R. Hisrich, “An Integrative Conceptual Model” in: L.-P. Dana (Ed.), *Global Marketing Co-operation and Network*, (New York: International Business Press, 2000), 17-35; I. Ford and L. Leonidou, “Research Developments in International Marketing” in S.J. Paliwoda, *New Perspectives on International Marketing* (London: Routledge, 1999), 3-32; and K. Ibeh, “Internationalisation and the Small Business” in S. Carter and D. Jones-Evans (Eds), *Enterprise and Small Business: Principles, Practice and Policy* (Harlow, UK: Pearson Education, 2006), 465-484)

⁸⁵ P. Westhead, “Exporting and Non-Exporting Small Firms in Great Britain”, *International Journal of Entrepreneurial Behavior and Research*, 1(2) (1995), 6-36 and C. Simpson and D. Kujawa, “The Export Decision Process: An Empirical Inquiry”, *Journal of International Business Studies*, 5(1) (1974), 107-117.

⁸⁶ J. Bloodgood, H. Sapienza and J. Almeida, “The Internationalization of New High-Potential U.S. Ventures: Antecedents and Outcomes”, *Entrepreneurship Theory and Practice*, 20(4) (1996), 61-76; K. Eriksson, J. Johanson, A. Majkgård and D. Sharma, “Experiential Knowledge and Cost in the Internationalization Process”, *Journal of International Business Studies*, 28(2) (1997), 337-360; B. Oviatt and P. McDougall, “Global Start-Ups: Entrepreneurs on a Worldwide Stage”, *Academy of Management Executive*, 9(2) (1995), 30-44; and A. Reuber and E. Fischer, “The Influence of the Management Team’s International Experience on the Internationalization Behaviors of SMEs”, *Journal of International Business Studies*, 28(4) (1997), 807-825.

⁸⁷ S. Chetty and R. Hamilton, “Firm Level Determinants of Export Performance: A Meta-Analysis”, *International Marketing Review*, 10(3) (1993), 26-34; E. Lefebvre and L.-A. Lefebvre, “Innovative Capabilities as Determinants of Export Performance and Behaviour: A Longitudinal Study of Manufacturing SMEs” in: A. Kleinknecht and P. Mohnen (Eds), *Innovation and Firm Performance: Econometric Explorations of Survey Data*, (London: Palgrave, 2002), 281-309; and P. Westhead, “Exporting and Non-Exporting Small Firms in Great Britain”, *International Journal of Entrepreneurial Behavior and Research*, 1(2) (1995), 6-36.

⁸⁸ M. Akoorie and P. Enderwick, “The International Operations of New Zealand Companies”, *Asia Pacific Journal of Management*, 9(1) (1992), 51-69; T. Cavusgil and J. Nevin, “Internal Determinants of Export Marketing Behavior: An Empirical Investigation”, *Journal of Marketing Research*, 18(1) (1981), 114-119; D. Keeble, C. Lawson, H. Smith, B. Moore and F. Wilkinson, “Internationalisation Processes, Networking and Local Embeddedness in Technology-Intensive Small Firms”, *Small Business Economics*, 11(4) (1988), 327-342; and E. Roberts and T. Senturia, “Globalizing the Emerging High-Technology Company”, *Industrial Marketing Management*, 25(6) (1996), 491-506.

- Environment-specific factors, which can include conditions in both domestic and foreign markets such as a fall in production costs in the home market which allow domestically manufactured products to become competitive in global markets and size limitations in the home market which dictate that internationalization is the only way to expansion.⁸⁹

As for the outcomes of cross-border entrepreneurship, Hessels suggested that it is useful to look at three levels of analysis: the individual level, which focuses on development of human and social capital; the firm level, which can be measured by looking at profitability, employment growth and innovation; and, finally, the “macro” level, which includes an assessment of national employment and economic growth and improvements in the innovative capacity of national economies.⁹⁰ It is clear that more emphasis should be placed on researching outcomes of cross-border entrepreneurship and Hessels suggested that “adding a multi-country perspective to research on cross-border entrepreneurship . . . will help to increase our understanding of the economic benefits and drivers of entrepreneurship across countries . . . [and] . . . increase the ability to generalize findings”.⁹¹

§6 Research on entrepreneurship in developing countries

Entrepreneurship has been continuously linked to economic development of countries and has often been championed as a key path for transforming developing countries toward greater economic growth, innovation, competitiveness and alleviation of poverty.⁹² However, researchers have bemoaned the fact that, as described by Lingelbach et al., “. . . entrepreneurship in developing countries is arguably the least studied significant economic and social phenomenon in the world today”.⁹³ For example, while as of 2004 there were literally hundreds of millions of “entrepreneurs”, generally defined as owners or managers of new firms, in developing countries as opposed to just under 18 million entrepreneurs in the US⁹⁴, leading books on entrepreneurship research often had

⁸⁹ C. Axinn, “Export Performance: Do Managerial Perceptions Make a Difference?”, *International Marketing Review*, 5(5) (1988), 67-71; and E. Rasmussen, T. Madsen and F. Evangelista, “The Founding of the Born Global Company in Denmark and Australia: Sensemaking and Networking”, *Asia Pacific Journal of Marketing and Logistics*, 13(3) (2001), 75-107.

⁹⁰ J. Hessels, *International Entrepreneurship: An Introduction, Framework and Research Agenda* (Zoetermeer, The Netherlands: Scientific Analysis of Entrepreneurship and SMEs, 2008), 12. For more discussion of the research on outcomes of SME and new venture internationalization, see J. Lu and P. Beamish, “Partnering Strategies and Performance of SMEs' International Joint Ventures”, *Journal of Business Venturing*, 21(4) (2006), 461-486; and S. Zahra, *A Theory of International New Ventures: A Decade of Research*, *Journal of International Business Studies*, 36(1) (2005), 20-28.

⁹¹ *Id.* at 15.

⁹² D. Landes, *The Wealth and Poverty of Nations* (New York: W.W. Norton, 1998).

⁹³ D. Lingelbach, L. De La Vina and P. Asel, *What's Distinctive about Growth-Oriented Entrepreneurship in Developing Countries?* (San Antonio, TX: UTSA College of Business Center for Global Entrepreneurship Working Paper No. 1, March 2005), 1. For detailed discussion of the scope of research conducted in the field of international entrepreneurship, see “Entrepreneurship: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

⁹⁴ P. Reynolds, W. Bygrave and E. Autio, *Global Entrepreneurship Monitor: 2003 Executive Report*, 2004.

no more than a handful of pages on entrepreneurship in important developing countries such as China and India.⁹⁵ Research on entrepreneurship in developing countries is important for a number of reasons, not the least of which is providing policymakers with a better idea of how to encourage entrepreneurship as part of an overall strategy for private sector development in developing countries. A strictly Western model of entrepreneurship is not apt to work well in developing countries due not only to differences in societal culture but also the distinctive nature of entrepreneurship in emerging markets where resources readily available in developed countries are scarce or even non-existent.⁹⁶

Decolonization was the trigger for the first attempts to study entrepreneurship in developing countries and most researchers have, until recently, focused their attention on small-scale industrialization⁹⁷ and microenterprises.⁹⁸ As time has gone by, and initiatives such as the GEM were launched, the analysis of entrepreneurship in developing countries has become more nuanced and it is now recognized that entrepreneurial firms in those countries can fall into one of several different categories such as newly established, established but not growing, established but growing slowly, and graduates to a larger size.⁹⁹ This movement has opened the door for studying a small, yet very important, subset of businesses in developing countries: new firms formed with a growth-orientation and strategies tied to entry into global markets. It is apparent that there are now a number of promising areas for further research with respect to entrepreneurship in developing countries, all with important policy implications for governments looking to stimulate economic growth and development.¹⁰⁰ Lingelbach et al., for example, offered up the following list as a suggested research agenda for entrepreneurship in developing countries¹⁰¹:

⁹⁵ A. Bhidé, *The Origin and Evolution of New Businesses* (New York: Oxford University, 2000).

⁹⁶ For discussion of the influence of societal culture on entrepreneurship, see “Factors Influencing Entrepreneurial Activities” in “Entrepreneurship: A Library of Resources for Sustainable Entrepreneurs” prepared and distributed by the Sustainable Entrepreneurship Project (www.seproject.org).

⁹⁷ See, e.g., H. Schmitz, “Growth Constraints on Small-scale Manufacturing in Developing Countries: A Critical Review,” *World Development*, 10(6) (1992), 429-450.

⁹⁸ See, e.g., M. Robinson, *The Microfinance Revolution* (Washington: World Bank, 2001-2).

⁹⁹ C. Liedholm and D. Mead, *Small Enterprises and Economic Development* (London: Routledge, 1999).

¹⁰⁰ See, e.g., M. Harper, “The role of enterprise in poor countries”, *Entrepreneurship Theory and Practice*, 15(4) (1991), 7–11; A. Gibb, “Small business development in Central and Eastern Europe—Opportunity for a rethink?”, *Journal of Business Venturing*, 8 (1993), 461–486; D. Audretsch, *The role of small business in restructuring Eastern Europe* (Vaxjo, Sweden: 5th Workshop for Research in Entrepreneurship, 1991). Other studies that have identified entrepreneurship as a critical factor in national economic development include S. Birley, “New ventures and employment growth”, *Journal of Business Venturing*, 2(2) (1987), 155-165; P. Reynolds, “New firms: Societal contributions versus survival potential”, *Journal of Business Venturing*, 2(3) (1987), 231-246; M. Morris and P. Lewis, “Entrepreneurship as a significant factor in societal quality of life”, *Journal of Business Research*, 23(1) (1991), 21-36; and S. Shane, L. Kolvereid and P. Westhead, “An exploratory examination of the reasons leading to new firm formation across country and gender (Part 1)”, *Journal of Business Venturing*, 6(6) (1991), 431-446.

¹⁰¹ D. Lingelbach, L. De La Vina and P. Asel, *What's Distinctive about Growth-Oriented Entrepreneurship in Developing Countries?* (San Antonio, TX: UTSA College of Business Center for Global Entrepreneurship Working Paper No. 1, March 2005), 7-8.

- Increased focus on new and growth-oriented firms in developing countries, which are important given that these firms are most likely to contribute to economic growth and provide new sources of higher quality employment in developing countries;
- Analysis of the dynamics of firm creation and destruction in developing countries;
- Analysis of the strategies used by entrepreneurs in developing countries to overcome poor access to finance including the use of funds provided by personal savings and intra-familial financial linkages;
- Further exploration of the link, if any, between the general business environment and the level of entrepreneurial activities in poorer countries;
- Development of more information on “models of success” among entrepreneurs in developing countries in order to provide a better picture of the common features of successful entrepreneurship in developing countries and the extent to which those features differ from successful entrepreneurship in the US and other developed countries;
- Development of strategies for designing markets for entrepreneurial finance in developing countries including introduction of various methods for managing risk such as hedging and insurance;
- Application of behavioral economics and finance to entrepreneurship in developing countries to determine how cognitive biases identified by researchers in those fields vary in entrepreneurs in developing countries; and
- Development of models of entrepreneurship that adequately take into account how entrepreneurship is carried out in developing countries.¹⁰²

¹⁰² Lingelbach et al. commented that most of the models of entrepreneurship, such as the uncertainty/investment/profit diagram developed by Bhide, are based primarily on research conducted in the US and other developed countries. Id. at 2 (citing A. Bhide, *The Origin and Evolution of New Businesses* (New York: Oxford University, 2000)).

About the Author

Dr. Alan S. Gutterman is the Founding Director of the Sustainable Entrepreneurship Project (www.seproject.org). In addition, Alan's prolific output of practical guidance and tools for legal and financial professionals, managers, entrepreneurs and investors has made him one of the best-selling individual authors in the global legal publishing marketplace. His cornerstone work, *Business Transactions Solution*, is an online-only product available and featured on Thomson Reuters' Westlaw, the world's largest legal content platform, which includes almost 200 book-length modules covering the entire lifecycle of a business. Alan has also authored or edited over 40 books on sustainable entrepreneurship, management, business law and transactions, international law business and technology management for a number of publishers including Thomson Reuters, Kluwer, Aspatore, Oxford, Quorum, ABA Press, Aspen, Sweet & Maxwell, Euromoney, CCH and BNA. Alan has over three decades of experience as a partner and senior counsel with internationally recognized law firms counseling small and large business enterprises in the areas of general corporate and securities matters, venture capital, mergers and acquisitions, international law and transactions, strategic business alliances, technology transfers and intellectual property, and has also held senior management positions with several technology-based businesses including service as the chief legal officer of a leading international distributor of IT products headquartered in Silicon Valley and as the chief operating officer of an emerging broadband media company. He has been an adjunct faculty member at several colleges and universities, including Boalt Hall, Golden Gate University, Hastings College of Law, Santa Clara University and the University of San Francisco, teaching classes on a diverse range of topics including corporate finance, venture capital, corporate law, Japanese business law and law and economic development. He received his A.B., M.B.A., and J.D. from the University of California at Berkeley, a D.B.A. from Golden Gate University, and a Ph. D. from the University of Cambridge. For more information about Alan, his publications or the Sustainable Entrepreneurship Project, please contact him directly at alanguutterman@gmail.com, and follow him on LinkedIn (<https://www.linkedin.com/in/alanguutterman/>).

About the Project

The Sustainable Entrepreneurship Project (www.seproject.org) engages in and promotes research, education and training activities relating to entrepreneurial ventures launched with the aspiration to create sustainable enterprises that achieve significant growth in scale and value creation through the development of innovative products or services which form the basis for a successful international business. In furtherance of its mission the Project is involved in the preparation and distribution of Libraries of Resources for Sustainable Entrepreneurs covering Entrepreneurship, Leadership, Management, Organizational Design, Organizational Culture, Strategic Planning, Governance, Corporate Social Responsibility, Compliance and Risk Management, Finance, Human Resources, Product Development and Commercialization, Technology Management, Globalization, and Managing Growth and Change. Each of the Libraries include various Project publications such as handbooks, guides, briefings, articles, checklists, forms, forms, videos and audio works and other resources; management tools such as checklists and questionnaires, forms and training materials; books; chapters or articles in books; articles in journals, newspapers and magazines; theses and dissertations; papers; government and other public domain publications; online articles and databases; blogs; websites; and webinars and podcasts.

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