GEM

GLOBAL ENTREPRENEURSHIP MONITOR
2014 GLOBAL REPORT

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GLOBAL ENTREPRENEURSHIP MONITOR 2014 GLOBAL REPORT

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Although GEM data were used in the preparation of this report, their interpretation and use are the sole responsibility of the authors.

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GEM SPONSORS

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Babson grants B.S. degrees through its innovative undergraduate program, and offers MBA and M.S. degrees through its F.W. Olin Graduate School of Business. The School of Executive Education offers executive development programs to experienced managers worldwide. Babson's student body is globally diverse, hailing from 45 U.S. states and 57 economies (non-U.S. students comprise more than 20% of undergraduates and 40% of full-time MBA students). Students can choose from over 100 entrepreneurship courses offered each year, taught by 17 tenure or tenure-track faculty, all with entrepreneurship experience, seven faculty from other divisions around the college, and highly accomplished business leaders serving as adjunct faculty.

Entrepreneurial Thought and Action (ETA) is at the center of the Babson experience, where students are taught to experiment with their ideas in real-life, learning and adapting these as they leverage who and what they know to create valuable opportunities. "Entrepreneurship of All Kinds" emphasizes that entrepreneurship is crucial and applicable to organizations of all types and sizes, whether a new launched independent startup, a multigenerational family business, a social venture, or an established organization. Through an emphasis on Social, Environmental, Economic Responsibility, and Sustainability (SEERS), students learn that economic and social value creation are not mutually exclusive, but integral to each other.

Babson shares its methodology and educational model with other institutions around the world through Babson Global, and in the process brings new knowledge and opportunities back to our campus. Besides GEM, Babson has co-founded and continues to sponsor the Babson College Entrepreneurship Research Conference (BCERC), the largest academic research conference focused exclusively on entrepreneurship and the Successful Transgenerational Entrepreneurship Project (STEP), a global family business research project.
For more information visit www.babson.edu

True to the spirit and enterprising drive of its founders, the **Universidad del Desarrollo** is today one of the top three private prestigious universities in Chile. The project started 25 years ago in Concepción, a southern city of Chile with 100 business administration students. Twenty-five years later, the facts speak for themselves. Its rapid growth has become an expression of the university's main facet: entrepreneurship. The UDD MBA program is rated one of the best in South America and also a leader in entrepreneurship education, according to *America Economia* magazine, an achievement that once again represents the "entrepreneurial" seal that is embedded in the spirit of the University. Today the University has more than 13,521 undergraduates, 3,023 postgraduates and over 11,752 graduates from 26 careers that cover all areas of human knowledge. The UDD also has 15 research centers in many disciplines. One of these research centers, the Entrepreneurship Institute of the School of Business and Economics, coordinates the GEM Chile project and is one of the most important research centers in South America dedicated to entrepreneurship studies.
For more information visit www.udd.cl

Universiti Tun Abdul Razak (UNIRAZAK) was established on 18 December 1997 as one of the first private universities in Malaysia. The University was named after Malaysia's second Prime Minister, the late YAB Tun Abdul Razak bin Dato' Hussein, and was officially launched on 21 December 1998 by Tun Abdul Razak's eldest son, YAB Dato' Seri Mohd Najib bin Tun Abdul Razak, current Prime Minister of Malaysia. UNIRAZAK recognized the imperative need for Malaysia's future entrepreneurs to equip themselves with the proper tools and expertise to survive and flourish in today's modern competitive economic climate.

Thus UNIRAZAK founded The Bank Rakyat School of Business and Entrepreneurship (BRSBE), a unique school, dedicated to providing quality education in entrepreneurial and business leadership in Malaysia. The BRSBE was formed with the view that entrepreneurial activity is one of the pillars of a strong and vibrant economy. Although big business is extremely vital for economic health and prosperity, a strong cadre of SMIs and SMEs is also essential to ensure a diverse economy and to provide the required support to big business companies and the community. In fact the dramatic economic development in Asia over the past two decades highlights the importance of understanding entrepreneurship in the region. In this regard UNIRAZAK through BRSBE is ideally poised to play both a national and regional role in developing entrepreneurship and meeting challenges unique to Asia.
For more information visit www.unirazak.edu.my

Tecnológico de Monterrey was founded in 1943, as a private non-profit institution, thanks to the vision and commitment of Don Eugenio Garza Sada and a group of entrepreneurs.

We educate leaders with an entrepreneurial spirit, committed to ethics and civic values, and internationally competitive.

We are a multi-campus internationally prestigious university with a leading-edge educational model: TEC21, addressed to transforming lives and solving the challenges posed by the 21st century. We have 31 campuses distributed throughout the diverse regions of Mexico with around 90,000 students, 19 international sites and liaison offices in 12 countries, and more than 250,000 alumni in Mexico and around the world.

We have been awarded institution-wide national and international accreditations for our high school, undergraduate and graduate academic programs. In 2013, we became the first university in Latin America to be granted the QS 5-Star rating, positioning our institution among the 38 universities worldwide with this distinction, according to the British ranking agency Quacquarelli Symonds (QS). **In 2014 the Mexican Government has conferred on Tec de Monterrey the National Entrepreneurship Award 2014 for Education Institutions**. We conduct scientific and technological applied research in strategic areas to meet the nation's social, economic and environmental demands.

The Eugenio Garza Lagüera Entrepreneurship Institute promotes an entrepreneurship and innovation-based culture among all our students, as well as the communities and regions, through academic entrepreneurship programs and a network of business incubators (high impact, basic and social incubators), business accelerators, a technology parks network, centers for entrepreneurial families, venture capital development activities, and Enlace E+E Mentor Network.

The entrepreneurship initiatives contribute to job creation and to strengthen the national economy and social development through the transfer of knowledge for businesses' creation, development and growth. We act in favor of a more inclusive, caring society with ethical values.
For more information visit www.itesm.mx

FOREWORD

"All that is valuable in human society depends upon the opportunity for development accorded to the individual."

—**Albert Einstein**

Opportunities, capabilities to detect and seize them, and to transform them into a venture… that's at the core of the Global Entrepreneurship Monitor (GEM) survey. It is with this in mind that, since 1999, GEM has been collecting, analyzing and interpreting data across the world on the capacity of individuals to act entrepreneurially (i.e., proactively, innovatively and responsibly). By doing so, GEM confirms that everywhere around the globe there are opportunities to be captured for development, but their transformation into venturing depends on individual attributes (skills, intentions), social values and the entrepreneurship ecosystem (from access to finance, education and R&D transfer, to government policies and programs, as well as physical and professional infrastructure…).

The survey, which started as an initiative of two researchers (Michael Hay, London Business School, and Bill Bygrave, Babson College) in 1997, by asking a simple question ("Why are some countries more entrepreneurial than others?"), evolved into a global survey conducted annually, which covers all the regions in the world (Africa, Latin America & Caribbean, Asia & Oceania, Europe, North America). The 2014 GEM survey covered 73 economies, representing 72.4% of the world's population and 90% of the world's GDP.

The GEM survey monitors entrepreneurial attributes and activities both individually and globally. It therefore provides a unique primary database, which allows to obtain insights on the patterns and trends that prevail in the participating economies, from two perspectives: geographic regions and economic development stages. The GEM's outputs are highly valuable for governments' work in evidence-based interventions addressed to improve the entrepreneurship ecosystem and/or education institutions, in order to offer research-based educational programs and build entrepreneurial competencies.

The collective effort of more than 500 researchers participating in the GEM survey through national teams has important results: the research soundness and a pragmatic orientation toward designing indicators that capture an economy's entrepreneurial capacity. To all of these researchers, listed at the end of this report, our deepest thanks.

We also express our gratitude to more than 206,000 adults around the world who anonymously participated in the 2014 GEM survey, and to 3,936 national experts who provided their thoughts on the entrepreneurship ecosystem.

The continuity of this world's largest survey on entrepreneurship would not be possible without the financial support of many national sponsors (ministries, government agencies, banks, universities, chambers of commerce, international development organizations, all listed at the end of the report), as well as of our four global sponsors: Babson College (U.S.A.), Universidad del Desarrollo (Chile), University Tun Abdul Razak (Malaysia), and as of 2015 the Tecnológico de Monterrey (México).

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The authors

EXECUTIVE SUMMARY

This Global Entrepreneurship Monitor (GEM) report provides the results of its sixteenth survey on entrepreneurship held every year across the world. The rising number of participating countries and consistent conceptual framework, surveying tools and applied methodology contribute to build the biggest database on entrepreneurship in the world. The GEM survey generates a variety of relevant primary information on different aspects of entrepreneurship and provides harmonized measures about individuals' attributes and their activities in different phases of venturing (from nascent to start-up, established business and discontinuation). GEM also tracks highly ambitious entrepreneurship (by identifying aspirations to grow among owner-managed businesses and the presence of entrepreneurial employee activity). All harmonized measures can be enriched with information on inclusiveness, using as lenses age, gender and income. The GEM survey also provides insights on the perception of whether the entrepreneurship ecosystem's components support or hinder entrepreneurial activity in the economy.

In 2014, more than 206,000 individuals were surveyed across 73 economies and 3936 national experts on entrepreneurship from 73 economies participated in the survey. Using the United Nations classification for regions, and the World Economic Forum Global Competitiveness Index Report's classification for economic development levels, GEM participant economies represent 72.4% of the world's population and 90% of the world's GDP, enables GEM to feature different profiles of entrepreneurship according to regions and the economic development stage.

According to those two dimensions (geographic region and economic development level), participating economies in the 2014 GEM survey are the following:

GEM ECONOMIES BY GEOGRAPHIC REGION AND ECONOMIC DEVELOPMENT LEVEL, 2014

	Factor-driven Economies	*Efficiency-driven Economies*	*Innovation-driven Economies*
Africa	Angola[1)], Botswana[1)], Burkina Faso, Cameroon, Uganda	South Africa	
Asia & Oceania	India, Iran[1)], Kuwait[1)], Philippines[1)], Vietnam	China, Indonesia, Kazakhstan[2)], Malaysia[2)], Thailand	Australia, Japan, Singapore, Taiwan, Qatar
Latin America & Caribbean	Bolivia[1)]	Argentina[2)], Barbados[2], Belize, Brazil[2)], Chile[2)], Colombia, Costa Rica[2)], Ecuador, El Salvador, Guatemala, Jamaica, Mexico[2)], Panama[2)], Peru, Suriname[2)], Uruguay[2)]	Puerto Rico, Trinidad and Tobago
European Union		Croatia[2)], Hungary[2)], Lithuania[2)], Poland[2)], Romania	Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Luxembourg, Netherlands, Portugal, Slovenia, Slovakia, Spain, Sweden, United Kingdom
Non-European Union		Bosnia and Herzegovina, Georgia, Kosovo, Russian Federation[2)], Turkey[2)]	Norway, Switzerland
North America			Canada, United States

1) In transition to Efficiency-driven economies
2) In transition to Innovation-driven economies

In 2014, in addition to the standard GEM survey, the research on youth and entrepreneurship in sub-Saharan Africa (Angola, Botswana, Ghana, Malawi, Namibia, Nigeria, South Africa, Uganda and Zambia) has been conducted, with financial support of the International Development Research Council (IDRC). The results of this research will be published in a special GEM and IDRC report in April, 2015.

KEY OVERALL FINDINGS

Individual attributes and social values towards entrepreneurship

GEM provides insights on several **individual attributes** (perception of opportunities, perception of own capabilities

to act entrepreneurially, fear of failure and entrepreneurial intentions), which—within a specific context defined by entrepreneurship framework conditions—lead to entrepreneurship activities.

Individuals in factor-driven economies expressed a more positive attitude towards entrepreneurial measures—such as perceived opportunities to start a venture and perceived capabilities to do it— in comparison to those in efficiency-driven and innovation-driven economies. The same holds for entrepreneurial intentions. But, fear of failure is the highest among individuals in innovation-driven economies. Using a geographic perspective, some patterns also can be identified. Individuals in African economies tend to report the highest perception of opportunities, perceived skills to act entrepreneurially and entrepreneurial intentions, accompanied with the lowest fear of failure. In the European Union an interesting additional pattern emerges: individuals from countries that experience long- term economic problems do not differ much from others in perceiving capabilities to act entrepreneurially, but they expressed the lowest perception of opportunities (17.2% in Slovenia; 18.4% in Croatia; 19.9% in Greece; 22.6% in Spain; 22.9% in Portugal). At the same time, the lowest level of entrepreneurial intentions is found in European and North American economies, while the highest corresponds to African economies.

Social values are an important part of the context in which individuals behave entrepreneurially or not. Starting a venture is seen as a good career choice mostly in African economies, while individuals in the European Union show the lowest level in this regard. Entrepreneurs in African and North American economies share the value of high status to successful entrepreneurs, which indicates that there is an entrepreneurial culture in those economies. This is additionally supported by high media attention for entrepreneurship. EU economies show the lowest social values towards entrepreneurship, in all three dimensions: starting a new business is a desirable career choice, high social status and media positively contributes to developing an entrepreneurial culture.

Entrepreneurial activities

Entrepreneurial activities are presented by using the organizational life-cycle approach (nascent, new business, established business, discontinuation), by adding insights on ambitious entrepreneurial activity (both from the standpoint of an owner-managed venture and of an entrepreneurial employee). Gender and age descriptors are used to emphasize some distinctive patterns.

Total early-stage Entrepreneurial Activity (TEA) includes individuals in the process of starting a venture and those running a new business less than 3 ½ years old. As a percentage of the adult population (18-64 years old) this measure tends to be the highest among factor-driven economies, and declines in economies with higher GDP pc. It is consistent with the pattern of intentions to start a venture. Among innovation-driven economies the highest TEA rates are found in Qatar (16.4% TEA), Trinidad & Tobago (14.6% TEA), the United States (13.8% TEA), Australia (13.1% TEA) and Canada (13.0% TEA). Japan, with 3.8% TEA, and Italy, with 4.4% TEA, have the lowest share of early-stage entrepreneurs among their respective adult populations. From the geographic perspective, the highest TEAs are found in African economies (37.4% TEA in Cameroon, 35.5% in Uganda, 32.8% in Botswana), joined only by Ecuador (from the rest of the world economies) with 32.6% TEA. Only in those four economies one third of adult population is early-stage entrepreneurs. European economies have the lowest TEA rates (7.8% TEA in EU economies, 6.0% TEA in non-EU economies).

Motivational reasons (necessity-driven or improvement-driven opportunity) provide additional understanding of an economy's entrepreneurial profile. High early-stage entrepreneurial activity in factor-driven and efficiency-driven economies is motivated by necessity in 28% or 27% of the cases, respectively. The share of early-stage entrepreneurs who started their ventures out of improvement-driven opportunities as motives is the highest in innovation-driven economies (54.9%) in comparison with 45.1% in efficiency-driven economies or 47.0% in factor-driven economies. In several economies (Australia, Canada, Denmark, Finland, the Netherlands, Trinidad & Tobago, United States and Taiwan) two out of three early-stage entrepreneurs were motivated by improvement-driven opportunity. Singapore, Norway, France and Japan stand out with around 70% of early-stage entrepreneurs motivated by improvement-driven opportunity. Low share of improvement-driven opportunity motive (less than 33%) is found in Bosnia and Herzegovina (25.2%), Croatia (28.7%), Uruguay (27.3%), Kosovo (29.1%), Greece (30.5%), Georgia (30.9%), Spain (33.5%), Jamaica (33.5%) and Kazakhstan (33.7%).

In order to build a stable, but vibrant business sector, it is important to have an appropriate business structure (consisting of early-stage entrepreneurs and established businesses) and an appropriate business dynamics (reasonable difference between higher rate of entrance and lower rate of exits from the business sector). GEM tracks **business dynamics,** by capturing the rate of established businesses among adult population and the rate of discontinuation of businesses.

European Union economies have a quite balanced level of the early-stage entrepreneurial activity (TEA) rate of 7.8% and the rate of established business ownership rate of 6.7%. It seems a low dynamics that can be explained by the presence of a more efficient entrepreneurship ecosystem (education, R&D transfer, access to finance, friendly regulatory framework) supporting new entrants in business activity. But so thin a basis of early-stage entrepreneurial activity can jeopardize economic canvas in crisis situation. The example of Greece and Spain supports such statement, because those countries have a lower level of TEA compared to their level of established business ownership rates (Greece: 7.9 TEA vs. 12.8 EB; Spain: 5.5 TEA vs. 7.3 EB). The difference between the rates of early-stage entrepreneurs and established businesses is melting along the stages of economic development: in factor-driven economies this ratio is 23.3 vs. 12.7; in efficiency-driven economies it is 14.0 vs. 8.5 and in innovation-driven

economies it is almost leveled (8.5 vs. 6.7). The same tendency is observed in the **rates of discontinuation of businesses**: the highest (11.0%) is found in factor-driven economies, lowering to 4.5% in efficiency-driven economies and to 2.7% in innovation-driven economies.

The dominant reason for discontinuation of the venture is lack of profitability (except in North American economies, where personal reasons are in first place and non-profitability in second). Personal reasons are in second place in all other regions. Lack of finances is in third place, but much less intensely in North America than in the rest of the world. This problem prevails in African economies.

GEM tracks **ambitious entrepreneurship** by observing **early-stage entrepreneurs with high expectations** related to job creation (20+ in the next five years), innovation (new products/services) and internationalization. Additionally, since 2011 GEM captures entrepreneurial employee activities.

North American early-stage entrepreneurs stand out with optimistic expectations of **high growth in job creation** (2.4% of early-stage entrepreneurs). Non-EU economies (with 6.6%), African economies (6.8%) and Latin American and Caribbean economies (7.5%) have the lowest expectations. In the group of EU economies, only 3.2% of early-stage entrepreneurs in Greece and 4.4% in Spain expect to have high creation of new jobs. On the other hand, there are economies with almost full employment where low expectations for growth of jobs are connected with the lack of skilled labor force (for example Thailand or Luxembourg).

GEM looks at **innovative orientation** of early-stage entrepreneurs through two lenses (product/market): how much an entrepreneur's product/service is new to all or some customers and if few or no other businesses offer the same product/service. This measure of innovative orientation is a quite context-dependent measure, because despite globalization, the internal market in many economies can recognize some products/services as new, but at the same time they already exist on some other markets. North American economies are more innovation-oriented than those of the rest of the world. Asia & Oceania are showing a different pattern: high product innovation, but less orientation to new markets due to their own huge markets. Both measures are low in Africa, except in South Africa. There are countries which are trying to develop both aspects of innovation capacity; a good example is Chile, with a very high share of early-stage entrepreneurs saying that they have a product/ service which is new to all or some of their customers (89%), while 59% of them also say that they sell in markets where they have only a few competitors.

Every economy, big or small, is inevitably a part of the global economy. Therefore, it is important to track how **internationalization** contributes to the growth of businesses. GEM is using a categorization of four levels of intensity in internationalization measured by the share of customers living outside the early-stage entrepreneur's country. African economies involved in the GEM survey have the least intensive internationalization (almost 70% of early-stage entrepreneurs do not have a customer outside their respective countries). The exception is South Africa with 26% of early-stage entrepreneurs having more than 25% customers abroad. The highest level of internationalization (more than 25% of customers abroad) is present among early-stage entrepreneurs in EU economies. Several EU economies, all small, are leading in internationalization: Luxembourg (42% of businesses), Croatia (38%), Belgium (33%), Estonia (24%). Same holds for non-EU economies, where Kosovo leads with 33% of early-stage entrepreneurs selling abroad, followed by Switzerland with 31% of entrepreneurs intensively exporting. Small countries as Suriname, Singapore or Barbados are also examples of a high internationalization intensity.

Since 2011, GEM captures **entrepreneurial employee activity (EEA)**, acknowledging the existence of different types of entrepreneurship (early-stage entrepreneurs, established businesses, and ambitious entrepreneurial employee activity), which together build an economy's entrepreneurial capacity. GEM operationalizes entrepreneurial employee activity as a situation where an employee in the past three years was actively involved in and had a leading role in either the idea development for a new activity or the preparation and implementation of a new activity. The measure of entrepreneurial employee activity (EEA) is increasing along the development stages, higher in innovation-driven economies, the lowest in factor-driven economies.

Entrepreneurial employee activity is much scarcer than TEA across the world, and in African as well and Latin American and Caribbean economies this difference is the highest. North America and EU economies have the highest incidence of entrepreneurial employee activity.

GEM tracks **demographic characteristics** (age, gender, income) of early-stage entrepreneurs, which contributes to estimate the level of inclusiveness. Due to many reasons (lack of resources among younger persons, lack of regulatory conditions for entrepreneurial activity of 60+ individuals) some age groups are less represented in early-stage entrepreneurial activity (Figure 2.9), which is a complex policy issue (involving many aspects of entrepreneurial framework conditions, like access to finance, taxation policy, retirement policy, etc.). Across the world, the most active persons in early-stage entrepreneurial activity are in the 25-35 age group. The most balanced participation takes place in North American economies.

In 2014, the GEM survey confirmed again that while the early-stage entrepreneurial activity is mostly performed by men, there are no differences in individual attributes, like perceived opportunities and perceived capabilities. Only in expressing fear of failure there is a slightly higher presence of women than men. A different pattern emerges when comparing motives for early-stage entrepreneurial activity: across the regions, women start a business venture more often out of necessity than men. The most gender-balanced rates of starting the business out of necessity are found in Australia, the Netherlands, Luxembourg, Denmark, Austria, Kazakhstan, South Africa, Singapore and Thailand.

Entrepreneurship Ecosystems (Entrepreneurship Framework Conditions)

Since its inception, the GEM has proposed that entrepreneurship dynamics can be linked to conditions that enhance (or hinder) new business creation. In the GEM´s methodology these conditions are known as Entrepreneurial Framework Conditions (EFCs). The EFCs can be considered an essential part of the puzzle that understanding businesses' creation and growth represents. The state of these conditions directly influences the existence of entrepreneurial opportunities, entrepreneurial capacity and preferences, which in turn determines business dynamics. By collecting information through interviewing national experts on EFCs (access to finance, government policies, government entrepreneurship programs, entrepreneurship education, R&D transfer, commercial and legal infrastructure, market openness, physical infrastructure and cultural and social norms), GEM captures informed judgments of national key informants regarding the entrepreneurship ecosystems. In most economies participating in the 2014 GEM survey, the best evaluated component is physical infrastructure and commercial infrastructure, and the lowest evaluation corresponded to primary and secondary education, government policies toward regulation and access to finance. From a geographic perspective, African economies have the lowest scores in almost all EFCs. North American economies have the highest scores for almost all EFCs. From the perspective of economic development levels, higher scores go to EFCs in more developed economies, which also confirms that building a supportive entrepreneurship ecosystem requires time, resources and political commitment.

Data in action: how GEM impacts entrepreneurship ecosystems

High stated goals for closing development gaps around the world (as identified in the New Millennium Goals) require knowledge/evidence- and action-based policies of all major stakeholders of the Quadruple Helix (government, university, business sector, civil society). There is an increasing body of knowledge about many aspects of the quality of life in all countries around the world. Official statistical coverage is different among countries, but it is complemented by various international surveys. **GEM** is one of the very few surveys based on the **collection of primary data on individual entrepreneurial activities, as well as on social values and personal attributes that contribute to or hinder such activities**. The GEM survey covers more than 100 countries (73 participated in 2014) and has collected data since 1999 using standardized tools; this has generated a huge database which can be used by international institutions or by national governments to design evidence-based policy interventions, or by some institutions (such as universities) to develop research-based educational programs.

After sixteen years of building a database on individuals' entrepreneurial behavior around the world, GEM is an extremely valuable source for learning about related patterns and trends. In order to show how GEM data is used to develop evidence-based policy activities, six examples are provided in the 2014 GEM Global Report:

- How state aid can be used to have an impact on developing countries: The International Development Research Centre (IDRC), Canada—how to use GEM's unique knowledge on entrepreneurship in developing countries—with links to Canada

- How to develop evidence-based policies and have better insights on entrepreneurial capacity at a national level: the EU funded a three-year project for the collection of data on entrepreneurial activity and self-employment, complementing the core GEM survey with specific questions, in order to obtain better insights on entrepreneurial capacity in the EU

- Four national examples, which confirm that the "one approach fits all" method does not work in designing an adequate entrepreneurship ecosystem, but that insights on entrepreneurial attributes and activities of individuals in different contexts are needed:

  - GEM Mexico—how GEM data is being used by the Mexican government to build an institutional framework for SME's support

  - GEM Malaysia—how GEM data is being used by the Malaysian government to monitor trends in entrepreneurship in Malaysia and to design some policy interventions

  - GEM South Africa—governments can be slow in recognizing the need for evidence-based policies, but persistence of researchers in finding common language with policy makers pays off

  - GEM Canada—building understanding of the evidence-based approach in designing and monitoring policy interventions requires collaboration among different actors (researchers, government officials, the business sector, any other stakeholders), by using the concept of GEM Policy Day

The Global Entrepreneurship Research Association (GERA), which coordinates GEM national teams, is ready to participate in the challenge of the New Millennium Goals and to join the multi-stakeholder global partnership in actions aimed to identify information gaps (and overlaps), as well as to develop collective actions required to replace the competition in the industry of indicators with collaborative efforts to increase access to information and data literacy at the institutional and individual levels.

1. INTRODUCTION AND BACKGROUND

This new edition of *The Global Entrepreneurship Monitor 2014 Global Report* (GEM) provides the results of the 16th survey cycle held every year since 1999. Seventy-three countries participated in the 2014 survey and the report provides the results on entrepreneurial attributes and activities of 70 of these countries and on entrepreneurship ecosystem of 73 countries.[1] Figure 1.1 shows the geographical coverage of the survey cycle.

Countries participating in the 2014 GEM survey represent 72.4% of the world's population and 90% of the world's GDP, thus providing a very significant basis for identifying different features of the entrepreneurship phenomenon, as spelled out in the conceptual framework used here.

1.1 THE GEM CONCEPTUAL FRAMEWORK

The GEM survey was initially conceived with the intention of detecting the interdependence between entrepreneurship and economic development. During the last 16 years, its conceptual framework and basic definitions evolved gradually without compromising the comparability of collected information, but bringing more clarity into assumed relationships. This process was supported by the work of many researchers who, using GEM data, contributed to build the entrepreneurship paradigm (Álvarez et al., 2014, Bosma, 2013, Levie and Autio, 2008, Reynolds et al., 2015).

The initial definition of entrepreneurship is still valid, but three research questions made since 1999 were modified, as some of them were answered by the findings of annual surveys.

The definition of entrepreneurship—in the context of understanding its role in economic growth—is as follows:

"Any attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals, or an established business." (Reynolds et al., 1999, p. 3)

[1] While 73 economies participated in the GEM survey cycle in 2014, Kuwait, Latvia and Turkey did not submit their Adult Population Survey (APS) data in time to be processed and included in the Global Report. However, their National Expert Survey (NES) data is included in the corresponding chapter and their APS results will eventually be released and incorporated into the 2014 PDF version of the Global Report.

FIGURE 1.1 GEOGRAPHICAL COVERAGE OF THE 2014 GEM SURVEY CYCLE (COUNTRIES IN GREEN)

Three questions that paved the way to the GEM survey were posed as follows (Reynolds et al., 1999, p. 3):

- Does the level of entrepreneurial activity vary between countries, and, if so, to what extent?
- Does the level of entrepreneurial activity affect a country's rate of economic growth and prosperity?
- What makes a country entrepreneurial?

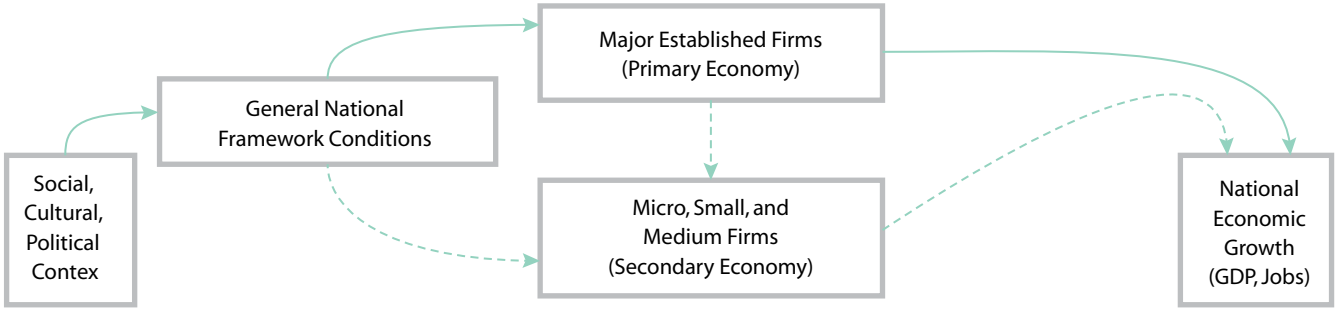
In order to answer those questions GEM had to depart from the conventional approach to thinking about national economic growth and brought the new conceptual framework that underwent a series of adjustments since its implementation in 1999.

The GEM conceptual framework, as identified in 1999 (Figure 1.3) in contrast to the conventional model of national economic growth (Figure 1.2), depicted the basic assumption that national economic growth is the result of the individuals' (wherever they are located and regardless of whether they are self-employed or the size of businesses) personal ability to identify and seize opportunities, and that this process is taking place in the interaction with the environment.

Using the findings of GEM surveys over the years, this initial conceptual framework evolved into the GEM conceptual framework shown in Figure 1.4.

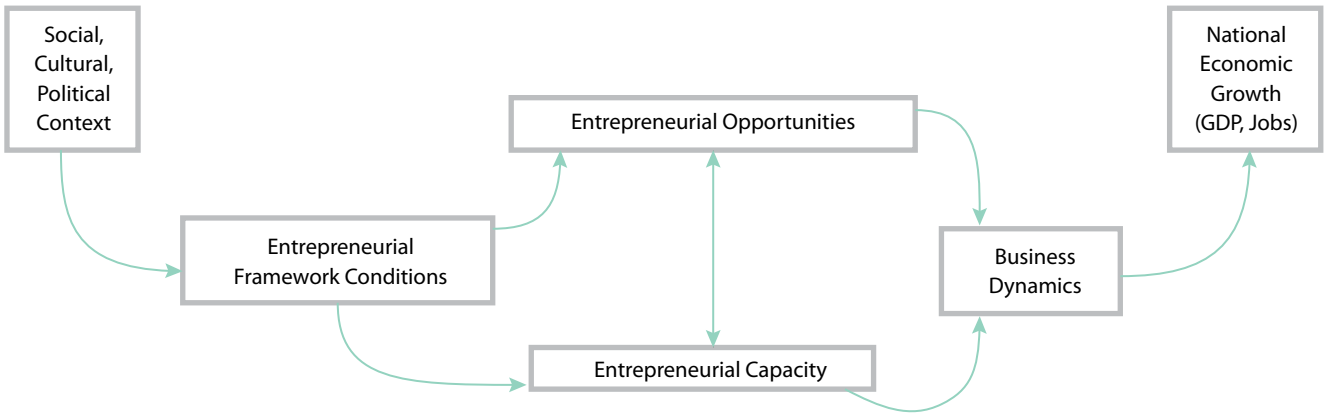
The major revision of this GEM conceptual framework was to open the "black box" called Entrepreneurship Profile, as shown in Figure 1.4. Since the GEM survey's early beginnings, the

FIGURE 1.2 CONVENTIONAL MODEL OF NATIONAL ECONOMIC GROWTH



Source: Reynolds, P. D., M. Hay, S.M. Camp, *Global Entrepreneurship Monitor, 1999 Executive Report*, p. 9.

FIGURE 1.3 MODEL OF ENTREPRENEURIAL PROCESSES AFFECTING NATIONAL ECONOMIC GROWTH



Source: Reynolds, P. D., M. Hay, S.M. Camp, *Global Entrepreneurship Monitor, 1999 Executive Report*, p. 10.

FIGURE 1.4 THE GEM CONCEPTUAL FRAMEWORK (USED IN GEM SURVEYS UP TO 2014)

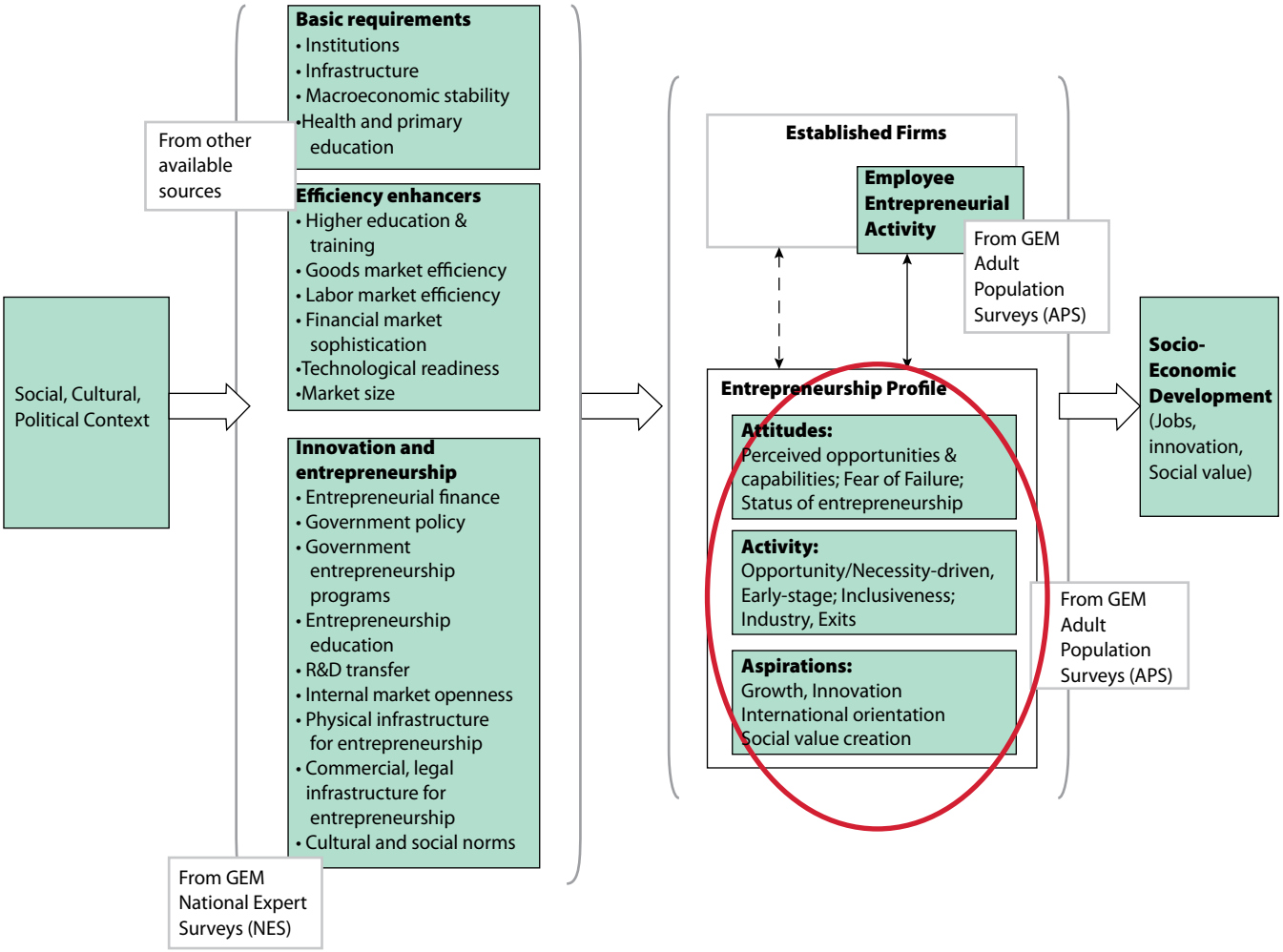
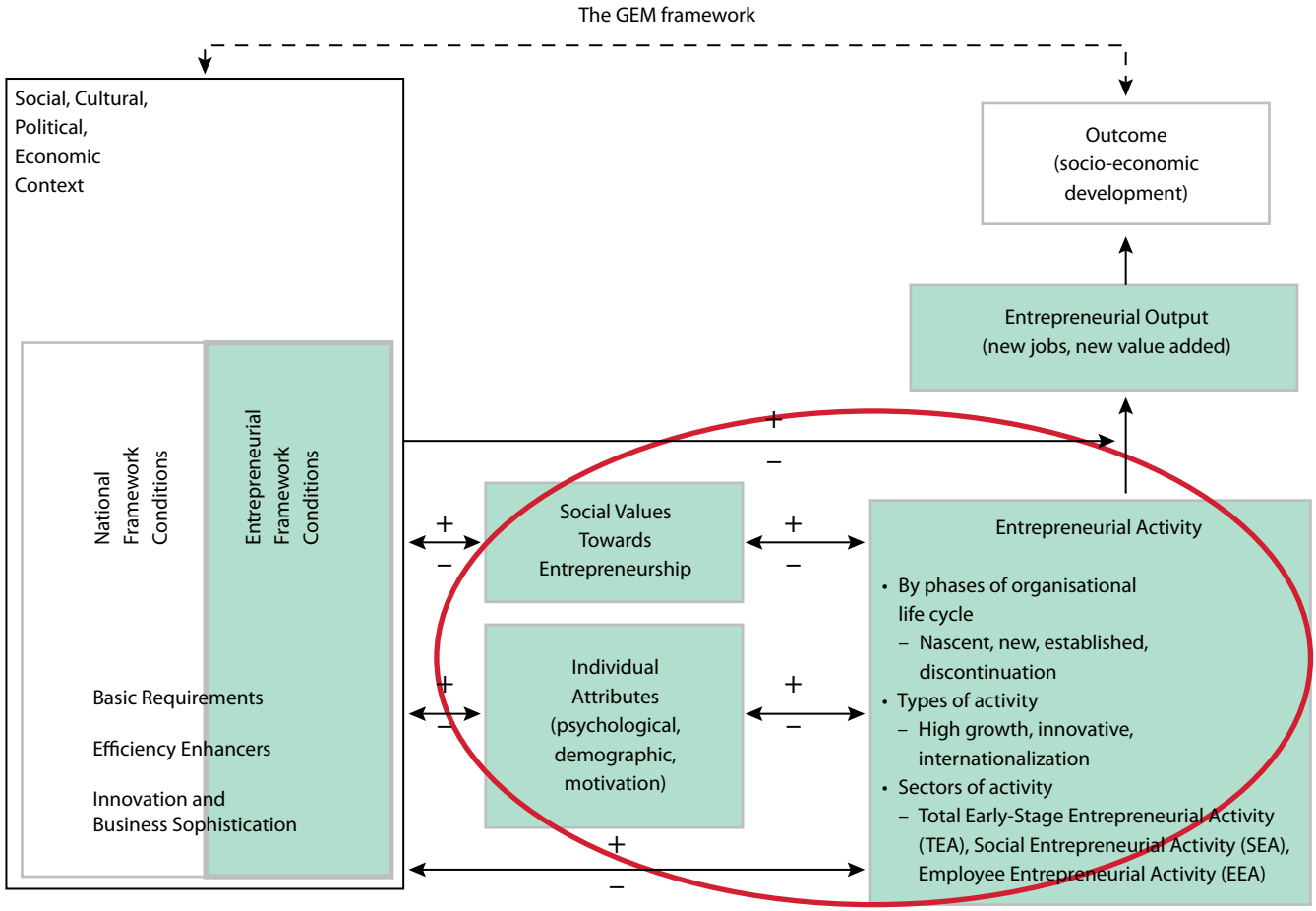


FIGURE 1.5 THE REVISED GEM CONCEPTUAL FRAMEWORK



implicit assumption of mutual relationships among attitudes, aspirations and activities was in-built in the conceptual framework, without spelling out the nature of these relation ships.

In the revised GEM conceptual framework shown in Figure 1.5, this "black box" has been opened in order to test the characteristics of the assumed relationships between social values, personal attributes and various forms of entrepreneurial activity.

In all conceptual frameworks, basic assumptions have remained unchanged:

1. Entrepreneurial activity is not a heroic act of an individual, regardless of the environment in which the activity is performed.

2. Entrepreneurial activity is an output of the interaction of an individual's perception of an opportunity and capacity (motivation and skills) to act upon this AND the distinct conditions of the respective environment in which the individual is located.

GEM surveys confirmed that the level of entrepreneurial activity varies among countries at a fairly constant rate, thus additionally confirming that it requires time and consistency in policy interventions in order to build factors that contribute to entrepreneurial activity. Surveys also confirmed that entrepreneurial activity, in different forms (nascent, start-up, intrapreneurship), is positively correlated with the economic growth, but that this relationship differs along phases of economic development (Acs and Amorós, 2008; Van Stel et al., 2005; Wennekers et al., 2010).

This is further confirmed by recent policy interventions around the world that focus on components of the GEM conceptual framework—environment (entrepreneurial framework conditions), individual capacity to identify and seize opportunities, and ability of the society to develop entrepreneurial culture. The Report on Entrepreneurial Ambition and Innovation (WEF-GEM, 2015) highlights the cases of Colombia and Chile, which are implementing several public and private initiatives to enhance their entrepreneurial ecosystems (Drexler and Amorós, 2015) (more examples of the use of GEM data in the design of national policies are included in Chapter 4).

Therefore, GEM continues to focus on contributing to global economic development through surveying/researching entrepreneurship initiatives that are helping to improve research-based education and research-based design of public policies in the field of entrepreneurship. For this purpose it follows three objectives (with slight modifications as reflected in the revised GEM conceptual framework):

- Determine the extent to which entrepreneurial activity influences economic growth within individual economies.
- Identify factors which encourage or hinder entrepreneurial activity, especially the relationships between the National Entrepreneurship Conditions, social values, personal attributes and entrepreneurial activity (opening the black box of the GEM conceptual framework shown in Figure 1.4 into a revised GEM conceptual framework as presented in Figure 1.5).
- Identify policy implications for enhancing entrepreneurial capacity in an economy.

Since 2008 (Bosma et al., 2009), GEM followed the World Economic Forum's typology of countries based on Porter's (Porter et al., 2002) definitions of economic development levels: factor-driven, efficiency-driven and innovation-driven economies. It contributed to show how the uniqueness of the GEM entrepreneurship survey (based on individuals) is complementing other major surveys on new business creation, by providing important information on individuals (attributes, values, activities) and their interaction with the environment in practicing entrepreneurial behavior (proactiveness, innovativeness and responsible choices).

The following are the components of the revised GEM conceptual framework:

Social, cultural, political and economic context: This is defined by using the World Economic Forum's twelve pillars for profiling economic development phases when surveying competitiveness and nine components of the GEM National Entrepreneurial Conditions (Table 1.1). It is important to emphasize that those components may be dispersed in different combinations in different economies, but the levels of economic development are determined by the dominant presence of the identified group of pillars.

It should be noted that all components of the environment in which women and men act with an entrepreneurial mindset (or cannot act proactively and innovatively) are mutually dependent. This dependence demands a holistic approach not only in research but also in designing appropriate policies to build a supportive environment in which people can adopt an entrepreneurial behavior.

Social Values towards Entrepreneurship: including how society values entrepreneurship as a good career choice; if entrepreneurs have a high social status; and how media attention to entrepreneurship is contributing (or not) to the development of a national entrepreneurial culture.

TABLE 1.1 SOCIAL, CULTURAL, POLITICAL AND ECONOMIC CONTEXT AND ECONOMIC DEVELOPMENT PHASES

	From other available sources	*From GEM National Expert Surveys (NES)*
Economic development phases	National Framework Conditions, based on World Economic Forum pillars for profiling economic development phases	**Entrepreneurial Framework Conditions**
Basic requirements—key to **factor-driven economies**	• Institutions • Infrastructure • Macroeconomic stability • Health and primary education	
Efficiency enhancers—key to **efficiency-driven economies**	• Higher education and training • Goods market efficiency • Labor market efficiency • Financial market sophistication • Technological readiness • Market size	
Innovation and sophistication factors—key to **innovation-driven economies**	• Business sophistication • Innovation	• Entrepreneurial finance • Education for entrepreneurship • Government policy • Government entrepreneurship programs • R&D transfer • Internal market openness • Physical infrastructure for entrepreneurship • Commercial and legal infrastructure for entrepreneurship • Cultural and social norms

Individual Attributes: including several demographic factors (gender, age, geographic location), psychological factors (perceived capabilities, perceived opportunities, fear of failure) and motivational aspects (necessity-based vs. opportunity-based venturing, improvement-driven venturing, etc.).

Entrepreneurial Activity: defined according to the ventures' life cycle phases (nascent, new venture, established venture, discontinuation), the types of activity (high growth, innovation, internationalization) and the sector of the activity (Total Early-stage Entrepreneurial Activity—TEA, Social Entrepreneurial Activity—SEA, Employee Entrepreneurial Activity—EEA). See detailed definitions in section 1.3.

1.2 GEM METHODOLOGY

Implementing the GEM survey requires a strong collaboration between each national team and the Global Entrepreneurship Research Association (GERA) expert team, supported by two bodies of representatives of national teams: the Research and Innovation Advisory Committee (which clarifies the conceptual framework, operational definitions and methodology, including surveying tools) and the Data Quality team (which works on data quality issues).

The Research and Innovation Advisory Committee, the Data Quality team and the GERA expert team analyze the lessons learned in the previous cycle and make the necessary adjustments. The GERA expert team conducts the whole process of testing surveying tools and coordinates with national teams the process of collecting data, from identifying samples to implementing surveying tools and coding collected information.

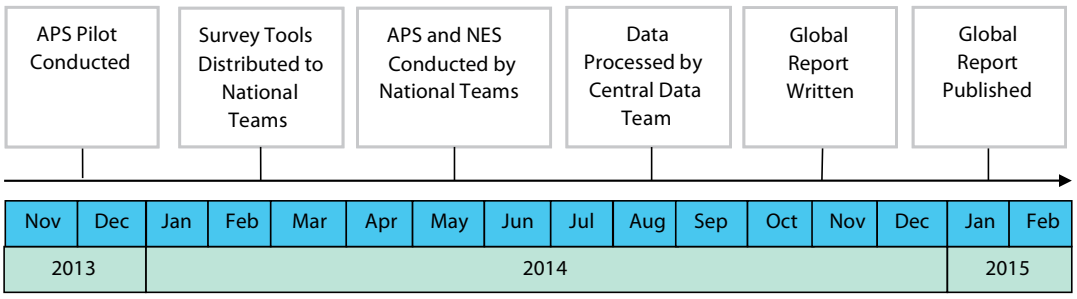
In order to capture the interactions between individuals and their environment, GEM uses two tools for collecting data on attributes, attitudes and activities of individuals (Adult Population Survey) and on experts' opinions about the components of the Entrepreneurial Conditions Framework (National Experts Survey). A minimum of 2000 randomly selected adults (over 18 years old) must be surveyed in each country. The Adult Population Survey is conducted each year, from April to June, by independent survey vendors, using the GEM questionnaire (Appendix 2 contains a list of the countries surveyed, as well as information about the sample size). The National Experts Survey is conducted every year, during the same period of time, by GEM national teams, comprised of at least 36 experts (four experts for each of the nine components of the Entrepreneurial Conditions Framework), using the GEM questionnaire.

In order to fulfill one of the basic expectations of the GEM survey, i.e. to provide reliable data on entrepreneurial attributes and activities among women and men around the world and the quality of their environment, the methodology has to enable comparisons in time, both on a country level and among countries. Therefore, all countries/economies participating in the GEM survey use the same standardized surveying tools (questionnaires) and procedures (updated information about the data collection procedures is available in the GEM Data Manual at *www.gemconsortium.org*).

Data collected by national teams is part of the GEM global data set, the GERA expert team carries out all computing activities, and the annual global report is generated by volunteer-researchers from the national teams.

National teams get back their own data set, as well as insights on the global data set for further researching and production of national reports (Figure 1.6).

FIGURE 1.6 2014 GEM'S SURVEY TIMELINE



After three years the GEM global data set is available as an open source at *www.gemconsortium.org*.

Besides the annual surveys based on collecting data through Adult Population Survey and National Expert Survey instruments, GEM conducts in-depth surveys on special topics, by adding specific questions to the standard APS questionnaire. Building on the richness of GEM collected data, until 2014, the following topics were analyzed and reported in separate publications (*www.gemconsortium.org*):

- On financing, in 2004 and 2006.
- On women and entrepreneurship, in 2005, 2006, 2007, 2009, 2010, 2012.
- On high expectation entrepreneurship, on high-growth entrepreneurship, on high impact entrepreneurship, in 2005, 2007, 2011.
- On innovation confidence index—EU funded project, in 2007, 2008, 2009.

- On social entrepreneurship, in 2009.
- On education and training, in 2010.
- On youth, in 2013.
- On entrepreneurial employee activity, in 2013.
- On Sub-Saharan Africa, in 2013, 2014 (on youth).
- On Entrepreneurship, Competitiveness and Development, 2015.

1.3 GEM INDICATORS

Based on the GEM conceptual framework and collected data, a set of numerous indicators are calculated and included in global and national reports.

Three basic GEM indicators provide good insight on the degree of entrepreneurship of an economy:

- Total Early-stage Entrepreneurial Activity (TEA).

  Percentage of individuals aged 18-64 who are either a nascent entrepreneur or owner-manager of a new business.

  This indicator can be additionally enhanced by providing information related to inclusiveness (gender, age), impact (business growth, innovation, internationalization) and industry (sectors) (see definitions in Figure 1. 7).

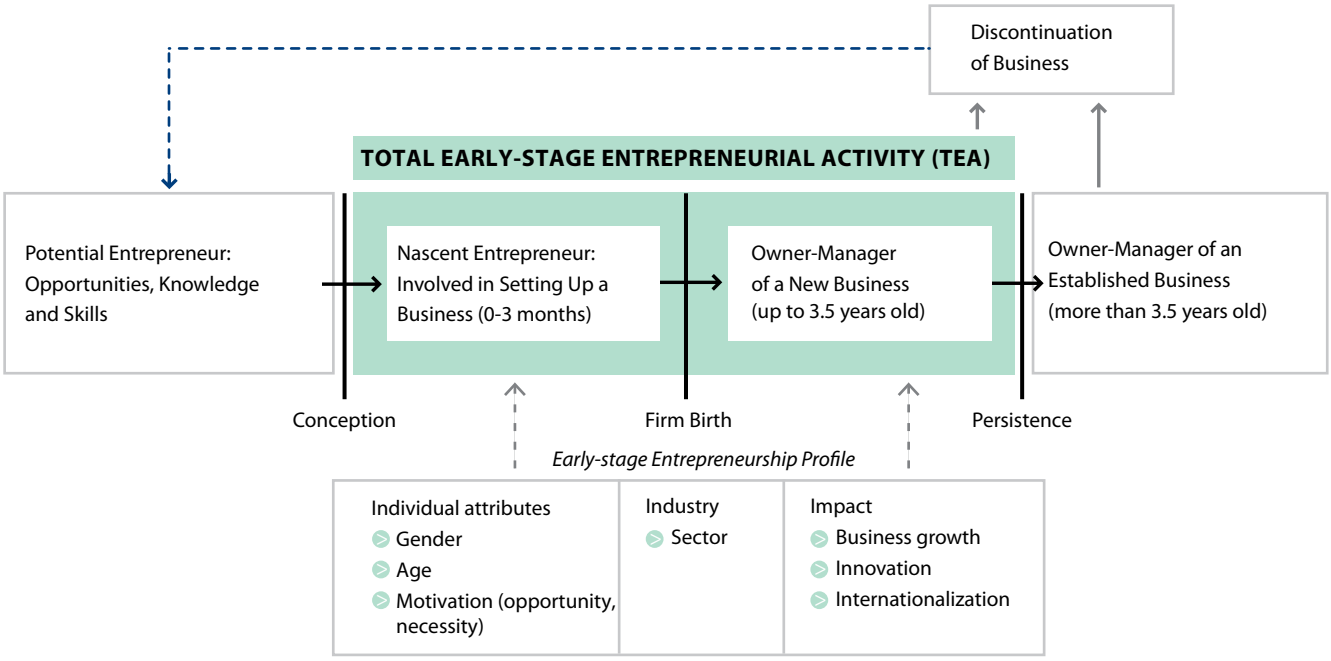
- Entrepreneurial Employee Activity (EEA).

  Rate of involvement of employees in entrepreneurial activities, such as developing or launching new goods or services, or setting up a new business unit, a new establishment or subsidiary.

- Social Entrepreneurial Activity (SEA).

  Rate of individuals engaged in entrepreneurial activities with a social goal.

FIGURE 1.7 THE ENTREPRENEURSHIP PROCESS AND GEM OPERATIONAL DEFINITIONS



GEM OPERATIONAL DEFINITIONS:

Total Early-stage entrepreneurial activity (TEA)

Percentage of individuals aged 18-64 who are either a nascent entrepreneur or owner-manager of a new business.

Nascent entrepreneurship rate

Percentage of individuals aged 18-64 who are currently a nascent entrepreneur, i.e., actively involved in setting up a business they will own or co-own; this business has not paid salaries, wages, or any other payments to the owners for more than three months.

New business ownership rate

Percentage of individuals aged 18-64 who are currently an owner-manager of a new business, i.e., owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than three months, but not more than 42 months.

Characteristics of early-stage entrepreneurial activity

Opportunity-based early-stage entrepreneurial activity

Percentage of individuals involved in early-stage entrepreneurial activity (as defined above) who claim to be purely or partly driven by opportunity as opposed to finding no other option for work. This includes taking advantage of a business opportunity or having a job but seeking better opportunity.

Necessity-based early-stage entrepreneurial activity

Percentage of individuals involved in early-stage entrepreneurial activity (as defined above) who claim to be driven by necessity (having no better choice for work) as opposed to opportunity.

Improvement-driven opportunity early-stage entrepreneurial activity

Percentage of individuals involved in early-stage entrepreneurial activity (as defined above) who (1) claim to be driven by opportunity as opposed to finding no other option for work; and (2) who indicate that the main driver for being involved in this opportunity is being independent or increasing their income, rather than just maintaining their income.

High-growth expectation early-stage entrepreneurial activity: relative prevalence

Percentage of early-stage entrepreneurs (as defined above) who expect to employ at least 20 people five years from now.

New product-market-oriented early-stage entrepreneurial activity: relative prevalence

Percentage of early-stage entrepreneurs (as defined above) who report that their product or service is new to at least some customers and that not many businesses offer the same product or service.

International-oriented early-stage entrepreneurial activity: relative prevalence

Percentage of early-stage entrepreneurs (as defined above) who report that at least 25% of their customers are from foreign countries.

Established business ownership rate

Percentage of individuals aged 18-64 who are currently an owner-manager of an established business, i.e., owning and managing a running business that has paid salaries, wages, or any other payments to the owners for more than 42 months.

Business discontinuation rate

Percentage of individuals aged 18-64 who, in the past 12 months, have discontinued a business, either by selling, shutting down, or otherwise discontinuing an owner/management relationship with the business.

Note: this is NOT a measure of business failure rates.

Individual attributes of a potential entrepreneur

Perceived opportunities

Percentage of individuals aged 18-64 involved in any stage of entrepreneurial activity excluded who see good opportunities to start a business in the area where they live.

Perceived capabilities

Percentage of individuals aged 18-64 involved in any stage of entrepreneurial activity excluded who believe they have the required skills and knowledge to start a business.

Entrepreneurial intentions

Percentage of individuals aged 18-64 involved in any stage of entrepreneurial activity excluded who are latent entrepreneurs and who intend to start a business within three years.

Fear of failure rate

Percentage of individuals aged 18-64 involved in any stage of entrepreneurial activity excluded who report that fear of failure would prevent them from setting up a business.


Department for Business
Baxi Ecogen micro-CHP
dual energy system
AXI

2. A GLOBAL PERSPECTIVE ON ENTREPRENEURSHIP IN 2014

Collected data by the GEM 2014 Adult Population Survey provide the basis for presenting entrepreneurial profiles of 70 economies[1] along three components of the GEM Conceptual Framework (Figure 2.1).

The three components of the GEM Conceptual Framework and the assumed relationships among them are at the heart of the GEM contribution to a better understanding of entrepreneurial energy in any economy. The analysis is based on the following data:

- Individual attributes—which reflect perceptions about opportunities, capabilities to act entrepreneurially, entrepreneurial intentions and fear of failure;
- Social values— which reflect how the society values entrepreneurial behavior, and
- Entrepreneurship indicators—different forms of entrepreneurial activity along the life cycle of a venture (nascent, new business, established business, share of high ambitious ventures, discontinuation) and motivation for venturing (opportunity vs. necessity based ventures). All those indicators can be enriched with insights regarding how age, gender and personal income are affecting entrepreneurial activity.

Since 2008, GEM Global reports have categorized the participating economies by phase of economic development, namely factor-driven, efficiency-driven and innovation-driven economies. The growing number of participating economies additionally provided the opportunity to compare results within and across geographic regions of the world and phases of economic development. This report presents the findings from the geographic perspective (global regions) and by phase of economic development.

Table 2.1 shows 70 participating economies by global regions and phases of economic development which are profiled for their respective individual attributes, social values and entrepreneurship activities in the 2014 Global Report.

[1] The APS results of Kuwait, Latvia and Turkey will be incorporated into the 2014 PDF version of the Global Report.

FIGURE 2.1 GEM CONCEPTUAL FRAMEWORK–SOCIAL VALUES, INDIVIDUAL ATTRIBUTES AND ENTREPRENEURIAL ACTIVITY

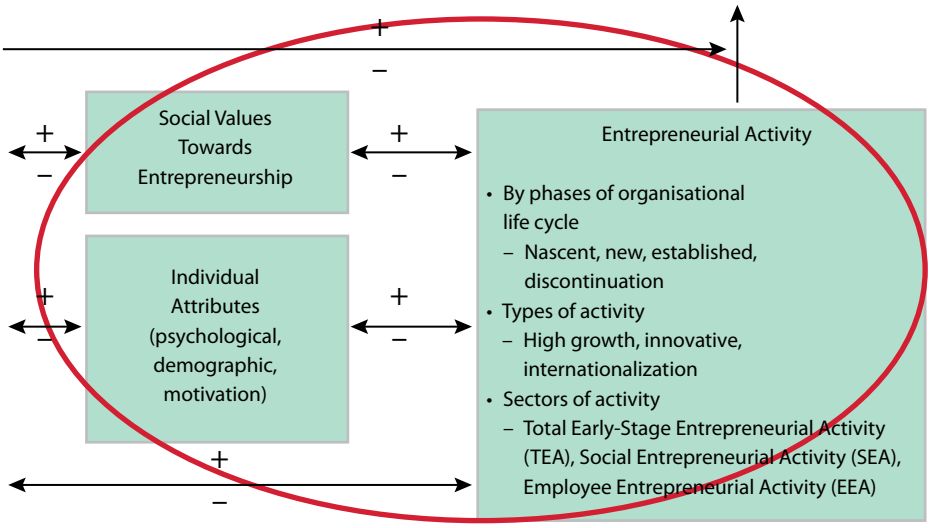


TABLE 2.1 GEM ECONOMIES BY GEOGRAPHIC REGION AND ECONOMIC DEVELOPMENT LEVEL, 2014 (WITHOUT KUWAIT, LATVIA AND TURKEY)

	Factor-driven economies	*Efficiency-driven economies*	*Innovation-driven economies*
Africa	Angola[1], Botswana[1], Burkina Faso, Cameroon, Uganda	South Africa	
Asia & Oceania	India, Iran[1], Philippines[1], Vietnam	China, Indonesia, Kazakhstan[2], Malaysia[2], Thailand	Australia, Japan, Singapore, Taiwan, Qatar
Latin America & Caribbean	Bolivia[1]	Argentina[2], Barbados[2], Belize, Brazil[2], Chile[2], Colombia, Costa Rica[2], Ecuador, El Salvador, Guatemala, Jamaica, Mexico[2], Panama[2], Peru, Suriname[2], Uruguay[2]	Puerto Rico, Trinidad and Tobago
European Union		Croatia[2], Hungary[2], Lithuania[2], Poland[2], Romania	Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Slovenia, Slovakia, Spain, Sweden, United Kingdom
Non-European Union		Bosnia and Herzegovina, Georgia, Kosovo, Russian Federation[2]	Norway, Switzerland
North America			Canada, United States

1) In transition from factor-driven to efficiency-driven economy.
2) In transition from efficiency-driven to innovation-driven economy.

2.1 SOCIAL VALUES TOWARDS ENTREPRENEURSHIP

Social values play a key role to determine whether individuals are behaving entrepreneurially or not, as literature confirms (Kwon and Arenius, 2010). In GEM survey social values are revised through three dimensions:

- If most people consider starting a new business a desirable career choice;
- If those individuals who are successful at starting a new business enjoy a high level of status and respect in the society; and
- If media attention to entrepreneurship (by promoting successful ventures) contribute or not to develop an entrepreneurial culture in a country.

Perceptions related to the former three features showed on Table 2.2 that describe social values towards entrepreneurship reveal some patterns that must be remarked:

TABLE 2.2 PERCEPTION OF SOCIAL VALUES TOWARD ENTREPRENEURSHIP IN THE GEM ECONOMIES IN 2014 BY GEOGRAPHIC REGION (% OF POPULATION AGED 18-64)

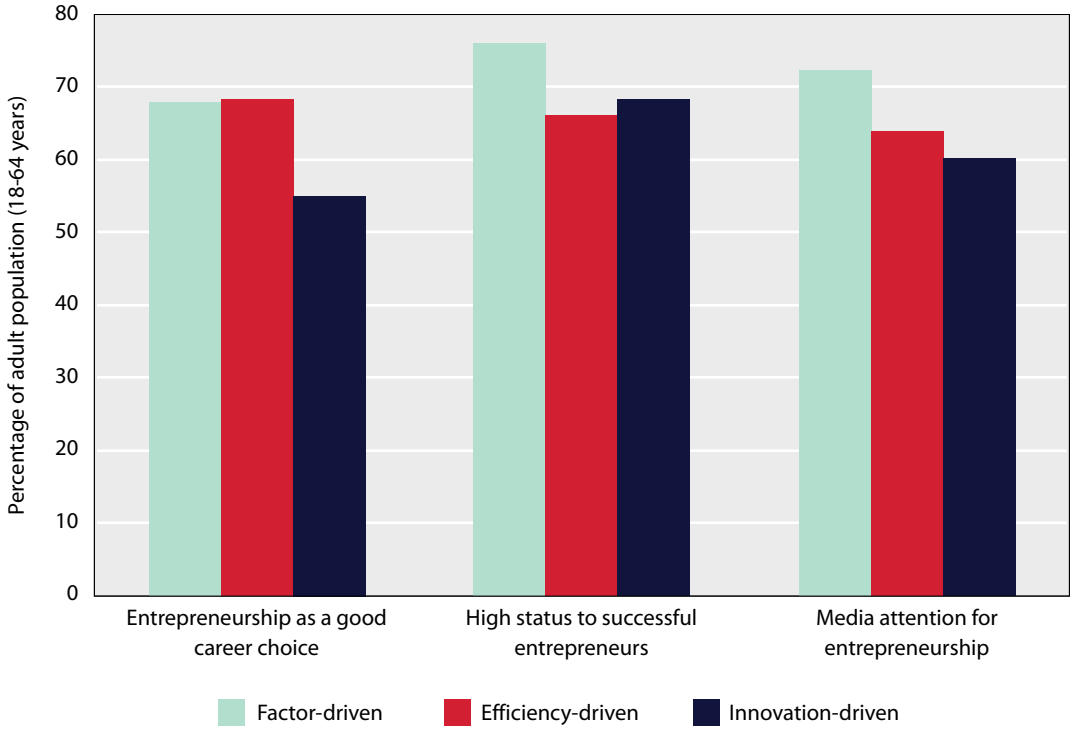
Region and economies		*Entrepreneurship as a good career choice*	*High status to successful entrepreneurs*	*Media attention for entrepreneurship*
Africa	Angola	75.1	81.7	71.7
	Botswana	69.9	78.1	74.5
	Burkina Faso			
	Cameroon			
	South Africa	69.6	72.9	72.6
	Uganda			
	Average (unweighted)	71.5	77.6	72.9
Asia & Oceania	Australia	53.4	67.1	72.6
	China	65.7	72.9	69.3
	India	57.9	66.2	56.6
	Indonesia	72.9	78.0	84.8
	Iran	52.3	75.6	55.1
	Japan	31.0	55.8	58.7
	Kazakhstan	78.6	74.3	83.0
	Malaysia	50.4	50.0	69.8
	Philippines	81.8	78.1	84.7
	Qatar	75.8	87.1	76.8
	Singapore	51.7	62.9	79.1
	Taiwan	75.2	62.6	83.5
	Thailand	73.6	71.1	80.3
	Vietnam	67.2	75.9	86.8
	Average (unweighted)	63.4	69.8	74.4
Latin America & Caribbean	Argentina	57.8	52.2	63.6
	Barbados	57.6	58.5	46.3
	Belize	57.8	55.5	43.3
	Bolivia	70.3	77.0	76.5
	Brazil			
	Chile	69.4	64.4	65.2
	Colombia	70.5	67.1	74.4
	Costa Rica	61.3	59.0	79.7
	Ecuador	66.4	67.1	82.9
	El Salvador	82.6	59.5	59.5
	Guatemala	95.3	76.9	60.6
	Jamaica	83.5	84.0	83.9
	Mexico	53.2	50.8	45.5
	Panama			
	Peru	82.4	81.4	83.6
	Puerto Rico	18.5	51.1	72.7
	Suriname	66.7	67.2	80.7
	Trinidad and Tobago	79.5	69.5	65.6
	Uruguay	62.1	56.7	60.8
	Average (unweighted)	66.8	64.6	67.3

Region and economies		Entrepreneurship as a good career choice	High status to successful entrepreneurs	Media attention for entrepreneurship
European Union	Austria			
	Belgium	52.4	51.7	50.8
	Croatia	63.3	46.6	40.4
	Denmark			
	Estonia	55.6	64.9	43.3
	Finland	41.2	84.4	66.9
	France	59.0	70.4	39.0
	Germany	51.7	79.1	51.4
	Greece	58.4	66.4	45.8
	Hungary	47.4	72.4	33.5
	Ireland	49.4	76.9	75.7
	Italy	65.1	72.1	48.3
	Lithuania	68.8	58.3	55.1
	Luxembourg	40.7	68.2	43.5
	Netherlands	79.1	67.8	55.7
	Poland	63.3	56.5	54.5
	Portugal	62.2	62.9	69.7
	Romania	73.6	75.2	71.3
	Slovakia	45.4	58.1	52.6
	Slovenia	53.4	72.3	57.6
	Spain	53.9	49.0	46.3
	Sweden	51.6	70.9	60.3
	United Kingdom	60.3	75.0	58.4
	Average (unweighted)	56.9	66.6	53.3
Non-European Union	Bosnia and Herzegovina	78.1	69.9	39.8
	Georgia	66.0	75.9	58.5
	Kosovo	68.3	76.2	57.2
	Norway	58.2	83.5	
	Russia	67.1	65.9	50.4
	Switzerland	42.3	65.8	50.4
	Average (unweighted)	63.3	72.9	51.3
North America	Canada	57.2	69.7	67.7
	United States	64.7	76.9	75.8
	Average (unweighted)	61.0	73.3	71.8

The African economies showed the highest social values towards entrepreneurship, the European economies the lowest, especially European Union countries. It is interesting that the North American and African economies highly evaluate successful entrepreneurs, whereas their media pay great attention to promote successful entrepreneurial stories (as well as in Asia and Oceania). The lowest media attention takes place in Europe. The biggest difference occurs in relation to the perception whether starting a new business is a desirable career choice—the highest one is observed in the African economies, the lowest in the European Union economies.

Based on the phase of economic development, there are more similarities between factor-driven and efficiency-driven economies, which consider starting a business a desirable career choice at a much higher level than in innovation-driven economies. This is in line with the findings of previous GEM surveys, which showed that more people are interested in having own business venture in less developed countries where job options are less available. The Netherlands is an exemption with 79.1%, or Italy, with 65.1%, Trinidad and Tobago (79.5%), Taiwan (75.2%), or Qatar (75.8%), which confirms that the context, derived from historical economic development, is important. The appreciation of successful

FIGURE 2.2 SOCIAL VALUES TOWARD ENTREPRENEURSHIP IN THE GEM ECONOMIES IN 2014, BY PHASE OF ECONOMIC DEVELOPMENT



entrepreneurs are more similar in efficiency-driven and innovation-driven economies, as well as their perception of the role of media in building entrepreneurial culture within the society, but on lower level than in factor-driven economies (Figure 2.2).

Appendix 1, Table A.1 presents detailed data on three components of social values by the phase of economic development.

In building an entrepreneurial culture, education and media play crucial roles, particularly regarding the education of very young people (on primary and secondary levels). Therefore, it is important to observe that education is evaluated by experts with the lowest scores in many countries (see more details in Table 3.2, Chapter 3). If a country wants to be more proactive in developing an entrepreneurial culture, it is relevant to implement consistent policies and programs on restructuring the capability of education system toward providing entrepreneurial competences as a kind of transversal skills for everyone (where such competences are defined in the broadest meaning as proactiveness, innovativeness, responsibility for own choices).

2.2 INDIVIDUAL ATTRIBUTES

The GEM Conceptual Framework provides insights in several individual attributes (perception of opportunities, perception of own capabilities to act entrepreneurially, fear of failure and entrepreneurial intentions), which, in a specific context defined by entrepreneurship framework conditions, lead to entrepreneurship activities (as presented in the fragment of the GEM Conceptual Framework, Figure 2.2). Table 2.3 shows how economies differ in terms of individual attributes, by geographic regions, whereas Figure 2.3 presents the differences determined by the phases of economic development, as measured by the GEM 2014 Adult Population Survey.

Detailed information on individual attributes on each 2014 GEM economy by phase of economic development is presented in Appendix 1, Table A.2.

Perceived opportunities reflect the percentage of individuals who believe there is occasion to start a venture in the next six months in their immediate environment. *Perceived capabilities* reflect the percentage of individuals who believe they have the required skills, knowledge and experience to start a new venture. The measure of *fear of failure* (when it comes to starting own venture) *only* applies to those who perceive opportunities. *Entrepreneurial intentions* are defined by the percentage of individuals who expect to start a business within the next three years (those already entrepreneurially active are excluded from this measure).

In order to compare those measures across different countries, it must be underlined that contextualization is very important—individuals in different economies are likely to have different kind of business in mind when they express their perceptions about opportunities, and then related measures on capabilities, fear of failure and entrepreneurial intentions.

TABLE 2.3 INDIVIDUAL ATTRIBUTES IN THE GEM ECONOMIES IN 2014, BY GEOGRAPHIC REGION (% OF POPULATION AGED 18-64)

Region and economies		*Perceived opportunities*	*Perceived capabilities*	*Fear of failure**	*Entrepreneurial intentions **
Africa	Angola	69.7	61.7	44.8	39.3
	Botswana	57.2	67.1	13.7	63.4
	Burkina Faso	63.6	65.9	23.7	42.3
	Cameroon	69.3	73.8	22.8	55.6
	South Africa	37.0	37.6	25.4	10.1
	Uganda	76.9	84.9	12.6	60.2
	Average (unweighted)	62.3	65.2	23.8	45.1
Asia & Oceania	Australia	45.7	46.8	39.2	10.0
	China	31.9	33.0	39.5	19.3
	India	38.9	36.7	37.7	7.7
	Indonesia	45.5	60.2	38.1	27.4
	Iran	27.7	59.5	32.7	25.5
	Japan	7.3	12.2	54.5	2.5
	Kazakhstan	26.5	52.5	23.8	15.4
	Malaysia	43.4	38.4	26.8	11.6
	Philippines	45.9	66.1	37.7	42.8
	Qatar	63.4	60.9	25.5	50.4
	Singapore	16.7	21.4	39.4	9.4
	Taiwan	33.5	29.0	37.4	25.6
	Thailand	47.3	50.1	42.4	21.8
	Vietnam	39.4	58.2	50.1	18.2
	Average (unweighted)	36.6	44.6	37.5	20.5
Latin America & Caribbean	Argentina	31.9	57.8	23.5	27.8
	Barbados	38.2	63.5	23.4	11.5
	Belize	49.6	69.0	32.6	10.1
	Bolivia	57.7	73.1	38.4	46.9
	Brazil	55.5	50.0	35.6	24.5
	Chile	67.0	64.9	28.4	50.1
	Colombia	65.7	57.4	30.7	47.0
	Costa Rica	39.0	59.4	36.8	29.0
	Ecuador	62.0	72.8	30.7	43.1
	El Salvador	44.7	70.8	34.9	23.1
	Guatemala	45.4	64.2	33.0	35.8
	Jamaica	57.0	81.2	22.0	35.3
	Mexico	48.9	53.5	29.6	17.4
	Panama	43.3	54.4	14.6	19.7
	Peru	62.3	69.4	29.1	50.6
	Puerto Rico	25.1	48.8	24.0	12.5
	Suriname	41.0	77.4	16.1	4.6
	Trinidad and Tobago	58.6	75.2	16.8	33.9
	Uruguay	45.6	63.1	26.7	24.8
	Average (unweighted)	49.4	64.5	27.7	28.8

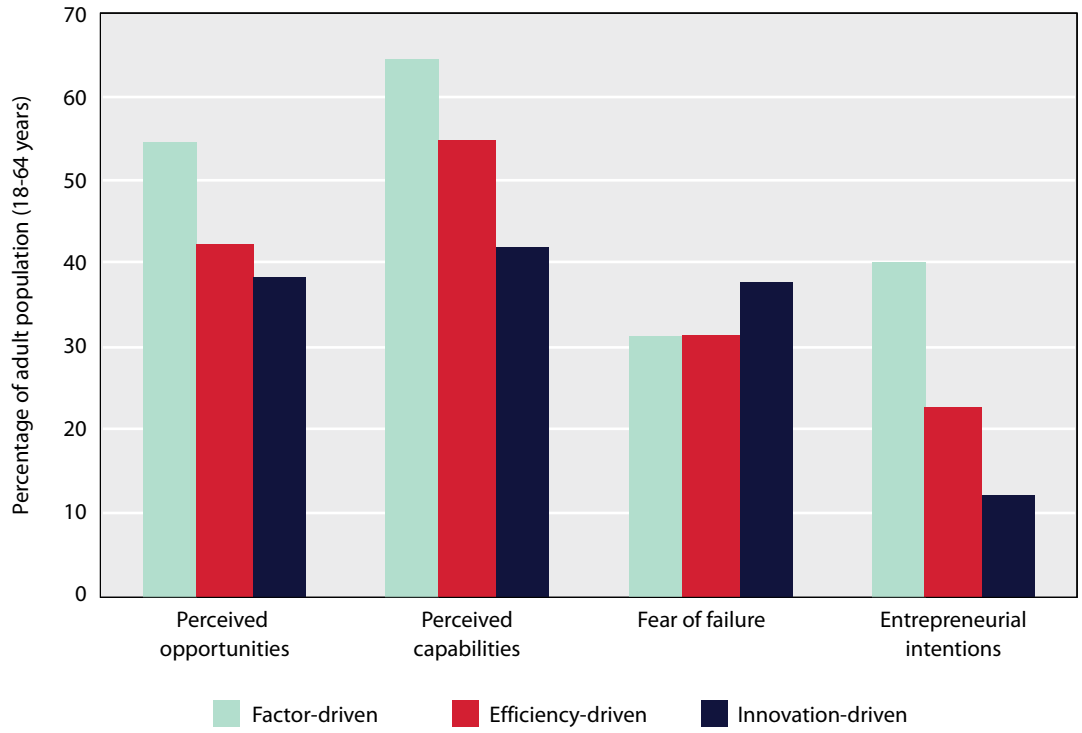
Region and economies		Perceived opportunities	Perceived capabilities	Fear of failure*	Entrepreneurial intentions **
European Union	Austria	44.4	48.7	34.9	8.1
	Belgium	35.9	30.4	49.4	10.6
	Croatia	18.4	45.9	30.3	19.5
	Denmark	59.7	34.9	41.0	6.9
	Estonia	49.4	42.5	41.8	9.8
	Finland	42.4	34.9	36.8	7.9
	France	28.3	35.4	41.2	14.2
	Germany	37.6	36.4	39.9	5.9
	Greece	19.9	45.5	61.6	9.5
	Hungary	23.4	40.9	42.0	13.9
	Ireland	33.4	47.2	39.3	7.2
	Italy	26.6	31.3	49.1	11.4
	Lithuania	31.7	33.4	44.8	19.7
	Luxembourg	42.5	37.6	42.0	11.9
	Netherlands	45.6	44.3	34.8	9.3
	Poland	31.3	54.3	51.1	15.6
	Portugal	22.9	46.6	38.4	15.8
	Romania	32.4	48.4	41.3	31.7
	Slovakia	23.5	54.4	36.0	15.1
	Slovenia	17.2	48.6	29.0	11.4
	Spain	22.6	48.1	38.0	7.1
	Sweden	70.1	36.7	36.5	8.5
	United Kingdom	41.0	46.4	36.8	6.9
	Average (unweighted)	34.8	42.3	40.7	12.1
Non-European Union	Bosnia and Herzegovina	19.6	47.3	26.8	20.4
	Georgia	36.6	37.5	34.8	15.6
	Kosovo	65.6	65.2	26.7	6.3
	Norway	63.5	30.5	37.6	5.0
	Russia	26.5	27.8	39.5	3.5
	Switzerland	43.7	41.6	29.0	7.1
	Average (unweighted)	42.6	41.7	32.4	9.7
North America	Canada	55.5	49.0	36.5	12.0
	United States	50.9	53.3	29.7	12.1
	Average (unweighted)	53.2	51.2	33.1	12.0

* Denominator: 18-64 age group perceives good opportunities to start a business.

** Respondent expects to start a business within three years; denominator: 18-64 age group that is currently not involved in entrepreneurial activity.

In general, **perceived capabilities** are higher than **perceived opportunities**, but they decline along the economic development level—in innovation-driven economies both perceived opportunities and perceived capabilities are lower than in economies from an efficiency-driven or factor-driven development stage. In the European Union an interesting additional pattern emerges: in countries that experience long-term economic troubles this discrepancy is the highest (perceived capabilities are 45.5% vs. perceived opportunities 19.9% in Greece; 45.9% vs. 18.4% in Croatia; 48.6% vs. 17.2% in Slovenia; 48.1% vs. 22.6% in Spain; 46.6% vs. 22.9% in Portugal). The same holds for Bosnia and Herzegovina, a non-EU country (19.6% vs. 47.3%). On the other hand, Sweden, Denmark and Finland show an opposite pattern—much higher perceived opportunity measure in comparison with the measure of perceived capabilities (70.1% vs. 36.7; 59.7% vs.34.9%; 42.4% vs. 34.9%, respectively). The same holds for Norway, a non-EU country (63.5% vs. 30.5%). Low level of perceived opportunities in countries with economic development problems is a quite relevant information for governments, but also for many other institutions, like professional infrastructure institutions, education sector which can help in building the individuals' capacity of recognizing opportunities.

FIGURE 2.3 INDIVIDUAL ATTRIBUTES IN THE GEM ECONOMIES IN 2014, BY PHASE OF ECONOMIC DEVELOPMENT.



Again, a similar pattern as in the case of social values brings African and North American economies close to each other: both groups of economies have high and balanced values of those measures, additionally confirming strong entrepreneurial attributes of individuals in those economies. This pattern conveys a lot of information, reinforcing the idea that entrepreneurship framework conditions are important along the three phases of economic development, not only for economies which belong to the most developed ones (as shown in Table 1.1, Chapter 1). All 2014 GEM African economies are factor-driven economies (except South Africa, which belongs to the efficiency-driven group of economies), while North American economies belong to the innovation-driven phase of economic development, but both groups present high social values towards entrepreneurship (Table 2.2) and high measures of perceived opportunities (regarding the next six months to start a business in the area where their citizens live) and perceived capabilities (the required skills and knowledge to start a business). It means that in both group of economies entrepreneurship framework conditions are needed in order to support such individual preferences.

Fear of failure can be a strong inhibitor for seizing opportunities and transforming entrepreneurial intentions into entrepreneurial activity. The highest fear of failure (measured among the group with perceived opportunities) was expressed by respondents in 2104 GEM EU economies (40.7%), followed by respondents in Asia and Oceania region (37.5%). In the most developed countries (innovation-driven economies), the fear of failure is higher than in factor-driven and efficiency-driven economies. In the group of GEM EU economies, the highest rates of fear of failure are observed in Greece (61.6%), Poland (51.1%), Belgium (49.4%) and Italy (49.1%). In the group of Asian and Oceania economies, the highest fear of failure was expressed by respondents in Japan (54.5%) and Vietnam (50.1%).

Entrepreneurial intentions are the highest among factor-driven economies and the lowest among innovation-driven economies, which confirm the already known pattern that starting an own business is dominant where other options to provide income for living are limited. At the same time, it is obvious that the existence of social values towards entrepreneurship and the quality of the entrepreneurship framework conditions provide support or hindering factors in building entrepreneurial intentions. On the level of individual economies, there are some interesting cases: in Japan the relatively low share of respondents see entrepreneurship as a good career choice (31%), only 7.3% perceive the existence of opportunities in their surroundings, and only 12.2% think that they have abilities to start a business, but 54.5% expressed fear of failure, which led to the lowest share of respondents with entrepreneurial intentions (2.5%). The case of Botswana provides a very different pattern of social values and individual attributes: 70% of respondents see entrepreneurship as a good career choice, there is a high share of respondents with perceived opportunities (57.2%) and perceived capabilities (67.1%), and a very low level of fear of failure (13.7%) led to 63.4% of respondents with entrepreneurial intentions. Economies with higher rates of entrepreneurial intentions, beside Botswana, are Uganda (60.2%), Cameroon (55.6%), Qatar (50.4%), Peru (50.6%) and Chile (50.1%). The economic context of those economies is quite different, which also confirms that entrepreneurial activity is needed everywhere—no matter if it stems from

necessity or desire to seize opportunities—and that such an entrepreneurial activity can take a wide variety of forms, from self-employment in less demanding ventures regarding skills and other resources to knowledge-based ventures.

2.3 ENTREPRENEURIAL ACTIVITIES

Entrepreneurial activities in this report will be presented by using the organizational life-cycle approach (nascent, new business, established business, discontinuation), by adding insights in ambitious entrepreneurial activity (both from the standpoint of an owner-managed venture and from an entrepreneurial employee's standpoint). Gender and age descriptors are used to emphasize some distinctive patterns.

Two criteria are applied to differentiate between "young" and established business:

- "Birth event"—the payment of wages for more than three months proved to be the best criteria for international comparisons. Nascent entrepreneurs are labeled as those who are committing resources to start a business, but the business has not yet yielded wages or salaries. New businesses are those managed by their owners and which are paying wages, up to 42 months of existence of the firm.
- Cut-off of 42 months for differentiating between new businesses and established firms has been made by combining theoretical and practical considerations (Reynolds et al., 2005) and it is consistently used from the very beginning of GEM survey.

Table 2.4 presents entrepreneurial activity prevalence rates along the phases of the life-cycle of a venture, providing the information on entrepreneurial dynamics for each of the GEM economies, grouped by regions, whereas Figure 2.4 provides insight into differences related to the phase of development:

- Total Early-Stage Entrepreneurial Activity rate (percentage of individuals aged 18-64 in an economy who are in the process of starting a business or are already running a new business, not older than 42 months).
- Established Business Ownership rate (percentage of individuals aged 18-64 in an economy who own and manage a business older than 42 months).
- Discontinuation rate (percentage of individuals aged 18-64 who owned a business but discontinued it for different reasons during the last 12 months).

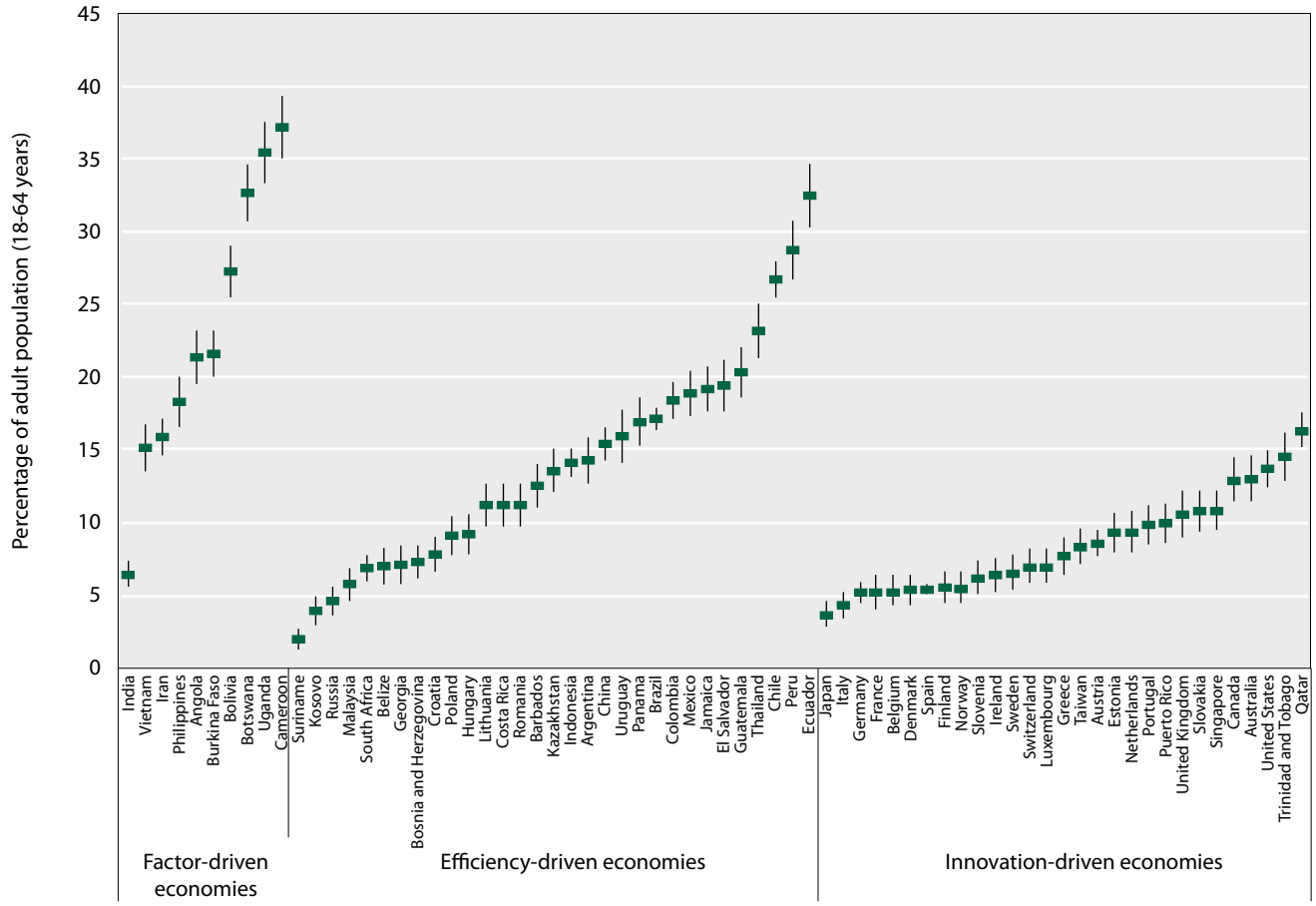
TABLE 2.4 PHASES OF ENTREPRENEURIAL ACTIVITY IN THE GEM ECONOMIES IN 2014, BY GEOGRAPHIC REGION (% OF POPULATION AGED 18-64)

Region and economies		*Nascent entrepreneur-ship rate*	*New business ownership rate*	*Early-stage entrepreneurial activity (TEA)*	*Established business ownership rate*	*Discontinuation of businesses (% of TEA)*
Africa	**Angola**	9.5	12.4	21.5	6.5	15.1
	Botswana	23.1	11.1	32.8	5.0	15.1
	Burkina Faso	12.7	9.7	21.7	17.7	10.8
	Cameroon	26.4	13.7	37.4	11.5	17.7
	South Africa	3.9	3.2	7.0	2.7	3.9
	Uganda	8.9	28.1	35.5	35.9	21.2
	Average (unweighted)	14.1	13.0	26.0	13.2	14.0
Asia & Oceania	**Australia**	7.6	5.7	13.1	9.8	3.9
	China	5.4	10.2	15.5	11.6	1.4
	India	4.1	2.5	6.6	3.7	1.2
	Indonesia	4.4	10.1	14.2	11.9	4.2
	Iran	7.5	8.7	16.0	10.9	5.7
	Japan	2.7	1.3	3.8	7.2	1.1
	Kazakhstan	8.1	6.2	13.7	7.4	2.9
	Malaysia	1.4	4.6	5.9	8.5	2.0
	Philippines	8.2	10.5	18.4	6.2	12.6
	Qatar	11.3	5.4	16.4	3.5	4.8
	Singapore	6.4	4.8	11.0	2.9	2.4
	Taiwan	4.4	4.1	8.5	12.2	5.1
	Thailand	7.6	16.7	23.3	33.1	4.2
	Vietnam	2.0	13.3	15.3	22.2	3.6
	Average (unweighted)	5.8	7.4	13.0	10.8	3.9

Region and economies		Nascent entrepreneurship rate	New business ownership rate	Early-stage entrepreneurial activity (TEA)	Established business ownership rate	Discontinuation of businesses (% of TEA)
Latin America & Caribbean	Argentina	9.5	5.2	14.4	9.1	4.9
	Barbados	8.5	4.2	12.7	7.1	3.7
	Belize	4.3	3.0	7.1	3.7	4.7
	Bolivia	21.5	7.1	27.4	7.6	6.9
	Brazil	3.7	13.8	17.2	17.5	4.1
	Chile	16.6	11.0	26.8	8.8	8.3
	Colombia	12.4	6.7	18.5	4.9	5.6
	Costa Rica	7.6	3.7	11.3	2.5	4.9
	Ecuador	24.5	9.9	32.6	17.7	8.1
	El Salvador	11.4	8.7	19.5	12.7	10.8
	Guatemala	12.0	9.2	20.4	7.4	4.4
	Jamaica	7.9	11.9	19.3	14.4	6.3
	Mexico	12.7	6.4	19.0	4.5	5.6
	Panama	13.1	4.1	17.1	3.4	4.5
	Peru	23.1	7.3	28.8	9.2	8.0
	Puerto Rico	8.8	1.3	10.0	1.3	3.6
	Suriname	1.9	0.2	2.1	5.2	0.2
	Trinidad and Tobago	7.5	7.4	14.6	8.5	2.8
	Uruguay	10.5	5.7	16.1	6.7	4.4
	Average (unweighted)	11.4	6.7	17.6	8.0	5.4
European Union	Austria	5.8	3.1	8.7	9.9	2.7
	Belgium	2.9	2.5	5.4	3.5	2.3
	Croatia	6.0	2.0	8.0	3.6	3.8
	Denmark	3.1	2.5	5.5	5.1	2.2
	Estonia	6.3	3.5	9.4	5.7	2.0
	Finland	3.4	2.3	5.6	6.6	2.3
	France	3.7	1.7	5.3	2.9	1.7
	Germany	3.1	2.3	5.3	5.2	1.7
	Greece	4.6	3.4	7.9	12.8	2.8
	Hungary	5.6	3.9	9.3	7.9	3.1
	Ireland	4.4	2.5	6.5	9.9	1.9
	Italy	3.2	1.3	4.4	4.3	2.1
	Lithuania	6.1	5.3	11.3	7.8	2.9
	Luxembourg	4.9	2.3	7.1	3.7	2.6
	Netherlands	5.2	4.5	9.5	9.6	1.8
	Poland	5.8	3.6	9.2	7.3	4.2
	Portugal	5.8	4.4	10.0	7.6	3.0
	Romania	5.3	6.2	11.3	7.6	3.2
	Slovakia	6.7	4.4	10.9	7.8	5.2
	Slovenia	3.8	2.7	6.3	4.8	1.5
	Spain	3.3	2.2	5.5	7.0	1.9
	Sweden	4.9	1.9	6.7	6.5	2.1
	United Kingdom	6.3	4.5	10.7	6.5	1.9
	Average (unweighted)	4.8	3.2	7.8	6.7	2.6

Region and economies		Nascent entrepreneur-ship rate	New business ownership rate	Early-stage entrepreneurial activity (TEA)	Established business ownership rate	Discontinuation of businesses (% of TEA)
Non-European Union	Bosnia and Herzegovina	4.5	2.9	7.4	6.7	4.5
	Georgia	4.1	3.2	7.2	7.3	2.5
	Kosovo	2.5	1.8	4.0	2.1	6.6
	Norway	2.8	3.0	5.7	5.4	1.9
	Russia	2.4	2.4	4.7	3.9	1.2
	Switzerland	3.4	3.8	7.1	9.1	1.5
	Average (unweighted)	3.3	2.8	6.0	5.7	3.0
North America	Canada	7.9	5.6	13.0	9.4	4.2
	United States	9.7	4.3	13.8	6.9	4.0
	Average (unweighted)	8.8	4.9	13.4	8.2	4.1

FIGURE 2.4 TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY (TEA) IN THE GEM ECONOMIES IN 2014, BY PHASE OF ECONOMIC DEVELOPMENT



Note: vertical bars represent 95% confidence intervals for the point estimates of TEA.

Detailed information on individual attributes on each 2014 GEM economy by phase of economic development is presented in Appendix 1, Table A.3.

Entrepreneurial dynamics is the highest among 2014 GEM African economies and the lowest among European economies (both in EU and non-EU). A high discontinuance rate can be an indicator of the low level of preparedness of business ventures; at the same time, the low rate of discontinuance can be an indicator of the absence of the entrepreneurship ecosystem which supports a fast exit from the bad designed venture and a fast re-entering into new venturing process.

Early-stage entrepreneurial activity (TEA) correlates strongly with capabilities (skills)

Building on the analysis of social values towards entrepreneurship and individual attributes, it is obvious that linking any descriptor of entrepreneurship only to the level of economic development would be misleading. It holds also for indicators of entrepreneurial activity.

In order to show interlinked components needed for building entrepreneurial activity, measured by TEA, several correlations were calculated. Perceived opportunity and perceived capability (skills) are positively correlated with the level of TEA (Figures 2.5 and 2.6).

Fear of failure could influences entrepreneurial activity (TEA) negatively, but the correlation is not strong, as it is showed in Figure 2.7.

Strong correlation between perceived capability (skills) and TEA indicates how all forms of education (formal, informal, non-formal) are important in developing entrepreneurial competences.

FIGURE 2.5 CORRELATION OF PERCEIVED OPPORTUNITIES WITH THE LEVEL OF TEA, 2014

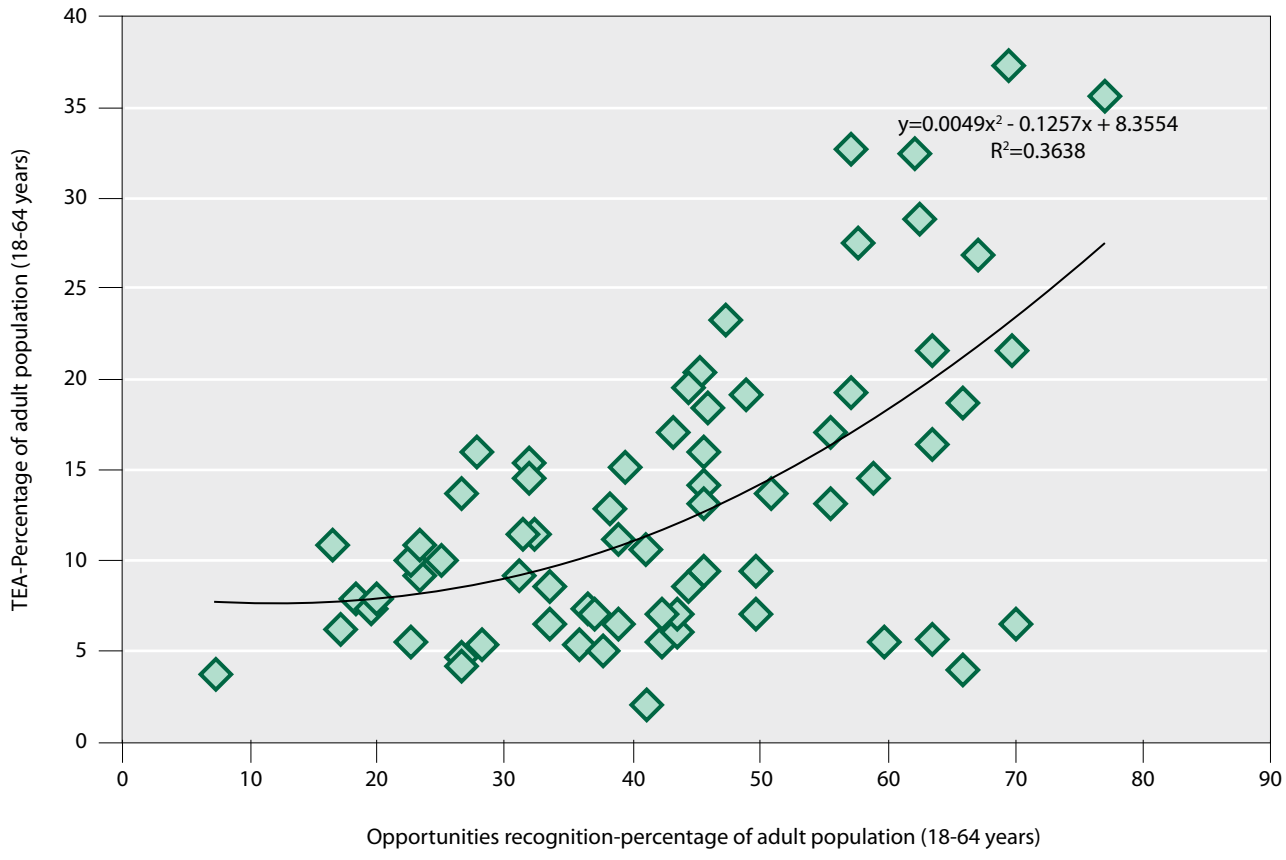


FIGURE 2.6 CORRELATION OF PERCEIVED CAPABILITY (SKILLS) WITH THE LEVEL OF TEA, 2014

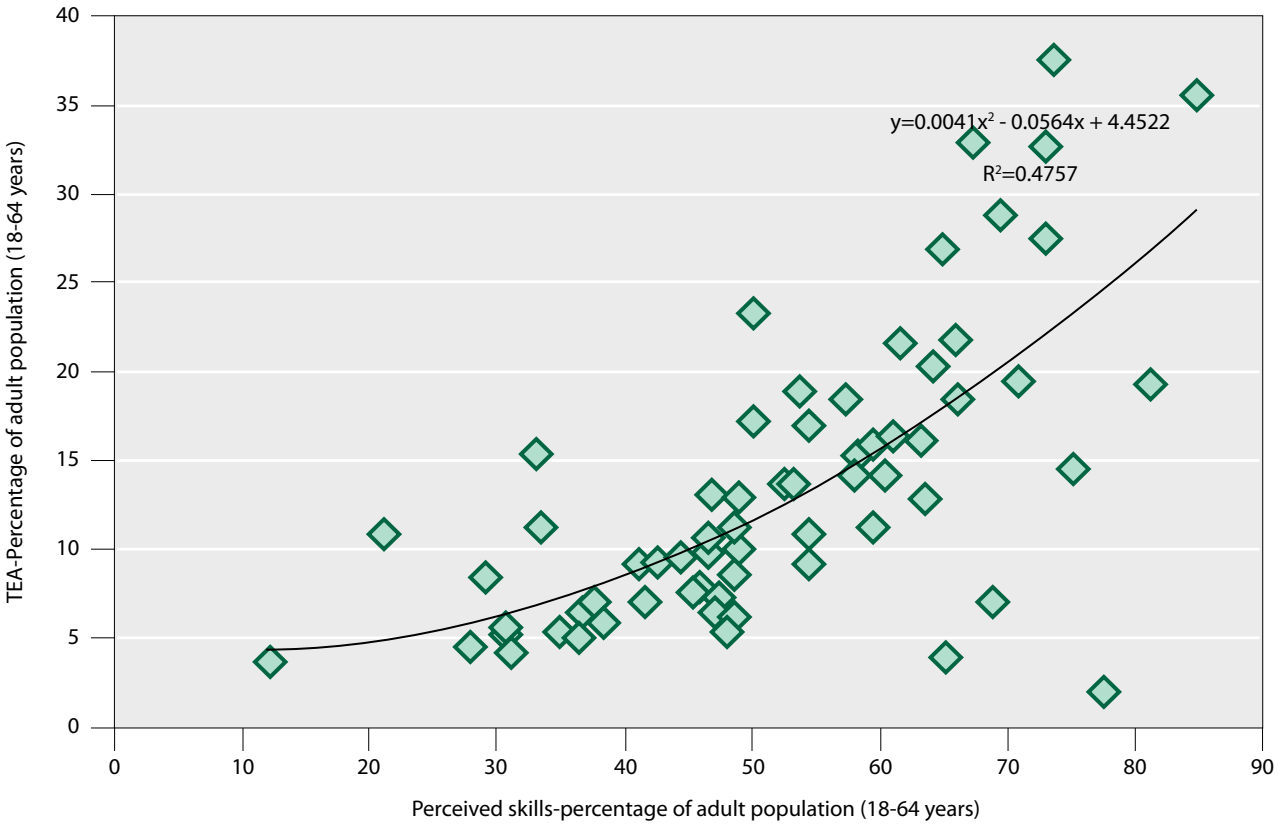
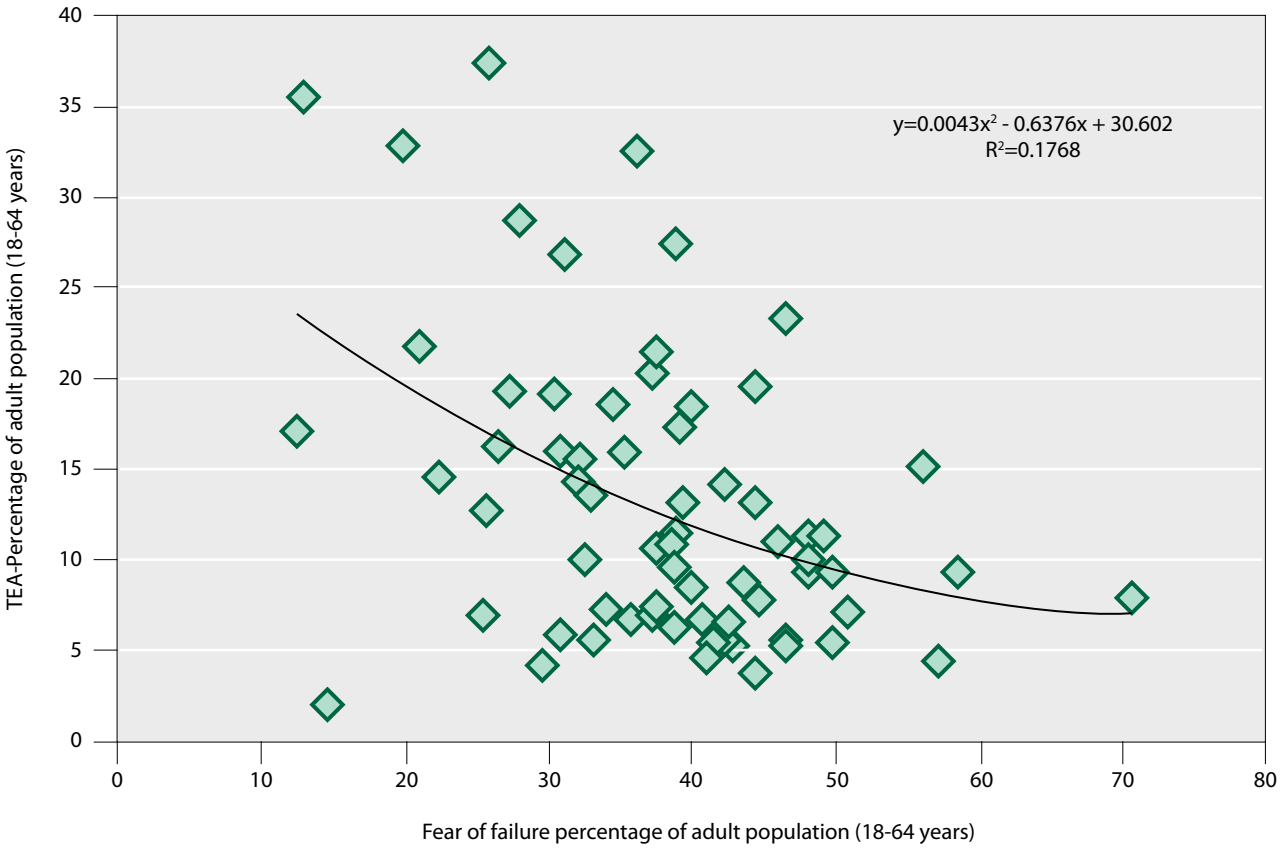


FIGURE 2.7 CORRELATION OF FEAR OF FAILURE WITH THE LEVEL OF TEA, 2014



Motivation for starting a business matters

The identification of differences among economies around the world as for social values, individual attributes and TEA can be better understood if the motivational aspect of starting businesses is included. The GEM Conceptual Framework introduced from the very beginning a differentiation between necessity-driven and opportunity-driven motives for entrepreneurial activity. A necessity-driven entrepreneur is an individual who indicates in the GEM Adult Population Survey that he/she started the business because there were no better options to obtain resources for living, rather than starting it as a result of the opportunity recognition. Those who indicated that their motive in starting the business was a recognized opportunity (rather than no other options for work) were additionally asked about the nature of the identified opportunity. Improvement-driven opportunity entrepreneurs are those who either started the business because they want to earn more money or to be more independent. Table 2.5 and Figure 2.8 present motivation differences in early-stage entrepreneurial activity in 2014, by regions and phases of economic development.

TABLE 2.5 MOTIVATION FOR EARLY-STAGE ENTREPRENEURIAL ACTIVITY IN THE GEM ECONOMIES IN 2014, BY REGION

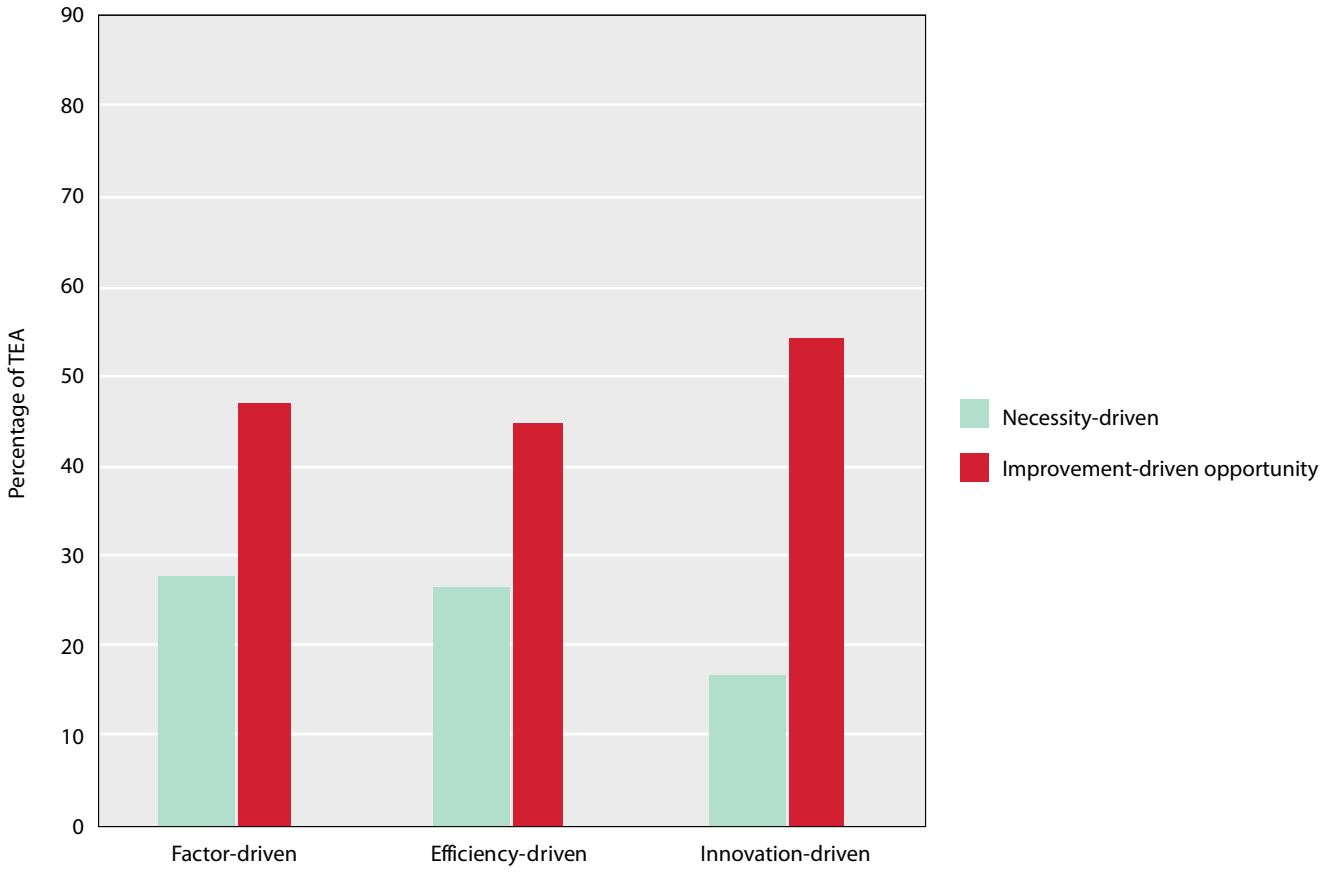
Region and economies		*Early-stage entrepreneurial activity (TEA) (% of adult population)*	*Necessity-driven (% of TEA)*	*Opportunity-driven (% of TEA)*	*Improvement-driven opportunity (% of TEA)*	*Motivational index**
Africa	**Angola**	21.5	24.5	72.1	43.4	1.8
	Botswana	32.8	30.3	67.2	54.7	1.8
	Burkina Faso	21.7	22.3	75.3	52.8	2.4
	Cameroon	37.4	33.5	59.2	40.5	1.2
	South Africa	7.0	28.2	71.3	35.5	1.3
	Uganda	35.5	18.9	80.8	54.3	2.9
	Average (unweighted)	26.0	26.3	71.0	46.9	1.8
Asia & Oceania	**Australia**	13.1	17.6	81.5	63.8	3.6
	China	15.5	33.2	65.7	45.4	1.4
	India	6.6	31.7	60.0	36.5	1.2
	Indonesia	14.2	20.5	78.6	38.0	1.9
	Iran	16.0	38.7	60.6	49.6	1.3
	Japan	3.8	18.8	76.2	68.2	3.6
	Kazakhstan	13.7	26.4	69.1	33.7	1.3
	Malaysia	5.9	17.5	82.5	64.0	3.7
	Philippines	18.4	29.4	70.5	33.5	1.1
	Qatar	16.4	21.5	77.1	54.4	2.5
	Singapore	11.0	11.4	84.3	70.8	6.2
	Taiwan	8.5	13.3	86.7	66.0	5.0
	Thailand	23.3	17.8	80.9	71.2	4.0
	Vietnam	15.3	29.7	70.3	53.3	1.8
	Average (unwighted)	13.0	23.4	74.6	53.5	2.3

Region and economies		Early-stage entrepreneurial activity (TEA) (% of adult population)	Necessity-driven (% of TEA)	Opportunity-driven (% of TEA)	Improvement-driven opportunity (% of TEA)	Motivational index*
Latin America & Caribbean	Argentina	14.4	28.0	67.8	43.5	1.6
	Barbados	12.7	14.6	73.8	53.1	3.7
	Belize	7.1	13.1	82.9	47.6	3.6
	Bolivia	27.4	22.8	76.7	51.7	2.3
	Brazil	17.2	29.0	70.6	57.8	2.0
	Chile	26.8	17.6	81.0	62.2	3.5
	Colombia	18.6	33.3	66.0	51.6	1.6
	Costa Rica	11.3	19.3	79.4	63.5	3.3
	Ecuador	32.6	29.4	70.1	35.0	1.2
	El Salvador	19.5	32.0	67.8	54.5	1.7
	Guatemala	20.4	40.6	59.2	38.9	1.0
	Jamaica	19.3	32.1	65.6	33.5	1.0
	Mexico	19.0	22.5	76.3	50.0	2.2
	Panama	17.1	26.3	73.1	60.2	2.3
	Peru	28.8	16.4	82.5	58.9	3.6
	Puerto Rico	10.0	20.5	79.1	51.1	2.5
	Suriname	2.1	5.4	73.2	39.8	7.3
	Trinidad & Tobago	14.6	12.0	86.5	64.3	5.4
	Uruguay	16.1	16.0	82.4	27.3	1.7
	Average (unweighted)	17.6	22.7	74.4	49.7	2.2
European Union	Austria	8.7	11.0	81.7	37.4	3.4
	Belgium	5.4	30.7	63.2	43.1	1.4
	Croatia	8.0	46.6	51.3	28.7	0.6
	Denmark	5.5	5.4	91.1	60.2	11.1
	Estonia	9.4	15.1	74.5	41.2	2.7
	Finland	5.6	15.6	81.1	63.1	4.0
	France	5.3	16.1	82.0	69.2	4.3
	Germany	5.3	23.2	75.8	53.7	2.3
	Greece	7.9	34.8	61.5	30.5	0.9
	Hungary	9.3	33.2	64.7	36.3	1.1
	Ireland	6.5	29.7	68.4	48.6	1.6
	Italy	4.4	13.6	78.4	38.6	2.8
	Lithuania	11.3	19.6	79.6	43.8	2.2
	Luxembourg	7.1	11.8	85.4	59.8	5.1
	Netherlands	9.5	15.7	80.4	62.8	4.0
	Poland	9.2	36.8	59.2	47.1	1.3
	Portugal	10.0	27.4	71.3	49.3	1.8
	Romania	11.4	28.9	70.1	49.8	1.7
	Slovakia	10.9	32.6	64.2	51.8	1.6
	Slovenia	6.3	25.5	71.4	44.8	1.8
	Spain	5.5	29.8	66.1	33.5	1.1
	Sweden	6.7	7.9	84.2	56.2	7.1
	United Kingdom	10.7	12.9	83.6	52.7	4.1
	Average (unweighted)	7.8	22.8	73.4	47.9	2.1

Region and economies		Early-stage entrepreneurial activity (TEA) (% of adult population)	Necessity-driven (% of TEA)	Opportunity-driven (% of TEA)	Improvement-driven opportunity (% of TEA)	Motivational index*
Non-European Union	Bosnia and Herzegovina	7.4	50.8	48.5	25.2	0.5
	Georgia	7.2	48.6	50.6	31.0	0.6
	Kosovo	4.0	22.0	59.9	29.1	1.3
	Norway	5.7	3.5	86.7	69.0	19.5
	Russia	4.7	39.0	58.7	41.6	1.1
	Switzerland	7.1	14.4	74.9	58.1	4.1
	Average (unweighted)	6.0	29.7	63.2	42.3	1.4
North America	Canada	13.0	15.7	76.3	63.3	4.0
	United States	13.8	13.5	81.5	66.9	5.0
	Average (unweighted)	13.4	14.6	78.9	65.1	4.5

* Ratio between improvement-driven opportunity and necessity-driven entrepreneurs.

FIGURE 2.8 PERCENTAGE OF ENTREPRENEURS MOTIVATED BY NECESSITY AND IMPROVEMENT-DRIVEN OPPORTUNITY IN 2014, BY PHASE OF ECONOMIC DEVELOPMENT



Detailed information on motivation for early-stage entrepreneurial activity, by economies and by phase of economic development, is shown in Appendix A.4.

Full employment should be the utmost goal of any economy that cares about the well-being of their citizens. To this respect, it does not matter if someone started a business because of necessity or a recognized opportunity. However, for many other reasons (like expectations about the venture, temporary solution or long-term investment) motivation matters.

Motivational index, as a ratio between necessity-driven entrepreneurs and improvement-driven entrepreneurs, contributes to better understand the entrepreneurial capacity of a country. A high motivational index indicates a high share of improvement-driven entrepreneurs that brings more long-term and ambitious expectations related to the venture.

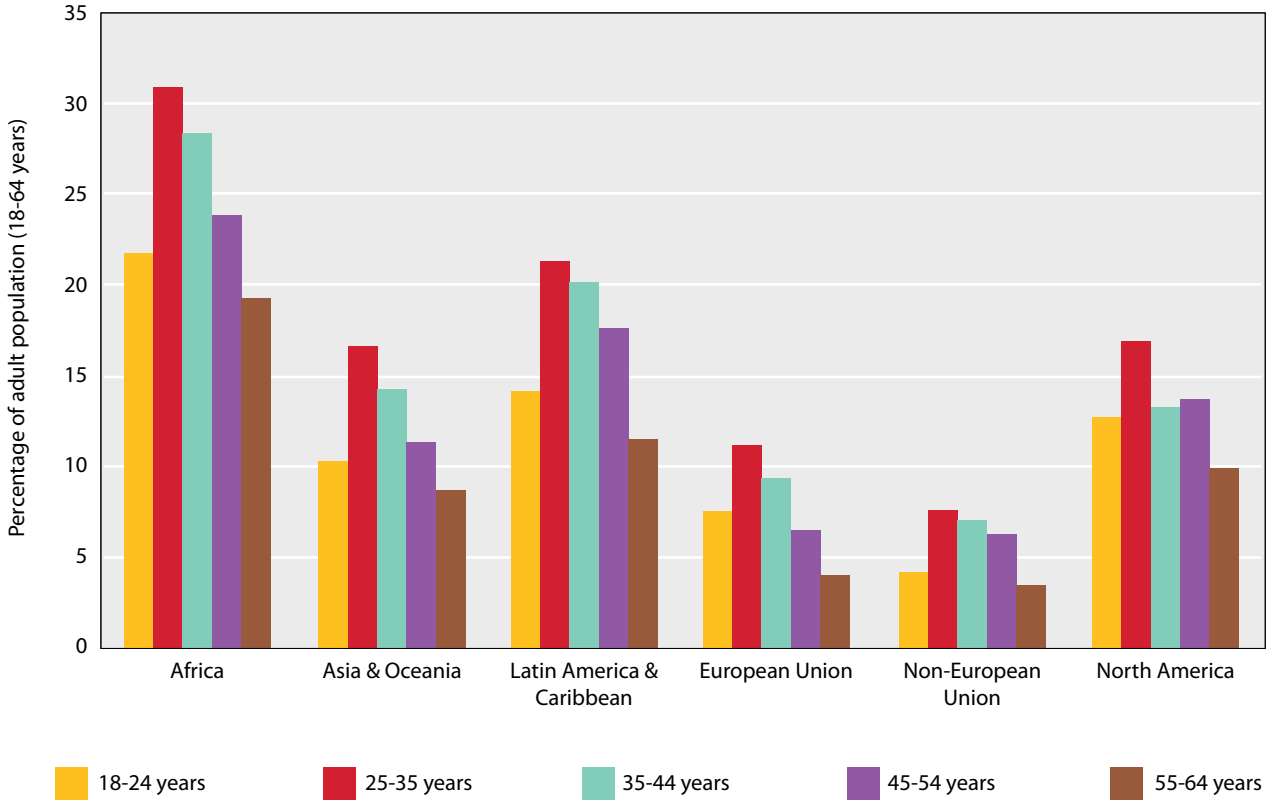
The lowest motivational index is observed in non-EU countries (despite the high motivational index in Norway and Switzerland) and in GEM African economies. The highest motivational index is presented in North America. Motivational index below 1 warns that the majority of early-stage entrepreneurs started their business out of necessity, which derives also as a result of the economic situation in such economies (Croatia 0.64, Greece 0.88).

How much is early-stage entrepreneurial activity inclusive?

Age and early-stage entrepreneurial activity

Being entrepreneurial is not exclusive of a specific age group, which has been confirmed by many specialized research works (Lévesque and Minniti, 2006; Isele and Rogoff, 2014). Due to many reasons (lack of resources among younger persons, lack of regulatory conditions for entrepreneurial activity of 60+), some age groups are less presented in early-stage entrepreneurial activity (Figure 2.9), which is a complex policy issue (involving many aspects of entrepreneurial framework conditions, like access to finance, taxation policy, retirement policy, etc.).

FIGURE 2.9 EARLY-STAGE ENTREPRENEURIAL ACTIVITY RATES (TEA) WITHIN AGE GROUPS IN 2014, BY GEOGRAPHIC REGIONS



Across the world, the most dynamic individuals in early-stage entrepreneurial activity are in the age group of 25-35 years. The most balanced participation is in the North American economies. Due to the extremely high unemployment rate of young people in many economies (e.g., during 2013, in Bosnia and Herzegovina 60.4%, Greece 57%, Spain 54.9%, Croatia 48.7% and Italy 43%)[2], it is not anymore only an economic problem, but a social and political one that demands the highest priority to be solved. In many economies, the long-term high unemployment among the young people is generating a chain of interlinked demographic, economic and political changes whose consequences will have an impact for a long time if policy measures are not taken.

Since identifying unemployment among the young is a crucial social, economic and political issue, in 2013 the Canadian IDRC (International Development Research Centre) supported the GEM's survey in Africa focusing on perceptions of youth about making entrepreneurship a career choice. The main goal of this joint effort was to help governments design an appropriate entrepreneurship ecosystem in order to lead to a more intensive involvement of young people in entrepreneurial activities (Exhibit 2.1).

EXHIBIT 2.1

The report *Fostering Sustainable Livelihoods in Youth Entrepreneurship* is authored by Jacqui Kew, Rebecca Namatovu, Francis Chigunta and Rilwan Aderinto; it will be published by April 2015.

Short description: In large portions of Africa, the youth employment challenge is as much a problem of poor employment quality as one of unemployment. Moreover, young people are more likely to be among the working poor* than adults. It is common for youth to begin their working lives engaged in family businesses (likely to be an informal enterprise), and very few of them make the transition to paid employment in the formal sector.

Unfortunately, it is unlikely that the formal and public sectors will offer work opportunities to the increasing number of young people looking for employment (Schoof, 2006). Therefore alternative employment options that are more productive and can lead to sustainable livelihoods are needed to counter the increasing number of unemployed, underemployed youths and youth in vulnerable employment.

Entrepreneurship is acknowledged as a driver of sustainable economic growth as entrepreneurs create new businesses, drive and shape innovation, speed up structural changes in the economy, and introduce new competition—thereby contributing to productivity. Entrepreneurship can drive job creation and contribute to economic growth that is inclusive and reduces poverty. With young people being disproportionately affected by unemployment, policy makers and governments throughout Africa are ensuring that inhabitants have access to sustainable livelihoods. It is imperative that the youth become active participants' in the future economic activity of sub-Saharan Africa.

With the generous funding of the International Development Research Council (IDRC) research into youth and entrepreneurship in sub-Saharan Africa has been done. The research has been conducted in the following countries: Angola, Botswana, Ghana, Malawi, Namibia, Nigeria, South Africa, Uganda and Zambia. In this project, Youth is defined as people between the ages of 18-34 years.

This will be the first in-depth report on youth entrepreneurship in Africa. It will provide a regional understanding of youth in sub-Saharan Africa, by exposing their entrepreneurial attitudes and whether they lead them to become active entrepreneurs. It will further examine the factors influencing/inhibiting the entrepreneurial activity of this group and provide insights on the growth potential of youth enterprises in the region.

GEM measures societal attitudes of entrepreneurship by establishing whether individuals believe that starting a business is considered a good career choice, their opinion relating to the association of entrepreneurship with high status and their awareness of positive media attention with respect to entrepreneurship. On average, individuals in Sub-Saharan Africa countries (all belonging to factor-driven economies except South Africa and Namibia) have higher positive attitudes towards entrepreneurship than other geographic regions covered by GEM. Individuals in sub-Saharan Africa, excluding South Africa, generally have high perceptions about the presence of good opportunities for starting a business in the country and believe that they have the skills and knowledge necessary to start a business. It is important to note that, since most of sub-Saharan

* Working poor are those who earn less than USD 2 per day- *Africa's Job Challenge, DRPU, University of Cape Town.*

[2] *http://data.worldbank.org/indicator/SL.UEM.1524.ZS* and *http://ec.europa.eu/eurostat/statistics-explained/index.php/Unemployment_statistics.*

EXHIBIT 2.1 (Cont.)

Africa is comprised of factor-driven economies, the type of businesses in which they would commonly engage in differs from businesses commonly engaged in more developed economies.

Uganda recorded the highest youth entrepreneurial propensity with 55.4% followed by Malawi (52.3%) and Namibia (44.1%). South Africa had the lowest youth entrepreneurial propensity of only 23.3%. Among the sub-Sahara African countries surveyed, Uganda recorded the highest youth entrepreneurs with 55.6% of the youth population involved in nascent, new or established businesses. Uganda is followed by Zambia (53.4%) and Nigeria (52.7%). In Angola, 26.5% of the youth were entrepreneurs; in Botswana, there were 21.6%; Ghana, 40.6%; Malawi, 37.9% and Namibia, 32.9%. South Africa had the lowest youth entrepreneurship participation of only 12.8%. At least 60% of youth population in all countries except South Africa showed entrepreneurial propensity or were currently actively pursuing an entrepreneurial opportunity. Non-entrepreneurial youths are youths without propensity to become entrepreneurs and with no involvement in an entrepreneurial activity. South Africa recorded the highest level non-entrepreneurial youth with 63.9% of the youth population who were non-entrepreneurs. In Angola, 35.7% of youth were non-entrepreneurs; while 10% or less of youth population in Zambia, Malawi and Uganda were non-entrepreneurs.

A lot of the entrepreneurial activity in sub-Saharan Africa is currently concentrated in over-traded sectors such as retail. On average, the level of employment generated per entrepreneur in sub-Saharan Africa is very low. In Malawi (81.5%), Ghana (59.1%) and Uganda (58.8%) the impact entrepreneurs have on job creation is minimal, with the majority of enterprises being own account ventures. However, countries such as Angola (6.1%), South Africa (4.5%) and Namibia (3.1%) have a small pool of entrepreneurs that are currently offering employment to 20 or more employees.

The general level of innovation tends to be low with many entrepreneurs indicating that none of their customers would consider their products and services to be new and that there were many competitors selling similar products and services. With respect to entrepreneurial activity, the issue in much of sub-Saharan Africa seems to be less about developing entrepreneurial activity 79% self-employed but recognizing that much of the current entrepreneurial activity within the region is not leading to sustainable livelihoods.

In addition to the standard GEM measures, this report will provide an understanding of the nature of youth businesses, location challenges/advantages, internet usage and business use of technology. It will also review environmental issues like the available financing options, business support initiatives, the role of family and friends and the available Youth Entrepreneurship programmes.

References:

Bhorat, H. and Naidoo, K. (2013), *Africa's Job Challenge*, DRPU, University of Cape Town.

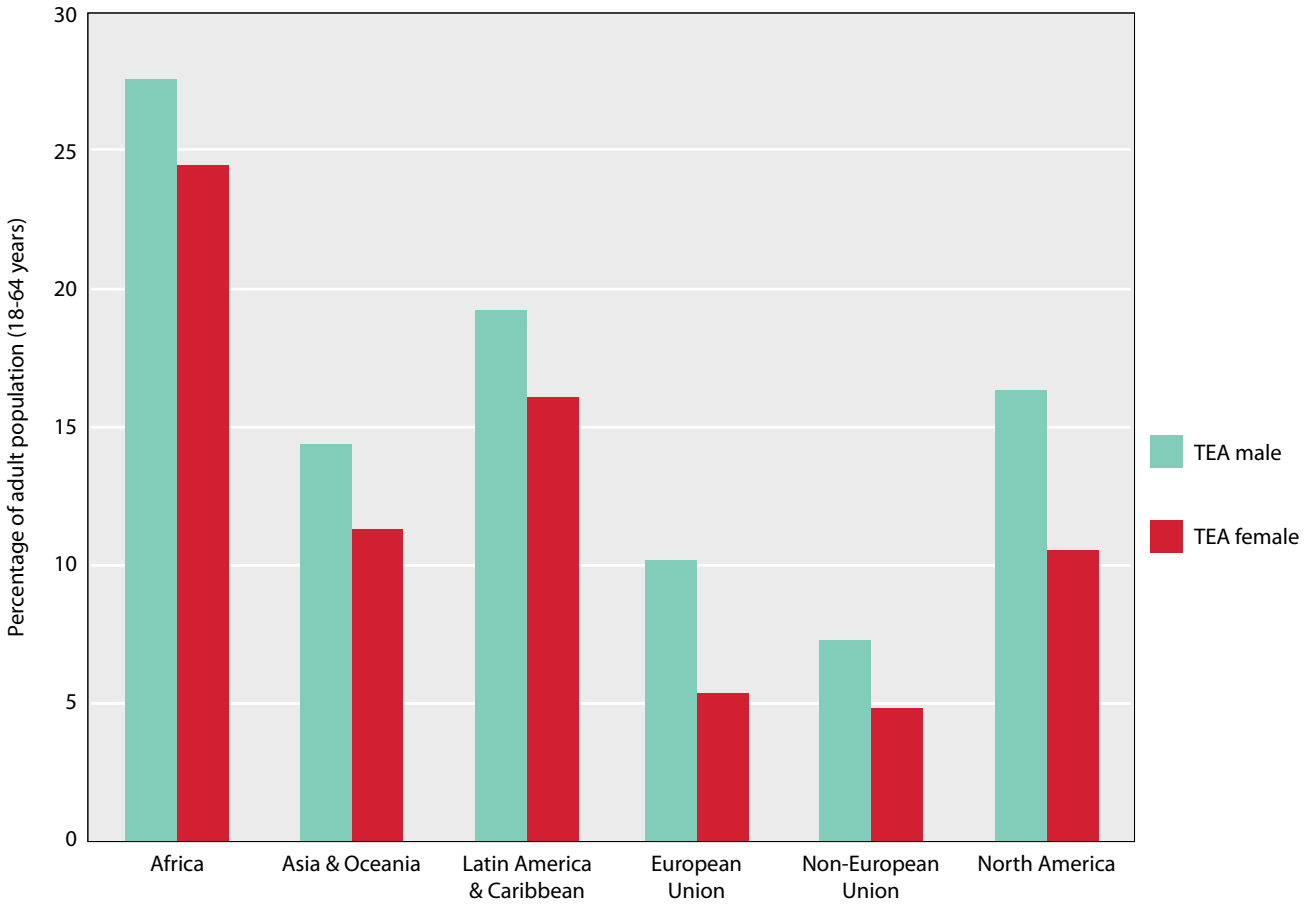
Schoof, U. (2006), *Stimulating Youth Entrepreneurship: Barriers and incentives to enterprise start-ups by young people,* SEED Working Paper, No. 76, ILO, Geneva.

Gender aspect of early-stage entrepreneurial activity

GEM surveys (including GEM special reports on women) consistently confirm that early-stage entrepreneurial activity is gender sensitive, due to combination of cultural, societal and economic reasons. Early-stage entrepreneurial activity is dominated by men (Figure 2.10), but as previous surveys showed, there are no differences in individual attributes, like perceived opportunities and perceived capabilities. Only in expressing fear of failure there is a slightly higher presence of women than men's. Different pattern emerges when comparing motives for early-stage entrepreneurial activity: across the regions, women start a business venture more often out of necessity than men (Table A.5 in Appendix). There is a group of countries (UK, India, Iran and Italy) showing the opposite pattern, where there are relatively more men who started their businesses out of necessity. Additionally, there are also countries (Australia, Austria, Denmark, Kazakhstan, Luxembourg, Netherlands, Singapore, South Africa and Thailand) with quite balanced share of necessity-driven early-stage entrepreneurial activity. One country stands out for the balanced, but very high level of necessity-driven entrepreneurs regardless of gender—in Croatia there are 46.3% men and 47.2% women who started their businesses out of necessity. Two countries have the widest gender span—Chile, with 27.1% women necessity-driven entrepreneurs vs. 9.9% men, and Burkina Faso, with 32.9% women vs. 12.7% men.

All those findings call for more consistent long-term interlinked policy measures in order to build a culture of inclusiveness (especially in the field of education), parallel to building an institutional framework and supply of services that help women fulfill their entrepreneurial goals (from access to finance to the provision of services that help families care about children and elderly family members).

FIGURE 2.10 MALE AND FEMALE EARLY-STAGE ENTREPRENEURIAL ACTIVITY (TEA) IN 2014, BY GEOGRAPHIC REGIONS

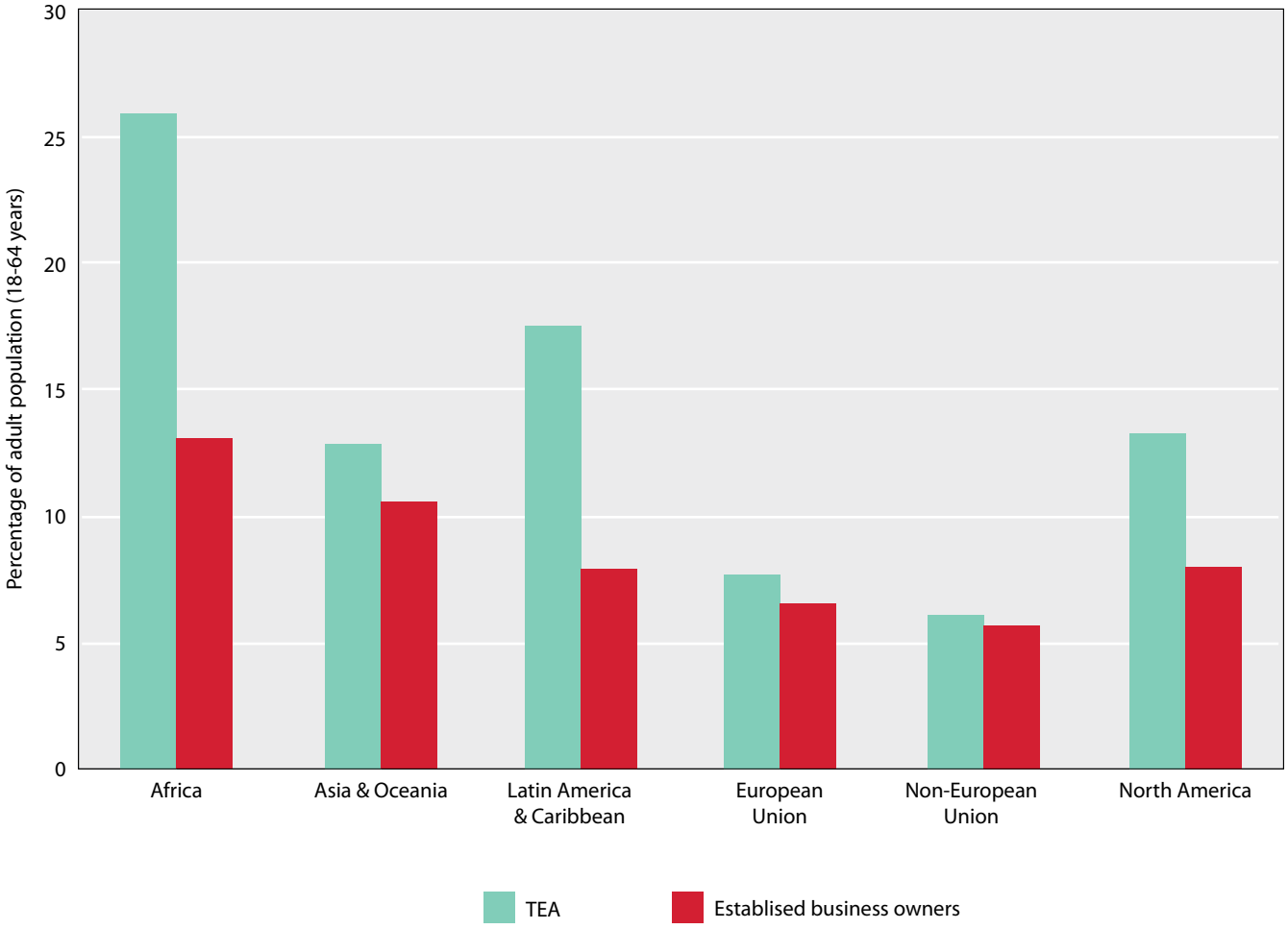


Established business ownership

Established businesses are the core of the economic canvas of any country. The balanced dynamics of entering early-stage entrepreneurial activity and successful transition toward established businesses should be one of the key concerns of any government and other stakeholders responsible for the well-being of their citizens. In order to provide a stable economic structure, the rate of early-stage entrepreneurial activity should always be higher than the rate of established business ownership (because of the discontinuance rate). Table 2.4 presents comparison of TEA rates and established business ownership rates, by economies, and Figure 2.11 presents this comparison by regions.

European Union economies have quite low dynamics in their economic systems: rate of early-stage entrepreneurial activity (TEA) of 7.82% is very close to the rate of established business ownership rate of 6.68%. This low dynamics can be explained also by the presence of a more efficient entrepreneurship ecosystem (education, R&D transfer, access to finance, friendly regulatory framework) supporting new entrants in business activity. The fact that EU is still struggling with many downfalls resulted from the years-long recession warns that the thin basis of early-stage entrepreneurial activity is jeopardizing economic canvas of many EU economies. Economic situation in Greece and Spain supports such a statement, because those countries have lower level of TEA as compared to their level of established business ownership rates (Greece: 7.85 TEA vs. 12.84 EB; Spain: 5.47 TEA vs. 7.28 EB).

FIGURE 2.11 TEA AND ESTABLISHED BUSINESS OWNERS IN 2014, BY GEOGRAPHIC REGIONS



Business discontinuations

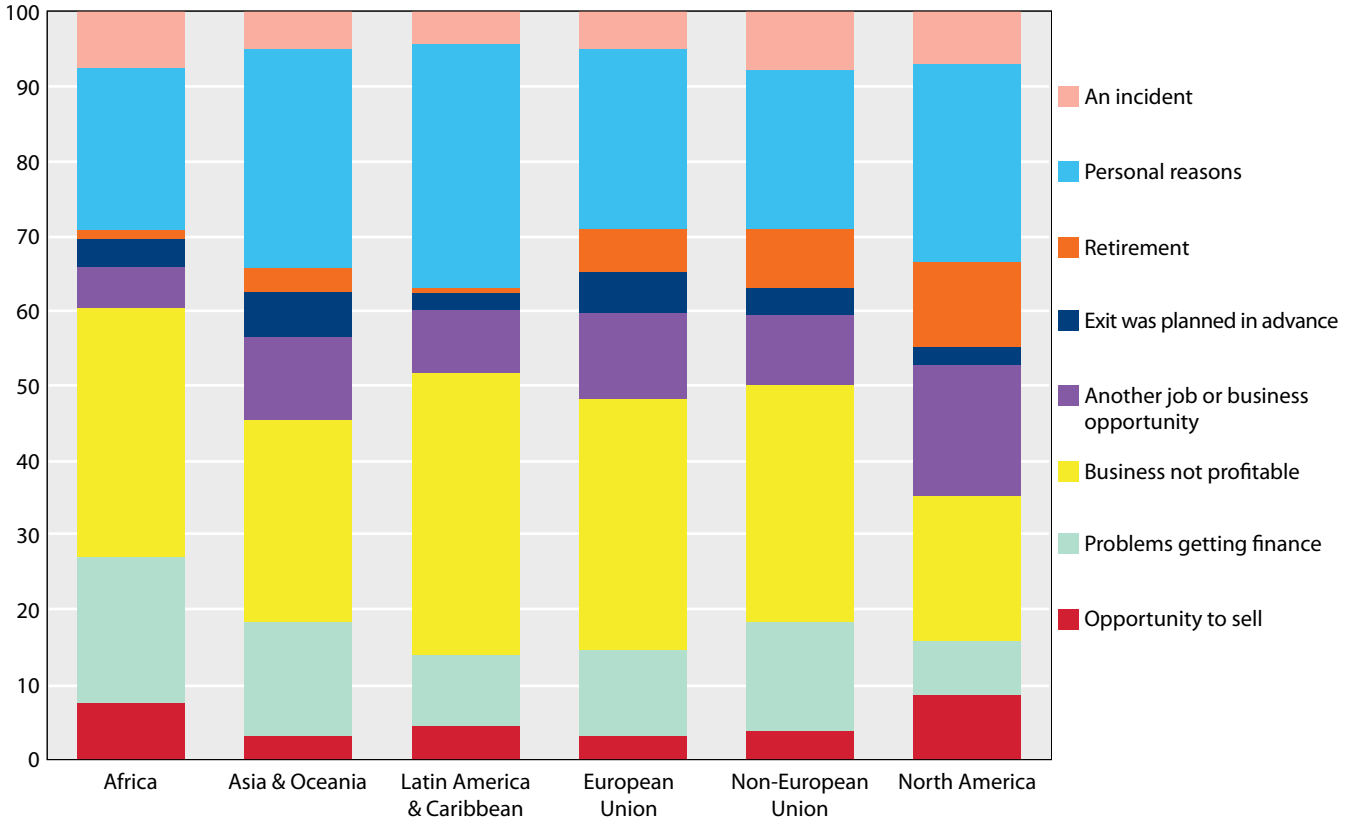
An outstanding part of the business dynamics is when the businesses discontinue their operations, for many different reasons (as planned in advance, bad financial results, unexpected events, etc.). Table 2.4 provides insights into business discontinuations rates, by economies, based on collected information from GEM Adult Population Survey. This rate measures the number of individuals who have discontinued a business during the last 12 months.

A too high intensity of discontinuations might point out potential reasons, e.g. starting a business venture which is not well prepared, bad management of the venture, or extremely strong influences of market distortions—in any case, this is an indicator of wasted resources. On the contrary, too low intensity of business discontinuations might also be an indicator of low dynamics of the economic system, which is preserving a non-efficient business structure (for instance, the reason could be an inefficient judicial system). The rate of business discontinuation is usually higher in less developed economies and it declines as economic development increases, although it is not always the case—North American economies have higher rate of discontinuation than GEM European economies (both EU and non-EU, whose majority of economies belong to the highest level of development, as are North American economies). To maintain the economic canvas in healthy conditions, it is necessary to have some degree of intensity of "draft" to get rid of inefficient business ventures faster and be able to re-enter entrepreneurship activities. In order to get a better insight into business dynamics, business discontinuation rate should be analyzed jointly with the early-stage entrepreneurial activity (TEA) and the established business ownership rate.

GEM also tracks reasons why business owners discontinue their ventures, by asking those who discontinued their businesses during the last 12 months about the main reason for doing so. Figure 2.12 displays such reasons by geographic regions.

As in previous years, the dominant reason for discontinuation of the venture is that the business is not profitable (except in North American economies, where personal reasons are on the first place and non-profitability on the second one). Personal reasons are on the second place in all other regions. Lack of finances is on the third place, but at much less intensity in North American than in the rest of the world. This

FIGURE 2.12 REASONS FOR BUSINESS DISCONTINUANCE IN 2014, BY GEOGRAPHIC REGIONS



problem is very present in African economies. Another job or business opportunity as a reason for discontinuation is mostly present in North American economies, the least in African economies. Striking information is that in advance planned exit is the last or next to last reasons for discontinuation of business (North American economies have the lowest number of respondents who opted for this reason).

These findings should be contextualized by each GEM economy and then be used to analyze prevailing business models, as well as input information to intervene in national entrepreneurship ecosystems.

Ambitious entrepreneurial activities

Through its conceptual framework and surveying tool, GEM captures ambitious entrepreneurial activities. Starting an own business venture is a very important component to build economic structure in any economy; but without growing businesses, goals of full employment and wealth creation cannot be achieved. Growing businesses are a minority in all economies by number, but they are major provider of new jobs (Bravo-Biosca et al., 2013)[3]. Despite it, growing businesses—except in rare cases, like in Ireland—do not attract enough attention among policy makers, who usually struggle with designing appropriate policies for this specific group of businesses. GEM surveys profile ambitious early-stage entrepreneurs as those with aspirations to increase number of employed, to innovate (product or process) and to internationalize.

Ambitious early-stage entrepreneurs: job creation

By asking early-stage entrepreneurs how many employees (other than the owners) they currently have and how many they expect to hire in the next five years, GEM collects information on expectations for job creation. The variations in expectations usually reflect the variations in the created jobs across countries (Stam et al., 2012).

Figure 2.13 shows job expectation as percentage of early-stage entrepreneurs (TEA) by geographic regions and results for all 2014 GEM economies are presented in Appendix, Table A.6. Growth levels are identified in the time span of 5 years, as low (expected 0-5 new employees), medium (6-19 employees) or high (20+ new employees).

[3] For example, in UK and Norway high-growth firms account only for 6.4% and 3.2% of all surviving firms with ten or more employees, respectively, but they account for 64% of all jobs created by those firms in UK and 40% in Norway.

FIGURE 2.13 JOB EXPECTATIONS FOR EARLY-STAGE ENTREPRENEURS IN 2014, BY GEOGRAPHIC REGIONS (AS % OF TEA)

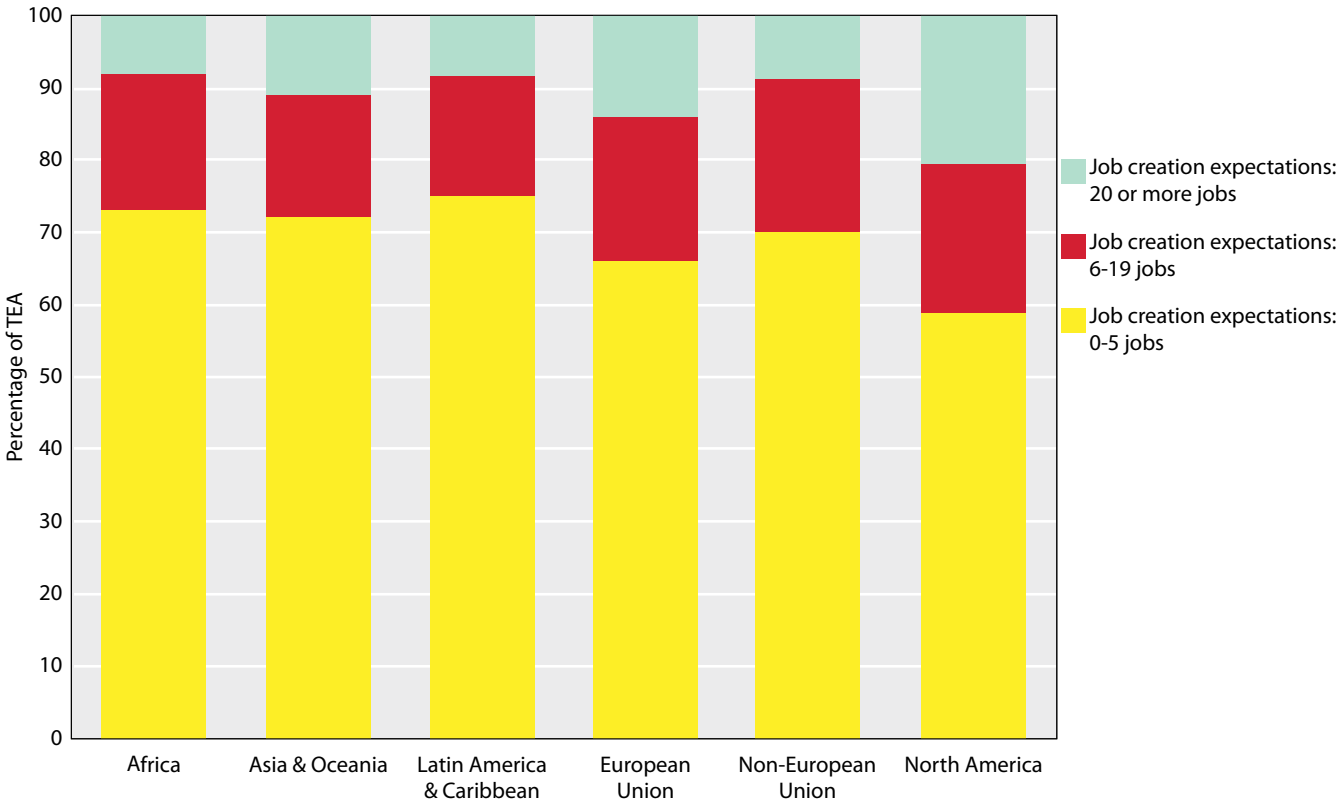


FIGURE 2.14 INNOVATIVE ORIENTATION OF EARLY-STAGE ENTREPRENEURS (TEA) IN 2014, BY GEOGRAPHIC REGIONS (AS % OF TEA)

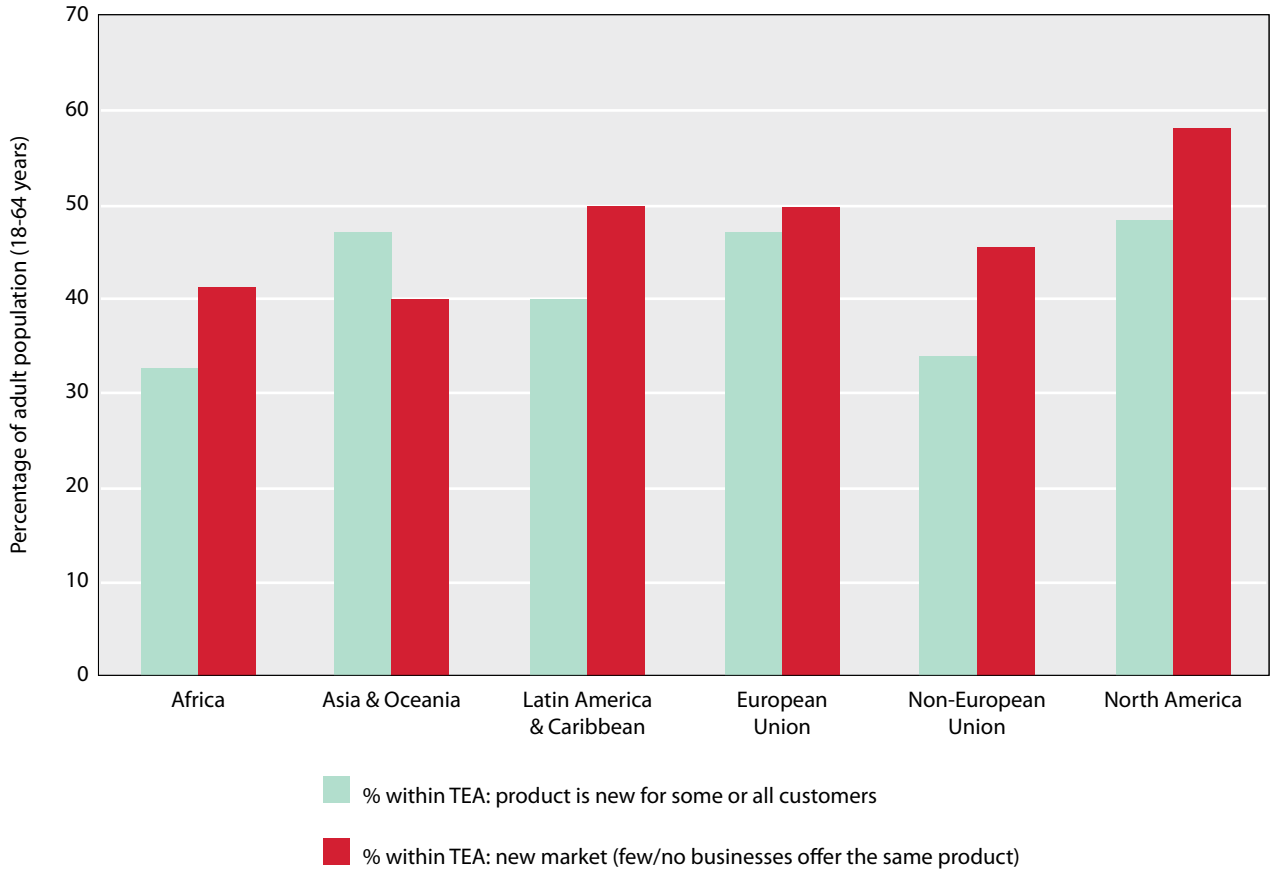


FIGURE 2.15 INTERNATIONAL ORIENTATION OF EARLY-STAGE ENTREPRENEURS IN 2014, BY GEOGRAPHIC REGIONS (AS % OF TEA)

North America stands out with optimistic expectations of high growth. The lowest expectations are observed among the European economies, especially in those with the highest unemployment rates. In Italy only 0.23%, in Spain 4.4% and in Greece 3.2% early-stage entrepreneurs expect to have high creation of new jobs. On other side, there are economies with almost full employment where low expectations for growth of jobs are connected with the lack of skilled labor force (for instance Thailand or Luxembourg).

Innovative orientation

GEM looks at innovative orientation of early-stage entrepreneurs through two lenses (product/market): how much an entrepreneur's product/service is new to all or some customers and if few or no other businesses offer the same product/service. This measure of innovative orientation is quite a context-dependent measure, because despite globalization, internal market in many economies can recognize some products/services as new one, which already exists on some other markets.

Figure 2.14 presents the percentage of early-stage entrepreneurs (TEA) with innovative orientations, measured by:

- The percentage of TEA that declare to have a product/ service which is new for all or some of their customers.
- The percentage of TEA that declare to be new on the market with few or not other businesses offering the same product/ service.

North American economies are more innovation-oriented than the rest of the world on both criteria, despite they enjoy own big markets, with higher purchasing power than many other regions. Asia & Oceania are showing a different pattern, high product innovation, but less orientation to new markets due to their own huge markets. Africa is low in both measures, except South Africa. There are countries which are trying to develop both aspects of innovation capacity—a good example is Chile, with very high share of early-stage entrepreneurs saying that they have a product/ service which is new to all or some of their customers (89%), and at the same time 59% of them also say that they sell on the market where they have only few competitors.

International orientation

Every economy, big or small, is inevitably a part of the global economy. Therefore, it is relevant to track how internationalization contributes to the growth of businesses. GEM is using a categorization of four levels of intensity in internationalization measured by the share of customers living outside of the early-stage entrepreneur's country. Figure 2.15 shows the intensity of internationalization, by geographic regions.

African economies involved in the GEM survey have the least intensive internationalization (almost 70% of early-stage entrepreneurs do not have a customer outside their respective countries). The exception is South Africa with 26% of early-stage entrepreneurs having more than 25% customers abroad. The highest level of internationalization (more than 25% of customers abroad) is observed among early-stage entrepreneurs in EU economies. Several EU economies are leading in internationalization, all of them small countries: Luxembourg 42% businesses, Croatia 38%, Belgium 33%, Estonia 24%. The same holds for non-EU economies, where Kosovo is leading with 33% of early-stage entrepreneurs selling abroad, followed by Switzerland with 31% of entrepreneurs intensively exporting. Small countries as Suriname, Singapore or Barbados are also examples of high intensity of internationalization.

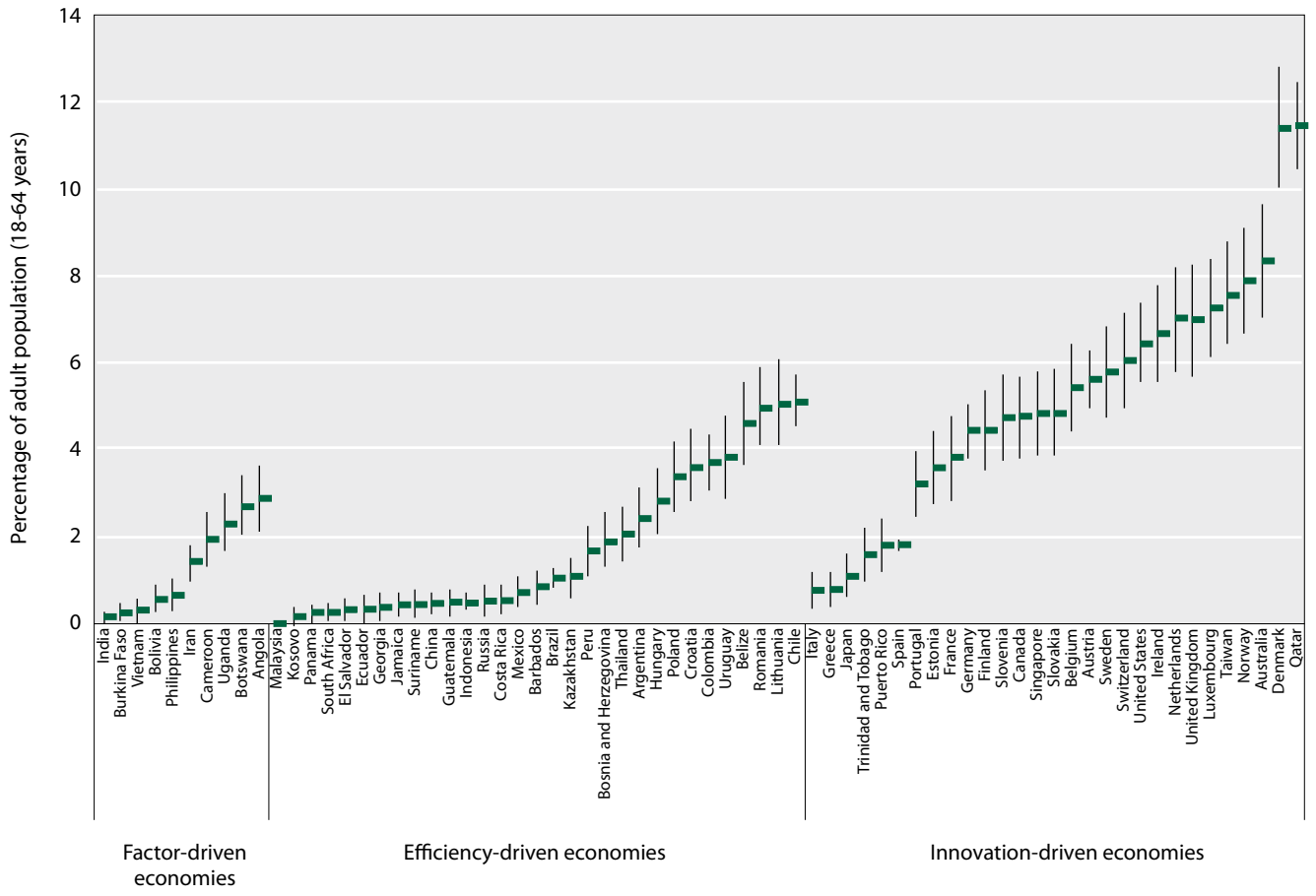
Entrepreneurial employee activities

The broadest and best-known definition that "entrepreneurship is the process by which individuals pursue opportunities without regard to the resources they currently control" (Gartner and Baker, 2010) is the basis to look for entrepreneurial behavior everywhere. Such definition bridges usual division between "independent entrepreneurship" and "entrepreneurship within and existing organization".

Since its inception, GEM focuses on "independent entrepreneurship" from nascent to start-up phase of business venture. In 2011, the first survey of **entrepreneurial activity of employees** confirmed that besides early-stage entrepreneurial activity, there is also entrepreneurial activity performed by proactive, innovative and responsible employees (Bosma et al., 2013).

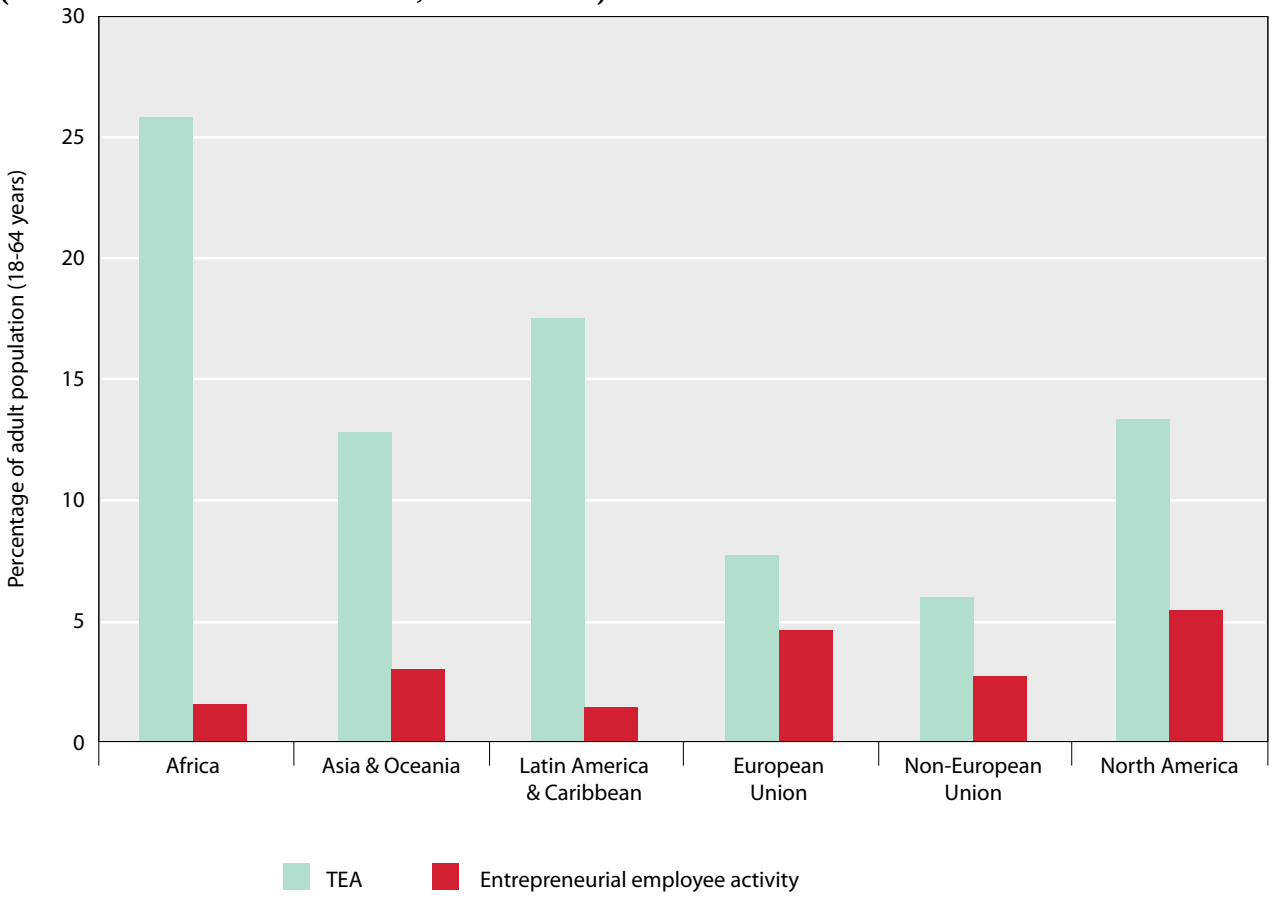
GEM operationalizes entrepreneurial employee activity as a situation in which employees develop new products/services, or set up a new business entity, but not—for instance—work on optimizing internal operations of a firm. Respondents participating in the GEM survey were asked if they, in the past three years, were actively involved in and had a leading role in either idea development for a new activity or in preparation and implementation of a new activity. GEM collects data for measuring intensity of entrepreneurial employee activity. The results of 2014 survey are presented in Figure 2.16.

FIGURE 2.16 ENTREPRENEURIAL EMPLOYEE ACTIVITY (EEA) IN 2014, BY PHASE OF ECONOMIC DEVELOPMENT (AS % OF ADULT POPULATION 18-64 YEARS)



The confidence intervals constitute the range within which the average value of 95 out of 100 replications of the survey would be expected to lie.

FIGURE 2.17 COMPARISON OF PRESENCE OF TEA AND EEA IN 2014, BY GEOGRAPHIC REGIONS (AS % OF ADULT POPULATION, 18-64 YEARS)



The measure of entrepreneurial employee activity (EEA) is increasing along the development stages, higher in innovation-driven economies, the lowest in factor-driven economies.

Entrepreneurial employee activity is much scarcer than TEA across the world, with Africa and Latin America and Caribbean presenting the highest difference (Figure 2.17). North America and EU economies have the highest incidence of entrepreneurial employee activity, which confirms the presence of more entrepreneurial culture (proactive, innovative) in their business sectors.

Two important features emerge from the analysis of TEA and EEA in relation with the level of economic development (GDP per capita, ppp):

- TEA rate is decreasing along the development phases—in innovation-driven economies, TEA rate is the lowest (Figure 2.18); exceptions are the U.S.A. and Singapore.
- EEA rate is increasing along the development phases—in innovation-driven economies, EEA rate is the highest (Figure 2.19).

These features confirm that the entrepreneurial activity can be carried out in different forms, and in order to evaluate the level of entrepreneurial capacity of an economy, it is necessary to combine both indicators (TEA and EEA). By combining TEA and EEA, it is possible to cover entrepreneurial behavior of two major segments of business sector (owners and employees). It opens the new calls not only toward the stakeholders responsible of entrepreneurship framework conditions, but to business associations and directly to business sectors in order to build a new business culture based on infusion of innovativeness and pro-activeness at all organizational levels.

FIGURE 2.18 TEA RATE AND GDP PER CAPITA, 2014

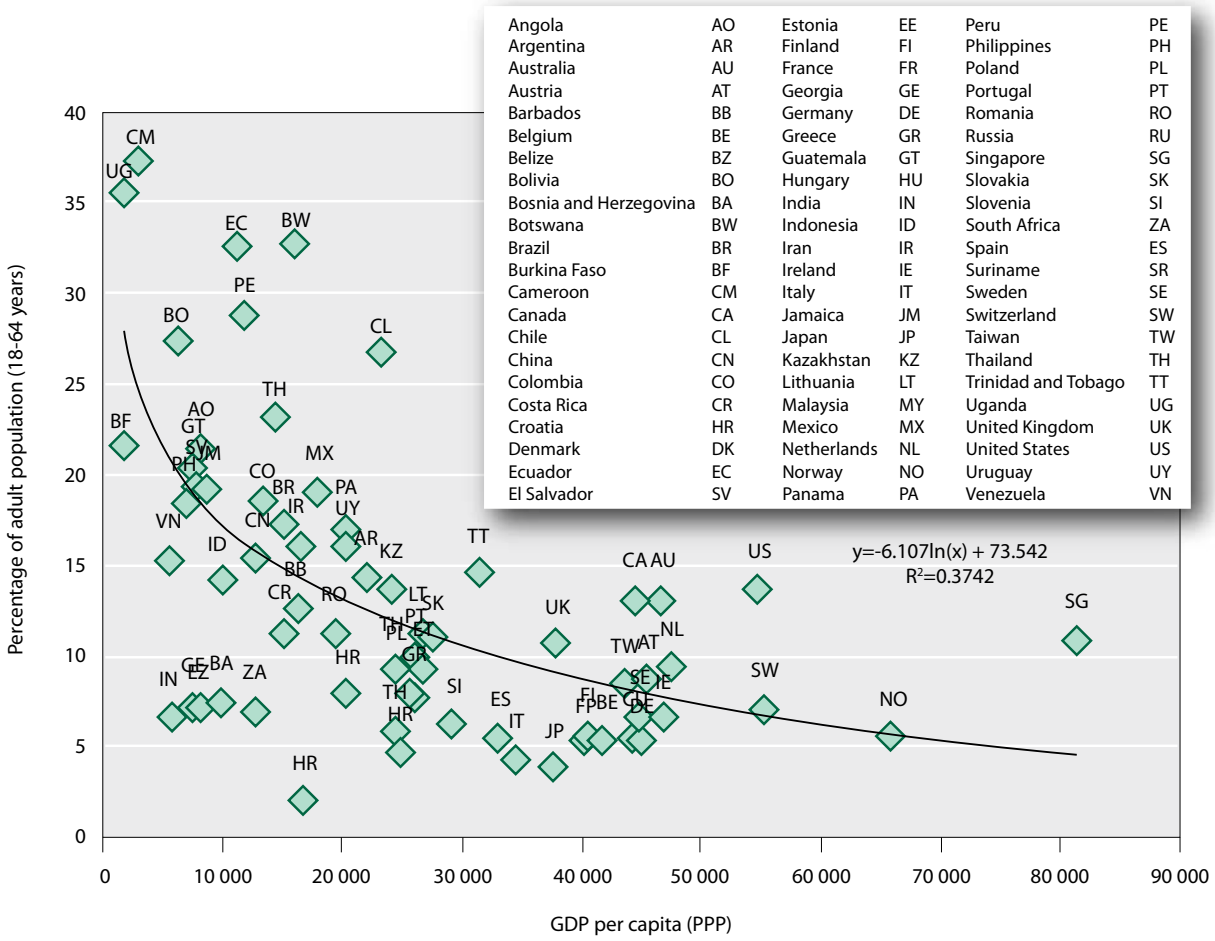
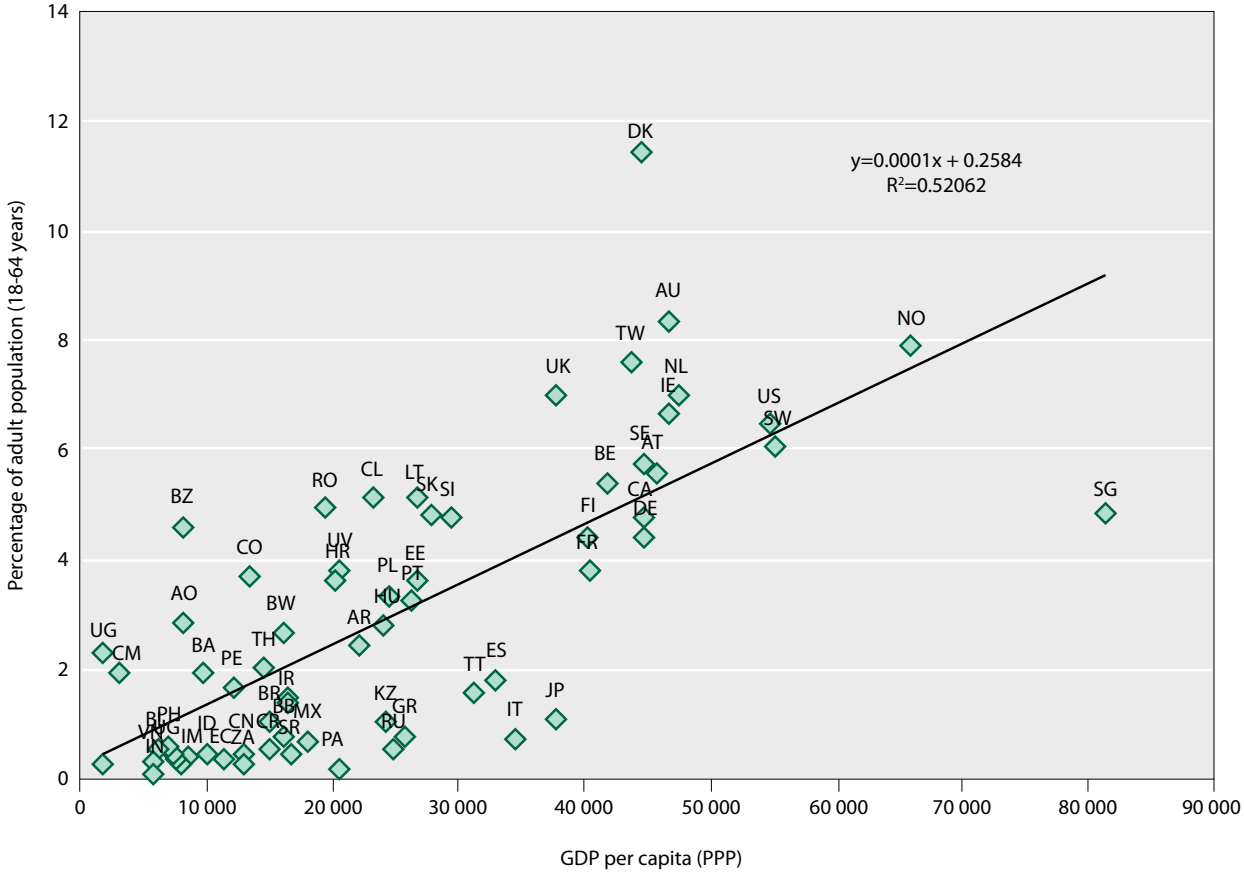


FIGURE 2.19 EEA RATE AND GDP PER CAPITA, 2014



3. ENTREPRENEURSHIP ECOSYSTEM

Since its inception, the GEM has proposed that entrepreneurship dynamics can be linked to conditions that enhance (or hinder) new business creation. In the GEM´s methodology these conditions are known as Entrepreneurial Framework Conditions (EFCs). EFCs are one of the most important components of any entrepreneurship ecosystem and constitute "the necessary oxygen of resources, incentives, markets and supporting institutions for the creation and growth of new firms" (cf. Bosma et al., 2008: p. 40). In the *GEM 1999* Executive Report, Paul D. Reynolds, Michael Hay and S. Michael Camp stated: "The model captures a number of things ignored in the conventional framework. First is the recognition that entrepreneurial activity is shaped by a distinct set of factors (referred to as Entrepreneurial Framework Conditions)" (p. 10). The original GEM conceptual framework therefore established a clear relationship between the EFCs, entrepreneurship dynamics and economic growth (see Figure 1.3). Even though the GEM conceptual framework has been revised in due course, this key feature was constant as the revised GEM framework shows (Figure 3.1).

The EFCs can be considered an essential part of the puzzle that understanding businesses' creation and growth represents. The state of these conditions directly influences the existence of entrepreneurial opportunities, entrepreneurial capacity and preferences, which in turn determines business dynamics. Hence, it is expected that different economies and regions have different structures and quality of EFCs or different "rules of the game,"[1] that directly affect entrepreneurial activity's inputs and outputs. That is why, since the beginning, the GEM survey needed a source of information to assess the state of EFCs. This source of information is the National Experts Survey.

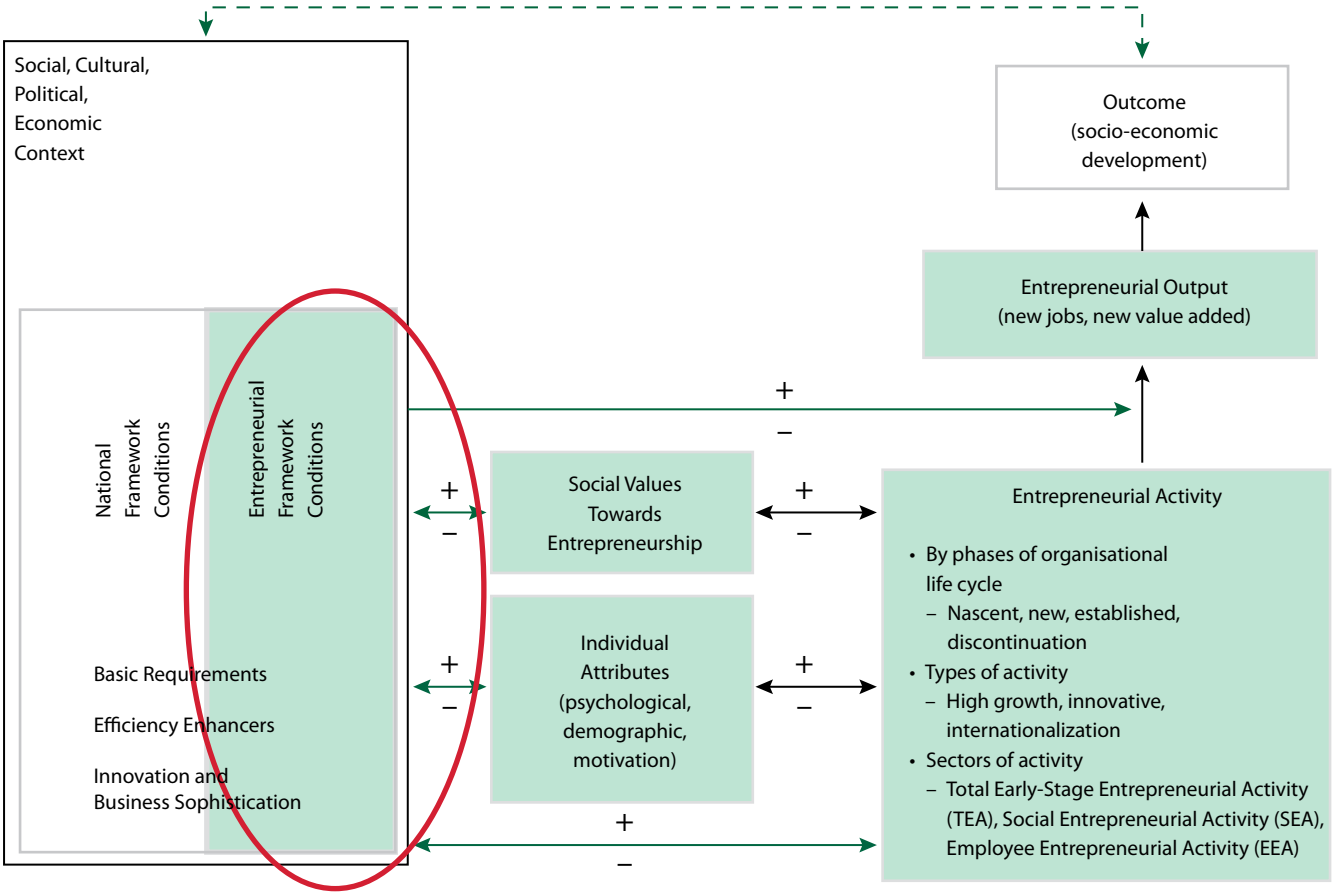
3.1 THE GEM NATIONAL EXPERTS SURVEY

The National Experts Survey (NES) is part of the standard GEM methodology and it assesses various EFCs as well as some other topics related to entrepreneurship. It is intended to obtain the views of additional experts (e.g. on women entrepreneurship support, high growth business encouragement and questions related to the special topic included in the current GEM cycle). The NES was initiated due to a lack of nationally harmonized measures that could be used as indices of specific EFCs (Reynolds et al., 2005). While some secondary data provide analogous information to several EFCs,[2] the NES remains the sole source of harmonized, internationally comparable data that specifically addresses

[1] These EFCs could be related to the "rules of the game" notion (Baumol, 1990) that determines to what extent is entrepreneurial activity productive in a given society.

[2] For NES results and linkage of EFCs with other international measurements, see Bosma et al. (2008).

FIGURE 3.1 THE REVISED GEM FRAMEWORK AND THE RELATIONSHIP WITH ENTREPRENEURIAL FRAMEWORK CONDITIONS



the environmental factors that enhance (or hinder) new and growing firms' performance.

The NES is similar to other surveys that capture expert judgments to evaluate specific national conditions. For example, the World Economic Forum´s "Global Competitiveness Index" or the World Bank´s "Doing Business" use similar surveys to build their indices. With regards to the NES, its main methodological difference is that it focuses only on EFCs, rather than on general economic factors.[3]

The NES questionnaire is used to collect the views of experts on a wide range of items, each of which was designed to capture a different dimension of a specific EFC. Table 3.1 summarizes the main nine EFCs at the core of the questionnaire.

The NES was carefully designed and refined to capture informed judgments of national, and in some cases regional, key informants regarding the status of EFCs in their own country/region's economies. National and regional experts are selected on the basis of reputation and experience (through a convenience sample approach).

Each year at least 36 experts in each GEM economy are personally interviewed or surveyed and asked to fill out the NES self-administered questionnaire[4].

When all data are collected, the national and regional files are centrally harmonized. The harmonization process includes an internal quality control process and the calculation of site variables that summarize each block of questions designed to measure a certain aspect of the EFCs. Using this methodology, each expert in each country is assigned individual values, allowing for international comparisons to be made. To illustrate the way each EFC is created, the first condition, "finance for entrepreneurs," is built with a block of six items that includes information on access to different sources of finance (equity, government funding, debt, business angels and IPOs). The same logic applies to the remaining EFCs. The responses to the items follow a five-point Likert scale, where 1 means the statement is completely false according to the expert and 5 means the statement is completely true. Experts are also asked to express their views about the most important institutional successes and constraints for fostering entrepreneurship in their country. They also provide some key recommendations for the same purpose. Finally, some

[3] As stated in the first GEM theoretical model, the general national conditions influence the entrepreneurial conditions, so there is room to argue that these two sources of information are related but are not exactly the same.

[4] Since 2010, a standardized online survey is available in English and Spanish using the web-based survey tool, Qualtrics®. Some National Teams also implement their own systems in their languages.

TABLE 3.1 GEM'S KEY ENTREPRENEURIAL FRAMEWORK CONDITIONS

1. ***Entrepreneurial Finance.*** The availability of financial resources—equity and debt—for small and medium enterprises (SMEs) (including grants and subsidies).
2. ***Government Policy.*** The extent to which public policies support entrepreneurship. This EFC has two components:
   2a. Entrepreneurship as a relevant economic issue and
   2b. Taxes or regulations are either size-neutral or encourage new and SMEs.
3. ***Government Entrepreneurship Programs.*** The presence and quality of programs directly assisting SMEs at all levels of government (national, regional, municipal).
4. ***Entrepreneurship Education.*** The extent to which training in creating or managing SMEs is incorporated within the education and training system at all levels. This EFC has two components:
   4a. Entrepreneurship Education at basic school (primary and secondary) and
   4b. Entrepreneurship Education at post-secondary levels (higher education such as vocational, college, business schools, etc.).
5. ***R&D Transfer.*** The extent to which national research and development will lead to new commercial opportunities and is available to SMEs.
6. ***Commercial and Legal Infrastructure.*** The presence of property rights, commercial, accounting and other legal and assessment services and institutions that support or promote SMEs.
7. ***Entry Regulation.*** This EFC contains two components:
   7a. Market Dynamics: the level of change in markets from year to year, and
   7b. Market Openness: the extent to which new firms are free to enter existing markets.
8. ***Physical Infrastructure.*** Ease of access to physical resources—communication, utilities, transportation, land or space—at a price that does not discriminate against SMEs.
9. ***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.

background information on the experts is recorded. NES questionnaires are copyrighted; they are available at the GEM web site: www.gemconsortium.org

3.2 THE STATE OF THE ENTREPRENEURSHIP ECOSYSTEM IN 2014

Table 3.2 provides a general overview of the results of each EFC for the 73 economies participating in the NES in 2014, in the geographic regions covered in this report[5]. The table shows the rates in a 1-5 scale for the main EFCs analyzed in each economy. The highest-rated EFCs in each country are highlighted in green and the lowest rated EFCs are highlighted in red.

The averages included in Table 3.2 show some patterns among country-groups. For example, entrepreneurship education at basic levels (primary and secondary school) is rated rather unfavorably in most economies—only a few of them (Denmark, Singapore, Philippines and the Netherlands) stand out. This information is very important for policy makers, as this score shows the extent to which primary and secondary education encourages creativity, self-sufficiency, and personal initiative, provides adequate instruction on market economic principles, and pays adequate attention to entrepreneurship and new firms' creation.

Other EFCs that have relatively low evaluations across countries are national policies related to regulation and R&D transfer.

In contrast, as in previous years, physical infrastructure (roads, utilities, communications, water disposal) tends to obtain the highest evaluations in experts' ratings, with averages close to 4 or over 4 in all regions except Africa (whose EFC is evaluated as the best among other EFCs, but still at a much lower level than in other parts of the world). This EFC was granted outstanding evaluations in the Netherlands, Denmark and Japan.

Experts are usually quite critical about their country´s entrepreneurship ecosystem, although they recognize it has some strong factors. In general, experts in more economically developed countries, like the members of the European Union and North America, tend to evaluate their EFCs with higher ratings. In contrast, African countries' evaluations, on average, were low. Figure 3.2 shows these patterns.

Notably, governmental policies and internal market dynamics in Africa are better evaluated than in North America. This confirms the relevance of understanding the particularities and characteristics of each country (or region). In Figure 3.3, in the Asia & Oceania region, a comparison of Singapore (highest

[5] As explained in Chapter 2, three economies did not fully comply with the requirements for the Adult Population Survey (Kuwait, Latvia and Turkey) but completed the NES data. Hence the difference in the number of economies mentioned in Chapter 2 (70) and in Chapter 3 (73).

TABLE 3.2 ENTREPRENEURSHIP FRAMEWORK CONDITIONS MAIN INDICATORS

1 Finance **2a** National Policy—General Policy **2b** National Policy—Regulation **3** Government Programs **4a** Education—Primary & Secondary **4b** Education—Post-Secondary **5** R&D Transfer **6** Commercial Infrastructure **7a** Internal Market—Dynamics **7b** Internal Market—Openness **8** Physical Infrastructure **9** Cultural and Social Norms

	1	2a	2b	3	4a	4b	5	6	7a	7b	8	9
Africa												
Angola	2.63	2.58	2.16	2.40	1.91	2.22	1.77	2.73	2.98	2.17	2.36	2.88
Botswana	2.71	2.61	2.62	2.71	2.74	3.09	2.45	2.56	2.88	2.04	3.00	2.91
Burkina Faso	2.09	2.88	3.09	3.04	1.26	2.78	1.77	2.80	2.24	2.37	3.04	3.08
Cameroon	2.16	3.18	2.80	2.86	2.19	3.23	2.05	2.86	2.40	2.77	3.30	3.16
South Africa	3.02	3.02	2.13	2.33	1.83	2.61	2.19	2.64	2.94	2.27	3.06	2.52
Uganda	2.32	2.74	2.20	2.54	2.42	3.11	2.21	3.09	3.53	2.84	3.34	3.39
Average	**2.49**	**2.84**	**2.50**	**2.65**	**2.06**	**2.84**	**2.07**	**2.78**	**2.83**	**2.41**	**3.02**	**2.99**
Asia and Oceania												
Australia	2.34	1.83	2.44	2.23	2.19	2.85	2.18	3.42	3.03	2.79	3.91	3.19
China	2.59	3.07	2.76	2.54	1.77	2.81	2.48	2.69	3.81	2.64	4.19	2.89
India	3.11	3.00	2.43	2.94	2.33	3.09	2.86	3.40	3.45	2.87	3.96	3.43
Indonesia	3.03	2.91	2.48	2.57	2.60	3.31	2.63	2.96	3.56	2.89	3.46	3.31
Iran	1.89	1.75	1.57	1.60	1.75	2.22	2.08	2.15	3.18	1.69	3.98	2.25
Japan	3.01	3.12	2.56	2.80	1.64	2.82	3.15	2.44	3.92	2.85	4.47	2.58
Kazakhstan	2.21	3.49	2.65	2.92	2.41	2.73	2.13	3.11	3.06	2.30	3.58	3.40
Kuwait	2.67	1.90	2.45	1.93	1.52	2.57	2.09	3.06	3.89	2.05	3.50	2.68
Malaysia	3.34	3.35	2.86	3.28	2.45	3.12	2.68	3.31	3.55	2.83	4.08	3.54
Philippines	2.57	2.42	2.11	2.43	2.89	3.28	2.07	2.92	3.09	2.53	3.12	3.05
Qatar	2.72	3.15	2.95	2.90	2.72	3.33	2.41	2.95	3.25	2.08	3.44	2.89
Singapore	3.56	3.48	3.98	3.68	3.02	3.34	3.17	3.23	3.42	3.04	4.45	3.16
Taiwan	2.98	2.71	2.91	2.73	2.19	2.77	2.68	2.65	3.86	2.78	3.90	3.26
Thailand	2.51	2.52	2.61	2.11	1.94	2.79	2.13	3.22	3.60	2.37	3.72	2.85
Vietnam	2.37	2.93	2.46	2.35	1.83	2.64	2.30	2.93	3.71	2.43	3.75	3.13
Average	**2.73**	**2.78**	**2.61**	**2.60**	**2.22**	**2.91**	**2.47**	**2.96**	**3.49**	**2.54**	**3.83**	**3.04**
Latin America & Caribbean												
Argentina	2.03	2.08	1.49	2.70	1.82	3.11	2.49	2.85	3.24	2.53	3.31	3.01
Barbados	2.42	2.42	1.87	2.30	1.71	2.96	1.78	2.72	2.06	2.42	3.75	2.61
Belize	2.14	2.55	2.20	2.45	2.05	2.53	1.77	2.68	2.31	2.54	3.41	2.65
Bolivia	2.25	2.15	1.97	2.34	2.13	3.11	2.33	2.81	2.98	2.65	3.30	2.79
Brazil	2.46	2.40	1.46	2.24	1.48	2.54	2.00	2.50	3.36	2.24	2.93	2.36
Chile	2.35	2.77	2.91	3.06	1.63	2.98	2.20	2.80	2.18	2.57	4.33	3.09
Colombia	2.37	2.75	2.41	2.95	2.14	2.97	2.17	2.79	2.70	2.55	3.38	2.97
Costa Rica	1.90	2.39	2.02	2.80	1.93	3.07	2.12	2.63	2.42	2.58	3.39	2.90
Ecuador	2.19	2.98	2.19	2.66	2.36	3.18	2.35	2.76	2.46	2.72	4.05	2.99
El Salvador	1.88	2.26	1.92	2.50	1.64	2.76	1.88	2.65	2.68	2.46	3.89	2.79
Guatemala	2.04	1.91	2.10	1.87	1.73	3.06	2.09	2.89	2.41	2.53	3.83	2.44
Jamaica	2.24	2.20	1.99	2.34	2.07	3.03	1.97	2.86	2.90	2.22	3.43	2.96
Mexico	2.20	2.27	1.87	2.69	2.00	3.12	2.44	2.64	2.81	2.21	3.29	2.99
Panama	1.99	2.11	2.95	2.52	1.67	2.78	2.35	2.68	2.36	2.53	4.01	2.75
Peru	2.20	2.21	2.14	2.13	1.98	2.87	1.87	2.81	2.43	2.70	3.52	3.09
Puerto Rico	1.96	2.42	1.78	2.56	1.66	3.07	2.28	2.84	2.61	2.30	3.25	2.76
Suriname	2.30	2.69	2.36	2.42	2.11	3.53	2.01	3.15	3.00	2.98	3.01	2.96
Trinidad and Tobago	2.66	1.81	2.38	2.34	1.83	2.51	1.95	2.94	2.29	2.34	3.76	2.85
Uruguay	2.21	2.22	2.78	2.89	1.41	3.43	2.49	3.02	2.09	2.40	3.79	2.11
Average	**2.20**	**2.35**	**2.15**	**2.51**	**1.86**	**2.98**	**2.13**	**2.79**	**2.59**	**2.50**	**3.56**	**2.79**
Europe Non-European Union												
Bosnia and Herzegovina	2.29	2.13	1.74	2.07	2.06	2.43	1.96	2.92	3.35	2.16	3.35	2.15
Georgia	2.15	2.94	3.95	2.37	2.35	2.91	1.83	3.10	2.61	2.92	4.02	3.19
Kosovo	2.08	2.17	3.07	2.21	1.86	2.87	1.96	3.31	3.07	2.61	4.06	3.15
Norway	2.58	2.49	3.18	3.18	2.48	2.56	2.78	3.42	2.59	2.64	4.43	2.86

	1	2a	2b	3	4a	4b	5	6	7a	7b	8	9
Russia	2.27	2.36	2.27	2.40	2.31	3.10	2.37	3.25	3.14	2.55	3.47	2.74
Switzerland	3.23	3.08	3.70	3.48	2.56	3.42	3.57	3.51	2.34	2.97	4.45	3.40
Turkey	2.41	2.69	1.99	2.32	2.04	2.88	2.59	2.85	3.56	2.35	3.66	3.07
Average	**2.43**	**2.55**	**2.84**	**2.58**	**2.24**	**2.88**	**2.44**	**3.19**	**2.95**	**2.60**	**3.92**	**2.94**
Europe- European Union												
Austria	2.51	2.46	2.60	3.58	1.66	3.02	2.82	3.40	2.49	3.33	4.12	2.46
Belgium	3.38	2.62	1.98	2.71	1.95	2.75	2.99	3.74	2.50	3.19	3.79	2.15
Croatia	2.32	2.15	1.55	2.27	1.68	2.35	2.04	2.90	3.37	2.08	3.67	2.02
Denmark	2.73	3.33	3.31	3.43	3.10	3.43	2.77	3.56	2.43	3.44	4.49	2.82
Estonia	2.86	2.43	3.58	3.39	2.63	2.99	2.92	3.21	3.39	3.12	4.39	3.39
Finland	2.82	3.17	2.95	2.77	2.28	2.70	2.61	3.20	3.23	2.72	4.25	2.76
France	2.77	2.99	2.96	3.17	1.75	2.92	2.73	3.06	3.02	2.34	4.04	2.14
Germany	2.84	2.93	2.87	3.46	2.13	2.81	2.75	3.34	2.84	2.81	3.82	2.65
Greece	2.11	2.07	1.74	1.95	1.50	2.31	2.26	3.05	3.42	2.12	3.53	2.47
Hungary	2.63	2.43	1.93	2.41	1.68	2.82	2.41	3.29	3.13	2.62	3.94	2.32
Ireland	2.87	3.24	2.64	3.26	2.09	2.95	2.82	3.29	2.59	3.13	3.71	2.95
Italy	2.55	2.40	1.50	2.08	1.68	2.33	2.18	2.83	3.50	2.61	2.92	2.22
Latvia	2.55	2.60	2.50	2.75	2.51	3.17	2.33	3.74	2.27	2.78	4.00	2.85
Lithuania	3.19	2.39	2.46	2.72	2.37	3.07	2.61	3.90	3.38	2.66	4.19	3.09
Luxembourg	2.76	3.41	3.22	3.47	2.13	2.90	2.98	3.50	2.76	3.05	4.04	2.56
Netherlands	2.81	2.59	3.13	3.15	2.85	3.17	2.88	3.68	2.85	3.40	4.82	3.58
Poland	2.77	3.07	2.16	2.77	1.75	2.54	2.44	2.77	4.04	2.75	3.79	2.96
Portugal	2.73	2.57	2.01	3.00	2.04	3.04	2.76	3.34	2.40	2.75	4.43	2.55
Romania	2.43	2.53	2.24	2.51	2.34	2.68	2.59	3.09	3.14	2.86	2.89	2.61
Slovakia	2.73	2.28	2.16	2.26	2.21	2.98	2.13	3.07	2.63	2.84	3.94	2.40
Slovenia	2.33	2.13	1.92	2.43	1.77	2.34	2.29	2.71	3.04	2.56	3.56	2.06
Spain	2.14	2.50	2.40	2.88	1.84	2.61	2.45	3.03	2.87	2.47	3.64	2.64
Sweden	2.63	2.74	2.53	3.00	2.55	2.75	2.65	3.28	3.13	2.80	4.25	3.07
United Kingdom	2.77	2.90	2.33	2.62	2.44	3.02	2.20	2.95	3.28	2.73	3.54	2.83
Average	**2.68**	**2.66**	**2.44**	**2.84**	**2.12**	**2.82**	**2.57**	**3.25**	**2.99**	**2.80**	**3.91**	**2.65**
North America												
Canada	3.10	2.50	2.85	2.86	2.32	3.14	2.57	3.49	2.31	2.95	4.28	3.28
United States	2.99	2.69	2.33	2.61	2.21	2.87	2.64	3.12	3.30	2.67	3.98	3.75
Average	**3.05**	**2.60**	**2.59**	**2.74**	**2.27**	**3.01**	**2.61**	**3.31**	**2.81**	**2.81**	**4.13**	**3.52**

FIGURE 3.2 INDICATORS ON ENTREPRENEURSHIP FRAMEWORK CONDITIONS AMONG REGIONS—AFRICA VS NORTH AMERICA

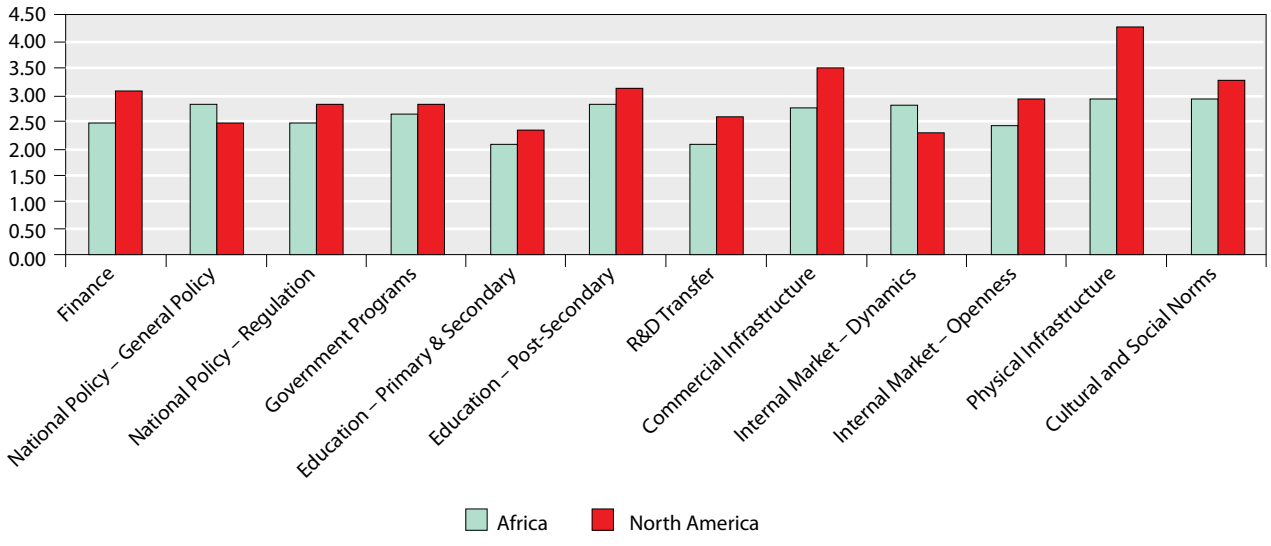
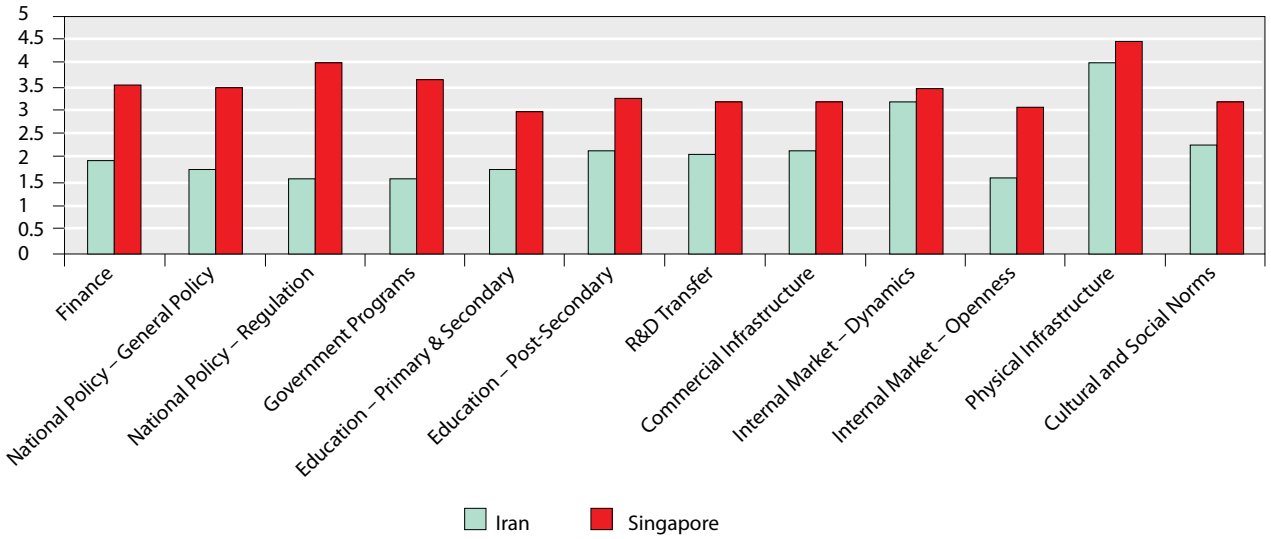


FIGURE 3.3 INDICATORS ON ENTREPRENEURSHIP FRAMEWORK CONDITIONS—SINGAPORE VS IRAN

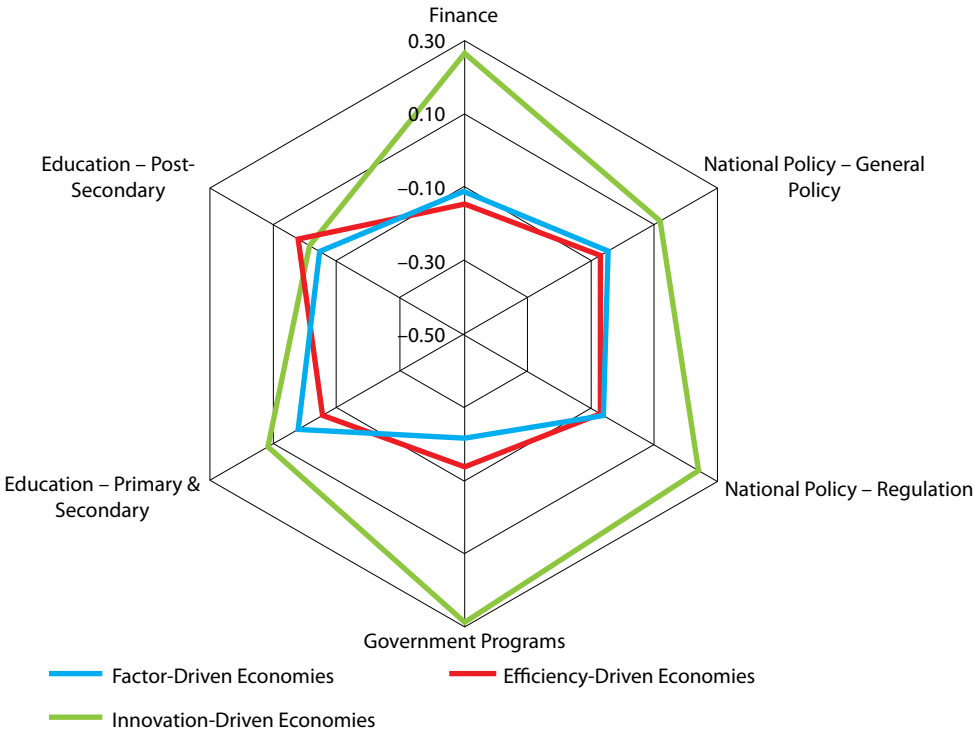


evaluated EFCs) and Iran (lowest evaluated EFCs) shows that the perceptions about factors like physical infrastructure and internal market dynamics do not significantly differ. Perception is always relative, and experts are evaluating each of the EFCs in relation to how much they satisfy some expectations of individuals interested in venturing in the specific economy/country.

The observed relatively higher rates in developed countries (the innovation-driven economies) are consistent with the GEM conceptual framework and the notion that EFCs have different priorities and impact, according to the stage of their country's economic development. At the same time, it should be noted that reference points may differ across economies: what is perceived to be good in one country may be perceived to be poor in others.

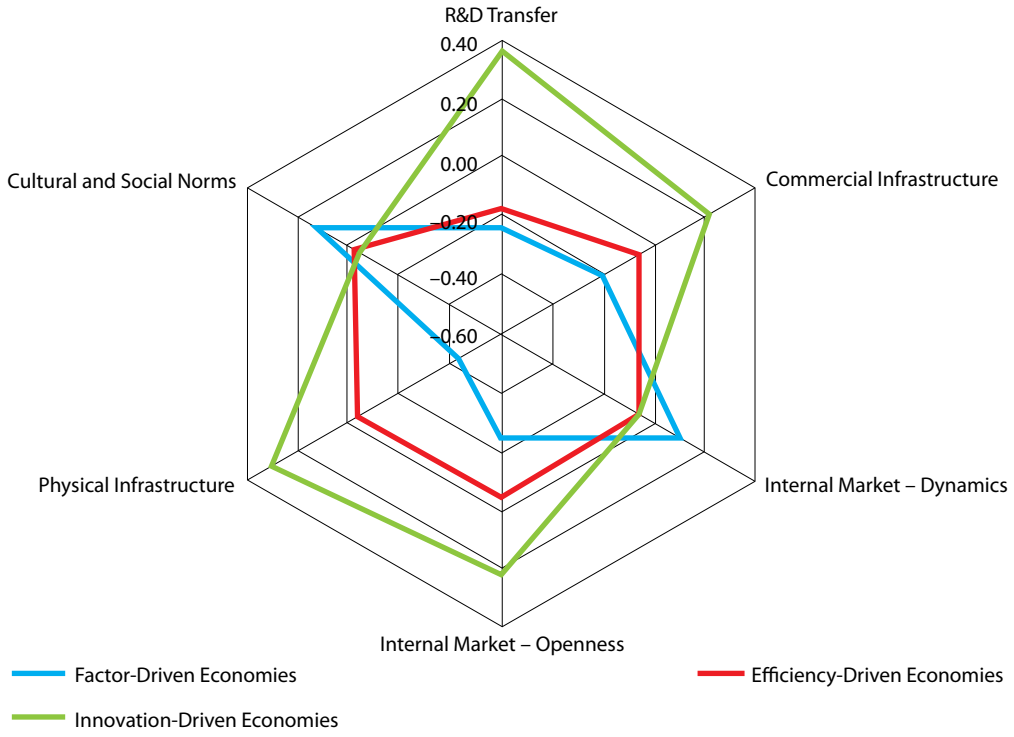
To visualize the differences in EFCs scorings, Figure 3.4 and Figure 3.5 include standardized mean Z-scores for each EFC. These figures show that many EFCs do differ according to the

FIGURE 3.4 COMPOSITE INDICATORS ON ENTREPRENEURSHIP INSTITUTIONS, BY STAGE OF DEVELOPMENT (1/2)



Note: Values of indicators are based on averaging the Z-scores (standardized values) for the economies in each of the three phases of economic development.

FIGURE 3.5 COMPOSITE INDICATORS ON ENTREPRENEURSHIP INSTITUTIONS, BY STAGE OF DEVELOPMENT (2/2)



Note: Values of indicators are based on averaging the Z-scores (standardized values) for the economies in each of the three phases of economic development.

economic development phase. The items with the clearest differences in the 2014 NES results are finance, government programs, national policy regulation (Figure 3.4), and R&D transfer and physical infrastructure (Figure 3.5). However, some other EFCs do not have such clear differences; for example, entrepreneurship education at post-secondary level gets a higher evaluation in efficiency-driven economies, whereas cultural and social norms are evaluated much higher in factor-driven economies.

4. DATA IN ACTION: HOW GEM IMPACTS ENTREPRENEURSHIP ECOSYSTEMS

People have blamed each other for not solving problems for a very long time—citizens blame governments, governments blame citizens for their lack of interest, the business sector usually blames government (for not providing supportive policies and an efficient regulatory environment) and the education sector (for not providing the competences needed by the business sector). Academia usually blames the business sector for the low demand for research collaboration, and government for not providing enough financial support of research activities. Governments are normally unhappy with the research institutions' level of involvement in solving national development issues, or with the business sector for not showing enough accountability. A vicious circle is formed and unsolved problems surround us.

It is important to learn how some countries find the way to obtain a better quality of life for their inhabitants. Can this way work in our environment? If so, how? If not, why?

The lack of international comparisons is no longer an excuse for the lack of government action intended to improve the national level of prosperity. There is an increasing body of knowledge about many aspects of the quality of life in all countries around the world. Official statistical coverage is different among countries, but it is complemented by various international surveys. **GEM** is one of the very few surveys based on the **collection of primary data on individual entrepreneurial activities, as well as on social values and personal attributes which contribute to or hinder such activities** (see Figure 1.5). The GEM survey covers more than 100 countries (73 participated in 2014) and has collected data since 1999 using standardized tools; this has generated a huge database that can be used by international institutions or by national governments to design evidence-based policy interventions, or by some institutions (such as universities) to develop research-based educational programs.

The New Millennium Goals are a challenging starting point for everyone to detect their own responsibility in solving eight identified goals, some of which are to eradicate extreme poverty and hunger, and to develop a global partnership for development. The Secretary-General's synthesis report "**The Road to Dignity by 2030: ending poverty, transforming all lives and protecting the planet"** (UN, 2014) charts a road map and proposes a transformative agenda for sustainable development. One of the six components of this agenda is prosperity based on efforts to grow a strong, inclusive and transformative economy. And GEM is precisely collecting data that offers insights on the country's capacity to contribute to it.

In order to achieve such goals, this road map specifically mentions "lighting the way—the role of data" in designing an evidence-based course for realizing the agenda of the New Millennium Goals (The Road to Dignity, UN, 2014, p. 38). "The world must acquire a new 'data literacy' in order to be equipped with the tools, methodologies, capacities, and information necessary to shine a light on the challenges of responding to the new agenda. Enhanced national and international statistical capacities, rigorous indicators, reliable and timely data sets, new and non-traditional data sources, and broader and systematic disaggregation to reveal inequities will all be fundamental for implementing it" (The Road to Dignity, UN, 2014, pp. 38-39).

Furthermore, The Road to Dignity identifies the issue of key data gaps, between developed and developing countries, between information-rich and information-poor people, and between the private and public sectors (UN, 2014, p. 13). The conclusion is that the new paradigm of accountability requires evidence-based activities of all actors who are accountable to the people for results. Therefore, in order to achieve transparency through evidence-based activities, it calls for a data revolution, and the indicators and data that emerge from it ("… to make information and data more available, more accessible, and more broadly disaggregated, as well as for measurable goals and targets, and a participatory mechanism to review implementation at the national, regional, and global levels") (UN, 2014, p. 16).

After sixteen years of building a database on individuals' entrepreneurial behaviour around the world, GEM is an extremely valuable source for learning about related patterns and trends. In order to show how GEM data is used to develop evidence-based policy activities, six examples are provided in this chapter:

- How state aid can be used to have an impact on developing countries: The International Development Research Centre (IDRC), Canada—how to use GEM's unique knowledge on entrepreneurship in developing countries—with links to Canada

- How to develop evidence-based policies and have better insights on entrepreneurial capacity at a national level: the EU funded a three-year project for the collection of data on entrepreneurial activity and self-employment, complementing the core GEM survey with specific questions, in order to obtain better insights on entrepreneurial capacity in the EU

- Four national examples:

  - GEM Mexico—how GEM data is being used by the Mexican government to build an institutional framework for SMEs' support

  - GEM Malaysia—how GEM data is being used by the Malaysian government to monitor trends in entrepreneurship in Malaysia and to design some policy interventions

  - GEM South Africa—governments can be slow in recognizing the need for evidence-based policies, but persistence of researchers in finding common language with policy makers pays off

  - GEM Canada—building understanding of the evidence-based approach in designing and monitoring policy interventions requires collaboration among different actors (researchers, government officials, the business sector, any other stakeholders)—GEM Policy Day

These examples (and numerous others) and GEM data introduced in previous chapters, as well as the GEM database built since 1999, are our basis for accepting the challenge expressed by the Road to Dignity document.

The Road to Dignity by 2030, a Synthesis Report of the Secretary General (December 4, 2014), announced that a comprehensive programme of action on data should be established. "This includes the building of a global consensus, applicable principles and standards for data, a web of data innovation networks to advance innovation and analysis, a new innovative financing stream to support national data capacities and a global data partnership to promote leadership and governance" (UN, 2014, p. 39).

The Global Entrepreneurship Research Association (GERA), which represents the GEM national teams, is ready to participate in this challenge and to join the multi-stakeholder global partnership in actions aimed to identify information gaps (and overlaps), as well as to develop collective actions required to replace the competition in the industry of indicators with collaborative efforts to increase access to information and data literacy at the institutional and individual levels.

4.1 BENCHMARK POLICY EXAMPLES

4.1.1 Evidence Based Policy Activities

EXAMPLE 1: HOW STATE AID CAN BE USED TO HAVE AN IMPACT ON DEVELOPING COUNTRIES: THE INTERNATIONAL DEVELOPMENT RESEARCH CENTRE (IDRC), CANADA – HOW TO USE GEM'S UNIQUE KNOWLEDGE ON ENTREPRENEURSHIP IN DEVELOPING COUNTRIES – WITH LINKS TO CANADA

Arjan de Haan, Program Leader in IDRC's Supporting Inclusive Growth program; **Dominique Garro-Strauss**, Project Management Officer in the same program; **Ann Weston,** Director of IDRC's Special Initiatives Division

Knowledge generated through GEM can provide a base of evidence for policies and interventions to foster entrepreneurship and sustainable livelihoods in much of the developing world. With support from Canada's International Development Research Centre (IDRC) since 2009, GEM's scope has broadened to reflect developing-country realities. IDRC provides financial and technical support to GEM research teams in over 30 developing countries across Africa, the Middle East, Southeast Asia, and the Caribbean.

GEM's 2012 Global Report was the first to enable developing countries to compare themselves with similar economies. In 2013, IDRC support also helped bring Canada back into the GEM research community, with surveys in Canada itself and with Canadian researchers collaborating on studies in Francophone Africa.

GEM has been instrumental in allowing governments and businesses to compare their entrepreneurial climate against others. It helps them better understand the key bottlenecks constraining business owners and opportunities for nurturing their potential. IDRC support has brought developing regions into the picture: sub-Saharan Africa, for example, previously had very little data on entrepreneurship, but will now have reliable and comparable data from 12 countries (Angola, Botswana, Burkina Faso, Cameroon, Ghana, Ethiopia, Malawi, Namibia, Nigeria, Uganda, South Africa and Zambia.) And another two African countries will join in 2015 (Morocco and Senegal).

IDRC's support has helped to enhance capacity to inform policy on entrepreneurship. GEM standards ensure sound national data and strong project planning. In many countries, this has helped to generate baseline estimates and data about entrepreneurial activity and their constraints. Technical support was critical to enhance capacity, including to distil policy messages to specific audiences. In the Middle East and North Africa this led to the publication of a special issue of the *International Journal of Business and Globalization* (Schøtt, 2013).

There is already clear evidence of impact. In Uganda, GEM findings informed the Ministry of Finance Planning and Economic Development's policies on small and medium enterprise. In South Africa, the National Planning Commission consulted GEM findings and the project team was asked for advice. Jamaican GEM research provided a base for the Development Bank to develop strategies for rolling out small business development centres.

Research findings give decision-makers insights on how their choices may affect the business climate. For example, *New Entrepreneurs and High Performance Enterprises in the Middle East and North Africa* — an IDRC co-publication with the Organisation for Economic Co-operation and Development —outlines directions which governments can take to foster enterprise development and growth.

2012 sub-Saharan Africa Report — the first to examine entrepreneurial dynamics in the region

For the first time, in 2012 a GEM report gave sub-Saharan African countries a firm base of evidence to use in comparing their entrepreneurial activity. The report (Herrington, 2014) drew on data collected during a three-year study of entrepreneurial attitudes, perceptions, and intentions in 10 sub-Saharan African countries funded by IDRC. It found entrepreneurship rates amongst the highest in the world with a high proportion of the population already, or intending soon to be, involved in business. These high levels of enthusiasm are countered by a high number of failed businesses and limited growth potential for those businesses that survive. The hurdles preventing businesses from prospering include lack of government support, difficulty in accessing funding, corruption, bureaucracy, and lack of access to research and development.

In 2013, IDRC supported another phase of GEM's analysis in the region to focus on youth and their perceptions about making entrepreneurship a career choice. National reports and a comparative regional report will help governments understand how to support young people to achieve viable self-employment and to become successful entrepreneurs contributing to economic growth and job creation.

Southeast Asia

The launch of the ASEAN economic community in 2015, and the prospects of a market of 600 million, creates new opportunities and challenges for entrepreneurs in member countries. Some of these issues are addressed by the IDRC-funded national team reports for Indonesia, the Philippines and Vietnam, while the GEM Malaysia team will present a 2014 ASEAN GEM report at one of the ASEAN summits in 2015. The aim is to shift government attitudes and help entrepreneurs to position themselves in the regional market.

Links to Canada

With support from IDRC amongst others, a team of researchers from across Canada undertook the first GEM survey in Canada since 2003. Rejoining GEM has generated data that allows for comparison of Canadian entrepreneurship with the G7, similar countries like Australia, and the other 80 or so others now participating in GEM each year. It also stimulated seven provincial governments to support province-specific GEM surveys and analyses. And the IDRC grant has funded a few visiting scholars from GEM teams in developing countries to join and share lessons with Canadian GEM researchers.

Resource links

O'Neill, M. (2014). IDRC Insight Brief: Private sector development: Aligning goals for economic growth and poverty reduction. Available on line: http://www.idrc.ca/EN/Documents/PSD-InSight-WEB-ENG.pdf

Melesse, M. and C. Foy (2014). IDRC: Africans want to do business. Available on line: http://www.idrc.ca/EN/Resources/Publications/Pages/ArticleDetails.aspx?PublicationID=1261

IDRC (2012). IDRC Article: Research to Policy: IDRC-supported study informs policy debates on entrepreneurship in the Caribbean. Available on line: http://www.idrc.ca/EN/Programs/Social_and_Economic_Policy/Supporting_Inclusive_Growth/Pages/NewsDetails.aspx?NewsID=483

GEM Canada Reports: www.gemcanada.org

The following are two examples of IDRC funded publications on the policy aspect of using GEM data:

UGANDA—EXAMPLE OF A POLICY INTERVENTION, 2012, PUBLISHED IN HERRINGTON, M., AFRICAN ENTREPRENEURSHIP: SUB-SAHARAN AFRICAN REPORT, P. 65

1. **Country:** Uganda

2. **Key Indicators:** Nascent business rate—26%: New business rate—28%: TEA—36%: established business rate—31%: Potential entrepreneurs—88%: intentional entrepreneurs—79%

3. **Name of initiative, policy, or programme:** The Youth Opportunities Programme (YOP) under the Northern Uganda Social Action Fund (NUSAF)

4. **Target market:** Poor youth (15 to 30), who are unemployed or underemployed

5. **Geographic Scope:** 18 Districts of Northern Uganda

6. **Description**

   i. **Goal of initiative, policy, or programme**

   To provide youth with specific vocational skills and tool kits, to enable them earn incomes and improve their livelihoods, to contribute towards community reconciliation and conflict management and to build capacity of NGOs, CBOs and vocational training institutes (VTIs) to respond to the needs of youth.

   ii. **Description of initiative, policy or programme**

   Under YOP, small groups of youth self-organise, identify a vocational skill of interest and a VTI and apply to NUSAF District Technical Offices (NDTOs) for funding. The NDTOs process and recommend proposals to the District and the central NUSAF Management Unit (NUMU), who screen for incomplete or inappropriate proposals.

   Youth groups with successfully approved proposals receive a cash transfer of up to the equivalent of US$10,000 to a community bank account. These funds are used to enroll in the VTI, purchase training materials and equip graduates with the tools and start-up costs for practicing the trade after graduation. NDTOs are supposed to provide supervision and technical assistance throughout. In 2008, the programme provided cash transfers to thousands of young men and women for investment in skills training and capital for self-employment. The focus of the programme was vocational training and employment. Applicants were required to form a group of roughly 15 to 25 young adults interested in a vocation and submit a proposal for purchasing skills training, tools and other materials required to start an enterprise.

   On average, successful groups received a lump sum cash transfer of $7,108 to a jointly held bank account—roughly $374 per group member, at market exchange rates. Groups were otherwise free of supervision or oversight in the actual spending. Not surprisingly, demand for the programme far outstripped supply of funds: hundreds of groups, representing tens of thousands of young adults, applied.

   III. **Description of entry requirements or restrictions**

   Like many participatory development programmes, the objective was not only to enrich, but also to empower young adults. Groups were responsible for selecting a management committee of five members, choosing the skills and schools and budgeting, allocating and spending all funds. Groups self-organised, or were spurred by a facilitator. Such facilitators, often a community leader or local government employee, helped groups identify projects and trainers, budget and assisted with the application process, but played no formal role after the proposal was submitted. The group management committee and members were wholly responsible for disbursement and purchases, accountable only to one another. If a group was selected, the government transferred cash in a single tranche to a bank account in the names of the group leadership, with no further supervision.

   In 2008, the government determined that it had funding for 265 of 535 eligible groups. The average group had 22 members and 80% of groups ranged from 13 to 31 members in size, according to pre-intervention group rosters. Group cash transfers averaged nearly 12.8 million Ugandan Shillings (UGX, equivalent to $7 108) and varied not only by group size, but by group request (that is, transfers were not uniform). The average transfer size was UGX 673 026 ($374) per member—more than 20 times the average monthly income of the youth at the time of the baseline survey. Given the variation in group size and requests, however, transfer size per oficial group member varied from UGX 200 000 to more than UGX 2 million across groups. The majority received between UGX 350 000 ($200) and UGX 800 000 ($450).

   iv. **Length of support by initiative, policy, or programme**

   In addition to training unemployed youth in trade skills, the programme, in some cases, also provided life skills and psychosocial counselling to the beneficiaries.

   v. **Scale of the initiative, policy, or programme**

   Training is expected to increase the technical and professional skills of the trainee, skills that will be valued on the labour market. Therefore, youth who went through the training and acquired skills will find

work more easily, be paid higher wages when finding a job and have better quality of employment, as expressed in stability of employment.

Funds reserved for the acquisition of tools and enterprise start-up expenses will also increase the likelihood of self-employment. Thus, youth who participate in the programme should start a greater number of enterprises and earn greater net profits.

Training programme graduates are also expected to be more likely to pursue higher levels of education and skills training, both because they have the background and the financial means (via any increased employment and incomes). Thus increased levels of educational attainment (beyond the duration of the training programme) may be an additional consequence of participation.

VI. Overview of how the policy or programme works/ worked, including a description of how support is/ was tailored to different target groups and how it is funded

The programme was aimed at reviewing the impact of participation in a training programme on labour market success, educational attainment, leadership development and psychosocial wellbeing.

YOP had begun as a $1.6 million Northern Uganda Youth Rehabilitation Fund (NUYRF), with grant funding from the Japanese Social Development Fund. Its purpose was to pilot vocational training interventions. The project selected vocational training institutions to train unemployed youth in trade skills (accompanied by tool kits for the trade), in order to improve their chances of employment. In March 2005, NUSAF decided to scale up this effort and committed roughly $6 million to YOP, with $9 million disbursed in the category of Vulnerable Groups (VGS) and $6 million through the Community Development Initiative. In 2006, to stimulate such employment growth, the government announced a new NUSAF component: the Youth Opportunities Programme (YOP), which provided cash transfers to groups of young adults for self-employment in trades.

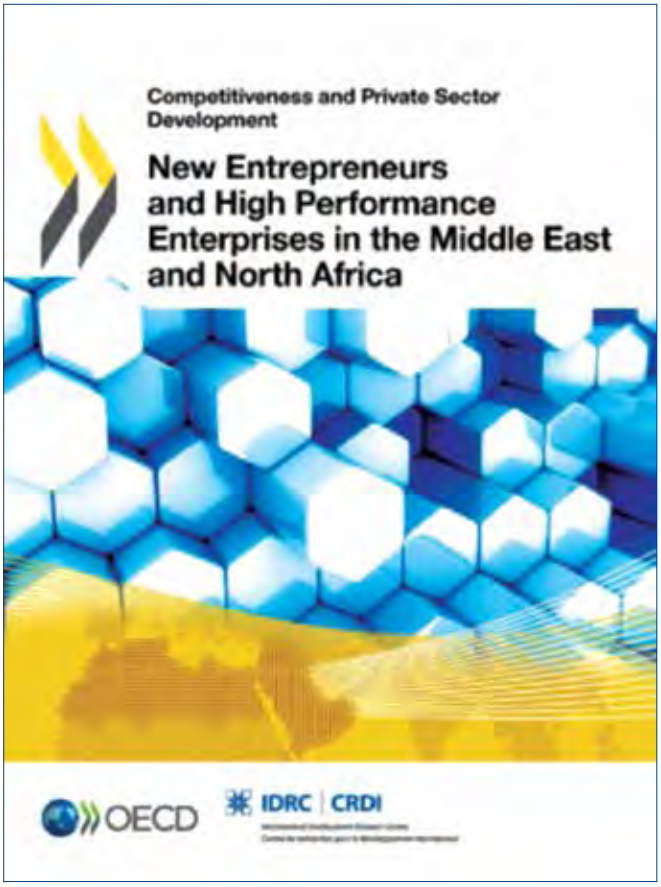
CHALLENGES IN THE PROGRAMME

The criteria by which past YOP and VGS proposals have been selected for appraisal and approval in the districts is not clear and selection procedures appear to have varied over time and by district. There have also been allegations of corruption, mismanagement and fraud aimed at many NUSAF, district and community officials. Many of these allegations have been addressed headon by NUSAF management, with several improvements made in the next phases.

It is not clear whether the districts have been successful in targeting vulnerable youth. There are signs that urban and peri-urban youth, educated youth and well-connected youth were more likely to receive funds than rural, uneducated and dislocated youth.

It seems that a large number of individual youth projects have also suffered from poor planning, management and accountability. While there are some cases of corruption or fraud by the community facilitator, VTI, or youth themselves, the more common problems seem to be poor decision-making and management of funds. According to programme officers, the most important determinants of training success are good planning (such as reservation of funds for tools and enterprise start-up), good investment choices (e.g., oriented towards available markets), district or community monitoring and oversight and provision of technical extension services, where required.

ANOTHER INTERESTING EXAMPLE OF HOW GEM DATA CAN OPEN THE DISCUSSION ON RELEVANCE OF POLICY INSTRUMENTS



Two opinions on entrepreneurship policy (from OECD-IDRC (2013), *New Entrepreneurs and High Performance Enterprises in the Middle East and North Africa.* OECD, Paris, 98-99).

BOX 4.1 THE CASE FOR ENTREPRENEURSHIP POLICY

Specific and individual jobs are not permanent and enduring features in modern market economies. More accurately, jobs are the concrete manifestation of a churning pool of opportunities for employment; any contribution to this pool will offset job losses, whatever the causes.

Higher levels of firm (and job) churning are associated with subsequent increases in net job growth and productivity increases. There are, of course, social costs associated with this churning. As firms and jobs are created and disappear, assets are redeployed from one business entity to another and individuals must change jobs, which is disruptive for them and their families. This, however, seems to be a fundamental feature of adaptation and change in market economies.

There are two types of growth firms. Those that attract the most attention are associated with the development of entire new markets, or industries, that contribute to economic expansion. These have recently been prominent in the world of information and communication technology (ICT), with the creation of new industries. Similar patterns emerged in the development of other sectors, such as automobiles and medical technology. In these cases, there is an argument that a net gain has occurred, with a net increase in the job pool and economic value added.

When high growth firms occur in traditional, well-established sectors, the basis for growth may be more diverse. Alongside superior productivity or products, such growth may also occur through acquisition of competitors and, if the overall market (or industry) is relatively stable, certain competitors may disappear altogether. The national expansion of efficient retail firms (such as Wal-Mart or Carrefour) displaces small-scale retail firms. The benefits are lower prices and greater choice for consumers, but with a redeployment of jobs from independent retail firms to these international chains.

Finally, the sheer scale of the numbers of individuals engaged in the churning pool of employment opportunities points to its potential economic and employment significance.

	Nascent entrepreneurs	*Baby business owner-managers*
Egypt	3 372 889	1 496 645
Jordan	253 576	191 916
Morocco	1 117 332	1 523 067
Tunisia	149 848	488 697
UAE	169 794	213 980

BOX 4.2 THE CASE AGAINST ENTREPRENEURSHIP POLICY

The first argument against promoting general firm creation is that it is a waste of resources on three grounds. The first is that the vast majority of the potential beneficiaries of such policies will never even consider starting a firm. Second, only a fraction of those who take some steps towards business creation ever "convert" in the sense of starting a business. For both these groups, therefore, there is no economic return whatsoever. The third ground is that, even if they do start, the economic significance of most new enterprises is minimal since perhaps only a third survives after six years and less than 1% of new firms have more than 20 employees after five years.

The second argument is that the link between general firm-creation rates and economic development remains unproven. It is unquestionably the case that business creation rates fall as economic development increases in low-income countries. More questionable is whether higher rates of enterprise creation in middle- and higher-income countries are either associated with, or lead to, increased wealth.

Thirdly, promoting general enterprise creation encourages optimistic but poorly resourced individuals to take a risk and, in many cases, to make their own position worse than it would have been if they had remained in either employment or unemployed. They may end up with substantial debts they are either unable to pay off, or where the payment imposes crippling financial pain on the individual.

EXAMPLE 2: HOW TO DEVELOP EVIDENCE-BASED POLICIES - GEM IN ACTION: INCLUSIVE ENTREPRENEURSHIP IN EUROPE (POLICY CASE STUDY)

Jonathan Levie, EC Grant Manager and Co-Director of GEM UK, Professor of Entrepreneurship and Director of Knowledge Exchange Hunter Centre for Entrepreneurship, University of Strathclyde, Glasgow, UK

In May 2011, GERA signed a letter of agreement on "Surveying Entrepreneurial Activity and Self-employment in Europe" with the Employment, Social Affairs and Inclusion Directorate General of the European Commission. In the document it agreed to supply custom data to the Commission on entrepreneurship in European Union member states in which it had coverage plus certain other countries on demand, starting with a pilot of five member states in 2011 and expanding to as many member states as possible in 2012 and 2013. The project covered three activities:

Activity 1: Towards covering all member states of the European Union

Activity 2: Complementing the core GEM survey by specific questions

Activity 3: Data comparison and analysis

Partly as a result of this initiative, GEM coverage of EU member states increased from 18 in 2010 (including pre-accession state Croatia) to 23 in 2012 and 2013, and GEM is committed to working towards full coverage within the EU. The project included supplying new and existing data and was funded by an 80% grant.

The special tabulations of GEM data fed into a joint project by the OECD and DG Employment on Inclusive Entrepreneurship in Europe. Output from this project includes an annual report series titled "The Missing Entrepreneurs: Policies for Inclusive Entrepreneurship in Europe" and a series of Policy Briefs on entrepreneurs from different minority or disadvantaged groups. At the time of writing (January 2014) GEM data is published in both the **2013 and 2014 "Missing Entrepreneurs" annual report** and the following **Policy**

Briefs: Youth Entrepreneurship, Senior Entrepreneurship, Social Entrepreneurship, and Access to Business Start-up Finance for Inclusive Entrepreneurship.[1]

In the annual reports and policy briefs, GEM data was used—in addition to data obtained through the European Labour Force Survey on the self-employed, Flash Eurobarometer data on Entrepreneurship, and the European Union Statistics on Income and Living Conditions—to provide a comprehensive panorama of entrepreneurship in Europe, focusing in particular on Europe's "missing entrepreneurs" or under-represented groups, including women, youth, seniors, the unemployed and people with disabilities. Based on this data, the general literature on entrepreneurship policy, and descriptions of inspiring entrepreneurship policies and programmes aimed at under-represented groups written by national experts, the annual reports and policy briefs provided guidelines for best practice in developing and implementing policy in this area.

GEM data was used primarily to demonstrate how the proportion of nascent, new and established owner-managers among disadvantaged groups in the working age population varied across EU member states. It evidenced wide variations in activity across Europe. For example, for the combined 2008-2012 period, nascent entrepreneurship rates among seniors (aged 50-64) varied from less than 1% in Italy to more than 4% in the Slovak Republic. The proportion of new business owner-managers among young people (aged 18-30) varied from less than 2% in Denmark to 7% in Estonia. The proportion of established business owners in the female working age population varied from 2% in France to 8% in Greece.

GEM data was also used to demonstrate differences across EU member states in social entrepreneurial activity and in access to and use of different sources of funding for starting businesses. For example, in the Policy Brief on Social Entrepreneurship, GEM data was used to demonstrate how different types of social enterprises vary widely across EU member states. In the Policy Brief on Access to Business Start-up Finance for Inclusive Entrepreneurship, GEM data was used to show how the prevalence of self-financing by start-up entrepreneurs varies across the European Union, and how the prevalence of financing problems as a main reason for business closure varies across EU member states by gender, age group and education level.

These differences in propensity demonstrate the need for a greater understanding of the nature of entrepreneurship among different groups at the national level and how this should influence the design of appropriate policies by national governments. Therefore, the annual reports provided a page of key inclusive entrepreneurship data for each EU country, including GEM data on early-stage entrepreneurial activity among men, women, youth and seniors. This information is timely because, as Michel Servoz, Director-General of DG Employment, Social Affairs and Inclusion noted in his preface to the 2014 edition of "Europe's Missing Entrepreneurs" (p. 4):

"In the new programming period 2014-2020, the Commission has encouraged member states and regions to include targeted inclusive entrepreneurship actions in their operational programmes under the investment priority 'Self-employment, entrepreneurship and business creation'."

4.2 COUNTRY EXAMPLES

EXAMPLE 3: MEXICO PROFILE: ENTREPRENEURSHIP PUBLIC POLICY AND GEM

Daniel Moska Arreola, Eugenio Garza Lagüera Entrepreneurship Institute, Tecnológico de Monterrey, Mexico
GEM Team Leader

Mexico is an upper middle income-country with a GDP of $1.261 trillion (current USD) 2013 and population of nearly 124 million people in 2014. Mexico is a young country with median age of 27 years old, and the 15th largest economy in the world. During the last decade it has enjoyed macroeconomic stability with low inflation, and international reserves nearly USD $200 billion in international reserves.

Despite enjoying macroeconomic stability for the last decade, economic growth and employment rate in Mexico has not been suffice to deliver prosperity and wellbeing to a large number of its population. GDP growth in the last 10 years has averaged slightly more than 2% (see Figure 4-1). The expected Mexico GDP growth for 2015 is above 3% forecasted by international organization such as IMF, OECD among others.

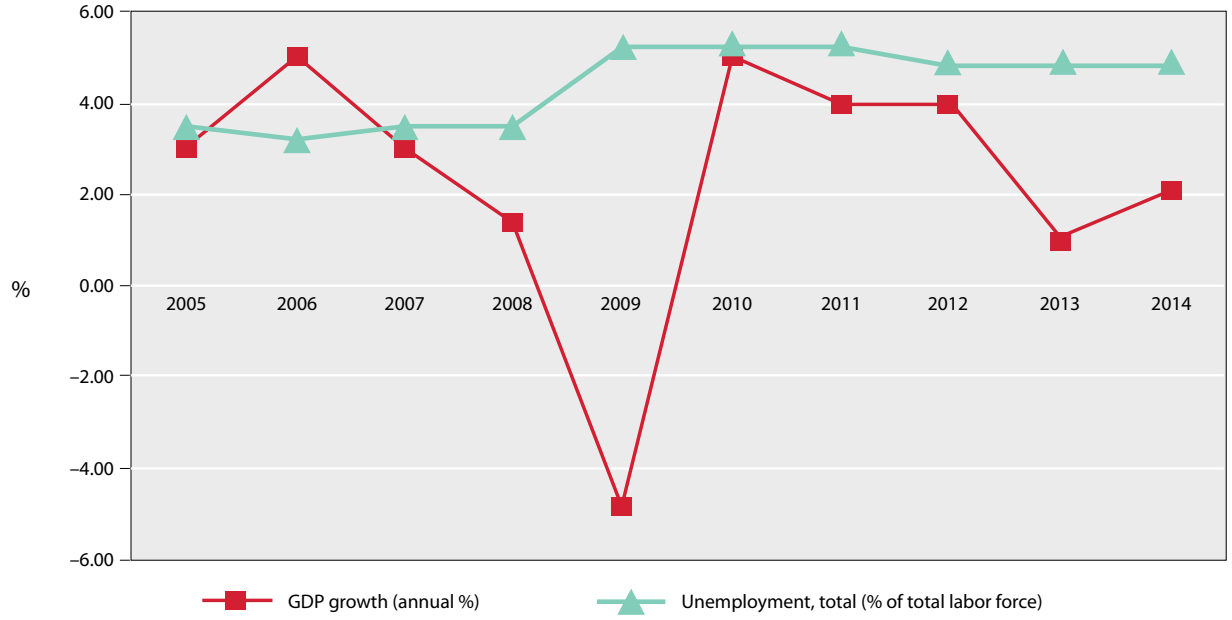
A vibrant export sector generates more than USD$ 1 billion daily, importing slightly more. More than 80% of exports go to the United States. Despite the sharp contrast in development levels within Mexico, it has world-class sectors such as automotive, aerospace, and electric-electronic among others. These sectors offer the opportunity to integrate Mexican SMEs (Small and medium enterprises) and entrepreneurs in their value chain in order to capture more value (i.e. Mexican suppliers in different tiers). Furthermore, technology innovation in areas such as IT, medicine services and devices, and energy are also drivers for entrepreneurial opportunities and economic development.

There are also great challenges and opportunities in other industries in Mexico with low productivity and high employment such as tourism services, restaurants and commerce. These traditional industries can benefit greatly increasing productivity from IT adoption, management development and employee training and access to finance.

The Mexican economy faces the challenges and opportunities of efficiency-driven economies to create value from higher productivity, but also from moving to more innovative economic activity to growth with faster rates. The Promotion of growth, mitigation of poverty, law enforcement and security, and the promotion of economic and social opportunities by means of entrepreneurship and enterprise development are top issues in the public policy agenda of Mexican government. The National Productivity Committee is an example of public policy where the public and the

[1] All these documents are available free for download at http://www.oecd.org/cfe/leed/inclusive-entrepreneurship.htm

FIGURE 4.1 MEXICO: GDP GROWTH AND UNEMPLOYMENT RATE



Source: World Development Indicators, World Bank & OECD (2014).

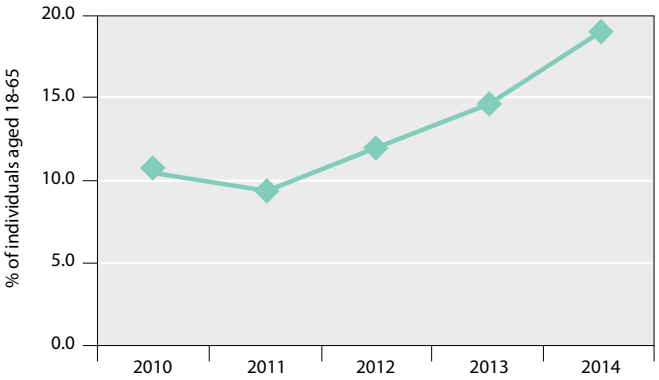
private sector, unions and universities work together to increase the competitiveness of the country in sectors of high productivity and other part of Mexico with low productivity and high employment.

Lately, the Mexican government has launched an ambitious program of macroeconomic reforms aimed at increasing productivity, competition and economic growth and social development. The approved reforms in the following domains are underway: labor, energy, education, finance and telecommunications. According to OECD, the impact of the reforms will represent a GDP´s additional growth of 1%. The foreign direct investment will continue to flow to Mexico. As can be noted, these changes will improve the context in which entrepreneurship takes place according to GEM (Global Entrepreneurship Monitor): basic requirements, efficiency enhancers, innovation and entrepreneurship.

Regarding public policy on entrepreneurship and SMEs, it has been evolving rapidly in the last 10 years. Based on a myriad of programs and projects scattered among several ministries, the SME Fund was created in 2004 to integrate fragmented programs in only one fund to support entrepreneurs and small businesses in a more comprehensive and effective way.

Building on the legacy of strengths and weaknesses of the SME Fund, the National Institute of the Entrepreneur (INADEM) was created in 2013 to slim and redesign the delivery mechanisms and increase the focus on areas such has venture capital and financial services, entrepreneurship education, network infrastructure of support and services, to foster more innovative projects, the adoption of digital technologies as well as to tailor specific regional and sectorial initiatives. Furthermore, a gender factor has been incorporated to increase the number of projects led by women entrepreneurs and a specific program for young entrepreneurs (aged-18-30) is set to start in 2015. In these sense, INADEM programs cover the main aspects proposed by GEM and aligned with recommendation of GEM México 2013 report: entrepreneurial finance, entrepreneurship education, research and development (jointly with the National Science and Technology Council, CONACYT), internal market, physical infrastructure for entrepreneurship, cultural and social norms.

FIGURE 4.2 TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY (TEA)



As figure 4-2 shows, it seems that the actions of entrepreneurs, the government and entrepreneurship ecosystem is paying off: Total Early-Stage Entrepreneurial Activity (TEA) is on the rise showing a positive trend in the last 5 years, and an important growth from 14.8% to 19% in 2014. Certainly, a number of challenges and opportunities are important to further increase the impact of entrepreneurs and SMEs. GEM´s research and insights coupled with the programs and actions of the Mexican government and entrepreneur's ecosystem will boost the context and process to grow GDP and foster economic and social development.

FIGURE 4.3 CREATING INDUSTRIAL DELTA ROBOTS

Juan Pablo Martínez from Automatische Technik, the first Mexican company to create industrial delta robots, its robotic applications are mainly focused on packing, unpacking and repacking any type of products into boxes.

With the support of the Tecnológico de Monterrey business incubator (high impact incubator accredited by INADEM), mentor program for acceleration Enlace E+E, the INADEM and CONACYT Technological Innovation Funds, and a team of entrepreneurs, Automatische Technik designed three generations of robots; the most recent one is in the process of patenting at the Mexican, American and PTC level. The company is candidate for being granted venture capital in order to scale up and achieve globalization.

EXAMPLE 4: MONITORING ENTREPRENEURSHIP IN MALAYSIA: THE GEM DIFFERENCE ON POLICY IMPACT

Siri Roland Xavier, Universiti Tun Abdul Razak, GEM Malaysia Team Leader

Malaysia, through UNIRAZAK, has been collecting GEM data since 2009 and has successfully influenced entrepreneurship programmes, approaches and initiatives undertaken by the government. Over the last five years Malaysia's overall trend has been a decline in the **Necessity-Driven TEA** and an increase of the **Improvement-Driven Opportunity TEA.** Thus government initiatives to provide funding for entrepreneurs through their agencies have be en effective even by global standards. GEM had clearly highlighted that a prevalent reason (45% of responses) for business discontinuation is low profitability. Financial problems were comparatively less (10% of responses). As such, today the Malaysian government's initiatives are very much augmented and centred on up-scaling and up-skilling its entrepreneurs, and not only on funding them. Government agencies (e.g. TERAJU, INSKEN, TEKUN and SME CORP) incorporate a learning and developmental component to such initiatives and programmes. Private entities have also been participating in such initiatives (e.g. CIMB Bank).

This allows the Malaysian government to emphasize on key strategic issues. For example, with regard to the Malaysian GEM data trends, the second finance minister Datuk Seri Ahmad Husni Hanadzlah, stated, "Based on GEM's data, the Government was paying more attention to the improvement of the entrepreneurs' capabilities through advisory services, coaching, training and funding via government agencies." This was done through key government agencies including Cradle Fund Sdn Bhd, SME Corp, Malaysian Biotechnology Corporation, Multimedia Development Corporation, the recently launched (2014) Malaysian Women in Innovation (MyWIN) and the Malaysian Association of ASEAN Young Entrepreneurs (MAAYE) in 2015.

Malaysian GEM data had highlighted the **fear of failure** amongst its potential entrepreneurs. GEM's attitudinal measures show that proactive Malaysian government policies have played a role in reducing individuals' fear of failure, increasing perceived capabilities and increasing the perception of entrepreneurial opportunities. The Malaysian government has adopted a positive prose in its media communications that highlights opportunities and gains offered by entrepreneurship. The use of GEM global data highlighting successful nations has been used as evidence. Up to 2013, within the Asia Pacific and South Asia region, Malaysia has the lowest fear of failure rate amongst those who seek opportunities, with 33% against the regional average of 41%. Malaysia is closely followed by China (34%) and Indonesia (35%). Vietnam ranks highest at 57%. This has been achieved via government training programmes, funding (soft loans) linked to training and access to information for would-be entrepreneurs. Today Malaysia's World Bank ranking for ease of doing business is 18th out of 189 economies.

GEM data on Malaysia has allowed for the distinction between **rural and urban entrepreneurship** rates. This was highlighted early and resulted in a greater emphasis on rural participation. Today a positive trend is the closure of the gap between rural

FIGURE 4.4 PROMOTING A SMALL BUSINESS

Young business entrepreneur Sara Safeeya promoting the Trifle Treat business during the UNIRAZAK New Business Start Up Day, August 22-24th, 2013. Trifle Treat was started by UNIRAZAK's undergraduate student Puteri Nur Atiqah in partnership with Sarah Safeeya (girl in pink in picture).

and urban new business owners in the period 2009-2014 (less than a 20% difference in start-up rates, down from 45% three years ago). This six-year study reveals that for nascent entrepreneurs the gaps has reduced considerably because the government's initiatives target rural sectors as much as urban sectors. Many initiatives had been taken before the first GEM research studies took place. Thus besides being used to influence policy makers as described above, GEM is also used to affirm steps and initiatives taken by government. It allows for a focused and leveraged approach to resource utilisation that has had the greatest impact in the shortest time.

The government has to put in place multi-policy interventions with specific objectives that encourage forerunning entrepreneurs whilst building on affirmative actions for the less advantaged. As the President and Vice Chancellor of UNIRAZAK, Prof. Datuk Seri Dr Md Zabid, has recommended, "A nation needs to have an entrepreneurial ecosystem whilst instilling in its citizens an entrepreneurial mindset".

This GEM approach to greater sophistication in entrepreneurial policy making has been expanded to include ASEAN. This has been achieved through collaboration. A successful example is due to the support of the International Development Research Centre (IDRC), which has used GEM as a key instrument for developing regions in ASEAN. As Edgard Rodriguez of IDRC outlines, "GEM helps decision makers better understand the key bottlenecks constraining business owners and opportunities for nurturing their potential".

Influencing policy making by using GEM promotes better understanding of Malaysian policymakers; not only regarding what they should do, but also regarding evaluating whether they are getting it right.

EXAMPLE 5: ENTREPRENEURSHIP IN SOUTH AFRICA: GEM IMPACT ON POLICY

Mike Herrington, South Africa GEM Team leader, Faculty of Commerce, University of Cape Town

South Africa has participated in GEM since 2001 and at that time this was the only survey on early-stage entrepreneurship in the country. With the advent of democracy in 1994, entrepreneurship, SMME development and job creation became a priority in South Africa as many of its people, particularly African Blacks, were precluded from the skilled job market and from starting their own businesses other than in restricted areas. Unemployment in the country was abnormally high at between 26% and 40% depending upon the definitions used for employment. It still remains at that level, especially amongst the youth, even after 20 years and hence has become an urgent priority in government policy making.

Numerous government agencies were started during this time with the objective of promoting small business development. Agencies such as the Small Enterprise Development Agency (SEDA) and the National Youth Development Agency (NYDA) were some of the many that were started. Initially their focus was directed towards training, mentorship and to a small extent financing but it was a "one size fits all" approach. In 2004 GEM, following suggestions of the South African Team, recommended that early-stage entrepreneurial development should be looked at in two different forms. One being opportunity-driven and the other being necessity-driven entrepreneurship and business development that has resulted because the individual has no other choice and is unable to find employment. These two types of entrepreneurship required different interventions and GEM was instrumental in showing this difference and helping these agencies, especially SEDA, to change their approach so that they could focus their efforts on a particular type of entrepreneur.

However, South Africa's early-stage entrepreneurial activity (TEA) is very low (6%-10%), especially when compared to other developing countries such as those in South America. Further studies showed that education plays a major role in entrepreneurial activity in that the more educated the person, the more likely that person is to start a business and that the business continues to be sustainable. This finding emphasised the need for training in South Africa, particularly amongst the youth where unemployment continues to increase year on year. Unfortunately, South Africa's educational system, according to the 2014/2015 Global Competitive Index report, is one of the worst in the world with the level of math and sciences being rated at 144th out of 144 countries. Over the years GEM has highlighted a number of factors that contribute to hold back SMME development these being:

- Education and training
- A restricted and inhibiting regulatory environment
- Onerous labour laws that prevent employers from firing unproductive employees
- Limited IT coverage and the high cost of the internet

to name just a few. When one looks at the TEA rates of different countries and compares these to the GDP per capita in the country, a "line of best fit" shows that South Africa should have a TEA rate in the region of 14%, which, if achieved, would go a long way towards reducing unemployment and alleviating the poverty experienced by much of its population.

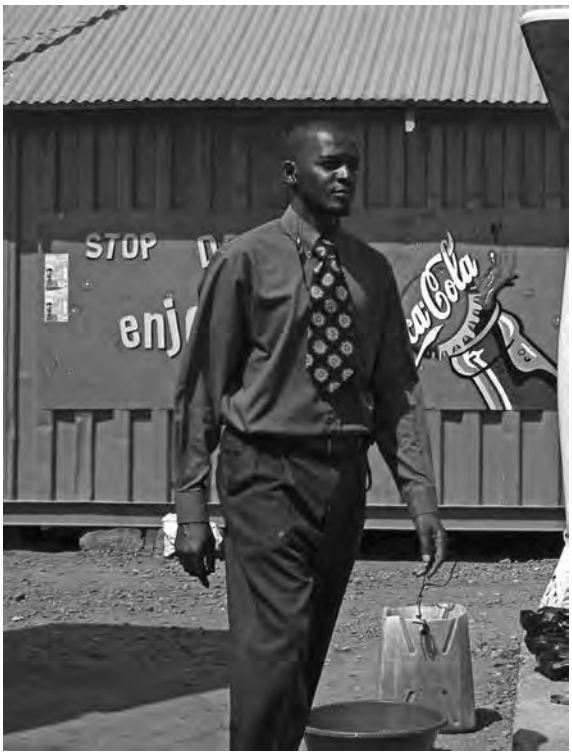
South Africa's poor rating of entrepreneurship was further highlighted in 2012 when a number of other sub-Saharan African countries (Ghana, Nigeria, Uganda, Angola, Ethiopia, Malawi, Zambia, Namibia and Botswana) joined the GEM Consortium. In all cases these countries had TEA rates three and four times that of South Africa. It also allowed for other comparisons, such as the level of potential and intentional entrepreneurs, to be made which further highlighted the poor state of entrepreneurial development in South Africa.

It is difficult to show categorically where GEM has directly influenced policy making in South Africa except that over the years GEM results are being quoted by businesses and

government departments to a greater extent than when GEM first started in 2001. The government recently initiated a National Development Plan under the chairmanship of the past Minister of Finance, Trevor Manuel. GEM has made presentations to this committee on several occasions. In 2013 the government of one of the nine provinces in South Africa approached GEM to complete a study for them on entrepreneurship in their province. The results were published in the 2013 South Africa GEM report.

GEM also highlighted the difference between formal and informal businesses and the different interventions that are needed for each category. Informal businesses like the one illustrate below, play an important role in the South African economy and are thought to contribute as much as 20% to the national GDP—so understanding them is of vital importance.

FIGURE 4.5 RUNNING A SMALL SHOP IN SOUTH AFRICA



A small informal Spaza shop in a South African township.

Copyright: GEM South Africa.

EXAMPLE 6: POLICY DAY AT GEM CANADA: THE CANADIAN APPROACH TO ENGAGING POLICY MAKERS AND ANALYSTS

Peter Josty, Leader, GEM Canada Team, Executive Director, The Centre for Innovation Studies, Calgary, and **Adam Holbrook,** Deputy Leader, GEM Canada Team, Associate Director, Centre for Policy Research on Science and Technology, Vancouver

Canada has a history of research partnerships that span the country. A previous project, on which many of the GEM Canada team members worked, was the Innovation Systems Research Network (ISRN), a decade-long study of innovation and innovation systems in Canada. This project faced the problem of how to engage the project funders, both federal and provincial, in a meaningful way to provide value back to the funders and also to propose the future commitment of funds to keep the project going. The ISRN solution was to create a day, called "Policy Day", at each annual meeting where the funders were invited and preliminary research findings from the project were presented and discussed. The annual meeting usually lasted two or three days. The first one or two days were "Team Days", where team issues were debated among team members, and the final day was the " Policy Day", to which the funders were invited.

GEM Canada is funded by a large consortium from across the country. In 2013, for example, there were 14 funders, covering the GEM Canada report plus GEM reports for seven of the 10 provinces. Canada is a federation where entrepreneurship is largely the responsibility of the ten provincial governments rather than the federal government of Canada. The provinces want regional and local data more relevant to their policy makers. Canada is such a diverse and geographically dispersed nation, that data for the country as a whole is not necessarily actionable at the provincial level. The economy varies widely across the country. For example, some provinces are largely driven by natural resources, particularly oil and gas (e.g. Alberta, Saskatchewan and Newfoundland), while others are largely driven by manufacturing (e.g. Ontario and Quebec). The GEM Canada team is also very diverse, with currently 22 team members from all 10 provinces.

When Canada re-entered GEM in 2013 we faced the question of how to engage federal and provincial policy makers, who were the major funders of the work, but spread out across the country. We adopted the ISRN Policy Day model, and held our first Policy Day in November 2013 (and the second in November 2014). We chose Toronto as the location for these two annual meetings, as it is the lowest cost location for people travelling from across Canada.

The policy days were structured along these lines:

- The funders described who they were, what their areas of responsibility were, and what expectations they had from GEM Canada.
- Senior GEM Canada researchers made a series of short presentations covering various aspects of GEM and the latest GEM Canada and provincial data, and encouraged interruptions and discussion.
- A keynote speaker was invited, usually a senior government official from the government of Ontario, as well as the Vice President of the main entrepreneurship focused university in Toronto, Ryerson University.

- Discussion and questions and answers about the data.
- Discussions of plans for the upcoming GEM cycle, and preferences for optional modules.
- Presentation of the schedule of the report writing stage the upcoming GEM cycle.
- All discussions were held under "Chatham House Rules", where no formal minutes were kept, and no attribution of specific comments could be made to an individual.
- A formal feedback process was included asking all the funders specific questions about how the day was structured, and how it might be improved in future years.

People invited to the Policy Day meeting included all the GEM Canada team members, representatives of all the funders, students, and representatives of organizations who were prospective future funders. Our experiences from the Policy Day have been very positive. Most of the funders in Canada are interested in GEM as it provides the evidence for evidence-based policy making. As one of the major funders commented, "GEM is the only game in town when it comes to getting comparative metrics for entrepreneurial performance".

In terms of the challenges raised by this approach in Canada, the main one is finding the funding necessary to carry it out. The formal GEM Canada funding did not include funds for an annual meeting, so we had to be creative (entrepreneurial?) to make the meeting happen. We used a combination of approaches:

- seeking extra funding from a major local university
- getting those team members able to find their own resources to pay for at least part of the travel and accommodation expenses
- using a central airport and a low cost airport hotel to manage costs, and,
- (our favorite) instead of having a formal team dinner at a restaurant using take-out pizza and beer (the favorite was tandoori flavored pizza) at the hotel!

While this model may not apply to all GEM teams, or national structures, the key element is the engagement of national/ provincial or state, and even local officials in discussions with the GEM researchers of the policy implications of their results. The other key element is the full participation of the entire GEM Canada team: principals, associate researchers and students—particularly the students. Participation in Policy Day shows the students that their work has more than just scholarly relevance and, not coincidentally, gives them "face time" with senior policy managers from governments and other institutions.

FIGURE 4.6 A POLICY DAY IN GEM TORONTO

A typical Policy Day underway in Toronto: participants are GEM team members, as many students as can be accommodated, major funders, interested members of government and the private sector.

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APPENDIX 1

TABLE A.1 PERCEPTIONS OF SOCIAL VALUES REGARDING ENTREPRENEURSHIP IN THE GEM ECONOMIES IN 2014, BY STAGES OF ECONOMIC DEVELOPMENT (% OF POPULATION AGED 18-64)

Stages of economic development and GEM economies		*Entrepreneurship as a good career choice*	*High status to successful entrepreneurs*	*Media attention to entrepreneurship*
Stage 1: factor-driven (includes countries in transition to stage 2)	Angola	75.10	81.65	71.69
	Bolivia	70.26	77.00	76.50
	Botswana	69.94	78.11	74.55
	Burkina Faso			
	Cameroon			
	India	57.93	66.16	56.62
	Iran	52.26	75.61	55.09
	Philippines	81.80	78.13	84.70
	Uganda			
	Vietnam	67.15	75.92	86.83
	Average (unweighted)	67.78	76.08	72.28
Stage 2: efficiency-driven (includes countries in transition to stage 3)	Argentina	57.82	52.20	63.63
	Barbados	57.61	58.50	46.30
	Belize	57.80	55.46	43.25
	Bosnia and Herzegovina	78.15	69.94	39.85
	Brazil			
	Chile	69.43	64.43	65.21
	China	65.68	72.91	69.28
	Colombia	70.45	67.13	74.42
	Costa Rica	61.33	59.00	79.70
	Croatia	63.27	46.58	40.44
	Ecuador	66.43	67.13	82.89
	El Salvador	82.57	59.49	59.55
	Georgia	65.99	75.92	58.45
	Guatemala	95.33	76.92	60.61
	Hungary	47.39	72.38	33.47
	Indonesia	72.86	77.96	84.79
	Jamaica	83.50	84.05	83.90
	Kazakhstan	78.62	74.35	82.97
	Kosovo	68.28	76.18	57.22
	Lithuania	68.81	58.33	55.14
	Malaysia	50.37	49.95	69.85
	Mexico	53.22	50.76	45.48
	Panama			
	Peru	82.43	81.38	83.62
	Poland	63.28	56.45	54.52
	Romania	73.64	75.22	71.34
	Russia	67.12	65.93	50.43
	South Africa	69.58	72.92	72.57
	Suriname	66.75	67.18	80.66
	Thailand	73.60	71.11	80.31
	Uruguay	62.13	56.72	60.83
	Average (unweighted)	68.05	66.09	63.82

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Stages of economic development and GEM economies		*Entrepreneurship as a good career choice*	*High status to successful entrepreneurs*	*Media attention to entrepreneurship*
	Australia	53.35	67.09	72.56
	Austria			
	Belgium	52.41	51.73	50.82
	Canada	57.25	69.72	67.73
	Denmark			
	Estonia	55.56	64.93	43.34
	Finland	41.24	84.40	66.93
	France	59.05	70.43	38.98
	Germany	51.66	79.10	51.41
	Greece	58.42	66.42	45.80
	Ireland	49.39	76.88	75.68
	Italy	65.05	72.09	48.28
	Japan	30.98	55.81	58.70
	Luxembourg	40.66	68.18	43.54
Stage 3: innovation–driven	**Netherlands**	79.11	67.77	55.66
	Norway	58.16	83.47	
	Portugal	62.23	62.94	69.75
	Puerto Rico	18.51	51.13	72.70
	Qatar	75.83	87.06	76.75
	Singapore	51.73	62.91	79.10
	Slovakia	45.42	58.05	52.57
	Slovenia	53.39	72.31	57.56
	Spain	53.94	48.99	46.33
	Sweden	51.58	70.90	60.30
	Switzerland	42.30	65.81	50.43
	Taiwan	75.22	62.57	83.50
	Trinidad & Tobago	79.47	69.50	65.60
	United Kingdom	60.30	74.99	58.36
	United States	64.73	76.87	75.83
	Average (unweighted)	55.07	68.22	60.32

TABLE A.2 INDIVIDUAL ATTRIBUTES IN THE GEM ECONOMIES IN 2014, BY STAGES OF ECONOMIC DEVELOPMENT (% OF POPULATION AGED 18-64)

Stages of economic development and economies		*Perceived opportunities*	*Perceived capabilities*	*Fear of failure**	*Entrepreneurial intentions **
Stage 1: factor-driven (includes countries in transition to stage 2)	**Angola**	69.75	61.68	44.81	39.34
	Bolivia	57.67	73.11	38.39	46.94
	Botswana	57.16	67.14	13.70	63.37
	Burkina Faso	63.61	65.89	23.75	42.34
	Cameroon	69.34	73.77	22.80	55.57
	India	38.91	36.70	37.67	7.66
	Iran	27.68	59.45	32.70	25.48
	Philippines	45.89	66.15	37.68	42.84
	Uganda	76.91	84.86	12.55	60.19
	Vietnam	39.36	58.20	50.13	18.20
	Average (unweighted)	54.63	64.70	31.42	40.19
Stage 2: efficiency-driven (includes countries in transition to stage 3)	**Argentina**	31.91	57.78	23.54	27.83
	Barbados	38.16	63.51	23.44	11.48
	Belize	49.55	69.00	32.63	10.09
	Bosnia and Herzegovina	19.59	47.30	26.80	20.43
	Brazil	55.54	49.96	35.56	24.50
	Chile	67.00	64.87	28.39	50.14
	China	31.88	32.97	39.50	19.33
	Colombia	65.74	57.41	30.70	47.01
	Costa Rica	39.00	59.39	36.83	28.95
	Croatia	18.43	45.91	30.30	19.50
	Ecuador	62.02	72.81	30.67	43.10
	El Salvador	44.69	70.81	34.90	23.06
	Georgia	36.58	37.54	34.78	15.58
	Guatemala	45.38	64.17	33.03	35.79
	Hungary	23.40	40.94	41.96	13.89
	Indonesia	45.46	60.20	38.12	27.36
	Jamaica	57.05	81.23	22.04	35.33
	Kazakhstan	26.50	52.54	23.83	15.41
	Kosovo	65.62	65.20	26.73	6.31
	Lithuania	31.66	33.44	44.77	19.65
	Malaysia	43.40	38.40	26.75	11.63
	Mexico	48.87	53.48	29.61	17.40
	Panama	43.26	54.38	14.63	19.67
	Peru	62.31	69.42	29.11	50.60
	Poland	31.35	54.30	51.11	15.56
	Romania	32.41	48.44	41.25	31.70
	Russia	26.50	27.83	39.49	3.53
	South Africa	37.00	37.65	25.37	10.05
	Suriname	41.03	77.36	16.10	4.55
	Thailand	47.35	50.12	42.44	21.75
	Uruguay	45.56	63.12	26.71	24.82
	Average (unweighted)	42.39	54.89	31.65	22.77

APPENDIX 1

Stages of economic development and economies		*Perceived opportunities*	*Perceived capabilities*	*Fear of failure**	*Entrepreneurial intentions ***
Stage 3: innovation–driven	**Australia**	45.72	46.80	39.21	10.02
	Austria	44.40	48.67	34.92	8.15
	Belgium	35.93	30.40	49.35	10.55
	Canada	55.52	48.98	36.52	11.96
	Denmark	59.66	34.88	40.99	6.92
	Estonia	49.44	42.47	41.77	9.85
	Finland	42.38	34.88	36.76	7.94
	France	28.26	35.44	41.18	14.20
	Germany	37.59	36.40	39.95	5.93
	Greece	19.91	45.54	61.58	9.53
	Ireland	33.36	47.24	39.33	7.16
	Italy	26.57	31.31	49.10	11.40
	Japan	7.27	12.23	54.51	2.52
	Luxembourg	42.54	37.56	42.01	11.86
	Netherlands	45.55	44.26	34.79	9.29
	Norway	63.45	30.54	37.56	4.99
	Portugal	22.87	46.59	38.38	15.81
	Puerto Rico	25.08	48.84	24.01	12.45
	Qatar	63.38	60.94	25.54	50.36
	Singapore	16.71	21.35	39.40	9.44
	Slovakia	23.50	54.40	35.96	15.14
	Slovenia	17.25	48.60	29.00	11.36
	Spain	22.61	48.13	38.03	7.09
	Sweden	70.07	36.65	36.53	8.47
	Switzerland	43.67	41.59	28.98	7.07
	Taiwan	33.47	29.00	37.39	25.56
	Trinidad & Tobago	58.62	75.23	16.79	33.91
	United Kingdom	40.99	46.44	36.84	6.88
	United States	50.85	53.34	29.66	12.08
	Average (unweighted)	38.85	42.02	37.79	12.34

* Denominator: age group 18-64 perceiving good opportunities to start a business

** Respondent expects to start a business within three years; denominator: age group 18-64 that is currently not involved in entrepreneurial activity

TABLE A.3 TOTAL EARLY-STAGE ENTREPRENEURIAL ACTIVITY (TEA) IN THE GEM ECONOMIES IN 2014, BY STAGES OF ECONOMIC DEVELOPMENT (% OF POPULATION AGED 18-64)

Stages of economic development and economies		*Nascent entrepreneurship rate*	*New business ownership rate*	*Early-stage entrepreneurial activity (TEA)*	*Established business ownership rate*	*Discontinuation of businesses*
Stage 1: factor-driven (includes countries in transition to stage 2)	**Angola**	9.52	12.36	21.50	6.50	15.12
	Bolivia	21.51	7.07	27.40	7.59	6.89
	Botswana	23.13	11.13	32.79	4.95	15.09
	Burkina Faso	12.72	9.75	21.71	17.68	10.80
	Cameroon	26.35	13.70	37.37	11.50	17.70
	India	4.12	2.54	6.60	3.73	1.17
	Iran	7.52	8.68	16.02	10.92	5.73
	Philippines	8.16	10.52	18.38	6.16	12.55
	Uganda	8.92	28.13	35.53	35.94	21.17
	Vietnam	2.00	13.30	15.30	22.15	3.55
	Average (unweighted)	12.40	11.72	23.26	12.71	10.98
Stage 2: efficiency-driven (includes countries in transition to stage 3)	**Argentina**	9.47	5.21	14.41	9.09	4.92
	Barbados	8.48	4.23	12.71	7.09	3.68
	Belize	4.25	3.02	7.14	3.74	4.69
	Bosnia and Herzegovina	4.48	2.94	7.42	6.67	4.47
	Brazil	3.66	13.79	17.23	17.51	4.14
	Chile	16.61	11.05	26.83	8.79	8.32
	China	5.45	10.17	15.53	11.59	1.45
	Colombia	12.39	6.66	18.55	4.86	5.65
	Costa Rica	7.58	3.74	11.33	2.53	4.86
	Croatia	5.95	2.02	7.97	3.61	3.84
	Ecuador	24.54	9.92	32.61	17.67	8.13
	El Salvador	11.37	8.74	19.48	12.73	10.77
	Georgia	4.10	3.23	7.22	7.28	2.50
	Guatemala	11.98	9.19	20.39	7.36	4.43
	Hungary	5.56	3.87	9.33	7.95	3.10
	Indonesia	4.38	10.12	14.20	11.90	4.18
	Jamaica	7.94	11.90	19.27	14.44	6.27
	Kazakhstan	8.10	6.19	13.72	7.43	2.95
	Kosovo	2.46	1.79	4.03	2.06	6.63
	Lithuania	6.07	5.34	11.32	7.84	2.91
	Malaysia	1.36	4.55	5.91	8.46	2.01
	Mexico	12.66	6.39	18.99	4.48	5.56
	Panama	13.12	4.09	17.06	3.44	4.47
	Peru	23.10	7.32	28.81	9.24	8.03
	Poland	5.77	3.58	9.21	7.30	4.17
	Romania	5.33	6.17	11.35	7.60	3.19
	Russia	2.39	2.35	4.69	3.95	1.18
	South Africa	3.87	3.20	6.97	2.68	3.89
	Suriname	1.93	0.17	2.10	5.17	0.21
	Thailand	7.63	16.73	23.30	33.06	4.16
	Uruguay	10.51	5.75	16.08	6.74	4.39
	Average (unweighted)	8.15	6.24	14.04	8.52	4.49

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Stages of economic development and economies		*Nascent entrepreneur-ship rate*	*New business ownership rate*	*Early-stage entrepreneurial activity (TEA)*	*Established business ownership rate*	*Discontinuation of businesses*
Stage 3: innovation–driven	**Australia**	7.65	5.69	13.14	9.80	3.88
	Austria	5.80	3.06	8.71	9.86	2.72
	Belgium	2.93	2.55	5.40	3.54	2.27
	Canada	7.93	5.61	13.04	9.35	4.16
	Denmark	3.07	2.49	5.47	5.09	2.24
	Estonia	6.34	3.54	9.43	5.70	2.02
	Finland	3.45	2.29	5.63	6.60	2.32
	France	3.69	1.71	5.34	2.94	1.75
	Germany	3.05	2.25	5.27	5.15	1.67
	Greece	4.58	3.37	7.85	12.84	2.83
	Ireland	4.36	2.46	6.53	9.91	1.89
	Italy	3.18	1.28	4.42	4.27	2.13
	Japan	2.71	1.26	3.83	7.18	1.08
	Luxembourg	4.94	2.33	7.14	3.70	2.58
	Netherlands	5.15	4.53	9.46	9.59	1.76
	Norway	2.75	2.95	5.65	5.35	1.85
	Portugal	5.83	4.40	9.97	7.58	2.98
	Puerto Rico	8.80	1.29	10.04	1.27	3.61
	Qatar	11.32	5.39	16.38	3.54	4.84
	Singapore	6.36	4.82	10.96	2.88	2.39
	Slovakia	6.70	4.35	10.90	7.80	5.16
	Slovenia	3.78	2.66	6.33	4.76	1.48
	Spain	3.33	2.21	5.47	7.03	1.91
	Sweden	4.86	1.90	6.71	6.46	2.09
	Switzerland	3.38	3.81	7.12	9.10	1.50
	Taiwan	4.41	4.13	8.49	12.19	5.12
	Trinidad & Tobago	7.47	7.44	14.62	8.48	2.79
	United Kingdom	6.28	4.48	10.66	6.50	1.86
	United States	9.67	4.25	13.81	6.95	4.02
	Average (unweighted)	5.30	3.40	8.54	6.74	2.65

TABLE A.4 MOTIVATION FOR EARLY-STAGE ENTREPRENEURIAL ACTIVITY IN THE GEM ECONOMIES IN 2014, BY STAGES OF ECONOMIC DEVELOPMENT (% OF POPULATION AGED 18-64)

Stages of development and economies		*Early-stage entrepreneurial activity (TEA)*	*Necessity-driven (% of TEA)*	*Opportunity-driven (% of TEA)*	*Improvement-driven opportunity (% of TEA)*	*Motivational index*
Stage 1: factor-driven (includes countries in transition to stage 2)	**Angola**	21.50	24.45	72.14	43.41	1.78
	Bolivia	27.40	22.84	76.66	51.70	2.26
	Botswana	32.79	30.25	67.21	54.71	1.81
	Burkina Faso	21.71	22.27	75.25	52.84	2.37
	Cameroon	37.37	33.46	59.23	40.51	1.21
	India	6.60	31.71	59.97	36.54	1.15
	Iran	16.02	38.69	60.56	49.58	1.28
	Philippines	18.38	29.36	70.53	33.49	1.14
	Uganda	35.53	18.88	80.84	54.25	2.87
	Vietnam	15.30	29.74	70.26	53.27	1.79
	Average (unweighted)	23.26	28.16	69.27	47.03	1.67
Stage 2: efficiency-driven (includes countries in transition to stage 3)	**Argentina**	14.41	28.03	67.77	43.51	1.55
	Barbados	12.71	14.56	73.83	53.13	3.65
	Belize	7.14	13.07	82.94	47.61	3.64
	Bosnia and Herzegovina	7.42	50.83	48.45	25.16	0.49
	Brazil	17.23	28.95	70.60	57.81	2.00
	Chile	26.83	17.63	80.99	62.18	3.53
	China	15.53	33.22	65.72	45.41	1.37
	Colombia	18.55	33.33	66.04	51.55	1.55
	Costa Rica	11.33	19.31	79.40	63.52	3.29
	Croatia	7.97	46.57	51.29	28.67	0.62
	Ecuador	32.61	29.43	70.07	34.95	1.19
	El Salvador	19.48	31.95	67.82	54.48	1.71
	Georgia	7.22	48.59	50.57	30.95	0.64
	Guatemala	20.39	40.62	59.16	38.93	0.96
	Hungary	9.33	33.19	64.72	36.27	1.09
	Indonesia	14.20	20.52	78.57	37.95	1.85
	Jamaica	19.27	32.09	65.57	33.51	1.04
	Kazakhstan	13.72	26.39	69.10	33.68	1.28
	Kosovo	4.03	22.01	59.90	29.13	1.32
	Lithuania	11.32	19.61	79.56	43.78	2.23
	Malaysia	5.91	17.54	82.46	63.99	3.65
	Mexico	18.99	22.46	76.26	50.04	2.23
	Panama	17.06	26.32	73.10	60.23	2.29
	Peru	28.81	16.39	82.53	58.90	3.59
	Poland	9.21	36.75	59.17	47.11	1.28
	Romania	11.35	28.94	70.14	49.75	1.72
	Russia	4.69	39.02	58.70	41.56	1.07
	South Africa	6.97	28.19	71.27	35.49	1.26
	Suriname	2.10	5.42	73.16	39.83	7.34
	Thailand	23.30	17.81	80.94	71.23	4.00
	Uruguay	16.08	15.96	82.36	27.28	1.71
	Average (unweighted)	14.04	27.25	69.75	45.08	1.65

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Stages of development and economies		*Early-stage entrepreneurial activity (TEA)*	*Necessity-driven (% of TEA)*	*Opportunity-driven (% of TEA)*	*Improvement-driven opportunity (% of TEA)*	*Motivational index*
Stage 3: innovation driven	**Australia**	13.14	17.60	81.50	63.78	3.62
	Austria	8.71	10.95	81.69	37.37	3.41
	Belgium	5.40	30.67	63.19	43.12	1.41
	Canada	13.04	15.67	76.34	63.34	4.04
	Denmark	5.47	5.43	91.06	60.15	11.09
	Estonia	9.43	15.10	74.48	41.15	2.72
	Finland	5.63	15.62	81.06	63.12	4.04
	France	5.34	16.06	82.00	69.15	4.31
	Germany	5.27	23.18	75.75	53.74	2.32
	Greece	7.85	34.77	61.47	30.53	0.88
	Ireland	6.53	29.65	68.35	48.56	1.64
	Italy	4.42	13.59	78.41	38.58	2.84
	Japan	3.83	18.82	76.15	68.24	3.63
	Luxembourg	7.14	11.81	85.37	59.81	5.06
	Netherlands	9.46	15.67	80.41	62.77	4.01
	Norway	5.65	3.54	86.73	69.03	19.50
	Portugal	9.97	27.37	71.33	49.31	1.80
	Puerto Rico	10.04	20.50	79.05	51.08	2.49
	Qatar	16.38	21.53	77.13	54.37	2.53
	Singapore	10.96	11.40	84.28	70.81	6.21
	Slovakia	10.90	32.57	64.22	51.83	1.59
	Slovenia	6.33	25.46	71.40	44.78	1.76
	Spain	5.47	29.79	66.05	33.48	1.12
	Sweden	6.71	7.91	84.16	56.16	7.10
	Switzerland	7.12	14.35	74.88	58.14	4.05
	Taiwan	8.49	13.26	86.74	66.04	4.98
	Trinidad & Tobago	14.62	12.01	86.45	64.26	5.35
	United Kingdom	10.66	12.90	83.57	52.71	4.09
	United States	13.81	13.50	81.53	66.93	4.96
	Average (unweighted)	8.54	17.96	77.75	54.91	3.06

TABLE A.5 GENDER DISTRIBUTION OF EARLY-STAGE ENTREPRENEURS (TEA) & NECESSITY VS OPPORTUNITY ENTREPRENEURSHIP BY GEOGRAPHIC REGION, 2014

Regions and GEM economies		*MALE TEA (% of adult male population)*	*FEMALE TEA (% of adult female population)*	*MALE TEA Opportunity (% of TEA males)*	*FEMALE TEA Opportunity (% of TEA females)*	*MALE TEA Necessity (% of TEA males)*	*FEMALE TEA Necessity (% of TEA females)*
Africa	Angola	22.79	20.37	73.91	70.39	21.77	27.09
	Botswana	34.79	30.93	72.22	61.96	24.52	36.25
	Burkina Faso	25.39	18.71	84.73	64.72	12.65	32.94
	Cameroon	40.94	34.10	65.53	52.29	27.63	39.89
	South Africa	7.72	6.29	71.38	71.16	28.62	27.70
	Uganda	33.73	37.15	84.55	77.82	15.20	21.89
	Average (unweighted)	27.56	24.59	75.39	66.39	21.73	30.96
Asia & Oceania	Australia	15.97	10.32	81.86	80.93	18.14	16.77
	China	16.83	14.18	69.58	60.95	29.39	37.95
	India	8.52	4.58	56.51	66.70	33.04	29.13
	Indonesia	13.23	15.16	80.56	76.85	18.28	22.45
	Iran	21.45	10.47	59.38	63.04	39.77	36.43
	Japan	6.12	1.50	76.41	75.06	17.34	24.94
	Kazakhstan	14.34	13.17	71.13	67.12	26.06	26.71
	Malaysia	5.10	6.78	86.16	79.47	13.84	20.53
	Philippines	15.85	20.78	83.93	60.78	15.79	39.22
	Qatar	19.29	10.32	75.50	83.43	23.02	15.75
	Singapore	14.83	7.17	85.53	81.76	11.38	11.44
	Taiwan	10.15	6.83	87.84	85.10	12.16	14.90
	Thailand	24.53	22.12	81.53	80.31	17.12	18.56
	Vietnam	15.13	15.47	71.14	69.43	28.86	30.57
	Average (unweighted)	14.38	11.35	76.22	73.64	21.73	24.67
Latin America & Caribbean	Argentina	17.84	11.22	73.88	58.76	22.00	36.93
	Barbados	14.33	11.23	74.40	73.15	12.74	16.69
	Belize	7.81	6.45	83.94	81.70	11.14	15.46
	Bolivia	29.89	24.98	81.05	71.59	18.80	27.51
	Brazil	17.01	17.45	78.88	62.71	21.06	36.47
	Chile	30.10	23.68	88.64	71.65	9.89	27.08
	Colombia	22.78	14.57	70.55	59.42	28.91	39.83
	Costa Rica	11.66	11.02	84.35	74.58	13.04	25.42
	Ecuador	33.04	32.18	73.33	66.78	26.33	32.55
	El Salvador	19.26	19.69	69.39	66.44	30.61	33.13
	Guatemala	24.43	16.85	61.85	55.74	37.75	44.26
	Jamaica	21.26	17.34	70.31	59.94	26.10	39.21
	Mexico	19.74	18.31	78.74	73.80	20.26	24.64
	Panama	17.98	16.14	75.56	70.37	23.89	29.01
	Peru	29.65	28.00	86.07	78.90	12.63	20.24
	Puerto Rico	11.13	9.05	79.64	78.39	19.51	21.61
	Suriname	2.67	1.54	79.77	61.68	3.90	8.06
	Trinidad & Tobago	16.08	13.16	87.08	85.69	10.77	13.52
	Uruguay	19.17	13.23	86.45	76.91	11.29	22.20
	Average (unweighted)	19.25	16.11	78.10	69.90	18.98	27.04

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Regions and GEM economies		MALE TEA (% of adult male population)	FEMALE TEA (% of adult female population)	MALE TEA Opportunity (% of TEA males)	FEMALE TEA Opportunity (% of TEA females)	MALE TEA Necessity (% of TEA males)	FEMALE TEA Necessity (% of TEA females)
European Union	Austria	10.38	7.06	82.48	80.54	11.31	10.43
	Belgium	7.65	3.14	66.41	55.29	29.38	33.83
	Croatia	11.28	4.75	52.11	49.38	46.27	47.24
	Denmark	7.12	3.79	91.72	89.81	5.64	5.02
	Estonia	11.21	7.71	75.89	72.50	13.39	17.50
	Finland	6.63	4.63	82.55	78.90	14.54	17.20
	France	6.68	4.03	87.25	73.50	11.42	23.57
	Germany	6.54	3.97	77.58	72.67	20.99	26.88
	Greece	9.89	5.81	67.13	51.82	30.01	42.90
	Hungary	13.48	5.29	67.73	57.25	29.34	42.75
	Ireland	8.87	4.23	73.12	58.47	26.01	37.20
	Italy	5.71	3.15	75.72	83.21	16.38	8.62
	Lithuania	16.19	6.78	82.81	72.31	16.59	26.35
	Luxembourg	8.89	5.32	85.87	84.49	11.97	11.55
	Netherlands	11.62	7.27	79.69	81.58	16.61	14.15
	Poland	12.50	5.95	59.33	58.82	36.09	38.14
	Portugal	11.68	8.36	74.69	66.92	23.95	31.89
	Romania	16.02	6.57	70.40	69.94	28.30	30.06
	Slovakia	14.37	7.41	64.58	63.51	31.94	33.78
	Slovenia	8.29	4.25	76.21	61.48	22.62	31.31
	Spain	6.36	4.57	69.61	61.03	26.13	34.95
	Sweden	9.54	3.79	85.62	80.35	6.61	11.30
	United Kingdom	13.82	7.53	83.24	84.17	14.91	9.27
	Average (unweighted)	10.21	5.45	75.29	69.91	21.32	25.47
Non-European Union	Bosnia and Herzegovina	10.60	4.25	52.45	38.51	47.55	58.98
	Georgia	8.05	6.47	54.39	46.33	45.61	51.90
	Kosovo	4.78	3.30	65.45	51.94	23.00	20.60
	Norway	7.29	4.00	89.04	82.50	0.00	10.00
	Russia	5.77	3.70	60.37	56.34	37.66	40.93
	Switzerland	7.03	7.20	79.85	69.93	10.97	17.72
	Average (unweighted)	7.25	4.82	66.93	57.59	27.46	33.35
North America	Canada	16.23	9.93	80.12	70.35	13.17	19.62
	United States	16.53	11.20	83.85	78.24	11.70	16.04
	Average (unweighted)	16.38	10.56	81.98	74.29	12.44	17.83

TABLE A.6 JOB GROWTH EXPECTATIONS OF EARLY-STAGE ENTREPRENEURS, BY GEOGRAPHIC REGIONS, 2014

Region		*0 - 5 jobs (% Job growth as percent of TEA)*	*6 - 19 jobs (% Job growth as percent of TEA)*	*20 or more jobs (% Job growth as percent of TEA)*
Africa	Angola	19.9745	19.0553	4.6167
	Botswana	51.5733	22.6880	13.2531
	Burkina Faso	78.1843	14.8016	4.8959
	Cameroon	51.6667	13.2051	6.4103
	South Africa	59.5562	15.8585	11.8989
	Uganda	89.4537	8.3985	2.1478
	Total	60.9558	15.2563	6.7452
Asia & Oceania	Australia	62.3103	17.3700	11.6336
	China	57.5163	17.7623	6.5211
	India	50.7525	6.1843	3.6226
	Indonesia	46.5040	4.6515	1.2209
	Iran	61.7290	16.5539	12.5526
	Japan	48.9703	15.4563	17.6446
	Kazakhstan	27.4306	16.3194	14.9306
	Malaysia	88.6119	11.3881	0.0000
	Philippines	88.2003	5.5894	1.7460
	Qatar	49.2733	21.5295	23.0624
	Singapore	41.7300	23.1652	19.3656
	Taiwan	32.5510	26.6817	27.2589
	Thailand	80.1591	7.7485	1.1379
	Vietnam	82.0261	12.4183	4.2484
	Total	58.2713	13.7151	9.4793
Latin America & Caribbean	Argentina	57.5868	16.9587	8.8884
	Barbados	42.0738	9.7559	3.8324
	Belize	48.7125	16.4751	4.6934
	Bolivia	71.0153	14.0964	6.2997
	Brazil	76.4712	8.7371	2.3236
	Chile	44.7210	27.2629	15.9513
	Colombia	33.0785	33.8740	28.1126
	Costa Rica	72.1030	10.7296	7.7253
	Ecuador	75.2508	7.3579	2.6756
	El Salvador	59.3225	5.9044	.7613
	Guatemala	33.2627	5.4477	2.2893
	Jamaica	63.3394	8.8170	2.3490
	Mexico	49.2371	11.8219	1.4823
	Panama	82.4561	4.3860	2.6316
	Peru	70.1012	7.8437	3.4453
	Puerto Rico	76.8487	7.6190	1.7231
	Suriname	69.8612	5.0795	2.4765
	Trinidad & Tobago	53.2118	21.5812	11.3313
	Uruguay	46.7984	20.8839	15.7216
	Total	59.7557	14.3669	7.4869

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Region		*0 - 5 jobs (% Job growth as percent of TEA)*	*6 - 19 jobs (% Job growth as percent of TEA)*	*20 or more jobs (% Job growth as percent of TEA)*
European Union	**Austria**	58.2940	9.4975	5.3409
	Belgium	77.5859	8.0121	8.8663
	Croatia	25.1117	25.7157	14.7890
	Denmark	66.3637	16.2707	5.5667
	Estonia	58.8542	15.6250	6.7708
	Finland	78.3699	4.1054	11.5933
	France	56.5491	16.8722	13.9415
	Germany	62.7588	14.6094	12.8213
	Greece	55.5904	8.7935	3.2269
	Hungary	47.7861	22.0618	19.2562
	Ireland	56.2786	22.1330	12.0431
	Italy	64.7345	8.8834	5.2772
	Lithuania	42.5624	22.0987	12.2205
	Luxembourg	44.8832	24.1776	4.3688
	Netherlands	66.6019	12.7951	6.7042
	Poland	47.8570	14.2982	13.3528
	Portugal	41.6339	14.2402	8.7855
	Romania	31.0804	26.6710	20.4987
	Slovakia	40.3670	16.5138	17.8899
	Slovenia	51.2287	15.5578	13.0175
	Spain	58.9647	14.8983	4.3886
	Sweden	63.3664	9.5433	11.9819
	United Kingdom	54.8526	12.2802	11.7354
	Total	54.2885	15.5197	9.2522
Non-European Union	**Bosnia and Herzegovina**	53.3516	23.1429	9.7347
	Georgia	43.3364	15.0020	6.6400
	Kosovo	18.2147	17.4221	1.3904
	Norway	75.2212	9.7345	5.3097
	Russia	41.7038	14.1938	9.7918
	Switzerland	67.0138	15.4065	4.8990
	Total	52.6207	16.1384	6.6334
North America	**Canada**	52.5910	17.3058	14.0210
	United States	48.5136	18.3282	20.9520
	Total	50.1598	17.9154	18.1538

APPENDIX 2

CHARACTERISTICS OF GEM APS SURVEYS, IN 2014

Team	*Interview procedure*	*Sample size*
Argentina	Fixed Line Telephone	2500
Australia	Mobile Telephone	2177
Austria	Fixed Line and Mobile Telephone	4586
Barbados	Face-to-face and Fixed Line Telephone	2000
Belgium	Fixed Line and Mobile Telephone	2004
Belize	Face-to-face Interviews	2084
Bosnia-Herzegovina	Fixed Line Telephone	2590
Bolivia	Face-to-face Interviews	2015
Botswana	Face-to-face Interviews	2156
Brazil	Face-to-face Interviews	10000
Burkina Faso	Face-to-face Interviews	2850
Cameroon	Face-to-face Interviews	2087
Canada	Fixed Line and Mobile Telephone	2479
Chile	Face-to-face and Fixed Line and Mobile Telephone	6212
China	Face-to-face Interviews	3647
Colombia	Face-to-face and Fixed Line Telephone	3691
Costa Rica	Face-to-face Interviews	2057
Croatia	Fixed Line Telephone	2000
Denmark	Mobile Telephone	2008
Ecuador	Face-to-face Interviews	2040
El Salvador	Face-to-face Interviews	2014
Estonia	Fixed Line and Mobile Telephone	2357
Finland	Mobile Telephone	2005
France	Fixed Line Telephone	2005
Georgia	Face-to-face Interviews	2016
Germany	Fixed Line and Mobile Telephone	4311
Greece	Fixed Line Telephone	2000
Guatemala	Face-to-face Interviews	2158
Hungary	Mobile Telephone	2003
India	Face-to-face Interviews	3360
Indonesia	Face-to-face Interviews	5520
Iran	Face-to-face Interviews	3352
Ireland	Fixed Line and Mobile Telephone	2000
Italy	Fixed Line Telephone	2000
Jamaica	Face-to-face Interviews	2637
Japan	Fixed Line Telephone	2006

APPENDIX 2

Team	*Interview procedure*	*Sample size*
Kazakhstan	Face-to-face Interviews	2099
Kuwait	Mobile Telephone	2000
Lithuania	Fixed Line and Mobile Telephone	2000
Luxembourg	Fixed Line Telephone and Online	2074
Malaysia	Face-to-face Interviews	2000
Mexico	Face-to-face Interviews	2587
Netherlands	Fixed Line and Mobile Telephone	2260
Norway	Fixed Line and Mobile Telephone	2000
Panama	Face-to-face Interviews	2005
Peru	Face-to-face Interviews	2078
Philippines	Face-to-face Interviews	2000
Poland	Fixed Line and Mobile Telephone	2001
Portugal	Fixed Line and Mobile Telephone	2005
Puerto Rico	Face-to-face Interviews	2000
Qatar	Mobile Telephone	4272
Romania	Fixed Line and Mobile Telephone	2001
Russia	Face-to-face Interviews	2001
Singapore	Fixed Line Telephone	2006
Slovakia	Mobile Telephone	2000
Slovenia	Fixed Line and Mobile Telephone	2004
South Africa	Face-to-face Interviews	3789
Spain	Fixed Line Telephone	25000
Suriname	Face-to-face Interviews	2200
Sweden	Fixed Line and Mobile Telephone and Online	2508
Switzerland	Fixed Line and Mobile Telephone	2426
Taiwan	Fixed Line Telephone	2000
Thailand	Face-to-face and Fixed Line Telephone	2059
Trinidad & Tobago	Face-to-face Interviews	2004
Uganda	Face-to-face Interviews	2112
United Kingdom	Fixed Line and Mobile Telephone	2007
United States	Fixed Line and Mobile Telephone	3273
Uruguay	Fixed Line Telephone	2006
Vietnam	Face-to-face Interviews	2000

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ABOUT GEM

The Global Entrepreneurship Monitor, GEM, is a worldwide study on entrepreneurship that was first conceived in 1997 by two academics, one from the London Business School (Michael Hay) and the other from Babson College (Bill Bygrave) in the United States. In the late 1990s there was no recognized international research that focused on entrepreneurship and this term was not a recognized household name as it is today. It was only starting to become important as academics and policy makers acknowledged the relevance of small, medium and micro-sized enterprises development for the overall well-being of an economy, the decrease of unemployment levels and the fight against the abject poverty which at that time prevailed in many developing, Third World countries.

The first published reports came out in 1999 and involved just 10 countries, eight from the OECD. Today, 16 years later, the Consortium of GEM countries has grown substantially, with the participation of over 100 economies at all levels of economic development and in almost all geographic regions. The GEM survey now represents 70%-75% of the world's population and approximately 90% of the world's GDP. It can claim to be truly global and the most authoritative and informative study on entrepreneurship in the world today. Only a few areas of the globe are not represented, such as certain countries in mid/central Asia, a few countries in South East Asia and some countries in West and Central Africa.

GEM differs from most current studies on entrepreneurship in that it does not just look at businesses, but also at individuals aged 18-64 from a demographically representative portion of the population. GEM looks at individuals, their attributes, aspirations, attitudes, perceptions and intentions. It analyses what makes —or does not make— them think and act as they do, as this indicator plays a key role in the entrepreneurial path that leads them from the stage of potential entrepreneurs to the phase of entrepreneurship, i.e, the phase in which they start a business and grow.

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