Global Entrepreneurship Monitor Caribbean 2011

Barbados National Report

GEM

IDRC CRDI Canada

GLOBAL ENTREPRENEURSHIP MONITOR

2011 BARBADOS REPORT

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EXECUTIVE SUMMARY

The GEM conceptual model is built on a comprehensive socio-economic approach that identifies the degree of involvement in entrepreneurial activity, and in particular examines the different types and phases of entrepreneurship within a country.

The GEM Model recognizes three phases of entrepreneurial activity; namely starting a new business, running a new business or running an established business, and discontinuing a business.

1) Starting a New Business

This comprises two components of the process, i.e. the potential entrepreneur and the nascent entrepreneur.

a) The potential entrepreneur refers to those individuals who believe that they have the requisite capabilities to start their own business and who are not dissuaded simply by the fear of failure.
b) The nascent entrepreneur refers to the person who is in their first three months of operations.

2) Running a New Business

Once the business survives its challenges during the first three months and continues on for up to three and a half years, such businesses are classified as new businesses.

3) Running an Established Business

Established businesses are those enterprises that have been in operation for more than three and a half years.

4) Discontinuing a Business

This provides data not only on the sale of established businesses as an ongoing concern, but on reasons for the discontinuance of the business.

Key Findings for Barbados

The GEM Model comprises of two general methods for assessing entrepreneurship in each nation; (1) the entrepreneurial environment and (2) the level of entrepreneurial activity. According to the Global Competitiveness Report (GCR) 2011, Barbados has seen some moderate improvement in its overall ranking, moving up the list from 43 in 2010 to 42 in 2011 out of the total 142 countries that were included in the Global Competitiveness Index. The top three countries are, respectively, Switzerland, Singapore and Sweden. In looking at the Basic Requirements Factors and the Efficiency Enhancer Factors, the country generally has fairly good rankings i.e. within the top 50. However there are some key areas that require significant improvement, specifically the two areas that were ranked the lowest on the index, which were market size (134) and macroeconomic stability (126).

Poor performance in macroeconomic stability was attributed to the decline in tourism resulting from the economic downturn and to a large and rising government debt. Persistent budget deficits and a low national savings rate have also been highlighted as significant weaknesses that can affect the future capacity of the country to undertake the necessary investments to boost its competitiveness performance. (Schwab, 2012)

Barbados has been identified as an economy in transition from stage 2 (efficiency-driven) to stage 3 (innovation driven) and increasing research activity and knowledge creation provide the catalyst for the development of innovative and opportunity-seeking entrepreneurs.

Barbados' rankings on nine of the other ten pillars have been within the top 50. In particular, Barbados' strengths in terms of its stable, transparent, and reliable institutions (18th), high-quality infrastructures (22nd), and excellent educational system (ranked 5th in terms of primary education quality, 15th for the entire system, and 10th for the quality of math and science education) are strengths that can be leveraged to continue the island's ongoing development.

In the National Experts' Survey (NES), identified individuals were asked to list and comment on the three most important factors which constrained entrepreneurial activity and the three which most fostered it.

Most experts identified financial support as the key factor constraining entrepreneurship in Barbados. Other identified constraining factors were government policies, cultural and social norms, education and training and R&D transfer. Across participating GEM countries the three most frequently cited factors constraining entrepreneurship were financial support (49.1%), government policies (46.6%) and education and training (27.1%).

Government programmes, education and training and economic climate were identified by the experts as the key factors which foster entrepreneurial activity in Barbados.

A summary of the findings from the Adult Population Survey (APS) show the following:

- The level of Total Entrepreneurial Activity in Barbados is below the global average for Efficiency Driven economies.
- There is a high level of people starting businesses to take advantage of perceived opportunities rather than out of necessity i.e. that it is the only way to make a living.
- There is a high rate of individuals who perceive that they have the capability to take advantage of an opportunity.
- There is a very low fear of failure amongst those surveyed.
- There is a very low rate of individuals who intend to start a business.
- There is a high rate of businesses that offer solo or low employment in the economy.
- There is a low rate of internationalization (focus on external markets) amongst entrepreneurs in Barbados.
- The rate of start-up businesses less than 3 months old in Barbados is above the global average for Efficiency Driven economies.
- There is a very low rate of businesses surviving past the start-up phase.
- The largest age group of people starting businesses in Barbados is 35-44 age group.
- There are twice as many men starting businesses in Barbados and remaining to run them after they are established.
- The majority of people starting businesses have either completed secondary school or tertiary level education.
- Barbados' rate of business discontinuance is higher than the global average for efficiency driven economies.

In summary, Barbados' economy cannot grow by focusing on competing with other efficiency driven economies. It does not have the market size or access to resources that are open to these other economies, none of which have a population of less than one million people as Barbados does. Therefore to grow, the economy must become innovation driven and focus on developing unique products or services that are in demand by markets around the world.

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CHAPTER 1: INTRODUCTION

THE CAVE HILL SCHOOL OF BUSINESS

The Cave Hill School of Business/The University of the West Indies (CHSB/UWI) is a leading executive education institution operating in Barbados, the six (6) member countries of the Organization of Eastern Caribbean States (OECS), Guyana, Tortola, Anguilla and Belize. One of three business schools operating in the region, the CHSB prides itself on its commitment to the dissemination of relevant business knowledge and the development of technical skills that enable managers and executives to meet the demands of a dynamic global market place.

Its predecessor, the Centre for Management Development (CMD) was established in 1991 with the assistance of a grant from the USAID and the collective vision of the University of the West Indies. It was created following a collaborative effort among the private sectors of Barbados and the Organisation of Eastern Caribbean States (OECS) and the University of the West Indies (UWI) as a response to the need to upgrade the management capability of the region.

On June 14, 2006 the CMD was re-launched as the Cave Hill School of Business/The University of the West Indies (CHSB/UWI); a modern organisation founded on three (3) pillars: **Academic Programmes, Strategic Business Services and Research** while all of CHSB's academic programmes are accredited by UWI, the School operates autonomously, all activities being conducted under the policy direction of an independent Board of Directors.

The School is results driven and delivers high-quality, cost effective and competitive training as well as organisational development opportunities to companies in Barbados and across the OECS. This is achieved by drawing on experts from both the private and public sectors, management training institutions and universities – regionally and internationally - in order to ensure that our programmes are state-of-the-art.

Our emphasis is on the quality essential for realising our vision of executive development that will meet the needs of the global business community, now and in the future and as such we are continuously examining new and emerging trends in order to improve our capabilities.

THE CENTRE FOR ENTERPRISE AND ENTREPRENEURSHIP

In 2006, the Centre for Enterprise and Entrepreneurship (CEE) was established at the CHSB to support the creation of a more vibrant entrepreneurship culture in Barbados and the rest of the Eastern Caribbean. The Centre partners with several other organizations who are also engaged in promoting a more innovative attitude to entrepreneurship and growing already established businesses into entities that can successfully compete regionally and internationally.

As the new reality of employment has forced people everywhere to rethink their definition of a 'stable job', the CEE endeavours to cement the belief that entrepreneurship can be a viable career path and not merely a radical choice. With the focus on ***Barbados becoming "the entrepreneurial hub of the world by 2020"***, the role of the CEE is more critical than ever. We are moving towards a society that is less resumé driven and more focused on recognizing entrepreneurship as critical to the stimulation of growth and ultimate employment of persons in the region. Increasingly, it is new and small or medium-sized firms, rather than large ones, that are the major providers of new jobs as more persons create their own sources employment.

In the fulfillment of its mandate the CEE has embarked on a number of initiatives with a focus on the development of entrepreneurship and innovation:

a. Ideas and Policy Forum

The CEE is providing a platform for key stakeholders - government, industry, academic, and other representatives - to confer on the issues and challenges that affect the growth and development of entrepreneurship in the Caribbean. The CEE will identify emerging policy issues and will explore them through convening activities that enable all members to be full participants in identifying and debating critical issues and examining potential actions. The CEE will conduct the research in the areas discussed at these fora. To advance this process, the CHSB will be establishing a Think Tank on Economic Development.

b. Information Hub

The CEE has embarked on the creation of an Entrepreneurial Online Portal with full sponsorship from the Inter-American Development Bank. This information portal will facilitate the formation and operation of formal micro and small businesses, owned by Barbadian citizens, as well as facilitate access to information and business development services. Information available will include general business data, case studies, books, funding sources and other relevant information that will assist entrepreneurs and those

who are considering an entrepreneurial career. It will also support the educational and research activities in entrepreneurship at the CHSB.

In addition, CHSB will establish a central repository for research data that is made available to members of the general public in Barbados and across the region. This data will be intended to provide information that can be of use to policy makes and other decision makers and will be utilised in sector and industry analyses, reports and indices that will be developed and published by the CEE.

c. Entrepreneurship Best Practices Series

International studies have shown that an entrepreneurial spirit is fostered where people are exposed to other successful entrepreneurs and are able to learn from them. The Best Practices Series brings to the CHSB the best practitioners from the business community to speak about the practical aspects of entrepreneurial activity and share their success stories.

The research at the CEE ultimately aims to bring to light those factors that support and contribute to the growth and success of entrepreneurs in the Caribbean. Their role as potential drivers of growth, innovation and job creation in the knowledge economy will be examined, and the CEE will make its contribution by seeking to determine those factors that affect the ability of an entrepreneur to innovate.

THE GLOBAL ENTREPRENEURSHIP MONITOR

The Global Entrepreneurship Monitoring (GEM) Research Consortium[1] was co-founded in 1997 by London Business School, United Kingdom and Babson College, United States, to collect, analyze and harmonize the data on an annual basis and report on entrepreneurial activities of participating countries. GEM is a not-for-profit academic research consortium which hosts the world's largest and longest study of global entrepreneurial activity. In 2011, GEM conducted its 13th annual survey in fifty-four (54) participating countries; including Barbados for the first time. The team responsible for all GEM activities in Barbados is based at the CHSB. This inaugural survey represents the entrepreneurial activities within Barbados.

[1]GEM is composed of a consortium of national teams in each participating country. These teams oversee an annual survey of at least 2,000 adults in their economies.

The three main objectives of GEM are:

- To evaluate differences in the level of entrepreneurial activities among participating countries;
- To identify factors which impact on the level and nature of entrepreneurial activities; and
- To identify policies that may stimulate entrepreneurial activities within the country

Originally conceptualized as a multinational research programme in 1999, GEM has been conducting annual surveys in several countries across the globe to capture data on the attitudes, aspirations and activities of individuals to determine individual participation in venture creation. Initially, only ten developed countries participated and over the years the number grew to include eighty (80) countries, both developed and developing, from all across the globe. The contribution of GEM since its inception has been unique. No other study has emerged which provides cross-country data on various facets of entrepreneurship and entrepreneurial activities globally. GEM data differs from most other data sets which provide firm-level data. In 2011, GEM interviewed over 140,000 adults (18-64 years of age) in fifty-four (54) countries (Barbados interviewees were 18-99 years of age), spanning diverse geographies and a range of development levels. Based on this survey, GEM estimated that there were 388 million entrepreneurs actively engaged in starting and running new businesses in 2011. Kelley et al (2012, p4), in the 2011 global report, estimated that in 2011 there were:

- 163 million female early-stage entrepreneurs;
- 165 million young early-stage entrepreneurs between the ages of 18 and 35 years;
- 141 million early-stage entrepreneurs expecting to create at least five (5) new jobs in the next five years;
- 65 million early-stage entrepreneurs expecting to create twenty (20) or more new jobs in the next five years;
- 69 million early-stage entrepreneurs with innovative products and services that are new to customers and with few other competitors;
- 18 million early-stage entrepreneurs selling at least 25% of their products and services internationally.

The research program explores the role of entrepreneurship in national economic growth, unveiling detailed national features and characteristics associated with entrepreneurial activity. The project is based on a harmonized assessment of the level of national entrepreneurial activity, which therefore allows countries to compare their levels with other economies around the world and recommend policies to make improvements that

can serve to help their nations become more internationally competitive and ultimately strengthen their ability to develop greater sustainability.

The GEM consortium, in addition to the data they usually gather, collected data in 2011 on entrepreneurial employee activity (EEA) as a special topic. The focus of the research was to assess to the extent to which those individuals employed in organizations played a leading role in the creation and development of new business activities for that organization. These entrepreneurial initiatives include both activities initiated by the organizations' top levels as well as those emerging from the bottom levels and up. Barbados, along with 51 other countries, participated in this aspect of the study. Based on the data collected, GEM estimates that 46 million employees had a leading role in entrepreneurial activities within existing organizations (Kelly et al 2012). The EEA for Barbados was 0.7% which is significantly lower than the average of 1.8% for efficiency-driven economies. This finding suggests that the Barbadian employment environment exhibits very low levels of entrepreneurship.

GEM is unique because, unlike most entrepreneurship data sets that measure newer and smaller firms, GEM studies, at the grassroots level, the behaviour of individuals with respect to starting and managing a business. This approach provides a more detailed picture of entrepreneurial activity than is found in official national registry data sets.

Every stage of the data collection process is rigorously monitored by a central team of experts, ensuring that the information produced by GEM is of the highest quality. GEM reports are widely used by educators, academics and policymakers alike. GEM publishes an annual **Global Report**, which provides a snapshot of entrepreneurial activity across the world; **National Reports**, which include international benchmarking, local context and national entrepreneurship policy recommendations; and **Special Topic Reports**, which use GEM data to investigate a particular theme or topic e.g. women and entrepreneurship, education and training, financing etc.

THE GEM CARIBBEAN PROJECT

Currently the Caribbean region only makes limited use of the GEM Research project. Jamaica has been a part of the process for approximately six years, Trinidad joined in 2010 and Barbados joined in 2011. In order for the project to be implemented in any country it must be administered by a University. The organizations responsible for the project in each territory are The University of Technology in Jamaica, The Arthur Lok Jack Graduate School of Business in Trinidad and Tobago and the Cave Hill School of Business in Barbados.

In 2011, the Arthur Lok Jack Graduate School of Business received permission to conduct the GEM surveys in Guyana and Surinam. In order to ensure that there is a more complete understanding of entrepreneurship in the region and the degree to which various groups (women, youth, specific income or education levels, etc) are engaged in entrepreneurial activities or have a mindset oriented towards innovation, intrapreneurship or entrepreneurship, the Cave Hill School of Business requested permission to conduct the survey throughout the OECS. GEM's Board of Directors has given permission and the intention is to start the process in 2013 with three islands, St. Vincent and the Grenadines, St. Lucia and Antigua and Barbuda.

The International Development Research Centre (IDRC) recognized the need to pay close attention to deliberately expanding the use of the GEM study in the region as a means of developing entrepreneurship in the Caribbean. It has provided support for the development of the project "Fostering Entrepreneurship in the Caribbean: Measuring, Generating Research Capacities and Evidence for Policy Making". This project provides funding to conduct the GEM study over a three year period in Barbados, Trinidad and Tobago, Jamaica, and Colombia. In Colombia, GEM is administered by the Center for Entrepreneurship Development at Universidad Icesi**.**

The overall objective of the project is to build regional capacity in entrepreneurship research and to provide policymakers with a stronger empirical foundation on which to build and monitor progress in the promotion of entrepreneurship and job creation in the Caribbean. The specific objectives are:

1.1 To build the capacity of national research teams to conduct entrepreneurship research, report and disseminate their findings, and sustain their work in the long-term.
1.2 To generate research findings on entrepreneurship on a national and regional level, with a focus on high-growth entrepreneurship, particularly among youth and women as well as on creative industries in the Caribbean.
1.3 To facilitate discussion of these research findings and policy recommendations among the private sector, policy makers, educators, and researchers, particularly regarding the promotion of high-growth entrepreneurship and gender and entrepreneurship.
1.4 To generate a harmonized, publicly available database on entrepreneurship in the Caribbean through the application of the Global Entrepreneurship Monitor (GEM) methodology developed by Global Entrepreneurship Research Association (GERA)

The GEM surveys provide data that can be of great use to policy makers, academics and other key decision makers who need information in order to choose the best options from those with which they are faced. This information emerges as a result of the various types of data that are collected by the survey instruments used. Some of the key areas that would be very useful output for the Caribbean include the following:

1. The main guiding purpose of GEM is to measure **individual involvement in venture creation**. This differs from other research instruments/processes, most of which record firm-level data. The GEM surveys, give a clear understanding of which types of people are (and are not) participating in entrepreneurship. Since the sample surveyed is identified randomly, the process captures data both from those who are in formally registered businesses and those running informal ones. Previous GEM data has shown that these unregistered businesses, in fact, can compose as much as 80% of economic activity in developing countries.

2. **The GEM survey assesses the motives of entrepreneurs**. People launch businesses for a variety of reasons. They may be led into entrepreneurship out of necessity: the pursuit of self-employment when there are no better options for work. In contrast, they may be 'opportunity entrepreneurs' and their efforts may be powered by the desire to maintain or improve their income, or to increase their independence. The data gathered in this process allows us to identify how many of each type of entrepreneur we have in our society.

3. **The GEM survey measures aspirations**. Understanding the visions and intentions of entrepreneurs is another measure in assessing the entrepreneurial mindset. It is also an important marker in identifying the level of innovation, a business' likely intentions with regard to growth, contribution to employment in the nation and possible involvement in exportation of goods and services. The aspirations of entrepreneurs may be evident in innovative products or services or the pursuit of customers beyond national borders. They may also include high-growth ambitions, thereby contributing more markedly to new employment in their economies.

4. Recognizing that entrepreneurs are driven not only by their own perceptions about starting a business, but the attitudes of those around them, **GEM considers the attitudes representing the climate for entrepreneurship in a society**. Entrepreneurs need to be willing to take risks and have positive beliefs about the availability of opportunities around them, their ability to start businesses and the value of doing so. At the same time, they need customers who are willing to buy from them, vendors willing to supply them and families and investors who are ready to support

their efforts. Even positive societal perceptions about entrepreneurship may indirectly stimulate this activity.

While it is recognized that there are fairly high levels of self-employment in the region, ranging from 15% in Barbados to almost 45% in the Dominican Republic, most of this employment is in micro enterprises. In addition, most of these individuals are entrepreneurs by necessity (choosing to open a new business because they lack other alternatives) rather than opportunity. However, individuals who are identified as 'opportunity entrepreneurs' are more likely to expect their business to make a significant contribution to job creation and this, by extension, has been demonstrated to be a good predictor of actual growth.

As a standardized instrument with harmonized data from all of the nations that are participating in the process, GEM allows the nations of the Caribbean to not only better understand entrepreneurship and the entrepreneurial mindset in each territory, but also to make comparisons with other countries around the world. In addition, it provides the opportunity to make recommendations about how best to improve the region's competitiveness, develop an orientation towards innovation and build sustainability into the economies of the region.

CHAPTER 2: THE GEM MODEL

The GEM conceptual model is built on a comprehensive socio-economic approach that identifies the degree of involvement in entrepreneurial activity, and in particular examines the different types and phases of entrepreneurship within a country. This approach, and especially the focus on the individual as the embodiment of entrepreneurship, differentiates GEM measures from other data sets that measure new business registrations.

From the outset, the GEM model has been concerned with studying the relationship between entrepreneurship and economic growth. It outlined a set of factors that were key to the relationship and looked at the way in which the elements interacted. While most other scholars had defined the general national framework conditions that were necessary for established businesses to thrive, GEM identified the Entrepreneurial Framework Conditions (EFCs) that needed to be present so that enable entrepreneurial capacities and entrepreneurial opportunities could result in successful new businesses.

After ten years of collecting empirical data, GEM revised the model to reflect the fact that the contribution of entrepreneurs to an economy varies according to its phase of economic development. This also reflected the evolution of the conceptual model behind the Global Competitiveness Index, on which the GEM Model drew for its General National Framework Conditions. Moreover, GEM recognized that its "unique contribution was to describe and measure, in detail, the conditions under which entrepreneurship and innovation can thrive" (**Bosma, et al. 2012)**The revised model also incorporated entrepreneurial attitudes, entrepreneurial activity and entrepreneurial aspirations as key components of a 'black box' that produces innovation, economic growth and job creation (GEM 2011 Global Report).Figure 2.1 visualizes the model that drives GEM research.

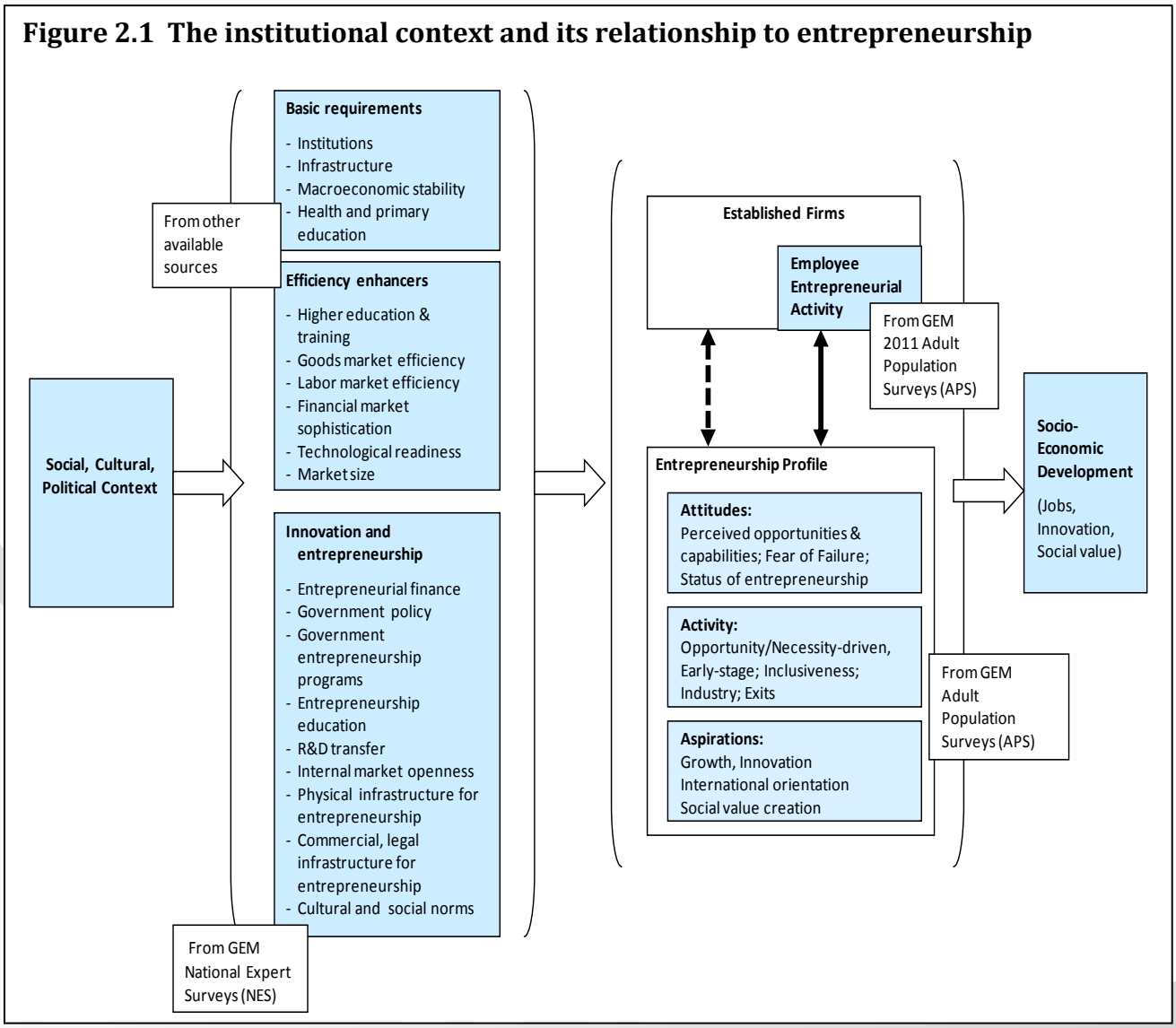
This model identifies the basic requirements and efficiency enhancers as the foundation which influences the way a society functions. In addition, it also depicts the nine entrepreneurial framework conditions (EFCs) that need to be present to positively impact entrepreneurial activity in the country. According to Kelly et al (2012) the general framework conditions that impacts on macro-economic activity are critical to entrepreneurship since, without a solid institutional foundation entrepreneurship specific conditions cannot function effectively.

The GEM consortium through its national teams collects information on the EFCs through the National Expert Survey (NES). The NES provides data in relation to the entrepreneurial start up environment in a country in relation to nine entrepreneurial framework conditions. The conditions identified are financing, governmental policies, government

programmes, education and training, research and development transfer, commercial infrastructure, internal market openness, physical infrastructure, and cultural and social norms. The sample is comprised of a minimum of 36 respondents, with experts drawn from each of the entrepreneurial framework conditions identified. Out of this sample a minimum of 25% must be entrepreneurs or business owners, and 50% must be professionals. The sample must also take into account factors such as gender, geographical distribution, level of experience and public versus private sector.

In addition to the NES, the GEM report also makes use of standardized national data from other sources such as the International Monetary Fund, United Nations, World Economic Forum, and the World Bank. This information adds context to the report and highlights the relationship between entrepreneurial activity and economic growth.

Figure 2.1 The institutional context and its relationship to entrepreneurship



The conceptual model also depicts the impact of the basic requirements, efficiency enhancers and the EFCs on attitudes, activities and aspirations of entrepreneurs as they create jobs, innovate and assist in the socio-economic development of their respective countries. Kelly et al (2012) assert that the determinants of entrepreneurship are complex and the extent to which specific variables can be tied to the rate or profile of entrepreneurship in a country is not clearly understood. Therefore, a study of the institutional environment is critical to an understanding of entrepreneurship because it enable entrepreneurs to better interpret the conditions under which they must operate and sets the stage for policy makers to address critical issues.

The Adult Population Survey (APS) is used to measure the second stage of the model. Each participating country conducts a survey of a random representative sample of at least 2 000 adults (aged 18 – 64 years). The surveys are conducted at the same time of year (generally between April and June) using a standardized questionnaire provided by the GEM consortium. The APS is generally conducted by an independent research vendor, chosen by each country's GEM team based on the evaluation of the vendor's research proposal. The raw data is sent directly to the GEM data team for checking and uniform statistical calculations before being made available to the participating countries.

The data from the APS then provides details about the level of entrepreneurial activities in the country, the attitudes, perceptions and aspirations of the individuals as well as other information that can be used to develop a clearer picture about the state of entrepreneurship in a nation.

As stated in the GEM 2011 Global Report, the outcome of the model is national economic growth, innovation and job creation. The GEM data collection efforts allow for an exploration of the role of entrepreneurship in national economic development. GEM's ability to map this grows with each annual cycle as combined sample sizes grow and as trends over time become apparent. (Bosma et al. 2012)

THE PHASES OF ENTREPRENEURSHIP

The GEM Model recognizes three phases of entrepreneurial activity; namely starting a new business, running a new business or running an established business, and discontinuing a business. It is argued however, that these phases are not necessarily linear, that is, that one stage always leads to another. It is possible that an individual may stall at any stage of the process.

According to Kelly et al (2012) the conditions that affect entrepreneurship in an economy are diverse, complex and interdependent. GEM has established measures across all the phases of entrepreneurial activity (Figure 2.2). This makes it possible to identify the attitudes, perceptions, beliefs and abilities of those individuals who are likely to start businesses and keep them going.

1) **Starting a New Business**

   This comprises two components of the process, i.e. the potential entrepreneur and the nascent entrepreneur.

   a) The potential entrepreneur refers to those individuals who believe that they have the requisite capabilities to start their own business and who are not dissuaded simply by the fear of failure. The intention to start a business may be the result of a single factor such as the perception of the status that entrepreneurs hold in their society, or a positive portrayal of entrepreneurs by the media, or a combination of the two factors. This perception is often also influenced by the presence of entrepreneurs in the life or immediate circle of the individual; if they see other people who are pursuing this route they are more likely to see it as a viable option for themselves as well.
   b) The nascent entrepreneur refers to the person who has moved beyond simply the intention to start a business. Their intention was strong enough that they were moved to establish the business and are in their first three months of operations.

2) **Running a New Business**

   Once the business survives its challenges during the first three months and continues on for up to three and a half years, such businesses are classified as new businesses. These former nascent entrepreneurs form the third stage of entrepreneurship. The new business owners together with the nascent entrepreneurs account for the total early-stage entrepreneurship activity (TEA) one of the metrics used by GEM.

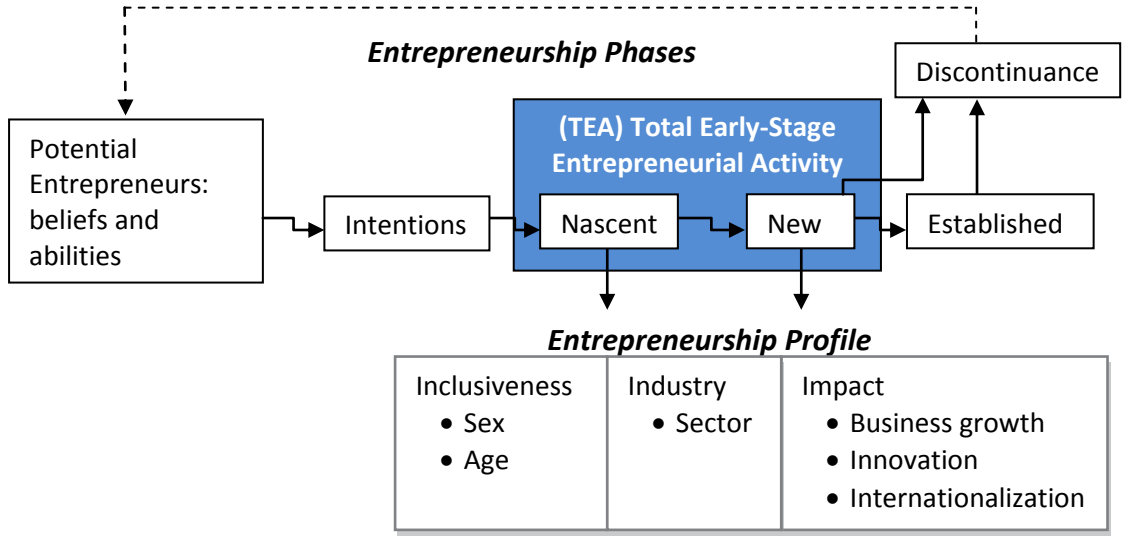
3) **Running an Established Business**

   Established businesses are those enterprises that have been in operation for more than three and a half years. GEM measures the rate of established businesses as it is believed that these businesses make an invaluable contribution to the socio-economic development of a country.

4) **Discontinuing a Business**

   In addition, GEM assesses the level of business discontinuance in an economy. This assessment of the level of business discontinuance provides data not only on sale of established businesses as an ongoing concern, but on reasons for the discontinuance of the business.

Figure 2.2 - The entrepreneurship process and GEM operational definitions



Source: 2011 GEM Global Report

ECONOMIC CATEGORIZATIONS AND THE GLOBAL COMPETITIVENESS INDEX

For more than three decades, the World Economic Forum's annual Global Competitiveness Reports have studied and benchmarked the many factors underpinning national competitiveness. Since 2005, the World Economic Forum has based its competitiveness analysis on the Global Competitiveness Index (GCI), a comprehensive tool that measures the microeconomic and macroeconomic foundations of national competitiveness.

The WEF defines competitiveness as the set of institutions, policies, and factors that determine the level of productivity of a country. The level of productivity, in turn, sets the level of prosperity that can be earned by an economy. The productivity level also determines the rates of return obtained by investments in an economy, which in turn are the fundamental drivers of its growth rates. In other words, a more competitive economy is one that is likely to grow faster over time.

The concept of competitiveness thus involves static and dynamic components: although the productivity of a country determines its ability to sustain a high level of income, it is also one of the central determinants of its returns to investment, which is one of the key factors explaining an economy's growth potential.

While there are likely to be several factors that are important for competitiveness and growth, these factors may not all be mutually exclusive, i.e. there may be two or more of them that can be significant at the same time. The GCI took this into consideration and used a weighted average of many different components, each measuring a different aspect of competitiveness, to identify and group 12 pillars responsible for driving productivity and competitiveness within a country. These 12 pillars of competitiveness are

1. Institutions
2. Infrastructure
3. Macroeconomic environment
4. Health and primary education
5. Higher education and training
6. Goods market efficiency
7. Labour market efficiency
8. Financial market development
9. Technological readiness
10. Market size
11. Business sophistication
12. Innovation

While all of the pillars described above will matter to a certain extent for all economies, it is clear that they will impact different economies in different ways and that some pillars will be more important for some economies than others (Figure 2.3). In line with the economic theory of stages of development for a country, the GCI assumes that, in the first stage, the economy is factor-driven and the countries' ability to compete is based on their factor endowments—primarily unskilled labor and natural resources. Companies in these economies will compete on the basis of price and sell basic products or commodities, with their low productivity reflected in low wages. Maintaining competitiveness at this stage of development hinges primarily on the country having well-functioning public and private institutions, a well-developed infrastructure, a stable macroeconomic environment and a healthy workforce that has received at least a basic education. Therefore pillars 1 to 4 are most important for the competitiveness of countries that are in the factor driven stage of development. These four pillars are collectively referred to as the basic requirements subindex.

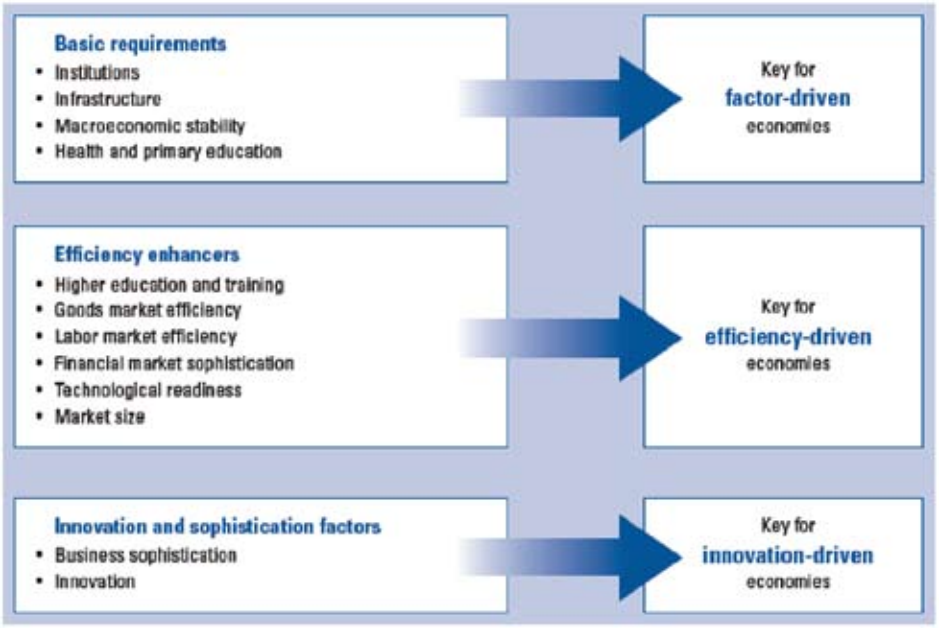
As a country becomes more competitive, productivity will increase and wages will rise with advancing development. Countries will then move into the efficiency-driven stage of development, when they must begin to develop more efficient production processes and

increase product quality because wages have risen and they cannot increase prices. At this point, competitiveness will be driven by pillars 5 to 10, i.e. higher education and training, efficient goods markets, well-functioning labor markets, developed financial markets, the ability to harness the benefits of existing technologies, and a large domestic or foreign market. These pillars are collectively referred to as the efficiency enhancers subindex and they are considered to be critical for countries in the efficiency-driven stage of development.

Finally, as countries move into the innovation-driven stage of development, wages will have risen by so much that they can only be sustained if businesses are able to compete by developing and offering new and unique products. At this stage, companies must compete by producing new and different goods using the most sophisticated production processes and by innovating new ones. The final two pillars (11 and 12) are most important to the competitiveness of countries in this stage and they are referred to collectively as the innovation and sophistication factors subindex.

In classifying the economies of the countries participating in the survey each year, GEM also uses the WEF's three economic categorizations, factor-driven, efficiency driven and innovation driven. Table 2.1 summarizes these definitions and shows how the 54 countries participating in GEM 2011 were categorized.

Figure 2.3 The 12 pillars of competitiveness



Source: World Economic Forum

Table 2.1 Economic Categorizations and the countries completing GEM 2011

ECONOMIC CATEGORIES	DEFINITION	COUNTRIES
Factor-driven economies	Factor-driven economies are dominated by subsistence agriculture and extraction businesses, with a heavy reliance on labour and natural resources. In this stage of development, competitiveness hinges primarily on the first four pillars: A legal and administrative framework within which individuals, firms and governments interact to ensure well-functioning public and private institutions, extensive and efficient infrastructure, a stable macroeconomic environment and a healthy workforce that has received at least a basic education.	Algeria, Bangladesh, Guatemala, Iran, Jamaica, Pakistan, Venezuela
Efficiency-driven economies	Efficiency-driven economies are those whose economic phase is accompanied by industrialization and an increased reliance on economies of scale, with capital-intensive large organizations becoming dominant. Countries move into this stage of developmentwhen they must begin to develop more efficient production processes and increase product quality, because wages have risen and they cannot increase prices. Quality higher education and training is crucial for economies that want to move up the value chain beyond simple production processes and products. At this point, competitiveness is increasingly driven by higher education and training, efficient goods markets, efficient and flexible labour markets ensure that workers are allocated to their most efficient use in the economy, an efficient financial sector that allocates the resources saved by a nation's citizens as well as those entering the economy from abroad, to their most productive uses, the ability to harness the benefits of existing technologies, and a large domestic or foreign market.	Argentina, **BARBADOS,** Bosnia and Herzegovina, Brazil, Chile, China, Colombia, Croatia, Hungary, Latvia, Lithuania, Malaysia, Mexico, Panama, Peru, Poland, Romania, Russia, Slovakia, South Africa, Thailand, Trinidad & Tobago, Turkey, Uruguay
Innovation-driven economies	In the innovation-driven phase, businesses are increasingly knowledge intensive, with an expanding service sector. Increasing research activity and knowledge creation provides the catalyst for the development of innovative and opportunity-seeking entrepreneurs. During this stage companies must compete by producing new and different goods using the most sophisticated production processes and by innovating new ones. Countries that have moved into the innovation-driven stage require businesses that are able to compete with new and unique products to sustain those higher wages and the associated standard of living that are evident of this stage.	Australia, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Japan, Korea Rep., Netherlands, Norway, Portugal, Singapore, Slovenia, Spain, Sweden, Switzerland, Taiwan, United Arab Emirates, United Kingdom, United States

CHAPTER 3: THE STATE OF ENTREPRENEURSHIP IN BARBADOS

RESEARCH METHODOLOGY: HOW THE PROCESS TOOK PLACE IN BARBADOS

By utilizing a standardized instrument and a standardized process of data gathering all around the world, GEM is able to compile a comprehensive picture of entrepreneurs and entrepreneurship around the world. The GEM questionnaires have been designed to measure the attitudes of a population to entrepreneurs and entrepreneurial activities as well as examining the activities and attributes of individuals participating in the phases of entrepreneurship. The study also takes into consideration the aspirations of these entrepreneurs regarding their businesses.

This orientation to the examination of entrepreneurship sets GEM apart from other research which is heavily focused on the number of official new firm registrations as an indicator of entrepreneurial activity. Instead GEM recognizes that there are several individuals who may have an entrepreneurial attitude and may be engaged in setting up or running their own businesses but who may opt not to formally register the operation. These unregistered businesses can, in fact, comprise as much as 80% of economic activity in developing countries (GEM 2010 Global Report).

The primary measure of entrepreneurship used by GEM is the Total Early-stage Entrepreneurial Activity Index (TEA), which gauges the level of dynamic entrepreneurial activity in a country by considering the incidence of start-up businesses (nascent entrepreneurs) and new firms (those that are up to 3.5 years old) being run by individuals within the adult population (i.e. individuals aged 18–64 years).

Because TEA incorporates any type of entrepreneurial activity (including self-employment attempts), the bulk of the activity captured by this index consists of low-growth or no-growth entrepreneurship. In the GEM data, nearly 50% of all start-up attempts do not expect to create any jobs within five years (Autio, 2007). Only some 10% of all start-up attempts expect 20 or more jobs, and these start-up attempts are responsible for some 75% of the cohort's expected total number of jobs.

Another important distinguishing feature of GEM is the distinction it makes between different types of entrepreneurship and how these contribute to economic growth and job creation. Individuals who start businesses in response to a lack of other options for earning an income are deemed to be necessity entrepreneurs, while those who start businesses with the intention to exploit an opportunity are identified as opportunity entrepreneurs.

The latter may include individuals who aim to maintain or improve their income, or to enhance their independence.

During 2011, Barbados administered the Adult Population Survey (APS), via telephone interview, to 2,809 individuals aged 18 - 99. This method was chosen over the other options available primarily because of the widespread penetration rates of fixed line telephones in Barbados as well as the ability to capture a representative sample while employing accepted best practices and sampling techniques. The International Telecommunication Union (2009) reports that Barbados has approximately 135,700 fixed line telephones and 53.03 of every 100 inhabitants are reported to have a fixed line. Respondent quotas from each parish were calculated based on the percentage of the overall population who reside in that parish. These quotas were calculated to ensure that all data collected was representative of each geographic region across the island and therefore would provide reliable data. The data collected using the telephone surveys was consistent with the parish quotas, as outlined in the table below.

Table 3.1 Sample quotas broken down by Parish

No.	Name	Population	Survey Proportions
1	St. Lucy	7,354	75
2	St. Andrew	4,073	42
3	St. Peter	8,426	86
4	St. James	17,997	189
5	St. Thomas	9,463	99
6	St. Joseph	5,336	54
7	St. John	6,899	70
8	St. George	13,919	144
9	St. Philip	17,797	185
10	Christ Church	39,163	398
11	St. Michael	64,939	659
Total		***195,366***	***2,000***

Source: Barbados Census, Barbados Statistical Service, 2000

The APS was conducted by an independent research vendor, Systems Consulting Ltd. who used a cadre of trained interviewers and conducted their telephone interviews from their in-house contact centre.

The raw data collected by the vendor was sent directly to the GEM data team for checking and assessing the validity and data quality. The GEM data team then provided the national team with standardized data to be used for the compilation of reports.

The National Experts Survey (NES) sample comprised of 36 respondents, with four experts drawn from each of the nine entrepreneurial framework condition categories. Within this sample there was a combination of entrepreneurs or business owners, and private and public sector professionals. Additional aspects such as gender and level of experience were also taken into account in selecting the sample. In addition to the APS and NES, this GEM Report also makes use of national data from international sources such as the World Economic Forum's Global Competitiveness Report. This information is used to add context to the report, and to explain the relationship between entrepreneurial activity and national economic growth.

THE ENTREPRENEURIAL ENVIRONMENT

The GEM Model comprises of two general methods for assessing entrepreneurship in each nation; (1) the entrepreneurial environment and (2) the level of entrepreneurial activity. This section of the report will look at the framework conditions present in the Barbadian economy and their impact on the state of entrepreneurship in the island.

In order to assess the entrepreneurial environment in a country, the GEM Model looks at the framework conditions that are present and attempts to determine whether they encourage and support business establishment and growth. Given that the framework conditions (Basic Requirements, Efficiency Enhancers and Innovation and Entrepreneurship Factors) correspond to those used by the World Economic Forum's 12 pillars of competitiveness the findings on the state of these factors in Barbados have been drawn from the Global Competitiveness Report (GCR) 2011.

According to the GCR 2011, Barbados has seen some moderate improvement in its overall ranking (Table 3.2) moving up the list from 43 in 2010 to 42 in 2011 out of the total 142 countries that were included in the Global Competitiveness Index. The top three countries are, respectively, Switzerland, Singapore and Sweden. In looking at the Basic Requirements Factors and the Efficiency Enhancer Factors, the country generally has fairly good rankings i.e. within the top 50. However there are some key areas that require significant

improvement, specifically the two areas that were ranked the lowest on the index, which were market size (134) and macroeconomic stability (126).

For an island the size of Barbados it is almost obvious that its competitiveness will be strongly influenced by its ability to build and maintain demand for its products beyond its borders. Therefore, it is significant to note that at this stage, the island is not doing that on a large enough scale. This, consequently, will have an impact on the country's financial and economic performance.

Poor performance in the other framework condition, macroeconomic stability, was attributed to the decline in tourism resulting from the economic downturn and to a large and rising government debt which had a serious negative impact on the island's general economy as well as its public finances in recent years. Persistent budget deficits and a low national savings rate have also been highlighted as significant weaknesses that can affect the future capacity of the country to undertake the necessary investments to boost its competitiveness performance. (Schwab, 2012) This is important since Barbados has been identified by the index as an economy in transition from stage 2 (efficiency-driven) to stage 3 (innovation driven) and increasing research activity and knowledge creation provide the catalyst for the development of innovative and opportunity-seeking entrepreneurs.

Barbados' rankings on nine of the other ten pillars have been within the top 50. In particular, Barbados' strengths in terms of its stable, transparent, and reliable institutions (18th), high-quality infrastructures (22nd), and excellent educational system (ranked 5th in terms of primary education quality, 15th for the entire system, and 10th for the quality of math and science education) are strengths that can be leveraged to continue the island's ongoing development. (Table 3.3)

The final two pillars of competitiveness are assessed through the GEM National Experts Survey (NES). The NES provides data on the entrepreneurial start up environment in a country in relation to nine entrepreneurial framework conditions. The conditions identified are financing, governmental policies, government programmes, education and training, research and development transfer, commercial infrastructure, internal market openness, physical infrastructure, and cultural and social norms. The sample is comprised of a minimum of 36 respondents, with experts drawn from each of the entrepreneurial framework conditions identified. Out of this sample a minimum of 25% must be entrepreneurs or business owners, and 50% must be professionals. The sample must also take into account factors such as gender, geographical distribution, level of experience and public versus private sector.

Table 3.2: The Global Competitiveness Index 2011–2012; top 50 rankings

Country/Economy	Rank/142	Score
Switzerland	1	5.74
Singapore	2	5.63
Sweden	3	5.61
Finland	4	5.47
United States	5	5.43
Germany	6	5.41
Netherlands	7	5.41
Denmark	8	5.40
Japan	9	5.40
United Kingdom	10	5.39
Hong Kong SAR	11	5.36
Canada	12	5.33
Taiwan, China	13	5.26
Qatar	14	5.24
Belgium	15	5.20
Norway	16	5.18
Saudi Arabia	17	5.17
France	18	5.14
Austria	19	5.14
Australia	20	5.11
Malaysia	21	5.08
Israel	22	5.07
Luxembourg	23	5.03
Korea, Rep.	24	5.02
New Zealand	25	4.93

Country/Economy	Rank/142	Score
China	26	4.90
United Arab Emirates	27	4.89
Brunei Darussalam	28	4.78
Ireland	29	4.77
Iceland	30	4.75
Chile	31	4.70
Oman	32	4.64
Estonia	33	4.62
Kuwait	34	4.62
Puerto Rico	35	4.58
Spain	36	4.54
Bahrain	37	4.54
Czech Republic	38	4.52
Thailand	39	4.52
Tunisia	40	4.47
Poland	41	4.46
Barbados	42	4.44
Italy	43	4.43
Lithuania	44	4.41
Portugal	45	4.40
Indonesia	46	4.38
Cyprus	47	4.36
Hungary	48	4.36
Panama	49	4.35
South Africa	50	4.34

Table 3.3- Represents the ranks and score of Basic Requirements, efficiency enhancers and innovation and sophistication factors for Barbados for 2011

	Rank	Score
Basic Requirements	**33**	**5.25**
Institutions	18	5.29
Infrastructure	22	5.49
Macroeconomic environment	126	3.88
Health and primary education	17	6.35
Efficiency Enhancers	**49**	**4.28**
Higher education and training	25	5.08
Goods market efficiency	56	4.31
Labour market efficiency	35	4.69
Financial market development	29	4.70
Technological readiness	29	4.93
Market size	134	1.94
Innovation and sophistication factors	**47**	**3.86**
Business sophistication	41	4.29
Innovation	49	3.42

Source: World Economic Forum, Global Competitiveness Report 2011

Table 3.4 provides a comparison of WEF overall, basic requirements, efficiency enhancers and innovation and sophistication factors indices for the three Caribbean countries that participated in the GEM 2011 survey.

Country	Overall Index		Basic Requirements		Efficiency Enhancers		Innovation and sophistication factors	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Barbados	42	4.44	33	5.25	49	4.28	47	3.86
Trinidad and Tobago	81	4.00	58	4.68	79	3.89	76	3.44
Jamaica	107	3.76	116	3.76	85	3.84	84	3.36

Source: World Economic Forum, Global Competitiveness Report 2011

In order to assess the national conditions influencing entrepreneurial activity in Barbados, experts were asked to complete a questionnaire consisting of 97 statements about factors relating to the country's entrepreneurial environment. There were 88 questions relating to the nine EFCs. Each response was measured on a five-point Likert scale where a score of 1=completely false, 2=partly false, 3=neither true nor false, 4=partly true and 5=completely true. The statements were phrased so that a score of 4 or 5 would indicate that the factor is positive for entrepreneurship, while a score of 1 or 2 would indicate the factor as negative. The results of analysis would reveal that any statement with a mean score above 3 would indicate an overall positive assessment of the factor, whereas a mean score of less than 3 would indicate the factor has a negative assessment.

When all the data is collected the GEM Data Team builds a file that includes all individual experts' responses. Composite variables are computed for each block of questions designed to measure a certain aspect of the EFC. Cronbach Alphas are calculated on each block to assess their reliability. Principal components analysis is used to summarize each block, which results in either one or two variables which are used as indicators of the state of each key framework condition. The EFC for finance, government programmes, R&D transfer, commercial and legal infrastructure, physical infrastructure, cultural and social norms result in one indicator each whereas government policy, education and entry regulation are split into two indicators. The twelve indicators with their resulting means for Barbados and the average for the efficiency driven economies are presented in Table 3.5.

The results show that the EFC for finance, education, R&D transfer and entry regulation are all below the average for efficiency driven economies. The table shows means for EFCs mainly below 3 and this suggests that the experts judged these conditions unfavourably in Barbados. The EFCs for physical infrastructure and commercial and legal infrastructure were the only two factors which were not judged unfavourably in Barbados or generally in efficiency driven economies.

The experts were asked to identify and comment on the three most important factors which constrained entrepreneurial activity and the three which most fostered entrepreneurial activity. Table 3.6 provides a breakdown of their responses to the key factors constraining entrepreneurial activity. According to Table 3.6 most experts identified financial support as the key factor constraining entrepreneurship in Barbados. Other major factors identified as constraining factors were government policies, cultural and social norms, education and training and R&D transfer. Across participating GEM countries the three most frequently cited factors constraining entrepreneurship were financial support (49.1%), government policies (46.6%) and education and training (27.1%).

Table 3.5 Entrepreneurship Framework Conditions Main Indicators

Entrepreneurship Framework Condition	Barbados	Average for Efficiency-driven economies
Finance	2.1	2.4
Government policy: National policy	2.5	2.4
Government policy: Regulation	2.3	2.2
Government programmes	2.3	2.4
Education: Primary and Secondary	1.9	2.0
Education: Post-school	2.7	2.8
R&D Transfer	1.8	2.2
Commercial and legal infrastructure	3.1	2.9
Entry Regulation: Market Dynamics	2.4	3.0
Entry Regulation: Market openness	2.3	2.4
Physical infrastructure	3.5	3.6
Cultural and social norms	2.6	2.6

Source: GEM 2011

Table 3.6 Experts views of key factors constraining entrepreneurship in Barbados

Constraining Factor	Percent
Financial support	62%
Government policies	38%
Cultural and social norms	38%
Education and training	26%
R&D transfer	24%
Market Openness	18%
Economic climate	18%
Commercial and professional infrastructure	15%
Capacity for entrepreneurship	15%
Political, institutional and social context	15%
Government programs	12%
Work force features	3%
Access to physical infrastructure	3%
Perceived population composition	3%

Table 3.7 Experts views of key factors fostering entrepreneurship in Barbados

Fostering Factor	Percentage
Government programs	42%
Economic climate	39%
Education and training	31%
Government policies	28%
Financial support	22%
Cultural and social norms	22%
Commercial and professional infrastructure	17%
R&D transfer	14%
Access to physical infrastructure	14%
Market Openness	11%
Capacity for entrepreneurship	3%
Work force features	3%
Perceived population composition	3%
Political, institutional and social context	3%

Table 3.8 The experts responses on entrepreneurial finance in Barbados

Entrepreneurial Finance	Mean	Std. Deviation
1. Equity funding available for new and growing firms	2.64	1.175
2. Debt funding available for new and growing firms	2.76	1.281
3. Government subsidies available for new and growing firms	2.41	1.209
4. Funding available from private individuals (other than founders) for new and growing firms	1.79	.696
5. Venture capitalist funding available for new and growing firms)	1.97	1.140
6. Initial public offerings (IPOs) for new and growing firms	1.75	.752

Table 3.7 provides a breakdown of their responses to the key factors fostering entrepreneurial activity. Government programmes, economic climate and education and training were identified by the experts as the key factors which foster entrepreneurial activity in Barbados.

Further analysis of the factors constraining or fostering entrepreneurial activities within Barbados provided some interesting findings. Financial support was highlighted by 62.5 percent of the respondents as a constraining factor compared to 22 percent indicating it as

a fostering factor. The experts were asked six questions relating to their views on the availability of finance to entrepreneurs. Table 3.8 indicates that all the experts believe that there is limited access to entrepreneurial finance in Barbados. Venture capitalist funding, IPO and private funding from individuals all had means of less than 2 indicating that on average the experts believe that this type of funding is not readily available.

The questions on government subsidies, debt funding and equity funding each had a mean of less than 3 which indicate that on average experts were of the opinion that these types of funding were not readily available. This opinion exists in spite of the fact that there are a number of institutions that provide financial support to small businesses, including:

- Barbados Investment and Development Corporation
- Barbados Youth Business Trust
- Fund Access
- Enterprise Growth Fund Limited
- Caribbean Business Enterprise Trust

Government Policies was highlighted by 38 percent of the respondents as a constraining factor compared to 28 percent who indicated that it is a fostering factor. The experts were asked seven questions relating to the views on government policies and the results of the means and standard deviation to those questions are presented in Table 3.9.

The only policy with a mean above 3 was the experts view on taxes and other government regulations applied to new and growing firms. Most experts disagree with the statement that access to required permit and licenses can be obtained in about a week. However with all the other factors with means less than 3 would indicate that government policies are viewed in negative terms by the experts and are predominantly not seen as fostering factors for entrepreneurial activity.

A number of NES respondents have pointed to the role of education and training in supporting entrepreneurial activity in Barbados. In identifying the constraining factors, 26 percent of the respondents highlighted education and training as a constraining factor. When selecting fostering factors, 31 percent of respondents chose education and training. Table 3.10 presents the means for the education questions which were all below 3 indicating that the experts did not see this area in a positive way.

This is particularly interesting to note since Barbados has long prided itself on its quality of education. What this data refers to, however, is the fact that there is a need to have more of the education activities at primary and secondary schools in Barbados focusing on preparing individuals to be creative, innovative and entrepreneurial. Perhaps therefore it

Table 3.9 The experts responses on government policies in Barbados

Government Policies	Mean	Std. Deviation
1. Government policies (e g , public procurement) consistently favour new firms	1.97	.983
2. Support for new and growing firms is a high priority for policy at the national government level	2.83	1.207
3. Support for new and growing firms is a high priority for policy at the local government level	2.72	1.192
4. New firms can get most of the required permits and licenses in about a week	1.55	1.003
5. The amount of taxes is NOT a burden for new and growing firms	2.28	1.276
6. Taxes and other government regulations are applied to new and growing firms in a predictable and consistent way	3.42	1.347
7. Coping with government bureaucracy, regulations, and licensing requirements it is not unduly difficult for new and growing firms	2.22	1.045

Table 3.10 The experts responses on education and training in Barbados

Education and Training	Mean	Std. Deviation
1. teaching in primary and secondary education encourages creativity, self-sufficiency, and personal initiative	2.00	1.101
2. teaching in primary and secondary education provides adequate instruction in market economic principles	2.00	.901
3. teaching in primary and secondary education provides adequate attention to entrepreneurship and new firm creation	1.86	.944
4. Colleges and universities provide good and adequate preparation for starting up and growing new firms	2.53	1.107
5. the level of business and management education provide good and adequate preparation for starting up and growing new firms	2.71	1.226
6. the vocational, professional, and continuing education systems provide good and adequate preparation for starting up and growing new firms	2.79	1.095

Table 3.11 The experts responses on government programmes in Barbados

Government programmes	Mean	Std. Deviation
1. a wide range of government assistance for new and growing firms can be obtained through contact with a single agency	1.83	.954
2. science parks and business incubators provide effective support for new and growing firms	2.19	1.195
3. there are an adequate number of government programs for new and growing businesses	2.71	1.250
4. the people working for government agencies are competent and effective in supporting new and growing firms	2.50	1.080
5. almost anyone who needs help from a government program for a new or growing business can find what they need	2.43	1.092
6. Government programs aimed at supporting new and growing firms are effective	2.57	.948

Table 3.12 Experts' Recommendations

Recommended Factor	Percent
Education and training	64%
Financial support	42%
Government policies	36%
Government programs	25%
R&D transfer	22%
Cultural and social norms	11%
Capacity for entrepreneurship	8%
Commercial and professional infrastructure	8%
Market openness	8%
Political, institutional and social context	6%
Economic climate	6%
Access to physical infrastructure	6%
Work force features	3%
Perceived population composition	3%

is no surprise that there are a number of institutions which provide education and training to support individuals once they make the decision to become entrepreneurs. These institutions include:

- Youth Entrepreneurship Scheme
- Barbados Youth Business Trust
- Fund Access
- Small Business Association
- Barbados Chamber of Commerce and Industry

Cultural and social norms were highlighted by 38% of the respondents as a key factor constraining entrepreneurial activity in Barbados. Out of the five questions asked of the respondents, four of these questions had a mean of less than 3. The mean response on the question relating to whether the national culture is highly supportive of individual success achieved through personal efforts was 3.08 indicating that many of the respondents did not think that this statement was false. The questions; the national culture emphasizes self-sufficiency, autonomy, and personal initiative had a mean of 2.47, the national culture encourages entrepreneurial risk-taking had a mean of 2.11; the national culture encourages creativity and innovativeness had a mean of 2.42 and the national culture emphasizes the responsibility that the individual (rather than the collective) has in managing his or her own life had a mean of 2.91.

The factor government programmes was highlighted by 42 percent of the respondents as one that fostered entrepreneurial activity. However, further analysis of the questions relating to this construct revealed means of less than 3 indicating that most of the respondents gave the programmes a negative assessment.

Finally, the experts were asked to recommend three factors which they believe can improve the entrepreneurial environment in the country. The results of this analysis is presented in Table 3.12.

ENTREPRENEURIAL ACTIVITY FOR BARBADOS

In the GEM Model, the second set of information that is needed to understand the current or potential capacity for entrepreneurial development in a nation, includes the data from examining the behavior of potential, nascent, new and discontinuing entrepreneurs along with established businesses and the degree to which they also have entrepreneurial activity amongst their employees. This information is gathered through the APS questionnaire, analysed and compared with the other countries participating in the process around the globe and published in the GEM 2011 Global Report. The following will outline the findings for the Attitudes, the Activity and the Aspirations related to entrepreneurship in Barbados.

ATTITUDES

In order to look at the behavior of potential entrepreneurs as well as the intentions of nascent or new entrepreneurs, it is also necessary to examine the attitudes and perceptions of the society in general. Where the general perception and attitude of a nation is positive towards entrepreneurship and entrepreneurial activities, individuals are more likely to consider these as a viable option for them to earn an income, contribute to the development of the nation's economy and grow wealth for themselves and their families. In addition, a society that has a positive and endearing attitude towards entrepreneurship will provide the requisite support systems for its development. The society will provide financial resources, cultural support, networking opportunities, etc to sustain the entrepreneurial ecosystem.

GEM gathers data on several indicators relating to entrepreneurial attitudes and perceptions in a country. These include the extent to which individuals believe that they have good opportunities for starting a business; the prevalence of fear of failure; whether they have the requisite capabilities to actually start and run a business; media attention to entrepreneurship and the status of successful entrepreneurs are some of the attitudes and perception metrics used by GEM. The following figures outline the results for these indicators for Barbados. Table 3.13 provides data on the entrepreneurial attitudes and perceptions in the economies classified as efficiency driven.

Table 3.13 Entrepreneurial perceptions, intentions, and societal attitudes in Efficiency-driven economies, 2011

	Perceived Opportunities	Perceived capabilities	Fear of failure*	Entrepre-neurial intentions **	Entrepre-neurship as a good career choice	High Status to successful entrepre-neurs	Media attention for entrepreneu rship
Efficiency-driven economies							
Argentina	56	64	28	30	76	69	66
Barbados	**44**	**67**	**19**	**11**	**60**	**64**	**50**
Bosnia and Herzegovina	21	49	30	17	82	71	43
Brazil	43	53	31	28	86	86	82
Chile	57	62	27	46	73	69	65
China	49	44	36	43	73	73	76
Colombia	73	61	29	56	89	79	67
Croatia	18	49	34	18	65	47	41
Hungary	14	40	35	20	54	78	34
Latvia	24	47	41	25			
Lithuania	23	35	40	17			
Malaysia	37	31	30	9	52	51	73
Mexico	43	61	27	24	57	58	48
Panama	46	64	14	21			
Peru	70	73	41	38	85	82	78
Poland	33	52	43	23	73	64	58
Romania	36	42	36	25	68	69	57
Russia	27	33	43	4	65	65	55
Slovakia	23	53	32	18	55	64	55
South Africa	41	43	24	14	73	72	74
Thailand	40	43	55	26	77	79	84
Trinidad & Tobago	62	81	17	35	84	82	61
Turkey	32	42	22	9			
Uruguay	54	61	34	38	58	59	33
average (unweighted)	*40*	*52*	*32*	*25*	*70*	*69*	*60*

* Fear of failure assessed among those seeing opportunities.
** Intentions assessed in non-entrepreneur (non-TEA) population

Source: GEM 2011 Adult Population Survey

Figure 3.1 Perceived Opportunities in Efficiency Driven Economies

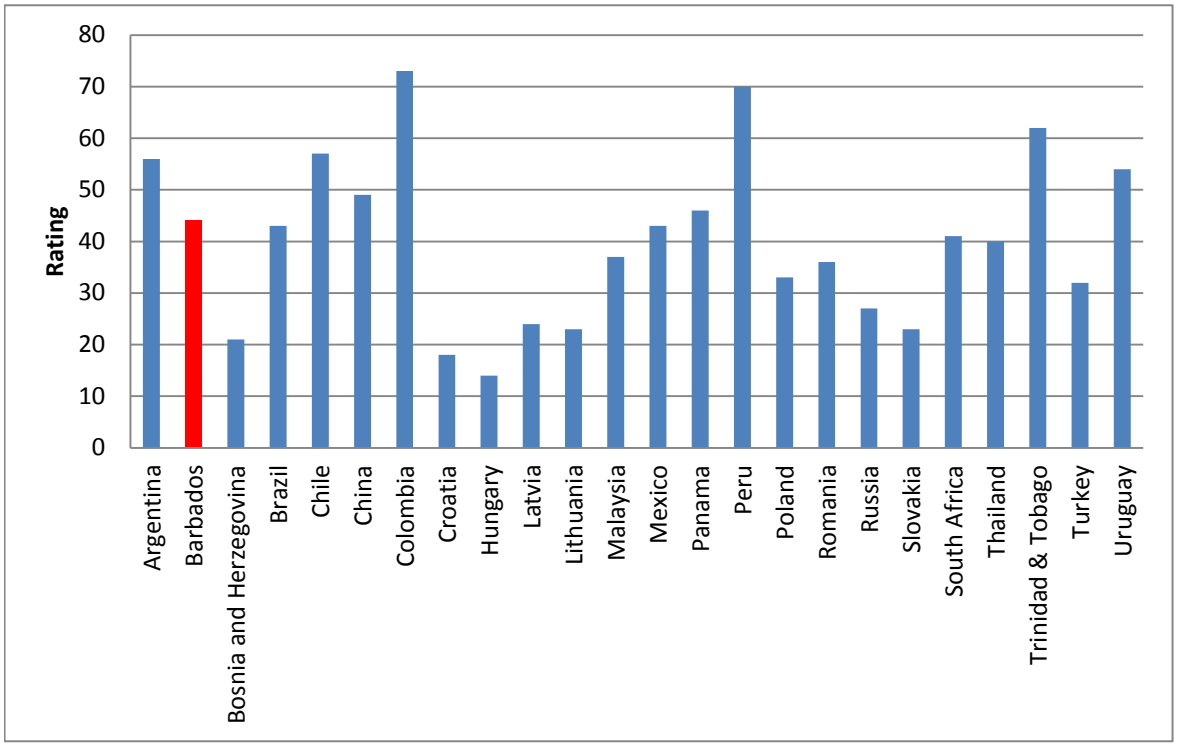
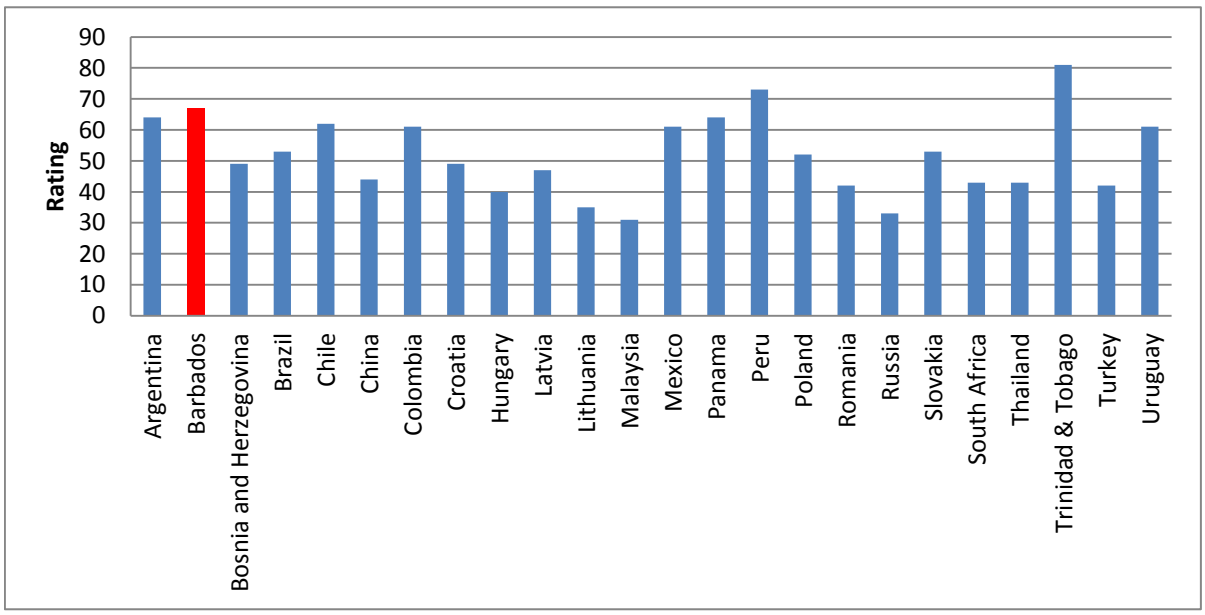


Figure 3.2 Perceived Capabilities in Efficiency Driven Economies



Amongst the economies identified as efficiency-driven, the average rate for the perception of opportunities amongst the population is 40%. Barbados' rate is 44%. This therefore means that the nation has a rate that is above 15 out of the 24 economies in this economic category. However, while this is impressive on its own, it is important to note that the other two nations included in the Caribbean project and also classified in the same economic category as Barbados have much higher rates of perceived opportunities. Trinidad and Tobago has a rating of 62% and Colombia has a rating of 73%. These two rates represent the highest and the third highest respectively amongst all efficiency driven economies in the survey. (Figure 3.1)

In order for entrepreneurial activities to take place individuals must not only see opportunities in the economy but they must also believe that they have the capability to take advantage of opportunities that present themselves. This confidence in self can come from an individual's educational background and experience or from their level of knowledge and confidence about the specific opportunity they have identified. For Barbados, the rate of people who perceive that they have the necessary capabilities to pursue entrepreneurship is 67%. This is above both the group average of 52% and the rating for Colombia of 61%. Trinidad and Tobago however is leading the group with a perceived capabilities rate of 81%. (Figure 3.2)

This finding suggests that the Caribbean countries have populations that are quite confident about their ability to take advantage of opportunities. However this does not necessarily translate into a corresponding willingness to start businesses and to become an entrepreneur especially in Barbados where it will be seen later that the rating for businesses being started is below that for Colombia, for Trinidad and for 9 of the other economies in the efficiency driven group.

This confidence in self and abilities can influence the individual's perception of their likelihood to fail. For the majority of economies in this group, Figure 3.3 shows that the fear of failure is lower than the perception of opportunities in the country. Therefore if people see that there are opportunities and they believe that they have the capacity to succeed while pursuing them, it would suggest that there should be a high level of activity being taken to capitalize on the available opportunities. Looking at Figure 3.3. Barbados has one of the lowest rates for fear of failure and an above average rate for perceived opportunities. However, only 11.4% of the population have any entrepreneurial intentions. Therefore there is something else at work in the country that makes people reluctant to undertake entrepreneurial activity as a career or as a means of supporting themselves. To understand whether it is linked to the individual's perception of entrepreneurs we look at the next set of statistics in Figure 3.4.

Figure 3.3 Fear of Failure Compared to Perceived Opportunities in Efficiency Driven Economies

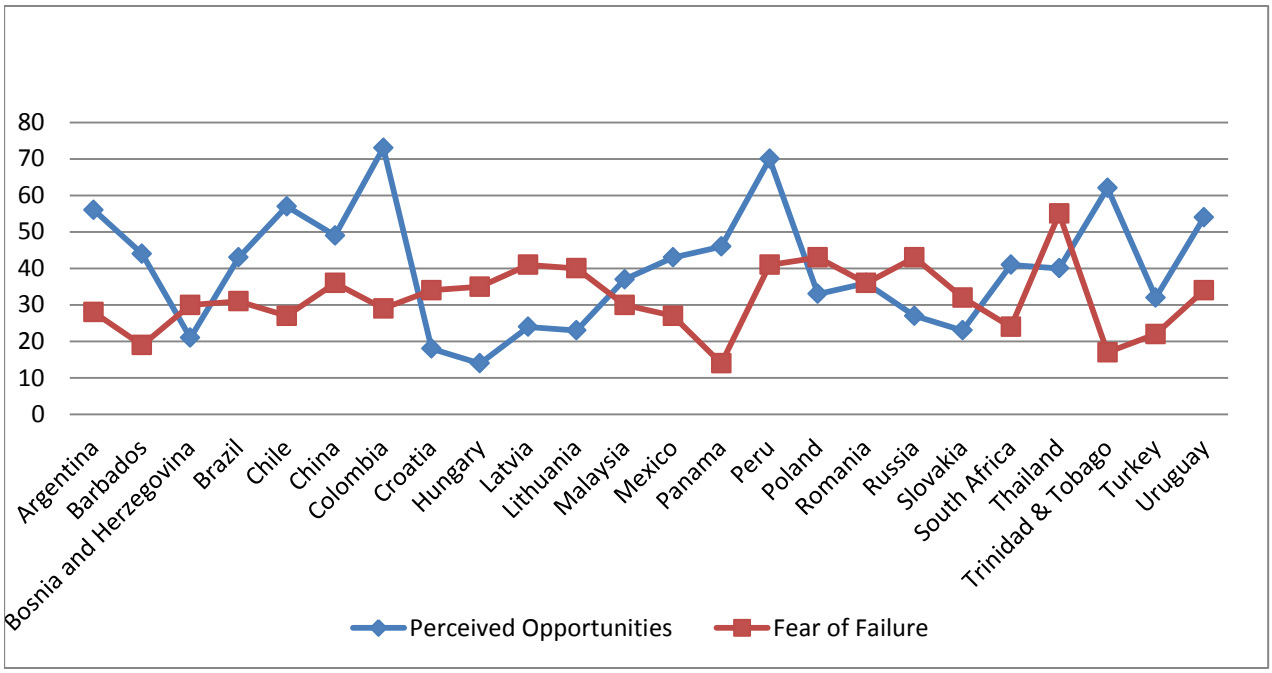


Figure 3.4 Perceptions of Entrepreneurship and Entrepreneurial Intentions for Barbados compared to average for Efficiency Driven Economies, Trinidad and Tobago and Colombia

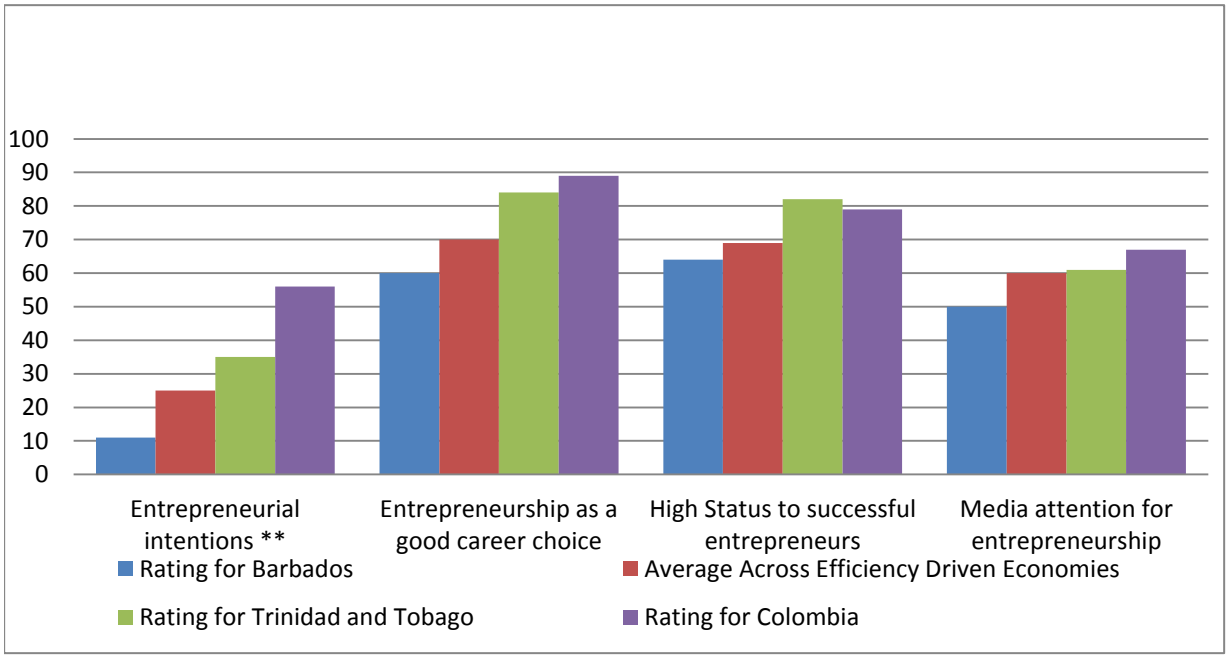


Figure 3.4 makes comparison between the perception of entrepreneurship as a good career choice, the status of successful entrepreneurs and the media attention paid to entrepreneurship. In each one of these categories, Barbados has a rating that is below the average for efficiency driven economies in addition to being below the figures for Colombia and Trinidad and Tobago. 60% of the population consider entrepreneurship as a good career choice, 64 % believe that there is a high status attributed to successful entrepreneurs and 50% believe there is strong media attention for entrepreneurship in the country. However, in spite of these attributes the level of the population who has any intention of starting a business within the next three years is only 11%. This is less than half of the average rate for the efficiency driven economies and the fourth lowest rate in the group. In order to increase the level of entrepreneurial activity in the country it will be necessary to investigate and understand the root cause of this low rating level amongst the population and then work to improve it.

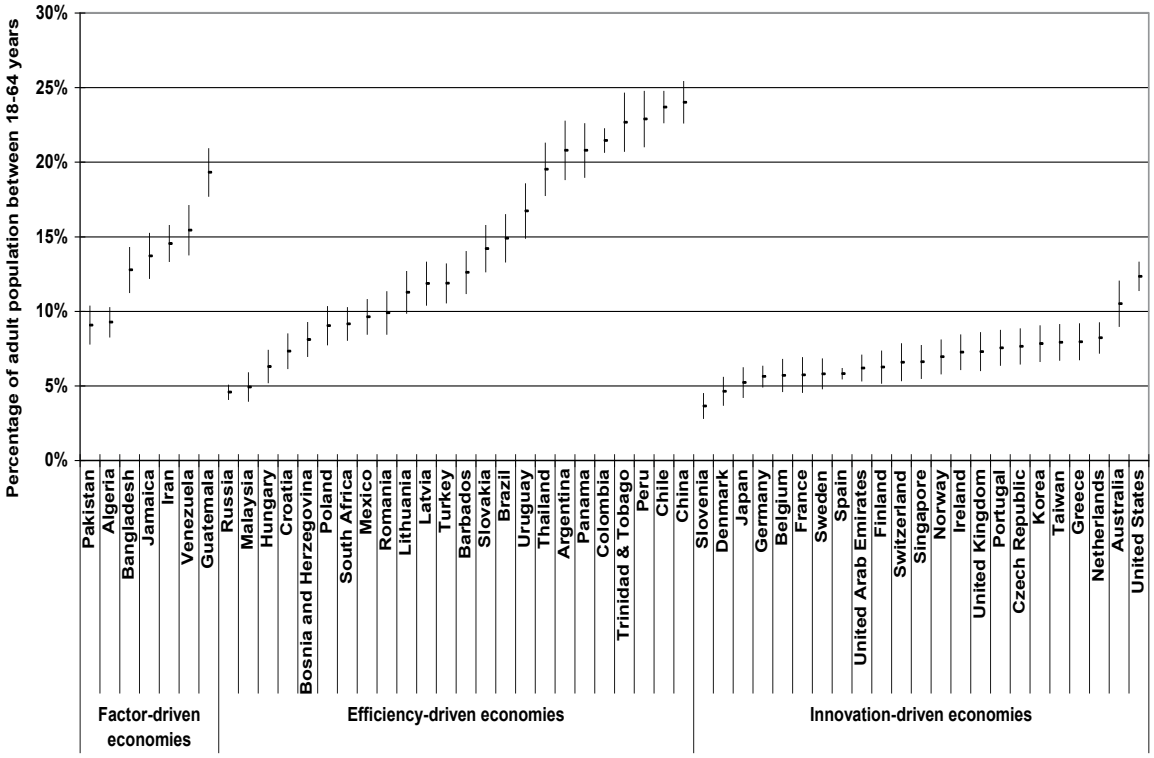
ENTREPRENEURIAL ACTIVITY

GEM has used the Total Early Stage Entrepreneurial Activity (TEA) index from its inception to measure the level of entrepreneurial activity in a country. This TEA index allows for cross country comparisons, as well as for longitudinal in-country assessment of entrepreneurial activity over subsequent years. Figure 3.5 and 3.6 show the TEA ratings for the countries which participated in GEM 2011.

This metric assesses the participation of individuals between the ages of 18 and 64 in early-stage entrepreneurial activity and reports the percentage of that population that is in the process of starting a business (nascent entrepreneur) or those that have started one and kept it going for the last three and a half years (new entrepreneur). Figures 3.7 and 3.8 show these rates for all the economies identified as efficiency driven.

Generally speaking each country's TEA rating consists of a greater percentage of nascent entrepreneurs than new entrepreneurs. This is not surprising since the majority of start-up businesses fail within the first five years. However when looking at the percentage of businesses that survive nascent stage and move on to being classified as new entrepreneurial activity, the figures for Barbados are below the average for the efficiency driven economies in general and more specifically below the figures for Colombia and Trinidad (Figure 3.9). This needs to be addressed. Greater support and a stronger ecosystem need to be established to ensure that a larger percentage of startup businesses are able to survive and to thrive. This can represent a way for the economy to grow and for the nation to improve its ability to be more competitive in international markets.

Figure 3.5 The TEA rates for 54 participating countries in 2011



Source: GEM 2011 Global Report

Figure 3.6 TEA rates for 2011 for Efficiency Driven Economies

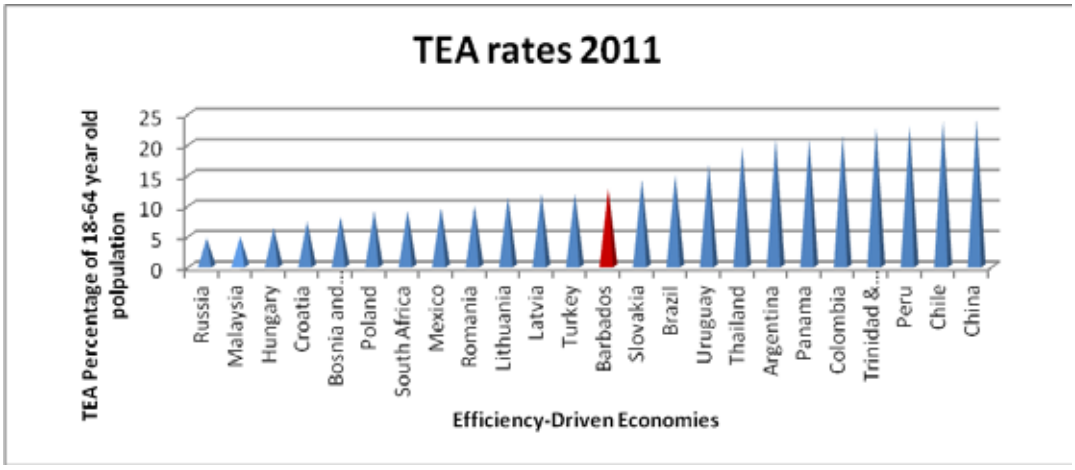


Figure 3.7 Nascent Entrepreneurship Rate in Efficiency Driven Economies

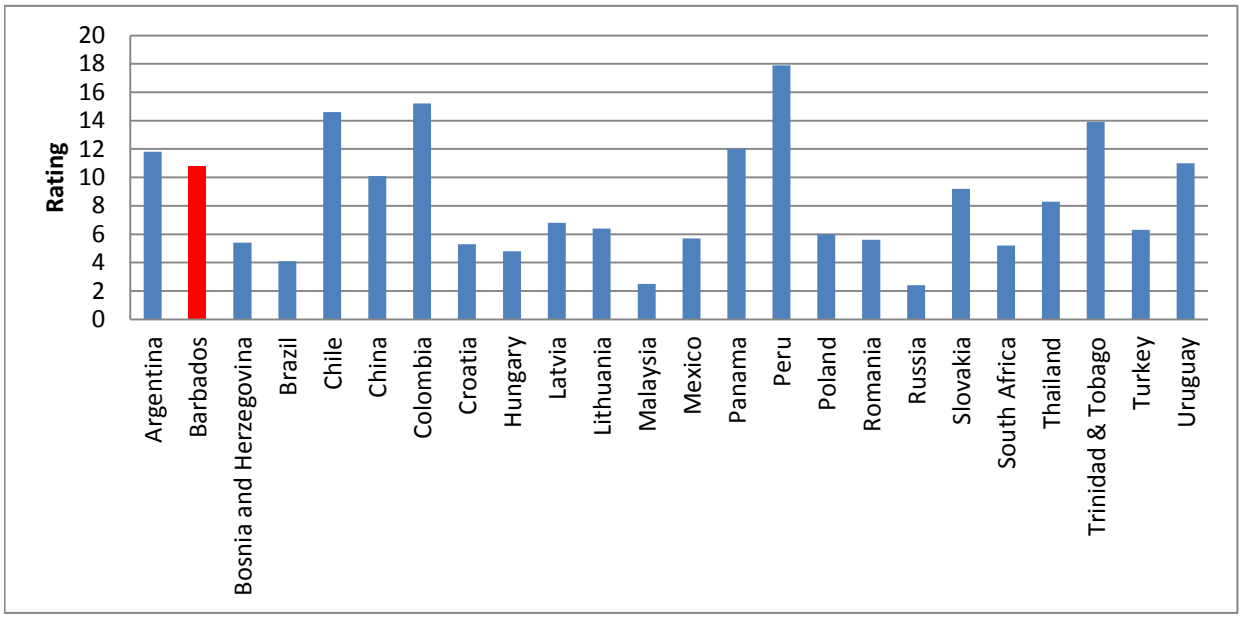


Figure 3.8 New Business Ownership Rate in Efficiency Driven Economies

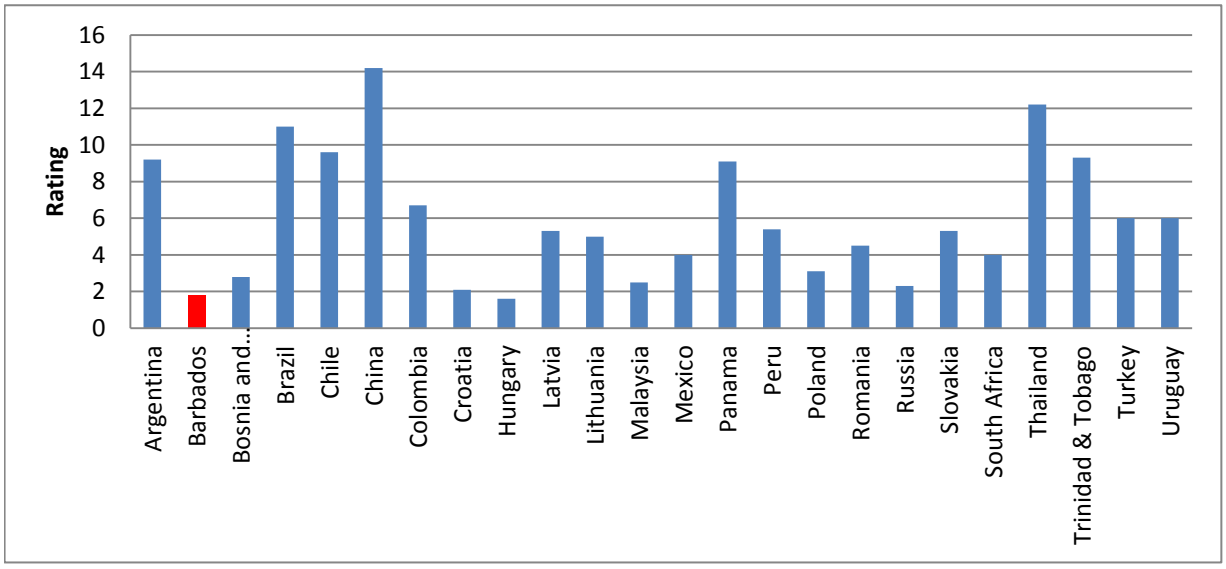


Figure 3.9 Rate of Nascent Entrepreneur vs New Entrepreneur Compared with other Caribbean Countries and Average for all Efficiency Driven Economies

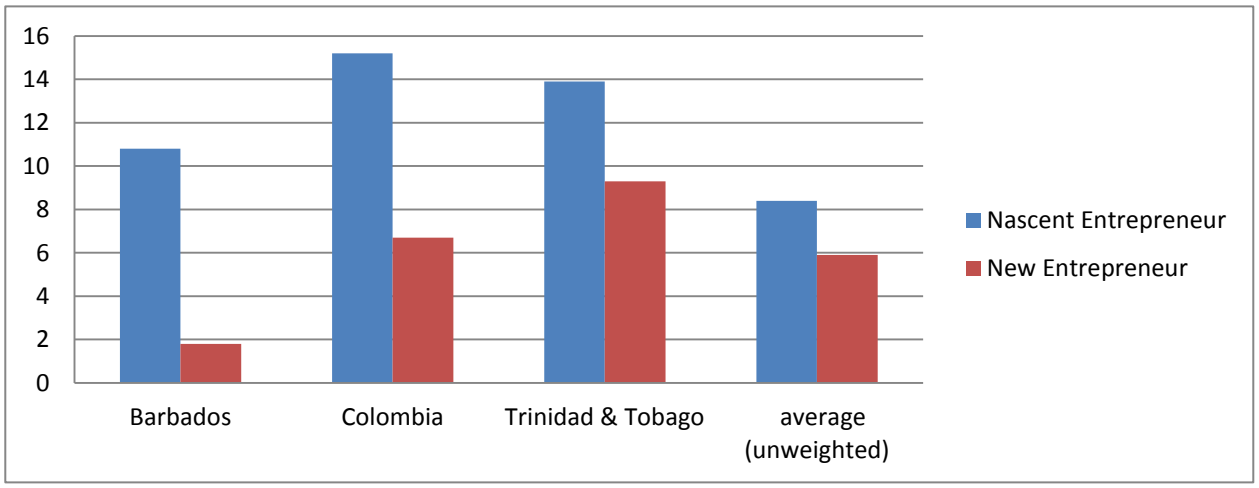
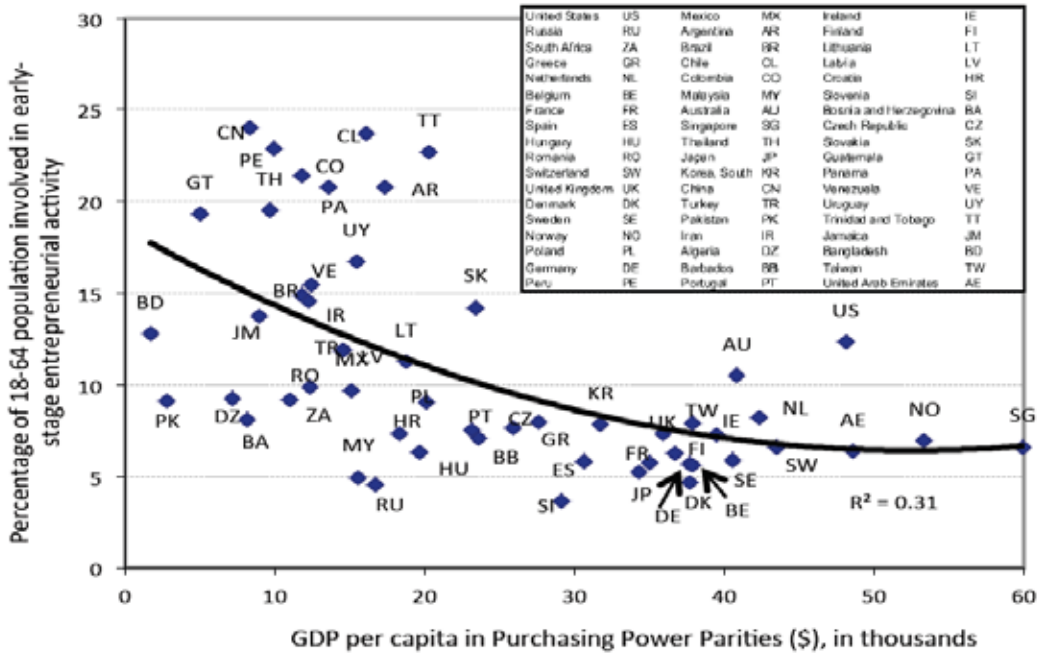


Figure 3.10 Total early stage Entrepreneurial Activity (TEA) rates and per capita GDP 2011



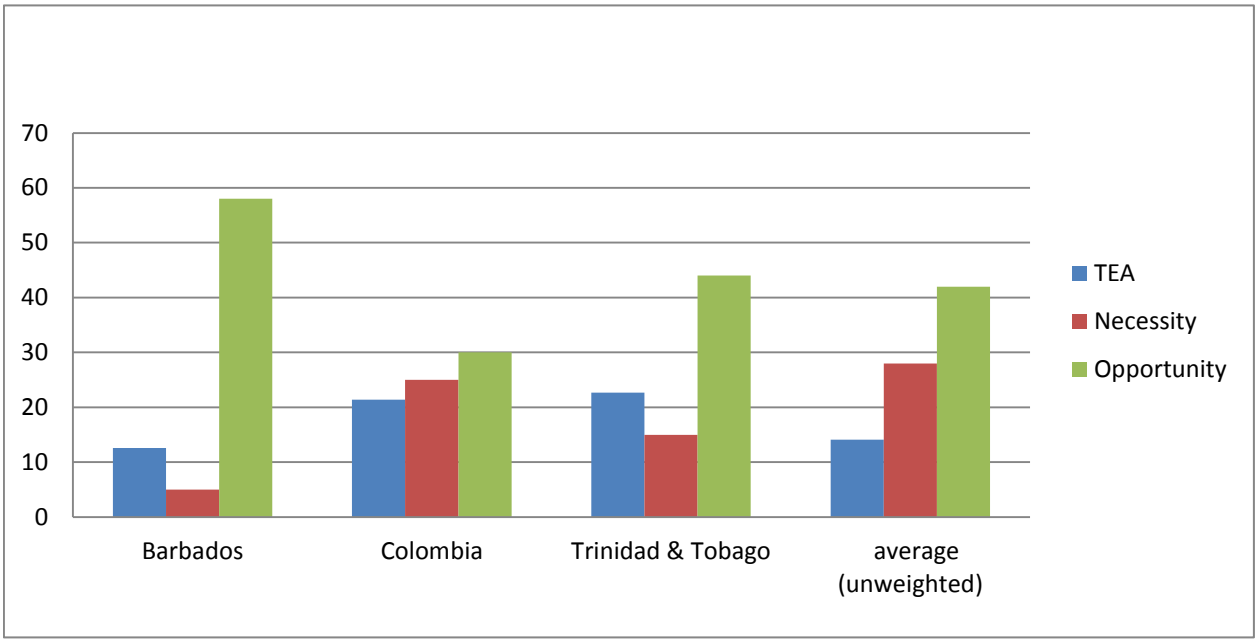
Source: Global Entrepreneurship Monitor 2011

Since the level of entrepreneurial activity is thought to be dependent on the economic reality within the country, Figure 3.10 shows the country's performance in relation to GDP per capita levels. This graph shows also the anticipated TEA rating for each of the participating countries and Barbados is shown to be below that expected level of performance given its GDP per capita.

In looking at the figure it can be concluded that generally speaking countries with a lower GDP per capita tended to have a higher TEA rate than those with a higher GDP. Both Colombia and Trinidad and Tobago have a lower level of GDP per capita than Barbados and both of them also have TEA rates that are substantially higher than could be expected given their level of GDP. Further, the majority of the countries with GDP per capita of more than $20,000 have a TEA rating that is below what would be expected of them. In comparing this figure to the economic categorizations included in the WEF's Global Competitiveness Index (GCI) all of these economies are either in the Innovation Driven category or transitioning into it. Barbados also falls into this category; not fully an efficiency driven economy and not yet an innovation driven one.

In further examining the early stage entrepreneurial activity it can be seen that the majority (58%) of activity in Barbados is driven by the desire to capitalize on an opportunity that is present rather than the individual being forced into it out of necessity (5%). See Figure 3.11. This figure for opportunity driven entrepreneurial activity is significantly above the average for efficiency driven economies in general and in particular those of Colombia and Trinidad and Tobago. This can be linked to the information in the earlier section on the attitudes towards entrepreneurship. Given that there is a fairly good perception of possible opportunities, a confidence in one's own capability and a very low fear of failure, it is not surprising that those individuals who choose to start a business are driven to do so in pursuit of an opportunity. It should also be taken into consideration that the Barbadian economy has a relatively high GDP per capita and as such the numbers of people who are forced into entrepreneurial activities out of necessity. For the other two economies (Colombia and Trinidad and Tobago) their rates of necessity driven entrepreneurs are also below the average for the wider group.

Figure 3.11 Comparison of TEA, Necessity Driven and Opportunity Driven Entrepreneurship in Caribbean Countries with Average Across All Efficiency Driven Economies



The GEM Model suggests that when we look at the information that the TEA gives about activity in the country, it is often useful to look at some social indicators as well and the ones normally used are age, gender and level of education attainment.

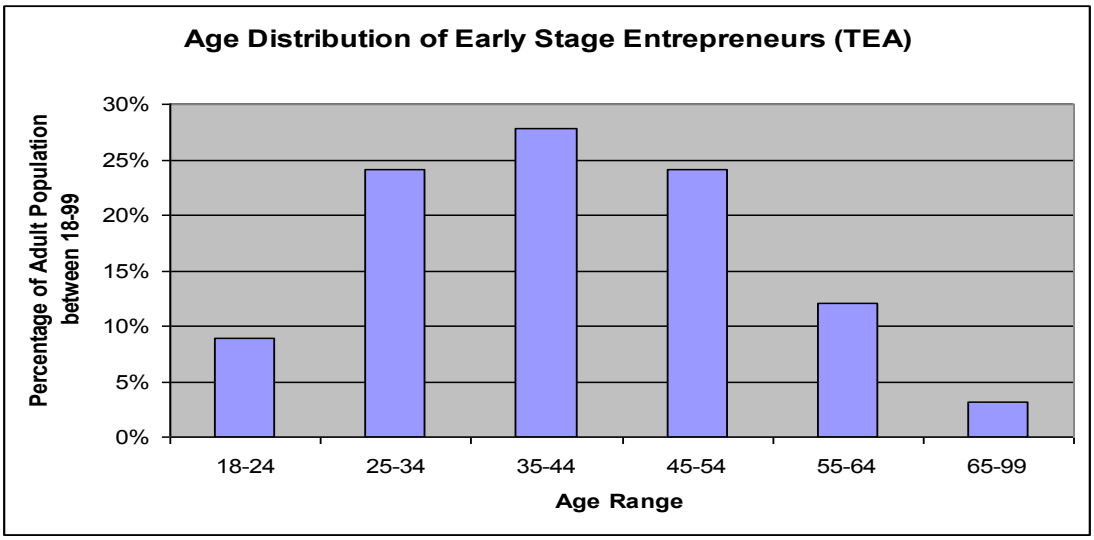
Age Distribution of Early Stage Entrepreneurs

Figure 3.12 shows that early stage entrepreneurship in Barbados tends to be more prevalent between the ages of 25 and 54 with the category 35-44 being the dominant range. This was a slight contrast to the average found in the efficiency driven economies worldwide. Kelly et al (2012) reported that in the efficiency driven economies there was a steep increase in entrepreneurship in the 25-34 age group and this was the most dominant age group. In addition, they reported that the 18-24 and 45-54 were almost equal in numbers. In the case of Barbados the tendency was more towards middle aged entrepreneurs, individuals who may have gained education or experience that they often use as a foundation on which they build their entrepreneurial activity.

In this survey an interesting finding was the percentage of the population in the age range 65-99 who were involved in early stage entrepreneurship. The results showed that about

3% of the population in this age range was entering into entrepreneurial activities after retirement.

Figure 3.12 Age distribution of Early Stage Entrepreneurs



Women and Entrepreneurship

In looking at gender, we recognize that males tend to dominate early stage entrepreneurship in most of the countries around the globe (Bosma, et. al, 2012). There were only three countries where this was not so; Thailand (an efficiency driven economy) and Singapore and Switzerland (both innovation driven economies). In the case of Barbados, the percentage of those involved in early stage entrepreneurship who are male is almost double that of the percentage of females involved and these figures are below those for Colombia and Trinidad and Tobago.See Figure 3.13 and 3.14.While this is not generally reflected in other forms of economic activity in the island where generally there are more women than men or a more equitable split at most levels throughout the organizations, it is important to note that it mirrors the situation with established businesses which are predominantly owned and/or managed by men (Figure 3.15).

Figure 3.13 Comparison Showing Percentage of Females or Males Starting or Running a New Business

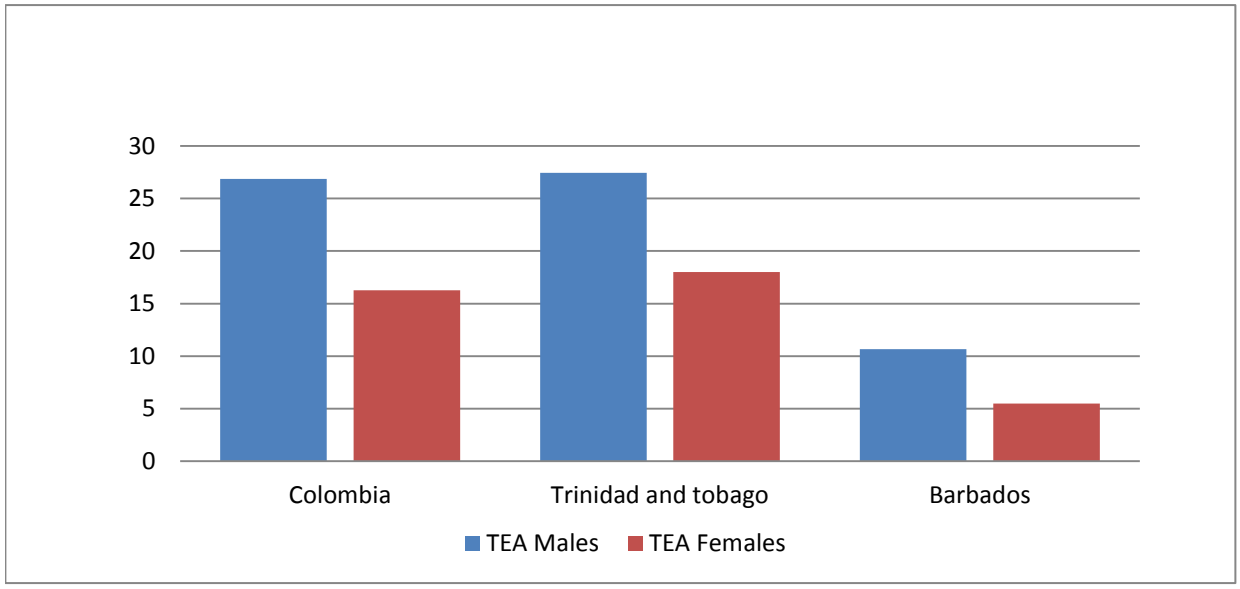


Figure 3.14 Comparison Between The Motives of Males and Females Who Start Businesses

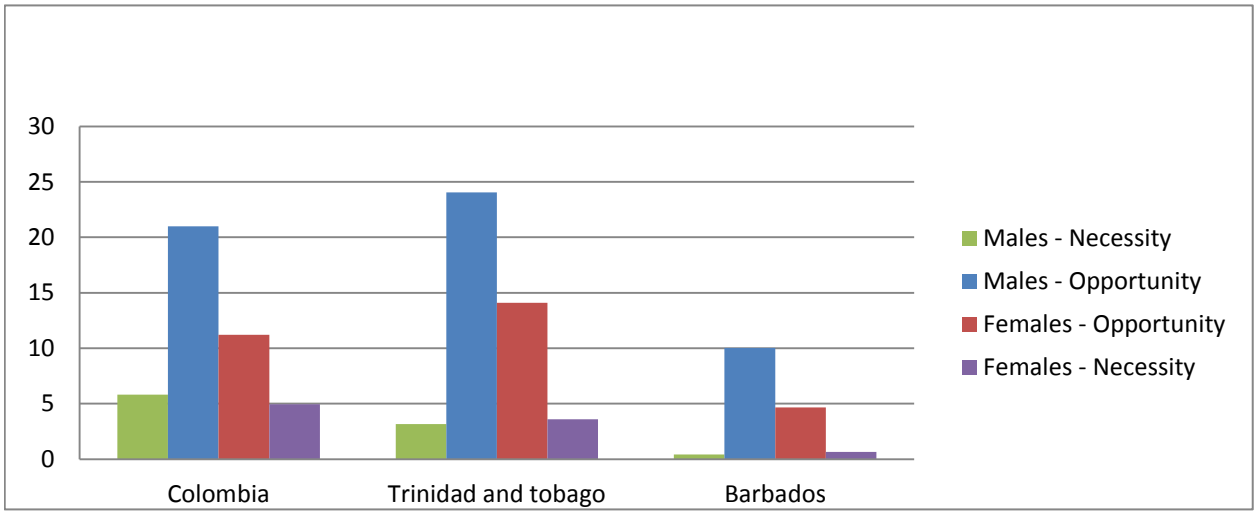


Figure 3.15 Comparison Showing the Rate of Established Businesses With Male or Female Owner/Managers

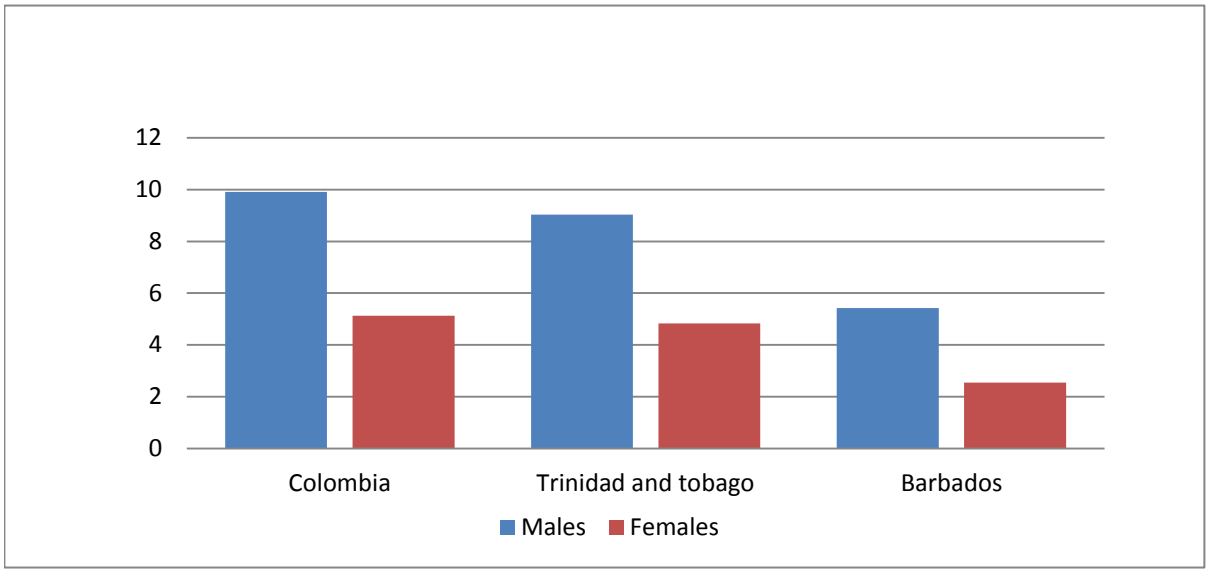
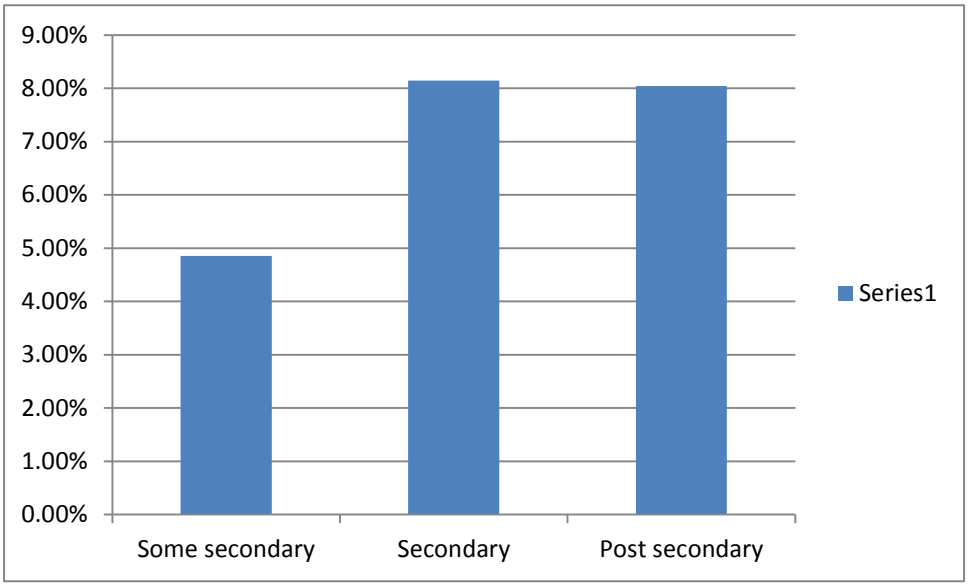


Figure 3.16. Early Stage Entrepreneurial Activity by Education Attainment



Source: GEM APS 2011

Educational Attainment

Across the world, in all economies regardless of their economic categorization, when looking at the highest level of education attained by persons involved in early stage entrepreneurial activity, the majority of people had complete secondary or post-secondary education. In factor driven economies those who had completed secondary level education dominated. In efficiency driven economies and innovation driven economies, the largest percentage was individuals holding post-secondary qualification. In Barbados however, that is not the case. Here, we have the majority of our TEA dominated by people who have completed secondary education with individuals who have post secondary education running a close second. The smallest percentage, around 5%, completed only –some secondary education.

ESTABLISHED BUSINESSES

Within the GEM Model established businesses are those that have been in operation for more than three and a half years. While early stage entrepreneurs contribute to the dynamism and innovation in an economy, established businesses are the ones that generally contribute stability to the economy. They provide employment, taxable income, and foreign exchange that are important to the economy as well as products and services that are important to the society.

For most of the efficiency driven economies, the rate of established businesses is relatively low. As can be seen in Figure 3.17 only four of them are more than 10 percent. Thailand is an unusual case as it is the only economy with such a high percentage of established businesses (across all economic categories) and it is the only economy where the percentage of established firms is higher than the level of early stage entrepreneurial activity.

Figure 3.17 Established Business Ownership Rate in Efficiency Driven Economies

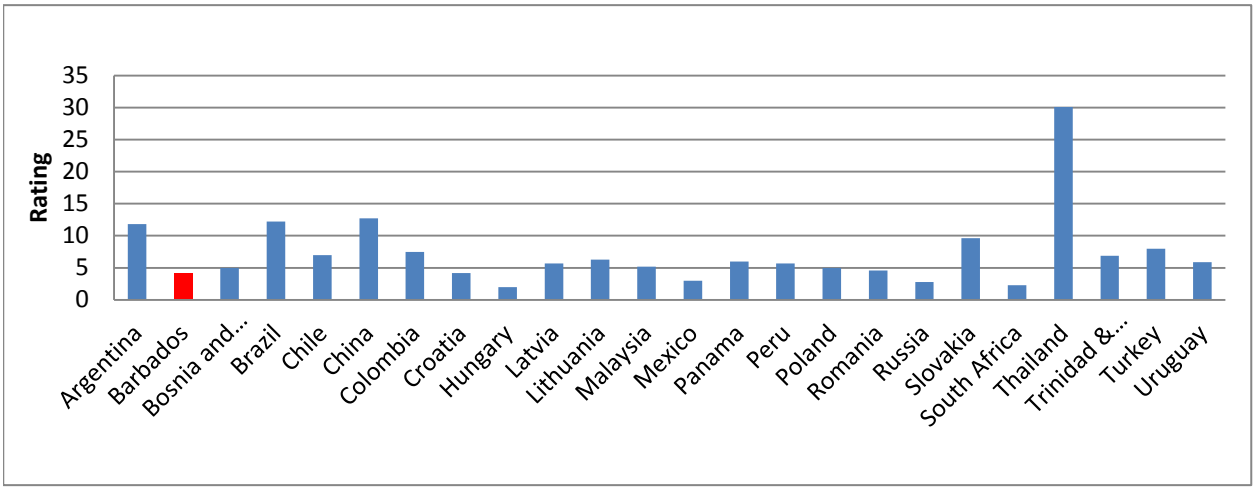
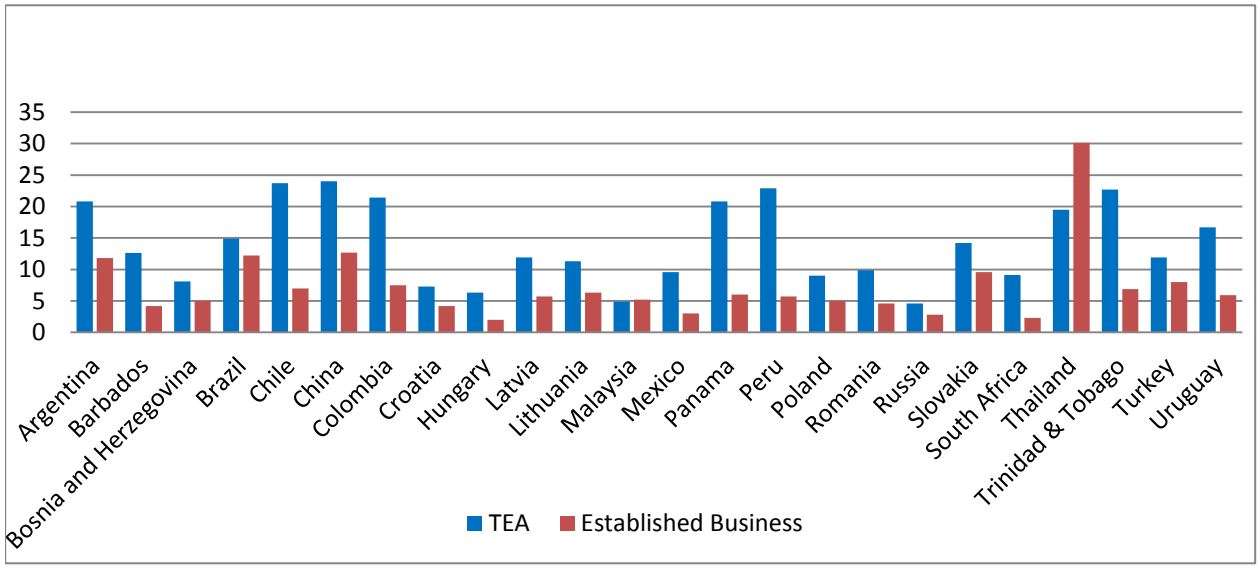


Figure 3.18 Comparison of TEA and Established Business Ownership Rates in Efficiency Driven Economies



DISCONTINUING BUSINESSES

GEM tracks the percentage of the 18-64 population who have discontinued their businesses within the last 12 months.In the GEM 2011 survey, 40-60% of all discontinuations in the 54 economies participating in GEM were linked to financial difficulties such as having an unprofitable business or problems getting finance. Business discontinuation should not be construed as being synonymous with business failure however since a substantial share of entrepreneurs who discontinue their business do so for a number of reasons. Figure 3.19 shows the reasons identified by the Barbadian population.

In many cases individuals leave their businesses because they are given the opportunity to sell the business as a going concern and so the operations are able to continue after the entrepreneur discontinues his/her initial relationship with the business. Figure 3.20 shows that for Barbados, the percentage of businesses continuing after the individual entrepreneur exited, was 25%.

An assessment of the reasons for discontinuation is important to policy makers, potential entrepreneurs and institutions responsible for entrepreneurial development. This information will enable them to put in place the requisite resources needed to ensure continuation of business and to enable entrepreneurs to meet the challenges head on. The business discontinuation rate for Barbados during 2011 was 5.5, which was above the average for efficiency driven economies (4.3).

Figure 3.19 Reasons for quitting business

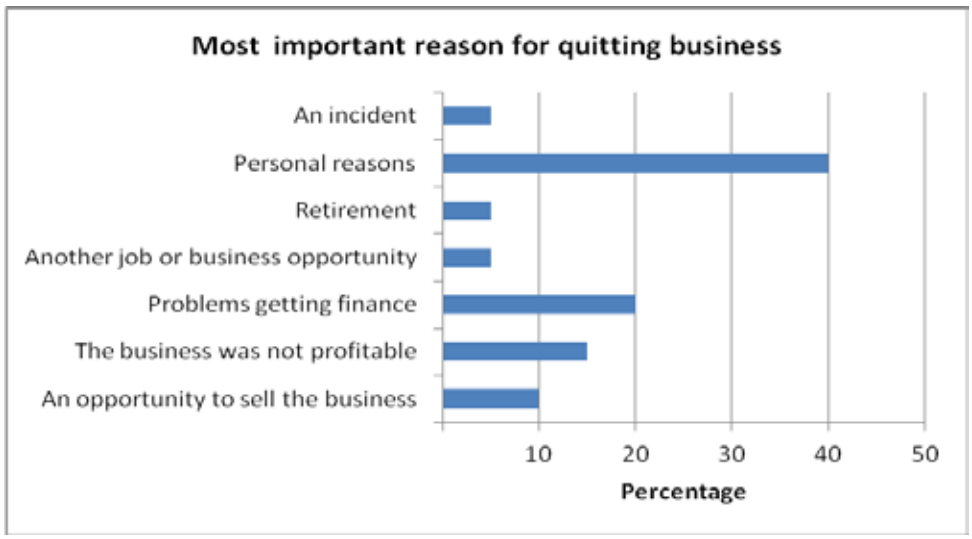


Figure 3.20 Represents the percentage of businesses that continue after entrepreneur exited

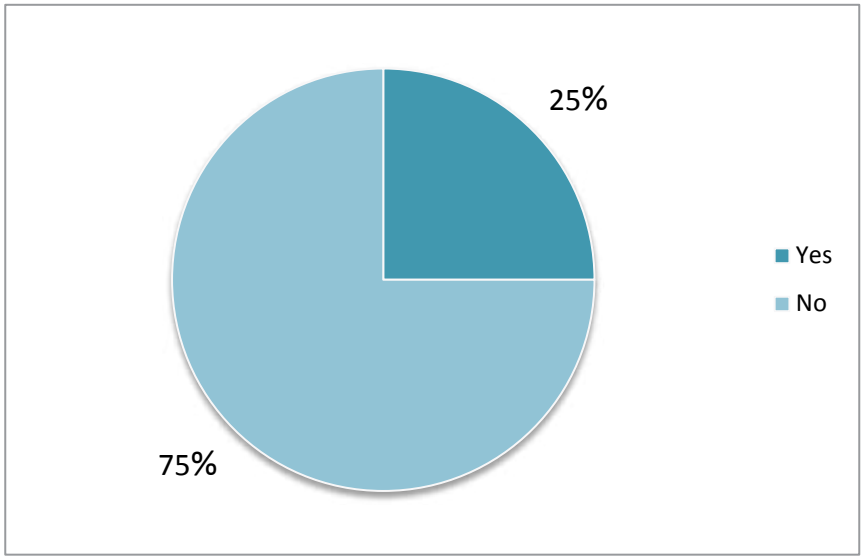
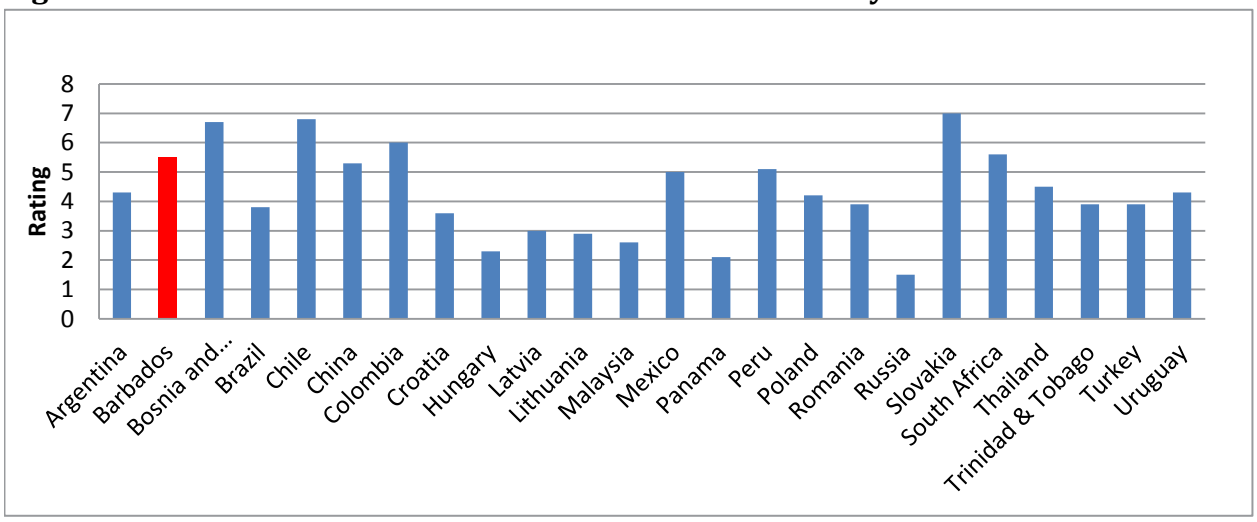


Figure 3.21 Discontinuation Rate of Businesses in Efficiency Driven Economies



Personal reasons, such as illness, bereavement and other relatively unfavorable basic requirements in one's personal life or regional environment, were highlighted as the key factor for business discontinuation in Barbados. This accounted for approximately 40% of the respondents which is above the global average report by GEM of between 20-30%. Financial difficulties such as problems getting finance accounted for 20% and unprofitability, which is below the global average reported by GEM. GEM's (2011) annual report cited that these two negative factors, the lack of profitability and problems obtaining financing accounted for over half of the discontinuances in efficiency driven economies. Three other factors which impacted on the business discontinuation rate were retirement, an opportunity being presented in the form of another job or business opportunity and incident.

ENTREPRENEURIAL EMPLOYEE ACTIVITY

This year's special topic focuses on entrepreneurship within existing organisations, that is, entrepreneurial activities of individual employees. The construct of 'entrepreneurship within existing organizations' includes corporate entrepreneurship, corporate venturing, strategic renewal and intrapreneurship. The research conducted by GEM and the focus of this section is on entrepreneurial employees who have a leading role in the creation and development of new business activities for the organisation where they are employed. An entrepreneurial employee activity is where an employee has developed a new activity for his employer and such a development has led to launching new goods or services, or setting up a new business unit, subsidiary or new establishment.

GEM assessed the prevalence of entrepreneurial employee activity according to a broad and a narrow definition. The broad definition assessed the extent to which employees in the past three years were actively involved in and had a leading role in the development and or implementation of a new activity. The narrow definition on the other hand assesses the extent to which employees are currently involved in the development or implementation of the new activity. This information is evaluated both in terms of the adult population and as a percentage of the employees. The results for Barbados and the average for the efficiency-driven economies are presented in Table 3.14.

The results of the analysis indicates that over the past three years in Barbados the percentage of employees involved in entrepreneurial employee activities was way below the average for efficiency-driven economies. The results also show that in Barbados the current level of entrepreneurial employee activity is way below the average, with less than

Table 3.14 Entrepreneurial Employee Activity in Barbados Compared with Average for Efficiency Driven Economies

	Barbados	Average Efficiency-driven economies
Involved in entrepreneurial employee activity in the past three years as a percentage of the adult population	0.7	2.3
Involved in entrepreneurial employee activity in the past three years as a percentage of employees	1.5	5.3
Currently involved in entrepreneurial employee activity as a percentage of the adult population	0.7	1.8
Currently involved in entrepreneurial employee activity as a percentage of employees	1.4	4.2

Table 3.15 Entrepreneurial Employee Activity and Employers' Support

	Barbados	Average Efficiency-driven economies
Entrepreneurial Employee Activity (EEA)	0.7	1.8
Private Sector Entrepreneurial Employee Activity (PEEA)	0.0	1.2
Employers' support for EEA	66	64

Table 3.16 Level of Risk taking by entrepreneurial employees

	Barbados	Efficiency-driven economies
Risk taking by entrepreneurial employees	26.2%	50%
Types of risk taken		
• Loss of status	10%	36%
• Damage to career	10%	44%
• Loss of job	30%	36%
• Loss of own money	30%	46%

Table 3.17 Shows the Percentage of TEA or Established Business Entrepreneurs

High Job Expectation: greater than 10 jobs and growth >50%		New Product Market		High or Medium tech sectors		Exporting: >25% of customers outside the country	
TEA	EB	TEA	EB	TEA	EB	TEA	EB
6.6	2.6	16.8	9.6	1.2	1.7	9.8	7.0

Source: GEM APS 2011

one percent of the population actually engaged in entrepreneurial employee activity. The prevalence of entrepreneurial employee activity as a percentage of employees in efficiency driven economies is three times that of Barbados.

Table 3.15 summarizes some of the key indicators used by GEM for entrepreneurial employee activity and the rate of employers' support for these activities in provision of new goods and services.

It can be observed from the table that whereas the average for efficiency-driven economies shows that two thirds of entrepreneurial employee activity takes place in the private sector, the data suggests that this is not the case for Barbados where very little activity takes place in the private sector. However, it should be noted that support is given for entrepreneurial employee activity, with 66 percent in Barbados. Of this 66 percent, 14.7% reported that this support is to a large extent and 51.7% reported to some extent.

Table 3.16 shows that entrepreneurial employees in Barbados are more risk averse than the average for efficiency-driven economies. Specifically, when asked about the types of risks that they have taken in the past, the respondents have a lower than average percentage in each of the areas identified.

ENTREPRENEURIAL ASPIRATIONS

Three metrics used by GEM to assess the impact that entrepreneurs have on their economies are growth, innovation and internationalization. Growth ambitions metric reports on the entrepreneur's job-creation potential. Innovation measures the benefits accruing to a society through new and improved products and services. Internationalization, the third factor assesses the extent to which entrepreneurs sell their products beyond their national boundaries. The internationalization metrics report on the proportion of entrepreneurs who have assessed new markets and enhanced their international competitiveness.

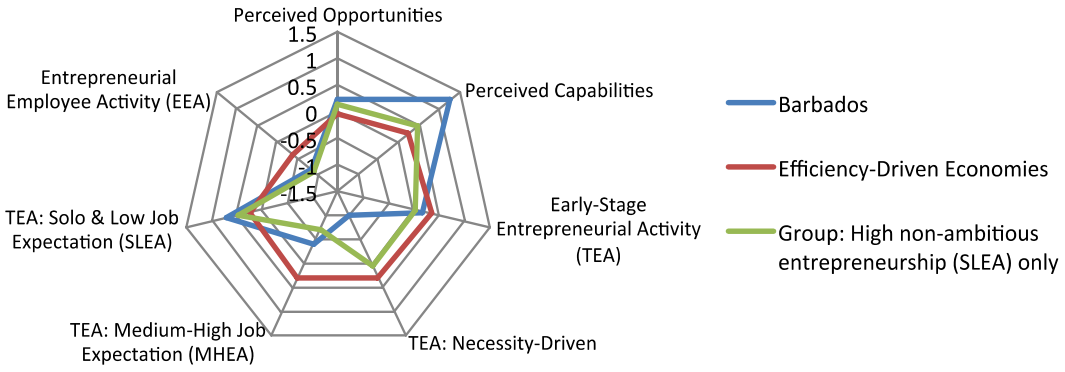
Growth aspirations constitute a key dimension of the entrepreneurial profile of a nation. It shows the entrepreneur's intention, over a five year period, to grow the business beyond just a small enterprise and self-employment activity into a venture that creates employment for others and contributes to the economy. GEM has two measures that are used to describe the level of activity and growth aspiration of the entrepreneur:

- Medium High Job Expectation TEA (MHEA) describes those entrepreneurs who expect to employ at least 5 people besides the owner(s) in 5 years' time; and
- Solo and Low Job Expectation TEA (SLEA) which describes those who expect to employ less than 5 people in 5 years.

As can be seen in Figure 3.22 the MHEA rate for Barbados is below the average for efficiency driven economies. Barbados' rate is 2.8 and the average is 4.7. Therefore it is clear that Barbados has a low level of entrepreneurs who are focusing on growing their businesses to the extent that they will be employing five or more people in five years' time. Rather it appears that the majority of Barbadian entrepreneurs are more interested in keeping their enterprises relatively small over the next five years. The SLEA rate for Barbados is 9.8 which is above the average for efficiency driven economies (8.0).

These rates are important since they suggest that entrepreneurs in Barbados are more interested in remaining self-employed or perhaps employing a few of their friends and family in their enterprises. However for there to be a greater impact on job creation and significant increase in output levels, as well as the potential to develop businesses that cater to non-domestic customer demand, there need to be more enterprises with owner managers that have high expectations for growth.

Figure 3.22 SLEA and MHEA Rates for Barbados compared with Average for Efficiency Driven Economies



MHEA 2.8 average efficiency economies 4.7
SLEA 9.8 average 8.0
EEA 0.7 average 1.8

Data from further analysing the entrepreneurial aspirations stratified by early-stage entrepreneurs (nascent and new business owners) and established business owner-managers is illustrated in Table 3.14. In terms of innovation, the portion of early stage entrepreneurs and established business owner managers who operate in new product markets were 16.8% and 9.6% respectively. This result indicates that early stage entrepreneurs tended to be more likely to report new product market creation than established business owners. The 9.6% rate for established business owners suggests that their major focus was not in creating products that are new to all or most of their customers.

The variable pertaining to the percentage of early-stage entrepreneurs and established business owners who were active in high or medium tech sectors is also illustrated in Table 3.14. The results of 1.2% and 1.7% for nascent entrepreneurs and established business owner managers respectively indicate that Barbadian entrepreneurs predominately operated in the low tech sectors.

The final variable in Table 3.17 relates to internationalization as measured by the exporting potential of the entrepreneurs. Entrepreneurs who have or expect to have in the case of nascent entrepreneurs over one in four customers from outside the country, the portions were 9.8% and 7% for early stage entrepreneurs and established business owner managers respectively. The finding suggests that entrepreneurs in Barbados did not have a strong international orientation.

CHAPTER 4: RECOMMENDATIONS FOR THE FUTURE OF ENTREPRENEURSHIP IN BARBADOS

The World Economic Forum (WEF) categorizes the world's economies into three (3) groups; namely,

1. Factor Driven economies (those that are dominated by subsistence agriculture and extraction businesses with a heavy reliance on labour and natural resources)
2. Efficiency Driven economies (those with an increased reliance on economies of scale, with capital-intensive large organizations being dominant)
3. Innovation Driven economies (those where businesses are increasingly knowledge intensive and the service sector is expanding).

The WEF's Global Competitiveness Report for 2011has identified Barbados as an economy that is transitioning from stage 2 to stage 3. The data shows that Barbados has strong Basic Requirements for competitiveness (i.e. institutions, infrastructure, health and primary education) and fairly good Efficiency Enhancers (i.e. higher education and training, goods market efficiency, financial market development, labour market efficiency and technological readiness). However there are some specific areas which need to be addressed, i.e. market size and macroeconomic stability and the areas of business sophistication and innovation need to be developed.

Looking at the statistics from The Global Entrepreneurship Monitor (GEM) 2011 Global Report while Barbados has several factors that have led to its ranking in the global indicators, there are some issues which will impact on the economy's ability to remain competitive if it continues as an efficiency economy.

1. Size. Barbados is the only nation in this grouping that has a population that is less than a million people. This is important because it determines the size of the market that is relatively easily accessible to any new or prospective entrepreneur.
2. Access to raw materials. Many of the countries in the efficiency driven category have greater and easier access to raw materials which can then be used as inputs into more sophisticated production processes and products.
3. Inability to benefit from economies of scale. This is important as it allows entrepreneurs to benefit from reduced costs of inputs and enables them to be price competitive at home and abroad.
4. Low entrepreneurial intentions. There is a relatively low number of people who are interested in starting businesses but have not done so. Given our level of per capita

GDP it is not likely that the rate of individuals starting new businesses is going to increase exponentially. The GEM data shows that economies with higher GDP levels tend to have lower numbers of new entrepreneurs but more instances of established businesses (i.e. entrepreneurial businesses that have be running for more than 3 years). What the research also shows is that these nations also tend to have higher levels of innovation and more sophisticated kinds of business activities as well as businesses that are focusing on high growth prospects.

It is our recommendation that moving forward Barbados needs to focus on some specific things to make the most of its strengths and to mitigate the impact of its size and access to raw materials.

1. Focus on becoming an innovation driven economy. This will require greater attention and investment into research and development as well as developing mechanisms that support the inventors in getting their creations into viable income generating enterprises.
2. Focus on developing high growth businesses. Much of the emphasis presently is on looking at self-employment and on providing individuals with a means to start a business that will ensure they are not unemployed or waiting on others for employment. However there needs to be a slight shift into creating businesses that can grow over a five year period and generate upwards of twenty jobs during that period. These kinds of enterprises are often high income generators and lead to significant growth in the economy.
3. Improve the entrepreneurial framework conditions to ensure strengthening of the support for entrepreneurs in the country. Specifically:
    a. Include at primary and secondary school levels education programmes that are intended to help individuals develop their entrepreneurial mindset and their ability to be innovative.
    b. Increase the access to financing options for start-up businesses.
    c. Develop a greater culture of science and technology development across the country.
    d. Emphasise innovation as an important characteristic of organizations and individuals in the country.
    e. Provide greater support to Research and Development initiatives throughout the country.

In summary, Barbados has great potential for continuing its economic development through greater emphasis on entrepreneurial activity. However, this activity needs to focus on high growth areas with the potential to generate high employment, earn foreign exchange from exports and increase the per capita GDP of the country. If this is accomplished then Barbados will move to the next level of its economic development.

APPENDICES

APPENDIX 1

Table A1: Entrepreneurial perceptions, intentions, and societal attitudes in 54 economies, 2011

	Perceived Opportunities	Perceived capabilities	Fear of failure*	Entrepreneurial intentions **	Entrepreneurship as a good career choice	High Status to successful entrepreneurs	Media attention for entrepreneurship
Factor-driven economies							
Algeria	54	60	43	42	80	82	51
Bangladesh	64	24	72	25	73		49
Guatemala	55	71	25	26	85	68	62
Iran	32	46	33	30	61	73	58
Jamaica	49	79	29	19	81	82	76
Pakistan	40	43	35	23	74	73	48
Venezuela	48	67	24	20	83	77	63
average (unweighted)	*49*	*56*	*37*	*26*	*77*	*79*	*58*
Efficiency-driven economies							
Argentina	56	64	28	30	76	69	66
Barbados	44	67	19	11	60	64	50
Bosnia and Herzegovina	21	49	30	17	82	71	43
Brazil	43	53	31	28	86	86	82
Chile	57	62	27	46	73	69	65
China	49	44	36	43	73	73	76
Colombia	73	61	29	56	89	79	67
Croatia	18	49	34	18	65	47	41
Hungary	14	40	35	20	54	78	34
Latvia	24	47	41	25			
Lithuania	23	35	40	17			
Malaysia	37	31	30	9	52	51	73
Mexico	43	61	27	24	57	58	48
Panama	46	64	14	21			
Peru	70	73	41	38	85	82	78
Poland	33	52	43	23	73	64	58
Romania	36	42	36	25	68	69	57
Russia	27	33	43	4	65	65	55
Slovakia	23	53	32	18	55	64	55
South Africa	41	43	24	14	73	72	74
Thailand	40	43	55	26	77	79	84
Trinidad & Tobago	62	81	17	35	84	82	61
Turkey	32	42	22	9			
Uruguay	54	61	34	38	58	59	33

average (unweighted)	*40*	*52*	*32*	*25*	*70*	*69*	*60*
Innovation-driven economies							
Australia	48	47	43	12	54	68	70
Belgium	43	44	41	11	64	55	47
Czech Republic	24	39	35	14		49	
Denmark	47	35	41	7			
Finland	61	37	32	7	46	83	67
France	35	38	37	18	66	68	47
Germany	35	37	42	5	55	78	50
Greece	11	50	38	10	61	69	32
Ireland	26	46	33	6	46	83	56
Japan	6	14	42	4	26	55	57
Korea Rep.	11	27	45	16	61	67	62
Netherlands	48	42	35	9	83	67	62
Norway	67	33	41	9	53	80	60
Portugal	17	47	40	12			
Singapore	21	24	39	12	54	63	77
Slovenia	18	51	31	9	54	70	45
Spain	14	51	39	8	65	66	45
Sweden	71	40	35	10	52	71	62
Switzerland	47	42	31	10			
Taiwan	39	29	40	28	69	63	86
United Arab Emirates	44	62	51	2	71	73	63
United Kingdom	33	42	36	9	52	81	47
United States	36	56	31	11			
average (unweighted)	*35*	*41*	*38*	*10*	*57*	*69*	*58*

* Fear of failure assessed among those seeing opportunities.

** Intentions assessed in non-entrepreneur (non-TEA) population

Source: GEM 2011 Adult Population Survey

APPENDIX 2

Table A2: Entrepreneurial activity in 54 economies by phase of economic development, 2011

	Nascent entrepreneur-ship rate	New business ownership rate	Early-stage entrepreneurial activity (TEA)	Established business ownership rate	Discontinuation of businesses	Necessity-driven (% of TEA)	Opportunity-driven (% of TEA)
Factor-driven economies							
Algeria	5.3	4.0	9.3	3.1	9.5	37	46
Bangladesh	7.1	7.1	12.8	11.6	2.5	27	50
Guatemala	11.8	9.1	19.3	2.5	3.8	33	33
Iran	10.8	3.9	14.5	11.2	6.4	53	32
Jamaica	9.0	5.0	13.7	5.1	12.7	33	40
Pakistan	7.5	1.7	9.1	4.1	1.6	47	25
Venezuela	13.1	2.6	15.4	1.6	3.2	29	43
average (unweighted)	9.2	4.8	13.4	5.6	5.7	37	38
Efficiency-driven economies							
Argentina	11.8	9.2	20.8	11.8	4.3	33	45
Barbados	10.8	1.8	12.6	4.2	5.5	5	58
Bosnia and Herzegovina	5.4	2.8	8.1	5.0	6.7	61	22
Brazil	4.1	11.0	14.9	12.2	3.8	31	45
Chile	14.6	9.6	23.7	7.0	6.8	27	54
China	10.1	14.2	24.0	12.7	5.3	41	29
Colombia	15.2	6.7	21.4	7.5	6.0	25	30
Croatia	5.3	2.1	7.3	4.2	3.6	35	31
Hungary	4.8	1.6	6.3	2.0	2.3	31	29
Latvia	6.8	5.3	11.9	5.7	3.0	26	46
Lithuania	6.4	5.0	11.3	6.3	2.9	28	47
Malaysia	2.5	2.5	4.9	5.2	2.6	10	72
Mexico	5.7	4.0	9.6	3.0	5.0	19	55
Panama	12.0	9.1	20.8	6.0	2.1	27	40
Peru	17.9	5.4	22.9	5.7	5.1	22	52
Poland	6.0	3.1	9.0	5.0	4.2	48	32
Romania	5.6	4.5	9.9	4.6	3.9	41	34
Russia	2.4	2.3	4.6	2.8	1.5	27	42
Slovakia	9.2	5.3	14.2	9.6	7.0	28	34
South Africa	5.2	4.0	9.1	2.3	5.6	35	39
Thailand	8.3	12.2	19.5	30.1	4.5	19	67
Trinidad & Tobago	13.9	9.3	22.7	6.9	3.9	15	44
Turkey	6.3	6.0	11.9	8.0	3.9	32	45
Uruguay	11.0	6.0	16.7	5.9	4.3	11	10
average (unweighted)	8.4	5.9	14.1	7.2	4.3	28	42

Innovation-driven economies							
Australia	6.0	4.7	10.5	9.1	4.3	15	73
Belgium	2.7	3.0	5.7	6.8	1.4	10	72
Czech Republic	5.1	2.7	7.6	5.2	2.7	27	57
Denmark	3.1	1.6	4.6	4.9	2.3	7	64
Finland	3.0	3.3	6.3	8.8	2.0	18	59
France	4.1	1.7	5.7	2.4	2.2	15	71
Germany	3.4	2.4	5.6	5.6	1.8	19	55
Greece	4.4	3.7	8.0	15.8	3.0	25	37
Ireland	4.3	3.1	7.2	8.0	3.4	29	37
Japan	3.3	2.0	5.2	8.3	0.7	25	64
Korea Rep.	2.9	5.1	7.8	10.9	3.2	41	36
Netherlands	4.3	4.1	8.2	8.7	2.0	9	62
Norway	3.7	3.3	6.9	6.6	2.5	4	70
Portugal	4.6	3.0	7.5	5.7	2.9	18	58
Singapore	3.8	2.8	6.6	3.3	2.1	16	53
Slovenia	1.9	1.7	3.7	4.8	1.5	12	51
Spain	3.3	2.5	5.8	8.9	2.2	26	39
Sweden	3.5	2.3	5.8	7.0	3.2	6	68
Switzerland	3.7	2.9	6.6	10.1	2.9	11	61
Taiwan	3.6	4.4	7.9	6.3	4.9	17	50
United Arab Emirates	3.7	2.6	6.2	2.7	4.8	14	67
United Kingdom	4.7	2.6	7.3	7.2	2.0	17	46
United States	8.3	4.3	12.3	9.1	4.4	21	59
average (unweighted)	4.0	3.0	6.9	7.2	2.7	18	57

Source: GEM 2011 Adult Population Survey

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