



Global Entrepreneurship Monitor Caribbean 2011 Caribbean Regional Report

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Global Entrepreneurship Monitor

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Executive summary

The Global Entrepreneurship Monitor (GEM) is a research project that has been conducted since 1999 seeking to increase the knowledge about entrepreneurship worldwide. For the 2011 research cycle, 54 economies were actively involved interviewing over 140,000 adults (18-64 years of age).

In 2011, a consortium of 4 universities, (Cave Hill School of Business – Barbados, Universidad Icesi – Colombia, University of Technology – Jamaica and Arthur Lok Jack Graduate School of Business – Trinidad & Tobago) was established to form the GEM Caribbean team, which with the support of the International Development Research Centre of Canada, is in charge of analyzing the entrepreneurial activity in this region using GEM methodology.

The main indicator GEM uses is called the Total Entrepreneurial Activity (TEA), and is defined as: the percentage of the adult population (18-64 years old) actively involved in the creation and operation of a business which has been paying salaries for less than 42 months. For 2011, Trinidad & Tobago had a TEA of 22.7% showing the highest rate in the region and the fifth highest TEA rate worldwide. Colombia with 21.4% was the 6th, Jamaica with 12.8% and Barbados with 12.6% occupied the 16th and 18th position respectively.

During the research, a series of questions needing further research arise. For example: the

reasons why only 2 out of 5 entrepreneurs are women; why 3 out of 10 enterprises do not generate any new jobs and why 6 out of 10 enterprises do not use new technology.

Some positive factors were derived from the study. For example, in the Caribbean region there are high perceptions about: the existence of entrepreneurial opportunities, the capacities to manage a new business, the desirability of starting an entrepreneurial career, and the low level of fear of failure among other variables.

Although the number of potential and intentional entrepreneurs is higher than in most of the world economies, in the established business sector, (more than 42 months paying salaries,) the figures are lower. Also, in terms of businesses internationalization, innovation level and the use of technology by the new and established enterprises, the results are not too encouraging.

Negative factors found have to do with the poor evaluation of national experts given to the following entrepreneurial framework conditions: the transfer in research and development, the educational system, the access to financial resources, and the government programs. Some policy recommendations are formulated to improve the support mechanism toward entrepreneurship development and new research lines are identified.

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1. Introduction

A broad agreement exists today among the academia and public policy makers about the importance of entrepreneurial activity and entrepreneurs in the dynamics of economic development. New businesses drive innovation, generate jobs and, stimulate productivity and competition thereby developing the economy and the welfare of a society.

The Global Entrepreneurship Monitor (GEM) is conducting the biggest on-going research worldwide in order to study and analyze the relationship that exists between entrepreneurship and the national economic development. This project started in 1999 as an initiative of Babson College and the London School of Economics. At the present time, it is the only comparable data source that exists globally

about a wide range of variables associated with the general entrepreneurial activity and specific elements in the different stages that compose the entrepreneurial process.

GEM has been able to take and process harmonized data on an annual basis focusing mainly in three objectives:

- Measuring the differences that exist in the entrepreneurial activity levels between the different countries that participate.
- Discovering the principal causes and variables that affect the level of entrepreneurial activity in each country.
- Identifying policies that may foster the quality and quantity of the entrepreneurial activity in each country.

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2. GEM Model

The GEM model defines the adult population as those aged 18-64. Since they are the object of study, a representative sample is interviewed in order to learn about their attitudes, activities and aspirations towards the intention, creation, growth, and closure aspects of entrepreneurship. Figure 1 shows the entrepreneurial cycle, it defines the main stages in which GEM divides the entrepreneurial process and classifies the entrepreneurs according to the level of their organizational development:

Potential Entrepreneurs: Those developing entrepreneurial knowledge and abilities.

Intentional Entrepreneurs: Those having the intention of starting a new business or develop a business idea in the future.

Nascent entrepreneurs: Those who have recently initiated a business and have paid salaries to employees and/or themselves for a period of 0 to 3 months which marks the stage of the birth of the company.

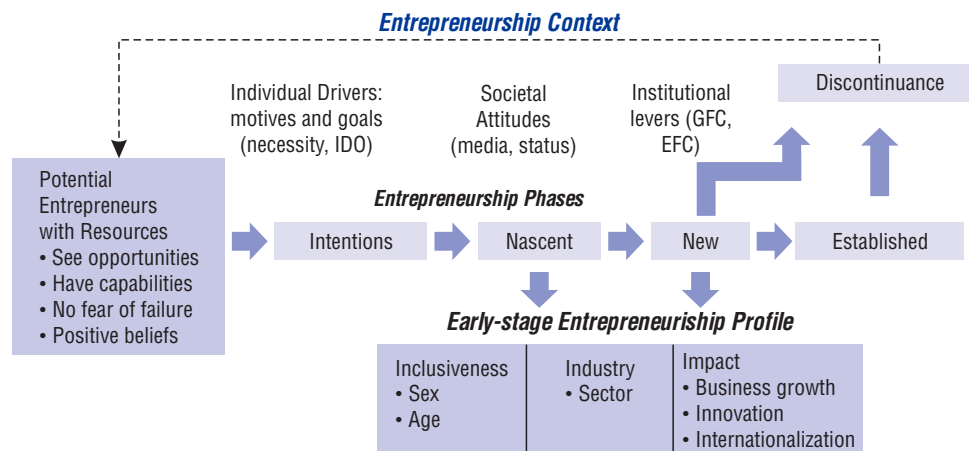
New Entrepreneurs: Those who have been in an entrepreneurial activity paying salaries for more than 3 months but less than 42 months.

Established Entrepreneurs: Those having an entrepreneurial activity which has paid salaries for more than 42 months.

Discontinued Entrepreneurs: Those who for any reason have exited an entrepreneurial activity.

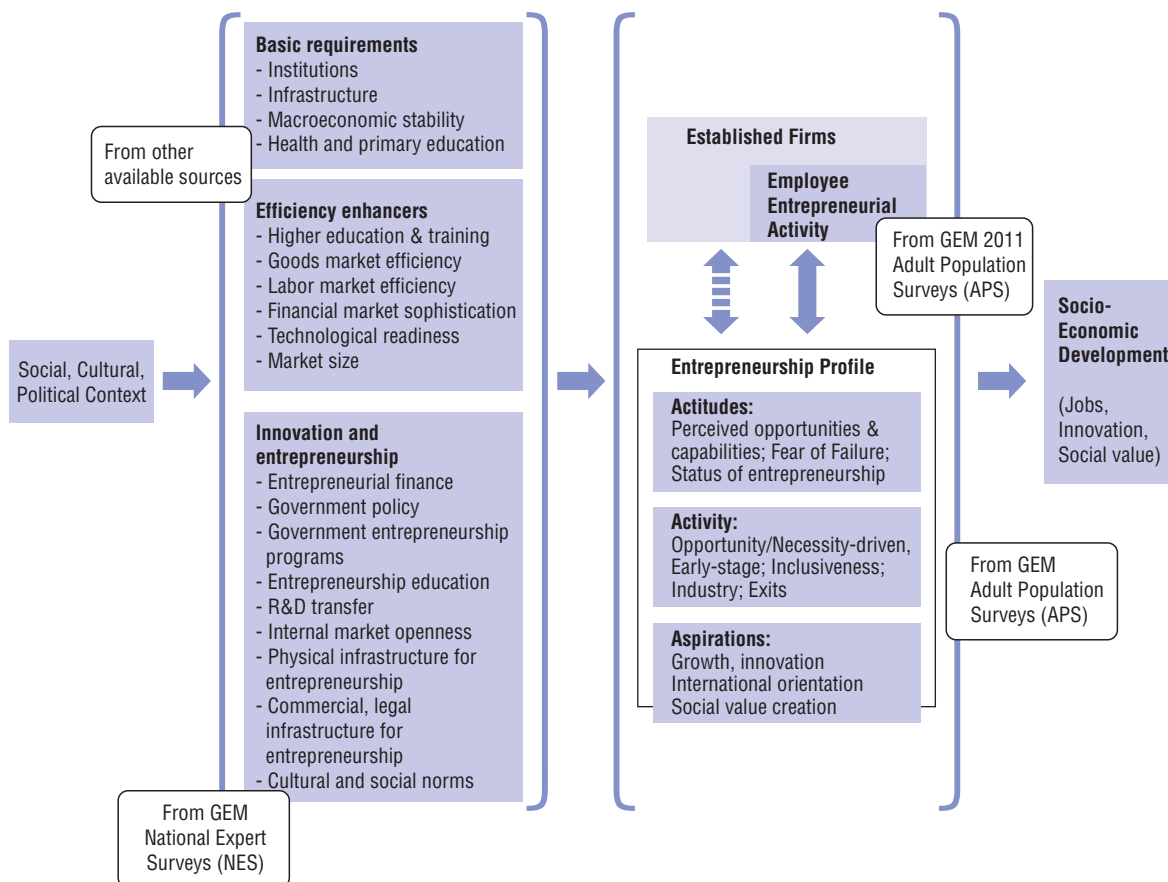
The GEM research, measures the proportion of individuals aged 18 - 64 who are: nascent entrepreneurs, new entrepreneurs and established entrepreneurs. The sum of the “Nascent” and “New” categories generates the Total Entrepreneurial Activity rate (TEA) which indicates the percentage of individuals in the population 18 - 64 age groups involved in the process of creating and/or managing a new business which has been paying salaries for less than 3½ years.

Figure 1
Entrepreneurial Process¹



¹ Global Entrepreneurship Monitor 2011 Global Report

Figure 2
GEM Model²



² Global Entrepreneurship Monitor 2011 Global Report

It is important for GEM not only to know the proportion of new activities started in a given year, but also to understand their entrepreneurial profile, that is the characteristics of the individuals who participate in these activities. For this reason, the research takes into consideration inclusiveness, industry and impact. As a result, GEM has developed a conceptual model (Figure 2) to explain the relationships that exist between several environmental variables, the entrepreneurial activity and the socioeconomic development indicators.

The model explains how the social, cultural and political contexts of each country has an influence on three sets of conditions – basic

requirements, efficiency enhancer and innovation / entrepreneurship - which are the critical factors for the value creation of the socioeconomic dynamism generated by the established firms and the new enterprises. The magnitude of the socio economic value creation is the defining variable of the socioeconomic development.

In order to increase the socioeconomic development of a country, appropriate policies must be formulated to foster the three sets of conditions so as to create more and better enterprises. The main role of GEM is to obtain measurements of different entrepreneurial variables in order to evaluate the effectiveness of these policies.

3. Research Design

In order to compare results among participating countries, the methodology used in the GEM study is standardized worldwide, and it is composed of three basic processes:

1. The Adult Population Survey (APS) is a survey administered to the population aged 18-64. In the Caribbean region in 2011, around 17,300 surveys were conducted in Barbados, Colombia, Jamaica and Trinidad & Tobago countries, representing statistically the population in terms of: urban, rural, age, gender and economic strata; the surveys administered per country were Barbados – 2,305, Colombia 10,374, Jamaica – 2,047 and Trinidad & Tobago – 1,813. This interview, measured multiple variables of the different types of entrepreneurs, but the main measurement is the proportion of individuals (18-64) who belong to the following three categories. “Nascent Entrepreneurs”, “New Entrepreneurs” and “Established Entrepreneurs”. As mentioned before, the first two groups: nascent entrepreneurs and new entrepreneurs are added to measure the Total Entrepreneurial Activity known as TEA. Additionally, it measures the attitudes, aspirations and intentions regarding entrepreneurial activity, entrepreneurial profiles, businesses discontinuance and many other variables concerning entrepreneurs and their enterprises among the general population are measured.

2. The National Expert Survey (NES) is a survey administered to national experts who

evaluate the entrepreneurial framework conditions for innovation and entrepreneurship: entrepreneurial finance, government policies, governmental programs, education & training, R&D transfer, commercial & service infrastructure, openness of the market, physical infrastructure, cultural and social norms among others. In 2011, Barbados and Colombia conducted 36 surveys of this type, Trinidad & Tobago 41 and Jamaica 38.

3. Secondary sources related to socio-economic variables of the countries (Secondary Variables – SV) are composed of a series of data about each participant country which is fundamental for the basic requirements as well as for the efficiency enhancers, such as: population, level of income, employment and unemployment rates, investment in research & development, commercial and physical infrastructure, competitiveness, risk indicators, corruption levels, national gross product per capita and ease in doing business within the country. This data is gathered by the central coordination team of the GEM project in London from sources such as: The World Bank, International Monetary Fund, World Economic Forum, OCDE, ONU, USA Census, UE, UNESCO, Doing Business Report, Heritage Foundation as well as from many other secondary sources of information.

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4. Main Results

This section presents the main results obtained from the adult population survey. The GEM countries are grouped into three economic phases: factor driven, efficiency driven and innovation driven economies, in line with the classification generated by the World Economic Forum's Global Competitiveness Report³. According to this, Colombia, Trinidad & Tobago and Barbados are categorized in the efficiency driven group and Jamaica is categorized in the factor driven group.

The results were analyzed using the entrepreneurial process model (Figure 1) to understand the entrepreneurial pipeline.

4.1 Social perception of entrepreneurship

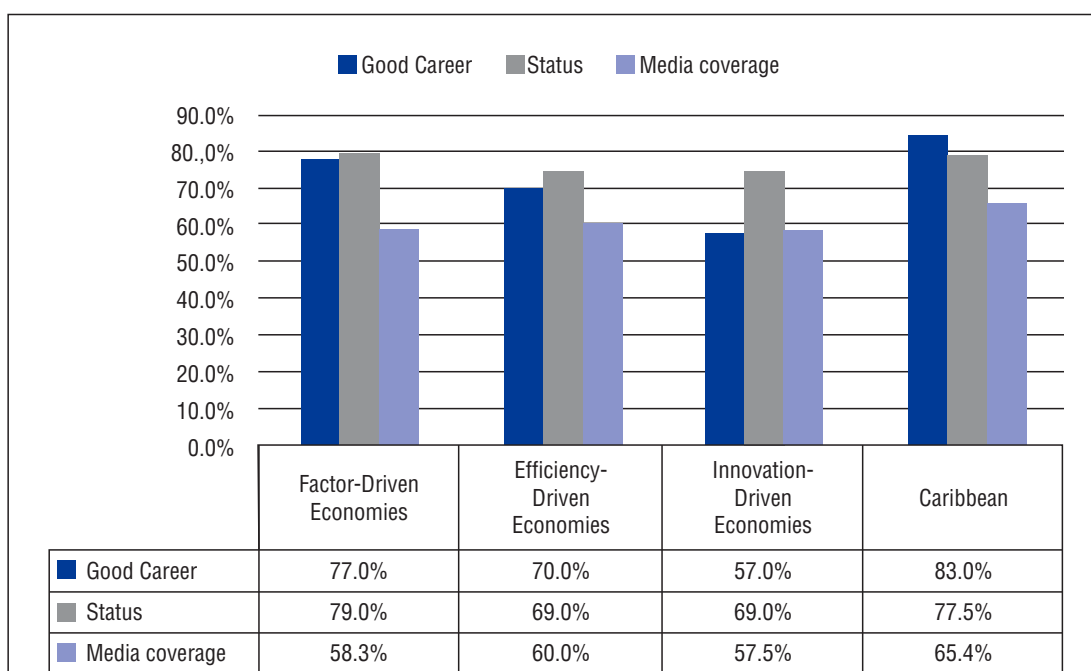
The entrepreneurial process is a social process executed by people living in specific cultural

and social conditions, for that reason the positive perception that society has on entrepreneurship is a necessary condition to motivate people toward the entrepreneurial process. GEM asks if: 1) people consider starting a new business as a good career choice, 2) if people associate entrepreneurs with high status and 3) if there is a lot of positive media attention for entrepreneurship.

A positive perception of the three concepts mentioned above will foster motivation, professional orientation, commitment and resilience in people, thereby increasing the proportion of adults willing to try to start up new enterprises, and the number of active entrepreneurs willing to keep their business growing.

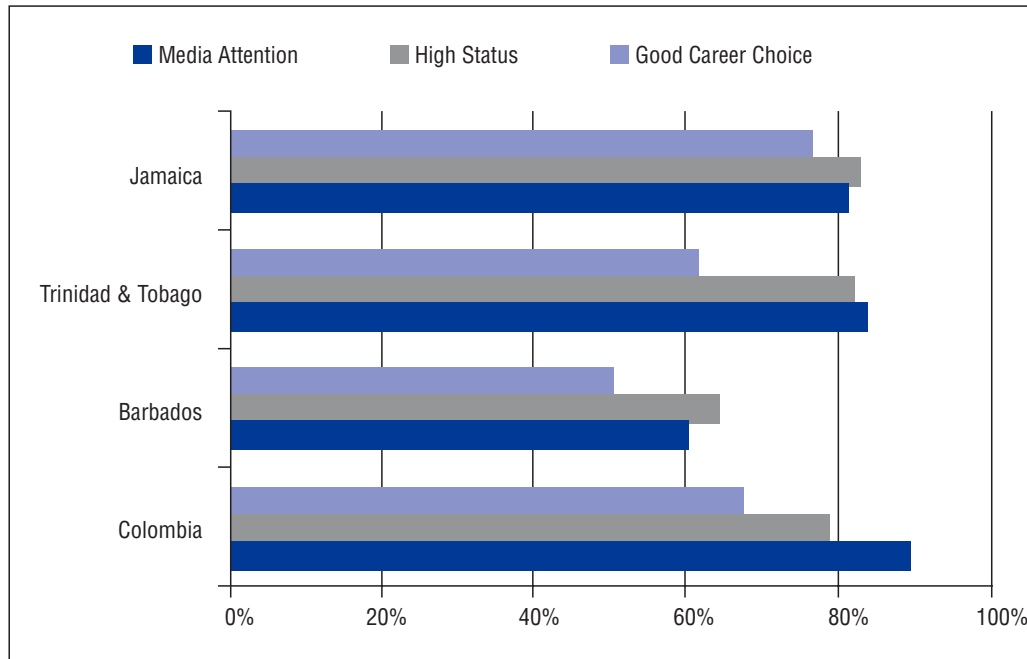
As indicated on Figure 3, in all three variables, the Caribbean region shows better average

Figure 3
Social Perception of Entrepreneurship vs. Economic Groups



³ Schwab, Klaus, ed., The Global Competitiveness Report 2011-2012 (Geneva: World Economic Forum, 2011).

Figure 4
Social Perception of Entrepreneurship in the Caribbean Region



results than the ones obtained by the efficiency and the innovation driven economies. Compared to the factor driven economies, the Caribbean region shows a better perception in entrepreneurship as good career choice and in media coverage, and very similar rates in the high status given to entrepreneurs.

Figure 4 shows the differences in social perception among the Caribbean countries. Jamaica shows the highest positive perception in media attention for entrepreneurs and in the association between entrepreneurs and high status. Colombia is the country which has the highest positive perception on entrepreneurship as a good career choice. On the contrary, Barbados presents the lowest level of perception in all three variables.

These results indicate that in the Caribbean region people are really involved with an entrepreneurial culture and they understand the advantages that entrepreneurial culture could have in their national development. This will

allow development of entrepreneurs in the short, medium and long range in that region.

4.2 Potential Entrepreneurs

The first step in the entrepreneurial process happens when people consider that they are able to perceive opportunities in their country, when they are confident in their ability to create and manage a new business and when they have a capacity to overcome the fear of failure. In this stage they have not embarked in any specific actions to start an enterprise, even though they believe they have the capacity to do it; for this reason they are called potential entrepreneurs.

As presented in Table 1, in all three factors: perceived opportunities, perceived capabilities and fear of failure, the average Caribbean countries present better values that the average for the factor driven, efficiency driven, innovation driven and the Latin American group of countries.

Table 1:
Entrepreneurial Perception vs. Economic Phases

	Perceived Opportunities	Perceived Capabilities	Fear of Failure
Factor-Driven Economies	49.0%	55.5%	37.3%
Efficiency-Driven Economies	40.3%	52.0%	32.1%
Innovation-Driven Economies	34.9%	40.6%	38.1%
Caribbean	65.1%	66.4%	29.7%
Latin America	55.8%	63.9%	31.0%

The fact that more than 60% of the Caribbean people consider they are able to identify opportunities and have the capabilities to create and manage a new business, and the low level of people that will not start an entrepreneurial process due to the fear of failure, establishes a good environment for the development of entrepreneurs and is aligned with the positive social culture perceptions about entrepreneurship.

Figure 5 shows differences among the entrepreneurial perceptions in the Caribbean countries. Colombia presents the highest value (73%) in the capacity to perceive opportunities and Barbados the lowest (44%); Trinidad & Tobago (81%) and Jamaica (79%) are the leaders in terms of the perception about the capacities to create and to manage a new business, and Colombia (61%) presents the lowest indicator. Trinidad & Tobago (19%) and Barbados (20%)

Figure 5
Entrepreneurial Perceptions in the Caribbean Region

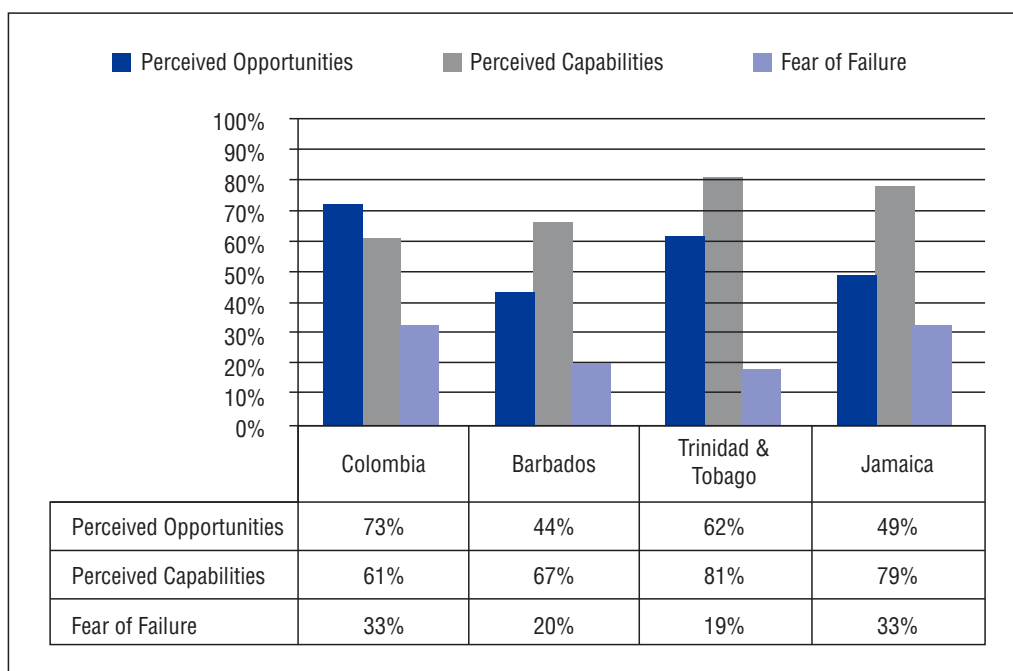
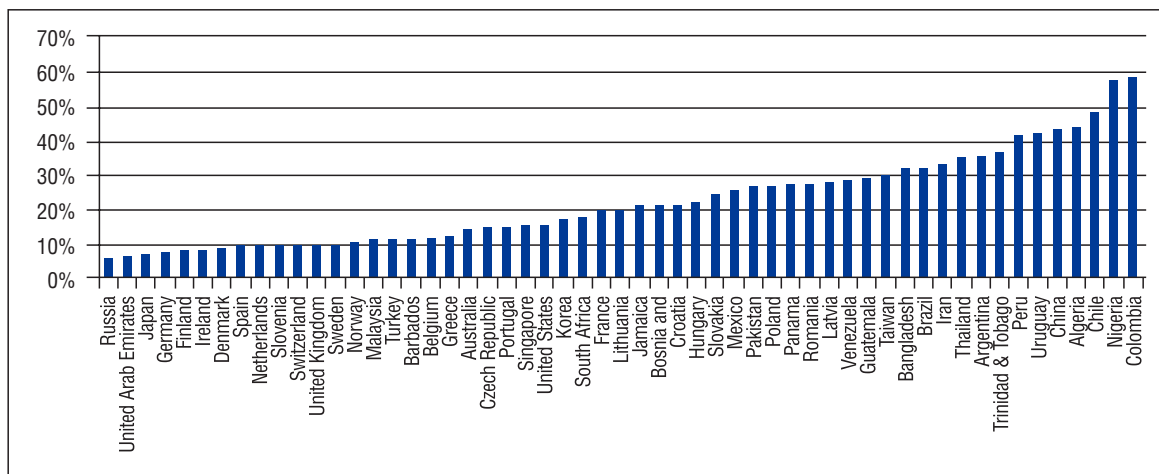


Figure 6:
Entrepreneurial Intentions by Countries



show the most risk oriented approach, while Colombia and Jamaica (33%) are significantly less risk oriented.

People in all four countries feel they are competent, are willing to go ahead with the entrepreneurial process and feel better prepared than people in most of the other country groups.

4.3 Intentional Entrepreneurs

The next step in the entrepreneurial process is when the potential entrepreneur expresses the intention of starting a new business in the near future. To evaluate this, GEM asks these individuals if they are planning to start a new business alone or with others within the next three years.

Figure 6 shows the results of the entrepreneurial intentions in all participating countries in GEM 2011. The variations among the countries are quite significant, and surprisingly, most of the developed countries had less than 20% of their population planning to start a new business. The countries in the Latin American region present the highest levels of entrepreneurial intentions, such as: Colombia, Chile, Uruguay and Perú where all have an entrepreneurial intention rate between 40 to 60%.

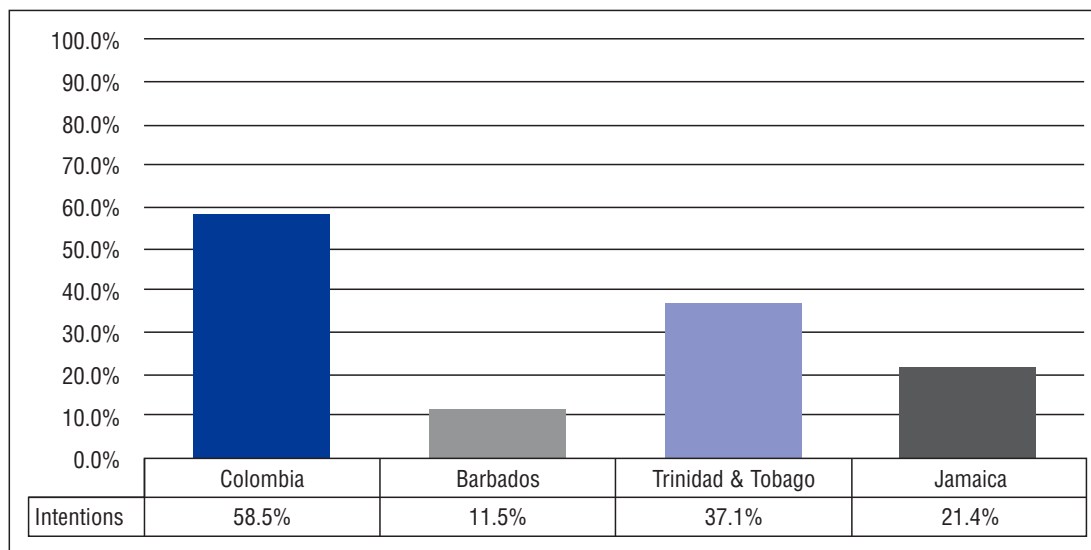
Colombians show the highest intentions (58.5%) of starting new businesses worldwide, but that behavior is quite different in the other Caribbean countries: Trinidad & Tobago (35%), Jamaica (20%) and Barbados (11.5%).

The entrepreneurial intention rate in the efficiency driven economies is 24.7%, in the innovation driven is 10.3% and in the factor driven is 26.4%. When Jamaica and Barbados are compared with other factor or efficiency driven countries they still show a low level. On the other hand, Colombia and Trinidad & Tobago have a higher rate than the efficiency driven economies.

Taking into account the differences among the four Caribbean Countries that have been found so far a series of research questions arise:

- What actions is Colombia conducting to keep high entrepreneurial intentions?
- What are the issues in the entrepreneurial pipeline in Barbados and Jamaica which cause the loss of so many potential entrepreneurs?
- What should be done in terms of training and support programs to keep more people engaged in entrepreneurial activities and not

Figure 7
Entrepreneurial Intentions in the Caribbean



quitting the process before taking the decision of trying it in the following 12 months?

Potential issues which may get in the way of keeping the persons in the entrepreneurial pipeline might have to do with the fact that many of the potential entrepreneurs are not working their entrepreneurial vision thoroughly through an entrepreneurial career plan, as well as the fact that they are not developing their entrepreneurial competences to the required level.

4.4 Total Entrepreneurial Activity (TEA)

The central measurement of GEM is the Total Entrepreneurial Activity (TEA), which as indicated earlier, is made up of individuals aged 18 - 64 who have already started their business and are in one of the two initial periods:

- 0 – 3 months of paying salaries (Nascent entrepreneurs)
- 3 – 42 months of paying salaries (New entrepreneurs)

Figure 8 shows the total entrepreneurial activity data for all participant countries in the 2011

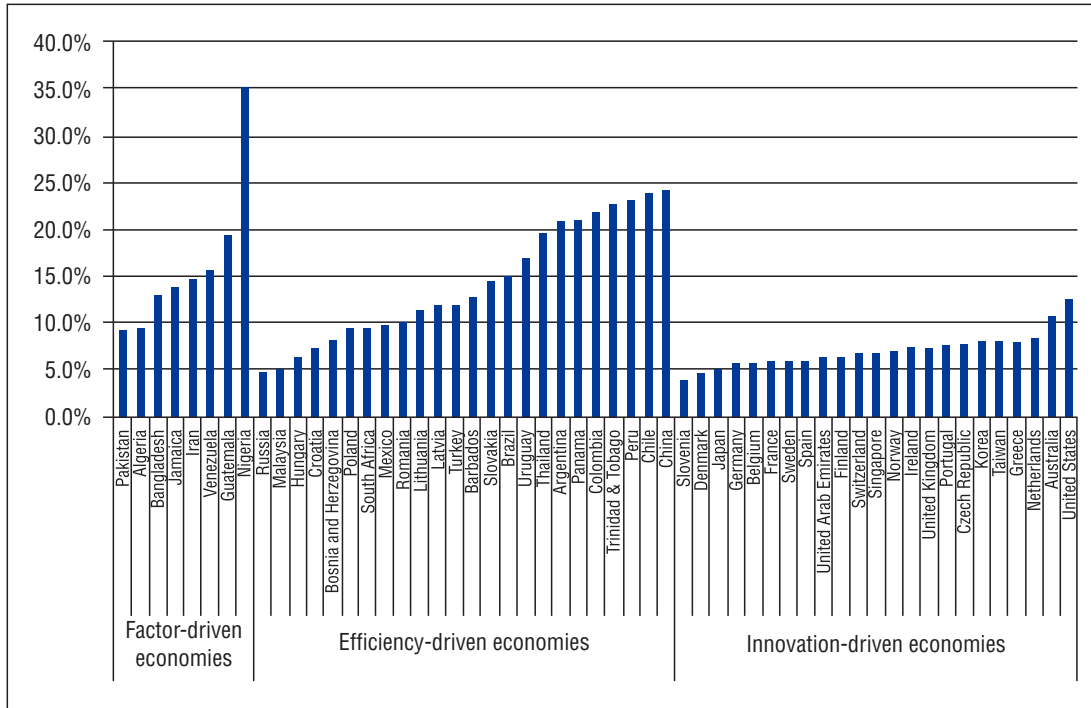
cycle. As shown, there is a great variability in the TEA worldwide ranging from 3.7% to 35.0%. The innovation driven economies present the lowest TEA rates, the efficiency driven economies have the widest TEA range and the factor driven economies has the country with the highest TEA rate.

In the innovation driven economies TEA goes from 11% in the U.S. to 3%, in Slovenia. In the efficiency driven economies TEA goes from 24% in Chile to 4% in Russia, and in the factor driven economies from 35% in Nigeria to 9% in Pakistan.

The Latin American and Caribbean countries show high TEA: Chile (24.7%) is the third worldwide, followed by Peru (22.9%), Trinidad & Tobago (22.7%), Colombia (21.4%), Panama (20.8%) and Argentina (20.8%).

Figure 9 presents the TEA for the participating countries in the Caribbean project which in the year 2011 shows a measurement between 12.6% and 22.7%. Trinidad & Tobago with 22.7% shows the highest rate in the region and had the fifth highest TEA rate worldwide, Colombia with 21.4% was the 6th and Jamaica with 12.8% and Barbados with 12.6% occupy the 16th and 18th position respectively.

Figure 8
TEA by Countries

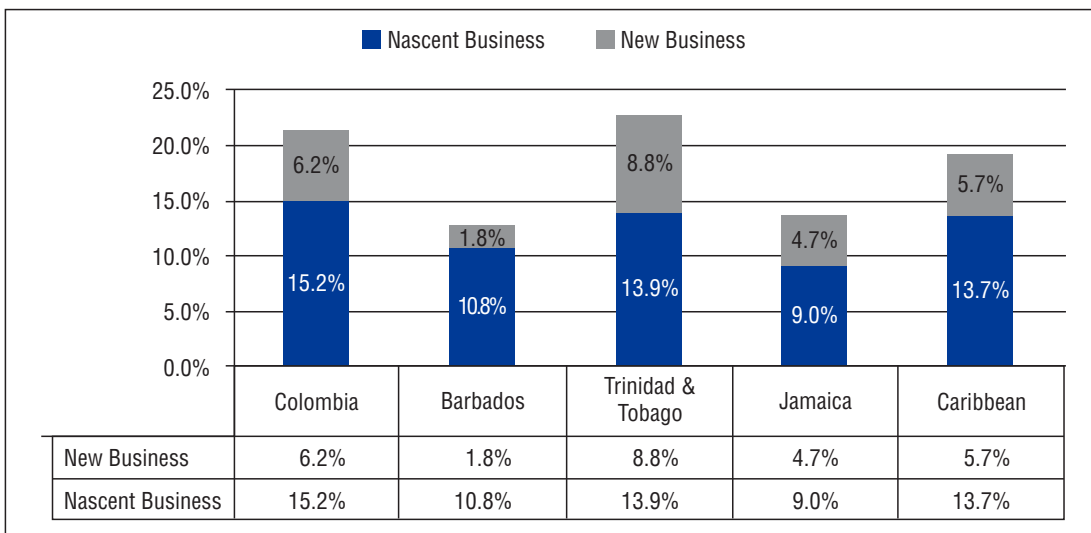


It is important to analyze TEA and Figure 9 in more detail since it allows the identification not only of the percentage of adult population involved in the creation and development of a business that has been paying salaries for less

than 42 months, but also the composition of TEA by “Nascent Entrepreneurs” (0-3 months) and “New Entrepreneurs” (3-42 months).

Figure 9 shows the total TEA for the Caribbean countries and the composition by Nascent and

Figure 9
TEA composition 2011



New businesses. Trinidad & Tobago with 22.7% and Colombia with 21.4% have the highest TEA rates in Caribbean region. When those two countries are compared with Jamaica (13.7%) and Barbados (12.6%) a significant gap is identified. It is important to note that Jamaica & Barbados were the countries that had the biggest entrepreneur decrease when passing from potential to intentional.

When a ratio is established between Nascent and New Businesses, some countries present very high rates. For example, in Barbados for every New Business there are 6 Nascent Businesses, in Jamaica for every New Business there are 3 Nascent Businesses. Colombia presents the least disparity where for every 2 New Businesses there are 5 Nascent Businesses. Figure 10 presents the ratio Nascent TEA/ New TEA for the Caribbean region and for the factor driven, efficiency driven and innovation driven economies. The results of the Caribbean countries present highest disparity rate.

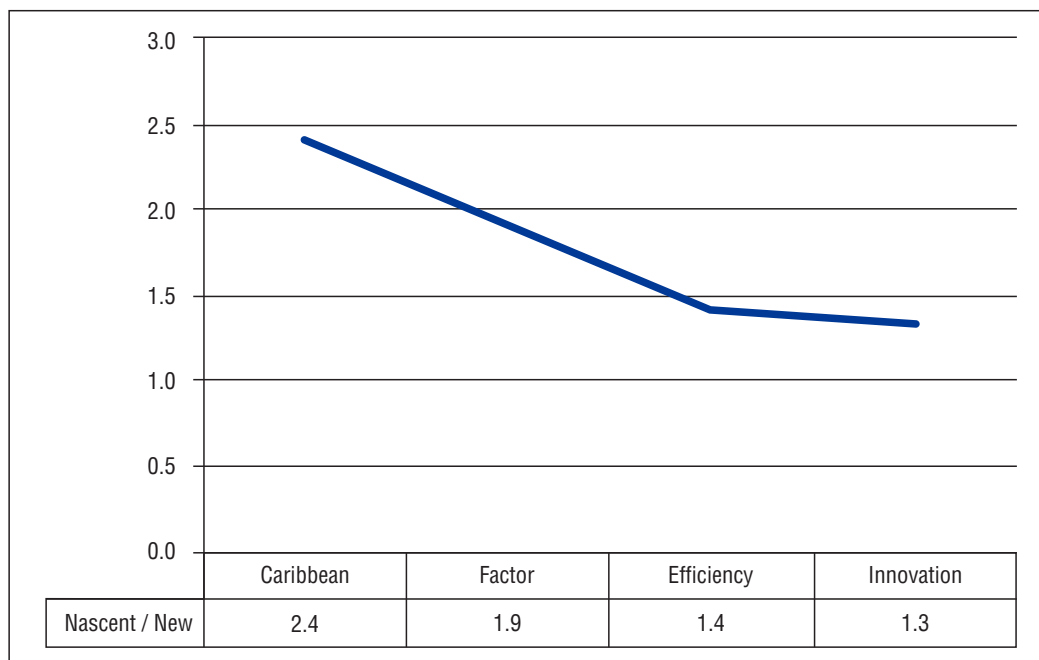
It also shows that the ratio decreases as the economic development is higher: Innovation (1.3), Efficiency (1.4), Factor (1.9) and Caribbean (2.4).

There are no exact explanations for the differences in the conversion rate. It could be argued that in Barbados & Jamaica there has been a significant increase in nascent entrepreneurs in the last twelve months due to changes in the economy which may have opened many opportunities, or that difficulties in the entrepreneurial ecosystem are affecting the ability of many nascent businesses to go beyond the three-month pay salary cycle.

It is important to conduct new research, using this data as a basis, to identify better the phenomena and from these new results, formulate new support programs to improve the conversion rate.

Socio economic development depends on the dynamics of the value creation activities and is

Figure 10
Nascent Entrepreneurs / New Business Entrepreneurs ratio



affected by their quantity and quality. For instance, the data shows that in the Caribbean region there is a deficiency in the quantity on new activities hence, out of 65% potential entrepreneurs only 5.7% are in the 3 – 42 month period. As a whole, the region is losing a significant amount of potential entrepreneurs and significant resources. Therefore, new policies and support programs should be implemented to maximize the number of persons flowing through the whole entrepreneurial pipeline.

It should be remembered that the entrepreneurial process has several stages, and each one of them requires different competences and different support resources.

Economic growth depends on the entrepreneurial strength of a country and a dynamic approach applied at all stages is needed in order to keep the entrepreneurial activity of the region alive and growing.

A TEA of 19.4% for the region implies that about 4.421.938⁴ individuals in the Caribbean are involved in the 0 – 42 months span of business creation. At this time is important to compare some data for the Caribbean region in 2011.

- The Potential entrepreneurs were around 65%
- The Intentional entrepreneurs were 45.3%
- The Nascent entrepreneurs (0 – 3 months) were 13.7%
- The New entrepreneurs (3 – 42 months) were 5.7%

4.5 Entrepreneurial Situation

An important aspect in the entrepreneurial process is to identify the circumstances which drive entrepreneurs to start a business. GEM

considers that there are two basic situations which may drive the start-up.

The first situation defined by GEM is opportunity driven. This happens when the intentional entrepreneur identifies a market opportunity as a result of a thorough analysis of it, has done the planning required, and adapts his entrepreneurial competences to the business opportunity.

The second situation defined by GEM is necessity driven. This happens when an individual facing personal and professional difficulties decides to embark on an entrepreneurial activity as a work option having done little analysis and/or preparation to start this new initiative.

In general, the opportunity based new businesses seem to have greater potential to survive and grow. Figure 12 shows the differences in the proportion of necessity driven and opportunity driven businesses in the different economic groups. The innovation driven countries present a very high proportion of opportunity driven entrepreneurs (57%) and a very low proportion of necessity driven entrepreneurs (17.6%), possibly because of the availability of different work options. Thus, the prevalence toward entrepreneurship is due to the detection of a real opportunity in the market rather than to an urgent need to do something.

The Caribbean countries, as a group, show higher opportunity driven businesses than the factor driven and the efficiency driven economies. Barbados was the only country in the Caribbean that presented a percentage of opportunity driven businesses above and a lower percentage in necessity driven than the innovation driven economies.

In order to improve the proportion of new entrepreneurs driven by opportunity in an economy, they must have:

- analyzed market opportunities.
- planned the way to deliver product/service in the market.

⁴ Global Entrepreneurship Research Association

- designed strategies to get resources needed.
- considered different options to develop their career.
- developed to some level entrepreneurial competences.
- improved the chances of making the new business initiative survive and grow.

An improvement is needed in the GEM questionnaire, in order to get a better split between the necessity and opportunity categories, because results demonstrate that around 40% of the businesses in the TEA present a mixed situation between the two categories.

The results also point to the need for orienting all educational, vocational, training and entrepreneurial programs toward the development of entrepreneurial activities driven as much as possible by opportunity.

Ideally, no entrepreneur anywhere should begin a new business driven only by necessity and without undergoing a rigorous evaluation of the business model which would help to decrease his risk of failure, loss of resources, and specially his loss of self-confidence.

In the Caribbean region, 42.9% of the entrepreneurs are entirely opportunity driven, 19.5% are entirely necessity driven and 44.8% are driven by a mix of opportunity and necessity. When compared by countries, Colombia shows the lowest level of new businesses driven by opportunity, while Jamaica shows the highest level of necessity driven entrepreneurs (Figure 11). On the other hand, Barbados reported the lowest level of necessity driven entrepreneurs and the highest level of opportunity driven entrepreneurs

4.6 Characteristics of Entrepreneurs

Societies should be inclusive in access and participation in entrepreneurship development, by providing individuals regardless of gender, age, social status or educational level, the opportunity to develop their entrepreneurial competences and participate in the socio-economic development through their entrepreneurial initiatives.

- Gender

There is a significant difference in the new entrepreneurial activity when data is analyzed

Figure 11
Opportunity/Necessity Entrepreneurs

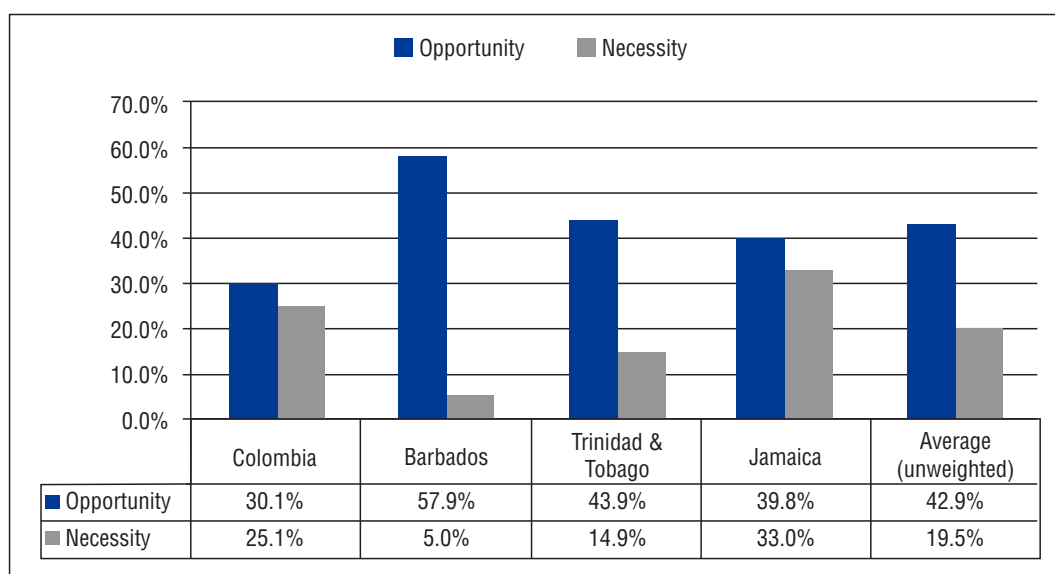


Figure 12
Opportunity vs. Necessity in Caribbean and Economic groups

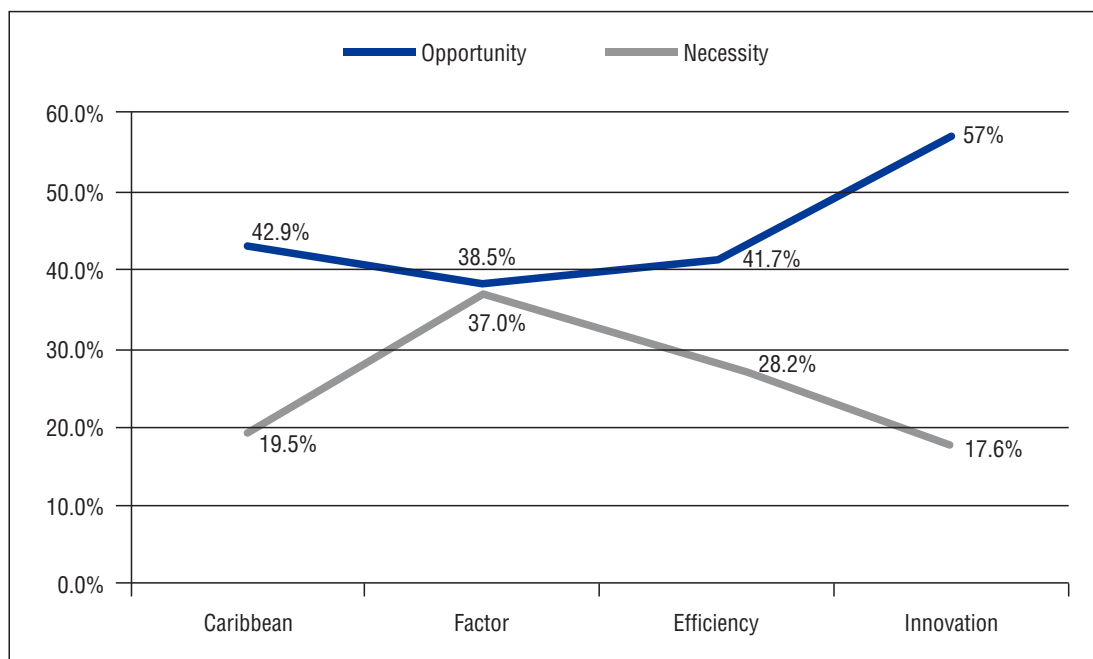


Table 2:
TEA vs. Gender

	TEA Male	TEA Female	Disparity
Colombia	26.8%	16.3%	1.7
Barbados	16.3%	9.1%	1.8
Trinidad & Tobago	27.5%	18.0%	1.5
Jamaica	14.9%	12.6%	1.2
Caribbean	24.0%	15.0%	1.6
Factor	19.9%	11.3%	1.8
Efficiency	17.0%	11.3%	1.5
Innovation	8.8%	5.0%	1.8

by gender. As shown on Table 2, in the Caribbean region the TEA for males is 24% and for females is 15% resulting in a disparity of 1.6. Barbados with 1.8 and Colombia with 1.7 present the biggest disparity among the Caribbean countries and Jamaica with 1.2 present the lowest disparity.

When these results are analyzed against the different economic groups, Barbados and Colombia are above the efficiency driven economies, but all Caribbean countries are below the average of factor and innovation driven economies.

For this reason, it is urgent to identify the reasons for the disparity in the region and to develop the policies and programs necessary to foster entrepreneurship among women.

• Age

Although it is widely accepted that entrepreneurship can begin at any given time in a person's life, a constant tendency in the GEM study demonstrates that individuals more likely to start new businesses are those aged 25-34. The reasons for this may be: that the individuals in this age group may have developed the competences and abilities required to manage a new business through work experience or they may have gained expertise in a specific working area or they may also have decided to work independently after having been employed or saved enough resources to start a new business or been affected by the combination of many other positive and negative forces which affect the personal decision of becoming an entrepreneur.

For the GEM 2011 study the trend mentioned before continues as it is seen in Figure 13. The age groups of 25-34 and 35-44 present the highest tendency toward business creation having an average TEA rate in the Caribbean of 24.3% and 21.4% respectively. The 55-64 age groups with 11.0% presented the lowest TEA rate. All the Caribbean countries present a similar trend except Trinidad & Tobago which has a bigger TEA rate in the 35-44 years group than the 25-34 years group.

When the TEA of each age group is analyzed by situation (Figure 14), it is important to observe that the group aged 25-34 have the lowest proportion of necessity driven businesses (17.6%) while the group aged 55-64 has the highest (32.7%). Individuals driven by high necessity in the group aged 55-64 may have problems with not receiving an adequate pension, or have difficulties finding a new job to maintain their standard of living, compounded with a lack of training in entrepreneurship development.

Figure 13
TEA by Age in Caribbean Countries

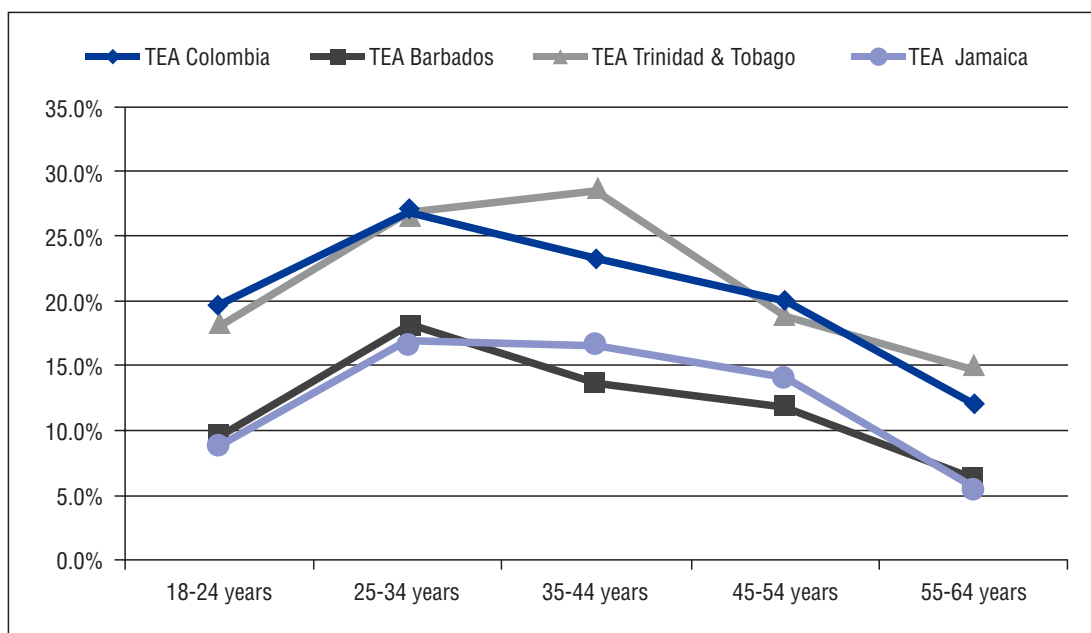
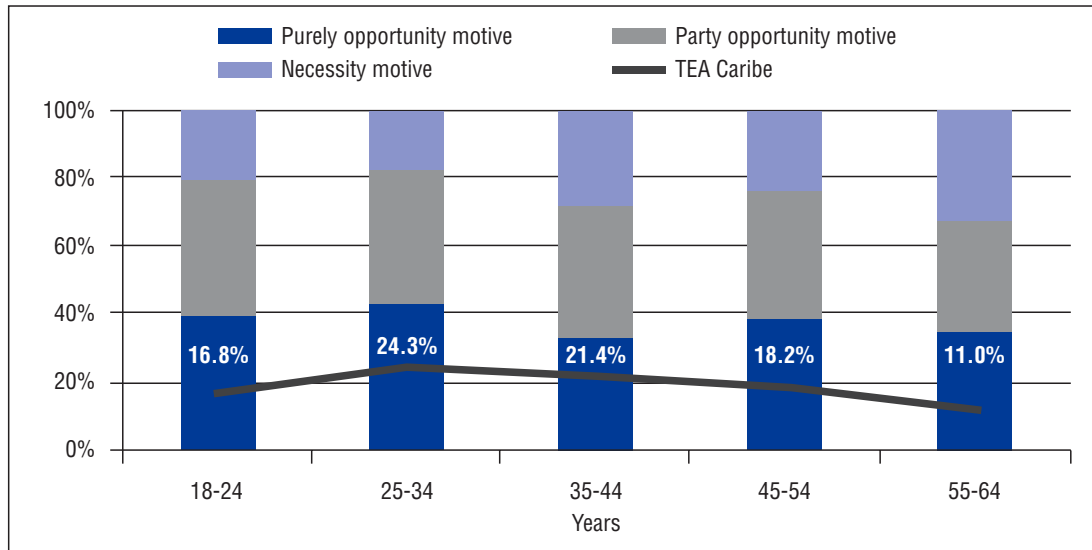


Figure 14
TEA by Age vs. Situations



Consequently, it is important to have policies and programs in place to support people in the different age groups in order for the countries to have a continuous process for the development of entrepreneurs to stimulate the economy. The policies and programs designed have to be specific for each age group since young people may have the energy, tolerate more risk, handle

better new technologies and have fresh perceptions and yet, not have the resources, experience, training and networks of older people.

• Education

When the educational level is crossed with TEA, as indicated in Figure 15, the trend is that

Figure 15
TEA vs. Education Level

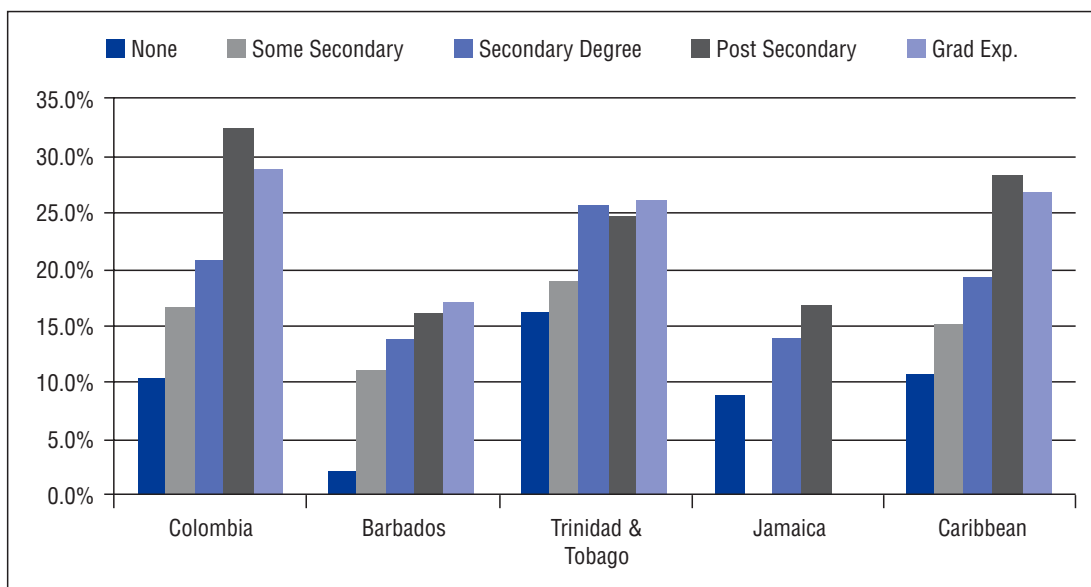


Table 3:
TEA current vs. expected job generation

		Colombia	Barbados	Trinidad & Tobago	Jamaica	Caribbean
No job	TEA: current	30.6%	47.4%	41.8%	41.0%	35%
	TEA: expected	2.9%	27.6%	13.5%	10.2%	7%
1-5 jobs	TEA: current	54.2%	42.1%	40.4%	57.7%	51%
	TEA: expected	46.6%	52.1%	54.9%	82.4%	50%
6-19 jobs	TEA: current	13.5%	10.5%	16.3%	1.3%	13%
	TEA: expected	33.1%	17.9%	23.0%	7.4%	29%
20+ jobs	TEA: current	1.7%	0.0%	1.4%	0.0%	1%
	TEA: expected	17.4%	2.3%	8.6%	0.0%	14%

the higher the educational level, the higher the TEA. In some countries, mainly Colombia and Trinidad & Tobago, there are some oscillations.

These results debunk the myth that there is no relation between the level of education and the level of entrepreneurial activity.

4.7 Enterprise Characteristics

The main characteristics of the businesses in TEA are analyzed below.

• Jobs

New businesses should generate new jobs hence one of the variables analyzed by GEM is the amount of jobs generated up to the time of the interview and the expectation of job generation during the following 5 year period. Table 3 shows that in the Caribbean region on average 35% of the new businesses have not created any jobs and 7% believe that they will not be generating any jobs for the next 5 years. 51% of the new businesses have already created between 1-5 jobs, 13% 6-19 jobs, and 1% more than 20 jobs.

This demonstrates that most of the new businesses are still micro or small in terms of jobs generated. When the 5 year perspective is considered 50% believe that they will generate 1-5 jobs, 29% 6-19 jobs and 14% more than 20 jobs. Although these results reflect the level of confidence new entrepreneurs have on their initiatives, they also reflect the need to provide support to ensure their growth and survival. The ongoing support has to be different from the one they may or may not have received during their entrepreneurial birth process.

When each individual country is analyzed, Barbados has the highest percentage (47%) of businesses that do not generate any jobs perhaps as a result of having a very high percentage of nascent entrepreneurs. Colombia has the highest percentage of new businesses expecting to create more than 20 new jobs in the next 5 year, while none of the businesses in Jamaica expect to create more than 20 jobs.

• Sector

The GEM study consolidates the entrepreneurial activities using the International Standard

Table 4:
Distribution of Entrepreneurship by Sectors

	Colombia	Barbados	Trinidad & Tobago	Jamaica	Caribbean
Agriculture, forestry, fishing	3.3%	7.5%	7.8%	15.6%	5.3%
Mining, construction	2.2%	10.7%	8.2%	2.0%	3.7%
Manufacturing	14.5%	8.2%	5.3%	2.9%	11.8%
Utilisation, transport, storage	5.5%	6.1%	3.1%	3.8%	5.1%
Wholesale trade	2.3%	3.6%	7.9%	3.9%	3.3%
Retail trade, hotels & restaurants	48.1%	32.2%	44.4%	57.4%	47.0%
Information and communication	3.1%	1.4%	0.4%	0.6%	2.4%
Financial intermediation, real estate activities	2.0%	2.9%	1.4%	0.8%	1.9%
Professional services	3.4%	4.2%	2.2%	4.1%	3.4%
Administrative services	5.2%	4.1%	3.4%	2.8%	4.7%
Government, health, education, social services	8.5%	15.6%	12.9%	5.3%	9.5%
Personal/consumer service activities	1.9%	3.6%	3.0%	0.8%	2.1%

Industry Classification (ISIC). Table 4 shows that 47% of the new entrepreneurial activities are created in the sectors of retail trade, hotels & restaurants, followed by 12% in manufacturing activities. The fewest new entrepreneurial activities are found in personal/consumer service, financial intermediation, real estate and the mining and construction sectors.

For instance, the mining and construction sectors are important in Barbados and Trinidad & Tobago but have little impact in Jamaica and Colombia. As a factor driven economy, Jamaica has an agriculture, forestry and fishing sector that represents 15.6% of the new businesses doubling that of Barbados and Trinidad & Tobago (7.5% and 7.8% respectively) and is almost 5 times more than Colombia (3%). Colombia has significantly more initiatives in the manufacturing sector (15%) than Barbados (8%), Trinidad & Tobago (5%) and Jamaica (3%).

• Innovation

To understand the level of innovation of new enterprises, GEM analyzes three main variables: the perception of innovation in product/services by the consumers, the level of competitors making the same products and the application of new technology.

Figure 16 shows, the level of innovation by economic sectors in terms of the perception the entrepreneur may have about the innovativeness of his product. One of the problems is that in all sectors a high percentage of entrepreneurs (35.4% to 69.4%), do not consider their product/service to be “new” or “innovative”. On average, only 22% of the entrepreneurs consider that their product/service is new to consumers.

Table 5 analyzes the same perception mentioned before in the Caribbean and in the economic

Table 5:
Caribbean Countries and Economic phases vs. New Products

	All	Some	None
Colombia	32.6%	35.2%	32.2%
Jamaica	6.3%	22.8%	70.9%
Barbados	3.1%	22.6%	74.3%
Trinidad & Tobago	2.2%	9.8%	87.9%
Factor	10.6%	21.1%	68.3%
Efficiency	17.0%	30.8%	53.2%
Innovation	15.3%	30.8%	53.9%

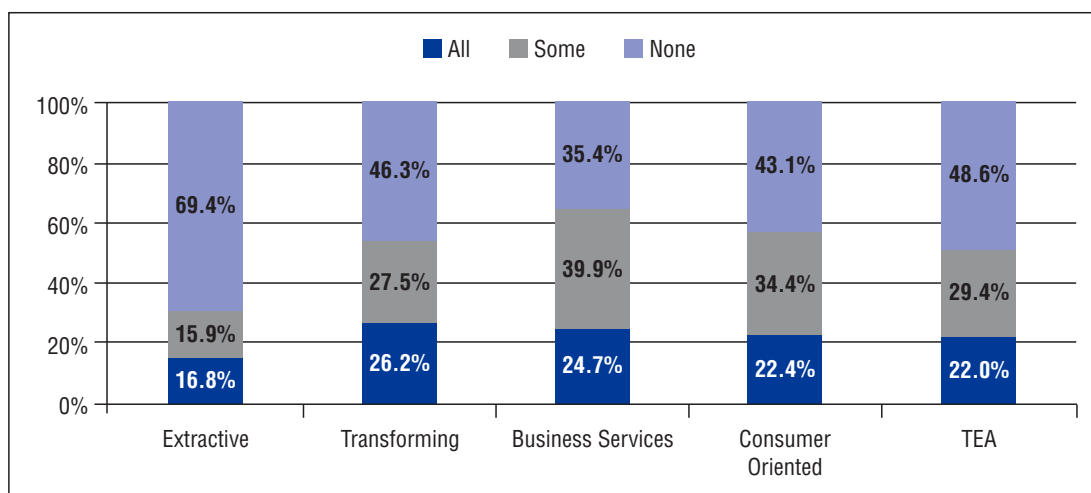
groups; presenting an uneasy scenario since most of the countries, except for Colombia, have a significantly lower rate than the rest of the economic groups. In factor driven economies, entrepreneurs who considered the products totally new is of 10.6%, in efficiency driven is 17.0%, and in innovation driven is 15.3%, while in Jamaica it's only 6.3%, in Barbados is 3.1% and Trinidad & Tobago is 2.2%.

It's well known that innovation goes further than product innovation and maybe it's necessary to

research about other types of innovations such as: new ways to offer products/services, new ways to deliver them, new way to promote them, new market niches, new materials, new processes, new technologies, etc. But such a low propensity toward new product/services is a weakness of the new enterprises because it does not provide differentiation.

Innovative products or services must add value and have a positive impact on the lives of people. New enterprises must provide differentiation. To do this, they must identify new

Figure 16
Sector Vs. New Products



market niches, focus on creative ways to offer, deliver and promote products and services as well as find new materials, processes and technologies.

Another problem arises when the variable, “number of competitors”, is analyzed among the Caribbean countries (Figure 17). The results show a weakness of the new entrepreneurial system since above 50% of enterprises in all countries are entering markets with many direct competitors. In very few cases Barbados (5.9%), Colombia (7.8%), Jamaica (7.9%) and Trinidad & Tobago (8.9%) new enterprises are entering markets with no significant competitors.

This situation does not change when analyzed by economic sectors. The manufacturing sector has the maximum orientation to really new markets while business services present the lowest value (44.9%) in terms of participating in very competitive markets.

Participating in very high competitive markets is not by itself a problem in the dynamics of the

entrepreneurial sector; however, when there is no business differentiation due to a low level of development of new products, based on the previous data, the only possible strategy to gain customers is through the offer of low prices with all the consequences this may have.

Another element associated with innovation is the type of technology used by the new enterprises. GEM classifies technologies by the length of time they have been available in the market. The latest has been in the market less than 1 year; the new has been in the market between 1 and 5 years; the old has been in the market for more than 5 years.

Figure 18 shows that in the Caribbean region, 65.8% of new enterprises are using “old technology” with the extractive sector having the highest use of old technology (79.4%). Less than 20% are using “latest technology” while about 20% are using “new technology”.

When the three elements of innovation: new products/services, markets with low competitors and modern technology are taken into

Figure 17
Proportion of competitors in TEA

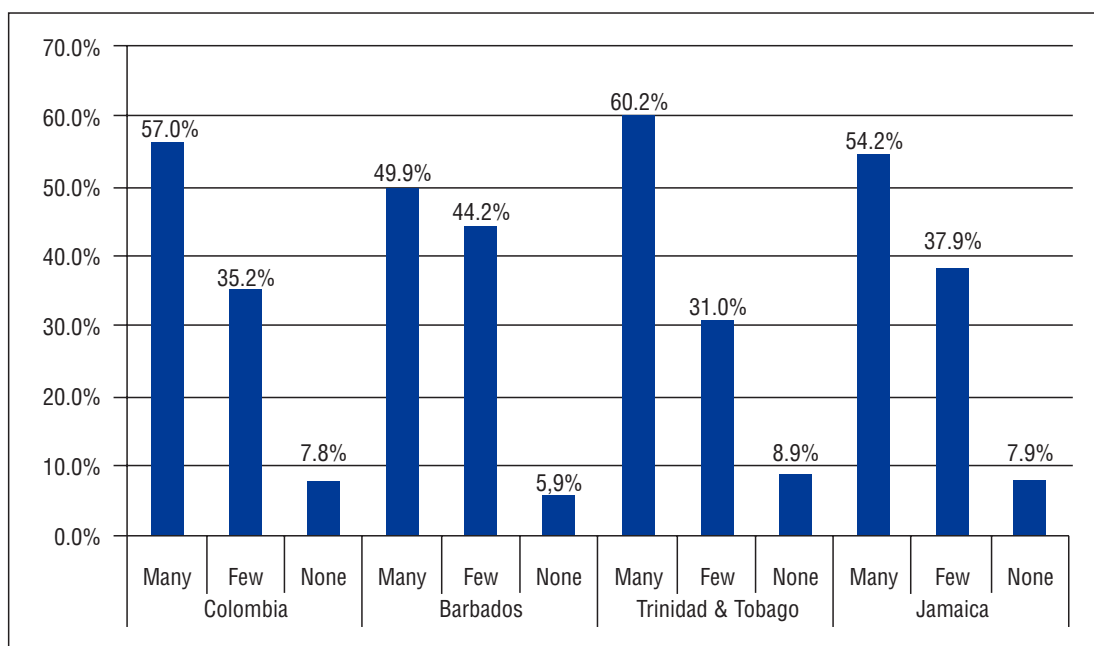
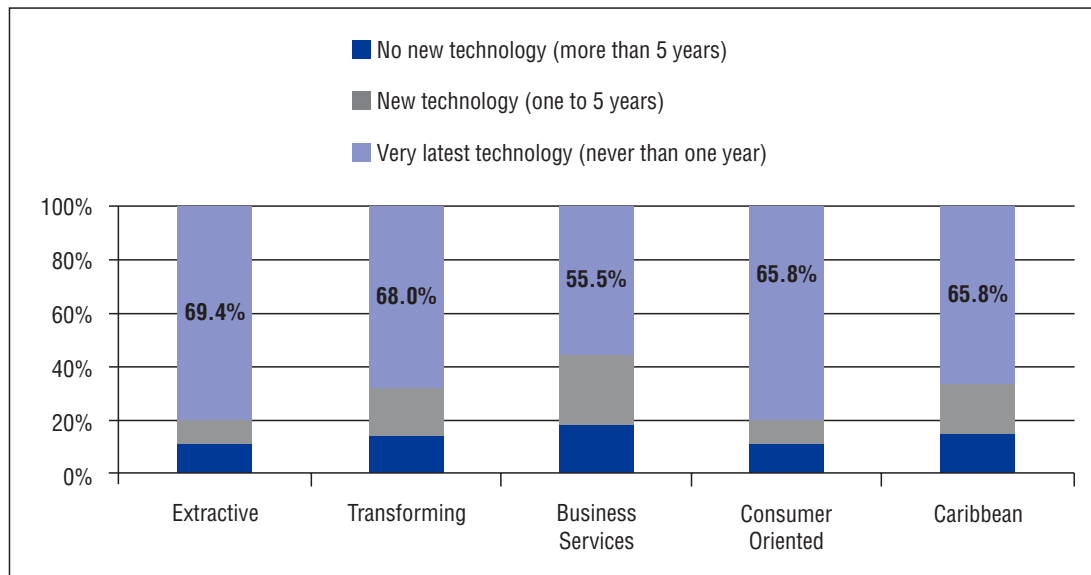


Figure 18
TEA and Sectors vs. Technology



consideration, the new Caribbean enterprise show a significant disadvantage which requires the implementation of relevant changes in policy.

- All the entrepreneurial development programs must explain and teach the concepts of innovation, flexibility, market orientation and widening market perspective as basic elements for the success and growth of a new business.
- Government and universities must foster innovation and create a culture driven by it, so that regardless of whether individuals are entrepreneurs or employees, they recognize the importance that innovation has for competitiveness.

4.8 Established Businesses

The 4th stage in the entrepreneurial process happens when new businesses have survived for more than 42 months paying salaries. GEM categorizes these businesses as established companies.

Figure 19, shows the proportion of established business (EB) and of the total entrepreneurial

activity (TEA) for the countries of the Caribbean region. Colombia with 7.5% has the highest proportion of established business and Barbados, with 4.2% the lowest one. The regional average is 6.7 which means that about 1 of every 15 adults is owner of an established business in the Caribbean region.

Table 6 shows an interesting indicator which is the ratio of established business (EB) and TEA. It measures the proportion of the entrepreneurial initiatives that are able to get to the more than 42 months paying salaries.

Table 7 indicates that in the Caribbean only 1 of every 3 new entrepreneurial initiatives are able to reach the established business situation. Comparing these results with the economic groups, the innovation driven economies present the lowest disparity having almost the same rate in TEA and in the established business; this may mean that almost all “new businesses” are surviving towards the established business stage. At this time is useful to analyze the entrepreneurial pipeline for the Caribbean region (Table 7). It clearly indicates that there are many difficulties in the entrepreneurial support system, because in all the stages

Figure 19
New and Established businesses 2011

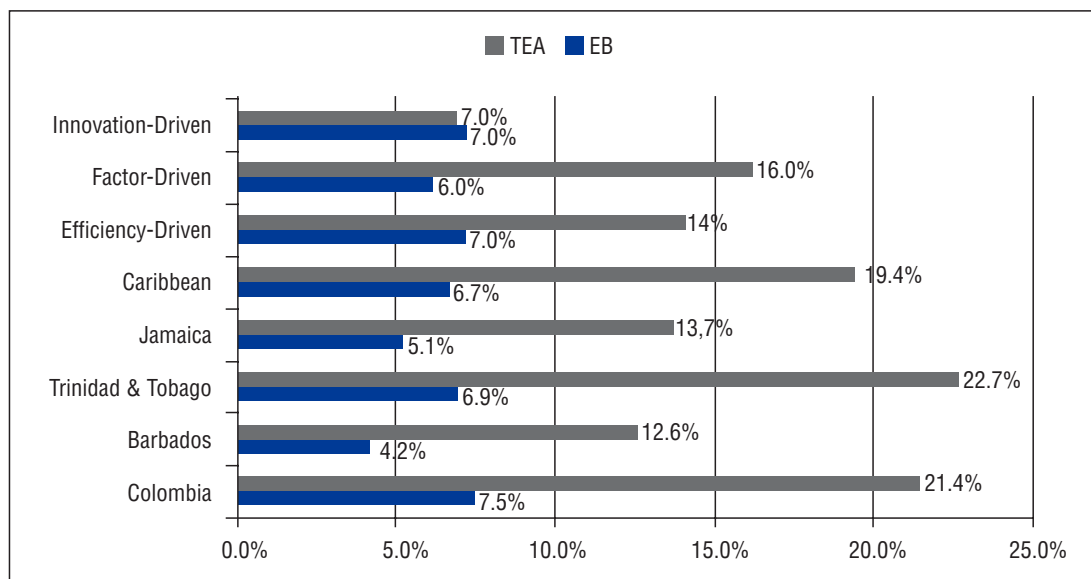


Table 6:
Established Business / TEA

	Disparity
Caribbean	34.5%
Jamaica	37.2%
Trinidad & Tobago	30.4%
Barbados	33.3%
Colombia	35.1%
Innovation Driven	100.0%
Efficiency Driven	50.0%
Factor Drive	37.5%

of the entrepreneurial process, the losses are very significant and at the end only 7% of the adult population has an established business.

When the established businesses are analyzed by sectors, some significant differences are found with respect to the early entrepreneurial initiatives. 36% of the established businesses are in the transforming sector and 45.6% in the

Table 7:
Entrepreneurial Process

Socio cultural acceptance of entrepreneurship	76%
Potential entrepreneurs	65%
Intentional entrepreneurs	45%
Nascent entrepreneurs	14%
New entrepreneurs	6%
Established entrepreneurs	7%

consumer oriented product sector, whereas in the early entrepreneurial initiatives 23.8% are in transforming and 58.5% are in the consumer oriented sector. In both cases, a very low percentage of enterprises focusing on the business service sectors are evident when compared to countries that are driven by innovation and labeled as developed countries.

Each country in the Caribbean region has different profiles regarding the composition of established business. For example Jamaica has the biggest percentage of established business in the extractive sector, while Barbados has the

biggest percentage of established business focused in the business services sector. On the other hand Colombia and Trinidad & Tobago focus mainly on transforming and consumer oriented businesses. (Figure 20)

Established businesses are expected to generate more jobs than new businesses thus contributing to the economic development of the country. Figure 21 shows the current job generation and the expected job generation of established

Figure 20
Sectoral Distribution

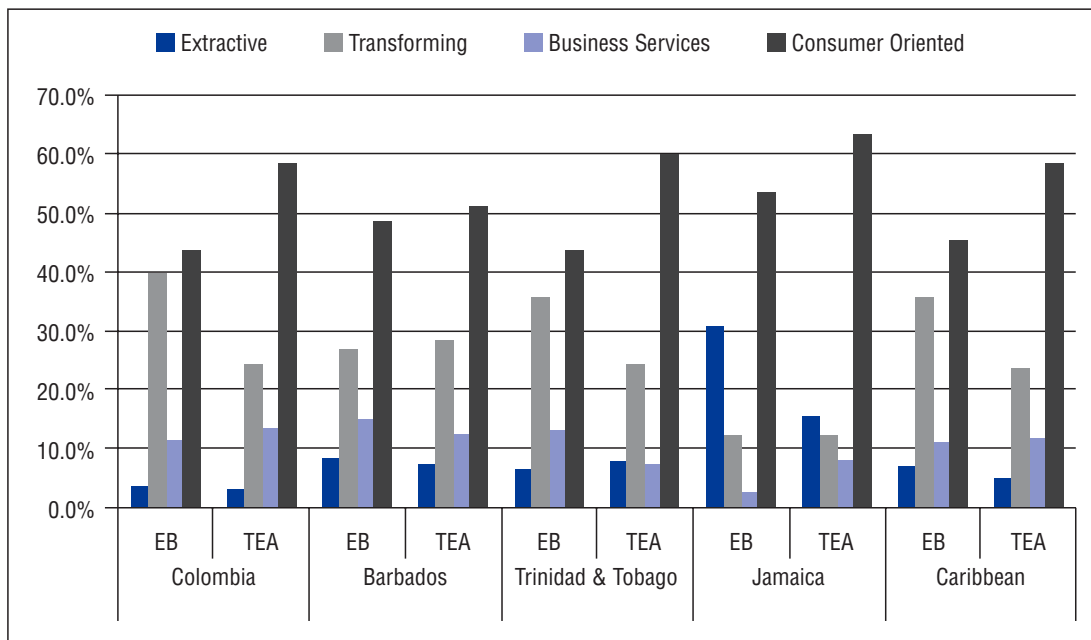


Figure 21
Established Business Current and Expected jobs

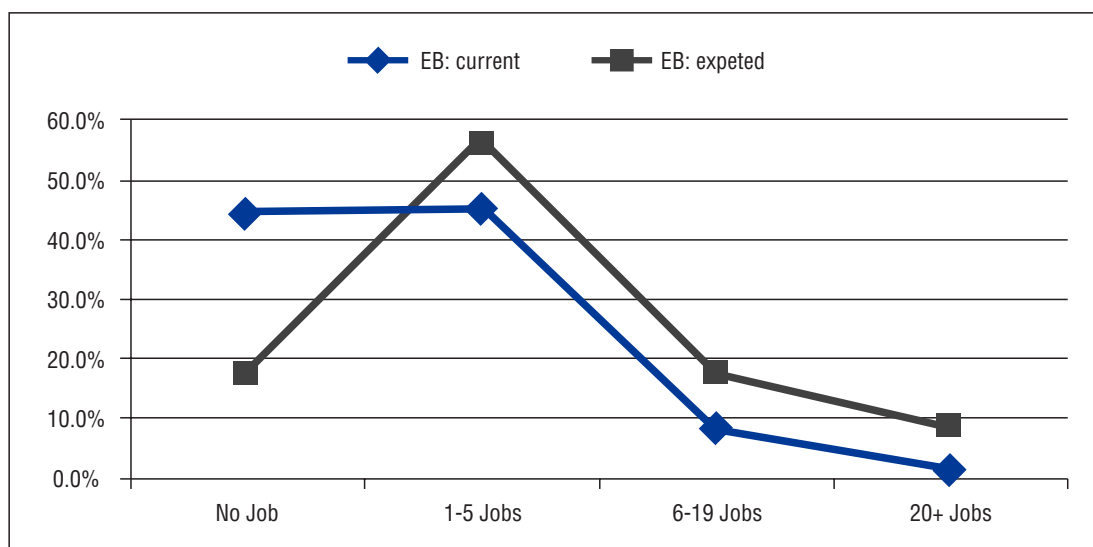
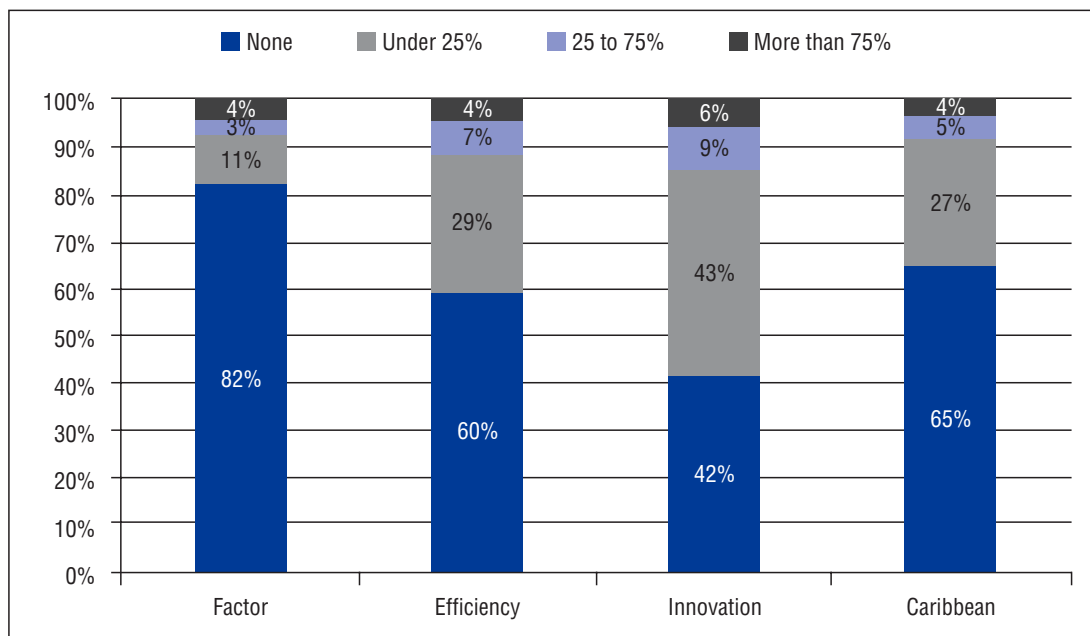


Figure 22
Exportation Intensity



businesses which is not as high as anticipated; 44.6% of the established businesses, still have not generated jobs, 45.5% have generated between 1 to 5 jobs, 8.5% between 6-19 jobs and only 1.4% has generated more than 20 jobs. In terms of expected job generation in the following 5 years 17% expect to generate between 6-19 jobs and 9% more than 20 jobs.

The inability to generate new jobs and move along the stages of the entrepreneurial process towards an established, mature enterprise needs immediate solutions since it is imperative for a country to have continuous development, constant economic growth and more and better established businesses that focus on innovation and expand and open new markets.

Another measurement of GEM is the extent in which entrepreneurs sell to customers outside their economies, as an indicator of international orientation and of international competitiveness. Of the established businesses in the Caribbean, 65% do not have foreign customers. This is higher than average for factor driven economies; just 9% have an international

portfolio covering more than 25% of their total clients, is low compared to the average of efficiency driven economies (11%) and of innovation driven economies (15%).

When this indicator is analyzed by sectors, as seen on Table 8, the business services sector and the extractive industry sector have the highest international orientation.

Table 8 also reflects how, in most countries of the Caribbean, new enterprises have more international presence than established business: 41% of the new businesses export, versus 34% of the established businesses on the average.

Jamaica businesses have the highest international presence. Around 11% of the new businesses and 21% of the established businesses have 25% or more international clients. However, most businesses in Colombia, Trinidad & Tobago and Barbados present low export intensity when compared with the average efficiency and innovation driven economies. The causes for this must be identi-

Table 8:
Established Business export intensity

		TEA	EB
Colombia	More than 75%	3%	2%
	25 to 75%	7%	5%
	Under 25%	34%	29%
	None	56%	64%
Barbados	More than 75%	2%	5%
	25 to 75%	4%	3%
	Under 25%	47%	31%
	None	47%	61%
Trinidad & Tobago	More than 75%	5%	4%
	25 to 75%	2%	1%
	Under 25%	28%	21%
	None	65%	73%
Jamaica	More than 75%	5%	7%
	25 to 75%	6%	14%
	Under 25%	18%	13%
	None	70%	65%

fied so that appropriate support mechanisms can be developed in order to have new businesses in these countries increasing their exports.

4.9 Discontinuous Entrepreneurs

The last stage in the entrepreneurial process is the moment when the entrepreneur decides to exit his/her business.

Along the entrepreneurial process, entrepreneurs face different situations that may compel them to discontinue their initiative either temporarily or definitively. The discontinuance rate is due to several factors including the market and financial failure of the business, the personal dissatisfaction of the entrepreneur with

the activities required to keep the business in operation, as well as other factors dealing with health problems, living conditions, family needs and retirement. For 2011 in Jamaica 12.3%⁵ of the population had discontinued a business in the last 12 months being the highest among the Caribbean region, followed by 6% in Colombia, 5.5%⁶ in Barbados and 3.9% in Trinidad & Tobago.

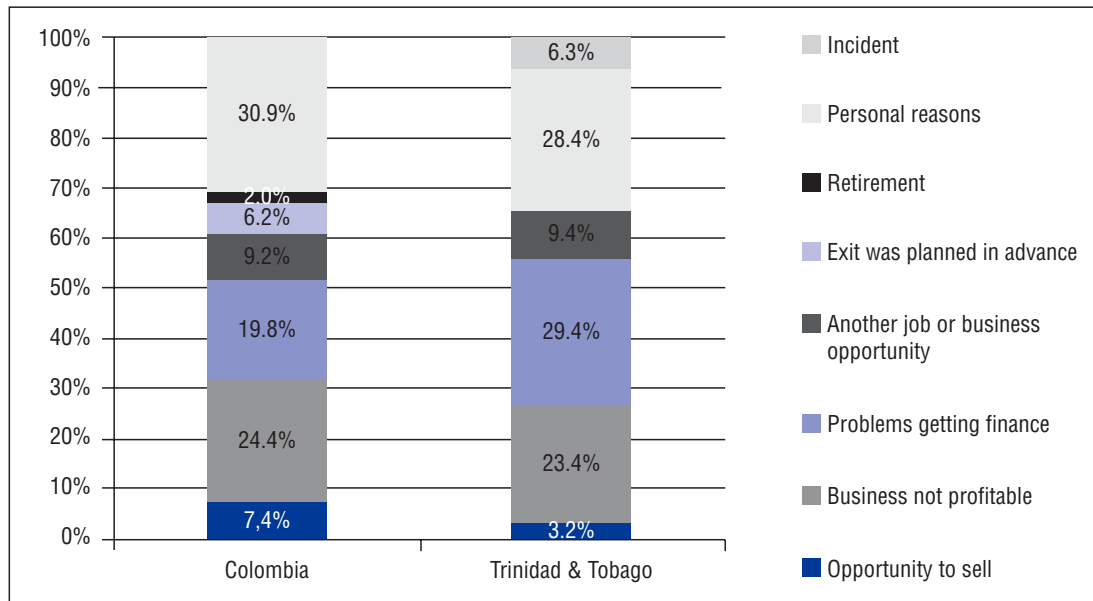
Figure 23⁷ shows the main reasons for business discontinuance in the last 12 months in

⁵504 persons out of 2047 answered this question

⁶291 persons out of 2305 answered this question

⁷Jamaica and Barbados did not present any persons that had exit a business in the last 12 months.

Figure 23
Reasons for Exit



Colombia and Trinidad & Tobago. Most exits are due to personal reasons (30.9% and 28.4%), difficulties obtaining finance (19.8% and 29.4%) and lack of profitability (24.4% and 23.4%).

Again, there is a need to orient and better train the new entrepreneurs to allow them to obtain

the skills required to manage the new business, have a better entrepreneurial vision and be able to identify and study the opportunity. By including these in the entrepreneur's development program much of the discontinuance cases can be avoided.

5. Entrepreneurial Framework Condition

Although there is not a complete understanding of all the variables that have a direct effect in entrepreneurship development, GEM evaluates, through the National Expert Survey, several framework conditions (EFCs) to measure the status of these in every country.

In 2011, Trinidad & Tobago surveyed 41 experts, Jamaica 38, Barbados and Colombia 36 in the different areas indicated in the GEM model (Figure 2): entrepreneurial finance, government policy, government entrepreneurship programs, entrepreneurship education, R&D transfer, internal market openness, physical infrastructure for entrepreneurship, commercial, legal infrastructure for entrepreneurship and, cultural and social norms as well as in three additional topics: Intrapreneurship Environment, High Growth Enterprises and Women Support.

Each expert, evaluates a different set of statements using a Likaert scale from 1 to 5, where 5 indicates that the statement fosters entrepreneurship in a very positive way and 1 in a very negative way.

As indicated by Figure 24, the results for the Caribbean region are discouraging; only three of the overall conditions have scores above or equal to 3.0 and nine below. To be able to produce new policy requirements, it is very important to analyze in detail some of these conditions.

5.1 Research & Development Transfer

Research & Development Transfer is a critical element to foster innovation in businesses. Sadly this condition received the lowest score by the experts and it is probably the reason for

Figure 24
NES Scores

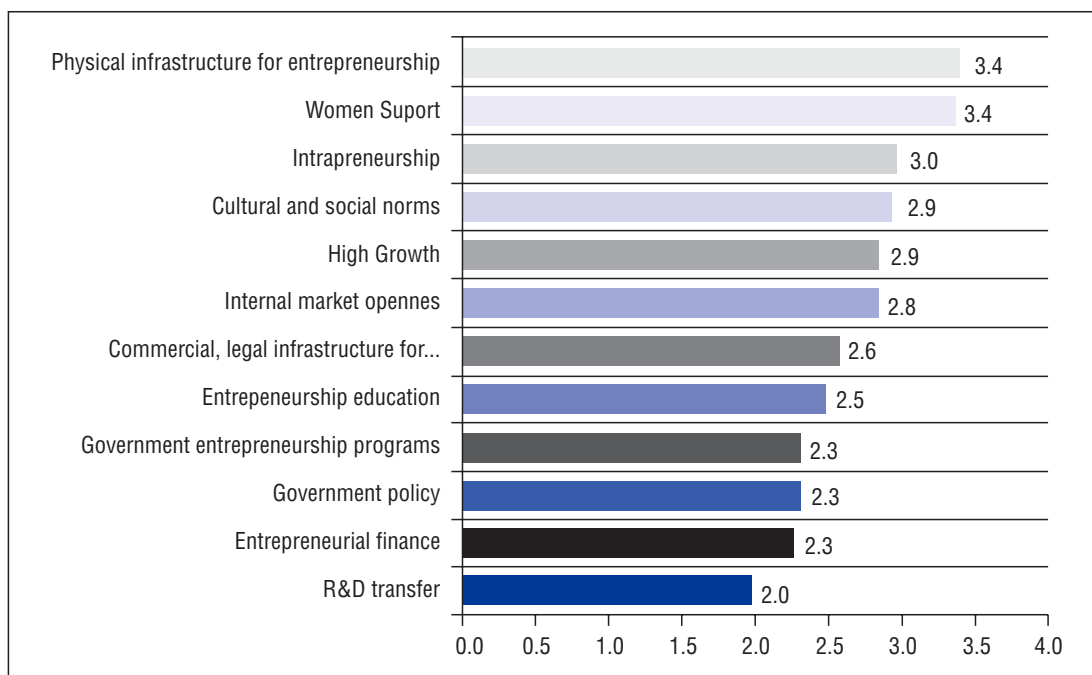


Table 9:
Research & Development Transfer

In my country, ...	COLOMBIA	JAMAICA	BARBADOS	TRINIDAD & TOBAGO	CARIBBEAN
New technology, science, and other knowledge are efficiently transferred from universities and public research centers to new and growing firms	2.1	2.2	1.7	2.0	2.0
New and growing firms have just as much access to new research and technology as large, established firms	2.1	2.2	1.9	2.1	2.1
New and growing firms can afford the latest technology	1.6	1.6	1.9	2.0	1.8
There are adequate government subsidies for new and growing firms to acquire new technology	1.8	1.5	2.0	2.1	1.9
The science and technology base efficiently supports the creation of world-class new technology-based ventures in at least one area	2.4	2.8	2.0	2.1	2.3
There is good support available for engineers and scientists to have their ideas commercialized through new and					

the low levels of innovation that new and established businesses presented.

The experts determined that new technology is not efficiently passed on from the research center to the new businesses (2.0), that it is difficult for new businesses to afford the latest technology (1.8) and that there are no adequate subsidies to acquire new technology (1.9). This may explain why only 14.7% of the new businesses in the Caribbean are applying the latest technology.

Another important aspect is that researchers, scientists and engineers do not have an efficient support system to exploit their ideas commercially thereby restricting the emergence of new businesses which may be considered of high impact or which contribute to accelerated growth.

5.2 Financial Support

An important element for the development of new enterprises is the existence of financial support which allows entrepreneurs access to the financial resources they need to start a new enterprise. As indicated by Table 10, in all the statements regarding the financial support in the Caribbean region, the scores given in average were very low (From 1.6 to 2.7).

According to these results, it seems that entrepreneurs in the Caribbean region start their new business mainly with their own resources and family resources. The lack of external financing resources may be one of the reason why many businesses begin with many of the disadvantages identified in this study, thus increasing the possible risk of failure.

Table 10:
Finance Support

Finance Support - In my country there is sufficient...	COLOMBIA	JAMAICA	BARBADOS	TRINIDAD & TOBAGO	CARIBBEAN
Equity funding available for new and growing firms	1.8	2.5	2.6	2.7	2.4
Debt funding available for new and growing firms	2.1	3.0	2.8	3.2	2.7
Government subsidies available for new and growing firms	2.1	2.0	2.4	2.5	2.3
Funding available from private individuals (other than founders) for new and growing firms	1.8	2.1	1.8	2.4	2.0
Venture capitalist funding available for new and growing firms)	1.5	2.3	2.0	2.0	2.0
Funding available through initial public offerings (IPOs) for new and growing firms	1.7	3.4	1.8	2.1	2.2

The creation of new mechanisms such as: the development of seed capital funds, the conformation of angel investor's networks, the development of venture capital firms, and the establishment of new credit options with accessible warranties, may improve this basic framework condition for the different type of businesses that are created in the Caribbean region. Another option is to provide fiscal stimulus for potential investors in new enterprises in order to encourage the financing of new businesses.

In general terms, Colombia represented the country with the worst entrepreneurial financial support having the lowest scores in almost all statements. Jamaica and Trinidad & Tobago had the highest scores, even though, they still present an inadequate financial support system.

5.3 Government Policies

The importance of the government in the formulation and application of policies oriented toward promoting and supporting entrepreneurship, facilitating the creation of new enterprises

and providing legal stability to both investors as well as entrepreneurs is widely recognized.

The results on Table 11 show that the national experts consider that the different national governments have not implemented adequate policies to foster entrepreneurship. The statements received scores between 1.6 and 3.1, showing that entrepreneurship and entrepreneurial development is not a high priority policy at the national (2.8) and local level (2.4). There are also deficiencies in public procurement (2.2), ease for obtaining permits and licenses (1.6), taxes (2.1) regulations (3.1), and bureaucracy (1.9). Complex paperwork, processes and varying regulations are an obstacle for new enterprises and may explain the many problems the entrepreneurial pipeline has. It may also explain why, with so many potential and intentional entrepreneurs, only a small fraction achieve a startup business (0-3 months) and even less maintains the business to a 3-42 months or longer than 42 months.

All Caribbean countries have big deficiencies in this area

Table 11:
Government Policies

In my country	COLOMBIA	JAMAICA	BARBADOS	TRINIDAD & TOBAGO	CARIBBEAN
Government policies (e.g., public procurement) consistently favor new firms	2.3	2.2	2.0	2.2	2.2
The support for new and growing firms is a high priority for policy at the national government level	2.9	2.8	2.8	2.8	2.8
The support for new and growing firms is a high priority for policy at the local government level	2.5	2.2	2.7	2.3	2.4
New firms can get most of the required permits and licenses in about a week	2.0	1.3	1.6	1.4	1.6
The amount of taxes is NOT a burden for new and growing firms	1.9	1.5	2.3	2.6	2.1
Taxes and other government regulations are applied to new and growing firms in a predictable and consistent way	2.5	2.9	3.4	3.4	3.1
Coping with government bureaucracy, regulations, and licensing requirements it is not unduly difficult for new and growing firms	2.1	1.7	2.2	1.8	1.9

5.4 Education & Training

The capacity of the entrepreneur to go from an idea to the realization of a successful business is related to the entrepreneurial competences (knowledge, ability and skills) the individual may have developed and they depend on, the type and quality of education obtained, and the training and skill developments received.

As shown on Table 12, the experts provided very low scores for the education and training components (1.7 to 2.9) specifically in primary and secondary entrepreneurial education. This means new measures need to be taken at all educational levels to develop entrepreneurial spirit components, (creativity, self sufficiency, personal initiative, opportunity development, achievement motivation and so on), and acquire knowledge in market, economic concepts and starting an entrepreneurial process. It is also

important to train primary and secondary teachers, board members, and parents, in entrepreneurial education to improve the level of the entrepreneurial competences in the population.

Colleges, universities and other organizations oriented to business and management education obtained only median results (2.6 to 2.9) indicating that improvements are also required in these levels.

5.5 Women Support to Startup

In the APS results, a significant difference in TEA was found between men and women. According to the experts in the Caribbean, as shown on Table 13, men and women have more or less the same level of knowledge and skills to start a new business (3.7), but women do not have a support system which will enable them to

Table 12:
Education & Training

Education & Training - In my country...	COLOMBIA	JAMAICA	BARBADOS	TRINIDAD & TOBAGO	CARIBBEAN
Teaching in primary and secondary education encourages creativity, self-sufficiency, and personal initiative	2.1	2.4	2.0	2.1	2.2
Teaching in primary and secondary education provides adequate instruction in market economic principles	1.8	2.0	2.0	2.0	1.9
Teaching in primary and secondary education provides adequate attention to entrepreneurship and new firm creation	1.6	1.7	1.9	1.7	1.7
Colleges and universities provide good and adequate preparation for starting up and growing new firms	2.9	2.6	2.5	2.5	2.6
The level of business and management education provide good and adequate preparation for starting up and growing new firms	3.1	2.8	2.7	2.8	2.8
The vocational, professional, and continuing education systems provide good and adequate preparation for starting up and growing new firms	3.1	3.0	2.8	2.8	2.9

Table 13:
Women's Support to Startup

Women's support to start up - In my country...	COLOMBIA	JAMAICA	BARBADOS	TRINIDAD & TOBAGO	CARIBBEAN
There are sufficient social services available so that women can continue to work even after they start a family	2.3	2.8	3.6	2.9	2.9
Starting a new business is a socially acceptable career option for women	3.2	4.3	4.0	3.6	3.8
Women are encouraged to become self-employed or start a new business	2.8	3.6	3.4	2.8	3.2
Men and women get equally exposed to good opportunities to start a new business	2.8	3.6	3.7	3.0	3.3
Men and women have the same level of knowledge and skills to start a new business	3.9	3.6	3.8	3.3	3.7

work and care for their family (2.9), receive encouragement to be self employed or start a new business (3.2), receive exposure to good

opportunities (3.3) and gain social acceptability of entrepreneurship as a career option for women (3.8).



Barbados presented the highest scores in women support, but it has the biggest disparity of Men TEA/ Women TEA (1.8). Jamaica on the other hand had the lowest disparity in the region (1.2) and a fair support system overall (3.6).

If the Caribbean countries are determined to raise the entrepreneurial development rates for

women, new support and educational programs are going to be needed dealing with topics such as career plan development, new ideas about entrepreneurship, risk taking behavior, opportunity identification and business development.

6. Special Topic – Intrapreneurship

Traditionally GEM has oriented its efforts to study entrepreneurship and all its aspects. However, in the 2011 cycle, a decision was taken to study as a special topic, intrapreneurship, understood as the study of people who play a leading role in creating and developing new business activities within an organization. It includes all the employees that developed or launched new goods or services, or setup new business units that constitute a new establishment or subsidiary for the main employer.

Figure 25 shows the model GEM used to measure the Entrepreneurial Employee Activity (EEA). The research distinguished three phases of EEA:

- Potential entrepreneurial employees: are the employees who have individual drivers, aspirations and attitudes towards entrepreneurship, a proper organizational context

and institutional levers that foster entrepreneurial employee activity.

- Idea development: are the employees who are starting to develop a new entrepreneurial activity for their employer realizing activities such as searching information, brainstorming and submitting ideas.
- Preparation and exploitation: are the employees who have started to develop a new entrepreneurial activity for their employer and are realizing activities such as preparing a business plan, marketing the new activity, finding financial resources and acquiring a team of workers for the new activity.

The report for 2011, measured the entrepreneurial employee activity rate according to a broad and a narrow definition. The broad definition included all the employees who in the past three

Figure 25
Entrepreneurship process and GEM operational definitions, including entrepreneurial employee activity

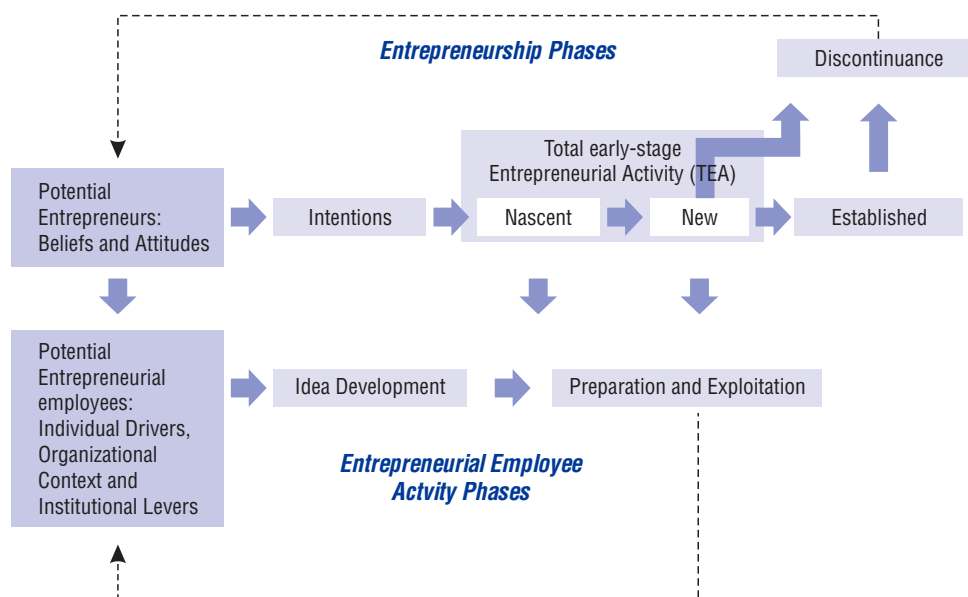
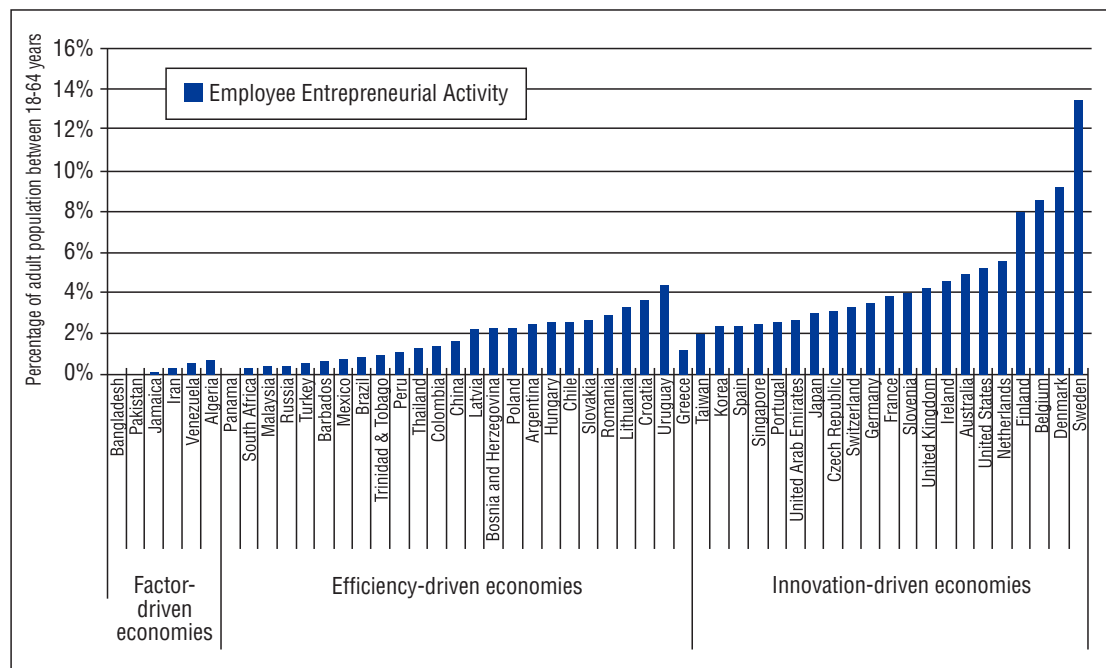


Figure 26
Entrepreneurial Employee Activity (EEA) in 52 economies



years were actively involved in a leading role developing an idea or in the preparation and exploitation of an activity within his organization, while the narrow definition refers only to the employees who in the past twelve months are currently developing an entrepreneurial activity within his organization. The following data refers only to the narrow definition.

Figure 26 shows the results of the entrepreneurial employee activity (EEA) in 52 countries in 2011. It is clear that EEA is more common in the innovation-driven economies (4.6%) than in efficiency or factor driven economies, 1.8% and 0.3% respectively.

The Caribbean region had an average EEA rate of 0.8%, which is below the average of the efficiency-driven economies; Colombia had the highest rate with 1.5%, followed by Trinidad & Tobago with 1.0%, Barbados with 0.7% and Jamaica with 0.1%. The countries with the highest EEA rates were Finland (8.0%), Belgium (8.6%), Denmark (9.2%) and Sweden (13.5%). While the countries with the least EEA

rates were: Bangladesh (0%), Pakistan (0.1%), Jamaica (0.1%) and Panama (0.1%).

The EEA has a distribution quite different than the TEA, because the innovation driven economies that did not have very high TEA present the highest EEA and the factor driven economies that have a very high TEA present the lowest EEA. A possible explanation could be that in the innovation driven economies, the percentage of the adult population employed in organizations is higher having more employees on a relative base. Another element to consider is the educational level of the employees, the level of their enterprises in terms of technology, market, sizes, international capacity, management, infrastructure, innovation policies and stimuli/rewards that may promote better intrapreneurship.

These results also indicate that the entrepreneurial competences of a nation are split between two groups: entrepreneurs and intrapreneurs and that it is necessary to study both groups and develop policies for both. It is

important then for the educational programs that traditionally have concentrated all the effort in entrepreneurship to focus also on intrapreneurship.

The age distribution of entrepreneurial employees, as indicated by Table 14, follows the inverted U shape, very similar in form but not in values, to the TEA shape. The highest prevalence in the Caribbean countries is in the 35-44 year old group, except for Trinidad & Tobago who had a higher rate in the 25-34 year old group. The lowest value is registered in the 55-64 year old group perhaps because those who are still employed at this age may find themselves in low level positions or close to retirement and thus motivated by other factors. The propensity between men and women is again quite different and the proportion is practically 5 times higher.

The results show that the people with the highest income have a bigger prevalence of intrapreneurial activity. It is not clear if the determinant variable that allows more entrepreneurial activity is the income or the position, nor if it is the entrepreneurial orientation which provides better positions and better income.

Educational level is clearly a factor in entrepreneurial activity as was shown in TEA, and it is also observed from Table 15. The difference between professionals with graduate experience and people with a lower educational level is extremely significant. Again, entrepreneurial education should be expanded to provide more people with the knowledge and skills needed to develop new enterprises either through entrepreneurship or intrapreneurship. Table 15, shows how in average, EEA grows according with employee size of the company but there is an odd point in the 50-249 employee. In the individual aspect, Barbados shows a totally different trend where the smallest businesses present the highest EEA. Jamaica present very low levels of intrapreneurship, hence most of the ranges do not present any rate. Trinidad & Tobago, have almost 3 times a higher rate in the 500+ businesses than the average of the other type of businesses.

At the global level some other differences were identified between the individuals and enterprises in TEA and the individuals and enterprises in EEA. For example:

Table 14:
EEA rate by demographic characteristics

Adult	Colombia	Jamaica	Barbados	Trinidad & Tobago	Caribbean
Age					
18-24	1.5%	0.0%	1.0%	0.2%	0.7%
25-34	1.7%	0.2%	0.9%	1.1%	1.0%
35-44	1.9%	0.2%	2.2%	0.7%	1.2%
45-54	1.2%	0.0%	0.3%	0.9%	0.6%
55-64	0.4%	0.0%	0.0%	0.0%	0.1%
Gender					
Male	2.4%	0.1%	0.7%	0.5%	0.9%
Female	0.5%	0.1%	1.3%	0.8%	0.7%

Table 15:
EEA rate by income and education

Adult	Colombia	Jamaica	Barbados	Trinidad & Tobago
Income				
Lowest 33%tile	0.5%	0.0%	0.0%	0.0%
Middle 33%tile	0.9%	0.0%	0.9%	1.0%
Upper 33%tile	2.9%	0.6%	0.9%	1.3%
Education				
None	0.4%	0.0%	0.0%	0.0%
Some Secondary	1.0%	0.0%	0.0%	0.2%
Secondary Degree	0.7%	0.1%	1.6%	0.9%
Post Secondary	2.4%	0.2%	0.7%	1.4%
Grad Exp.	10.6%	0.0%	3.9%	2.3%

Table 16:
Distribution of Entrepreneurial employee activity by organization size

Adult	Colombia	Jamaica	Trinidad & Tobago	Barbados	Caribbean
<10	2.7%	0.0%	2.5%	3.1%	2.1%
10-49	3.8%	1.4%	2.1%	1.7%	2.2%
50-249	3.9%	0.0%	2.4%	0.0%	1.6%
250-499	12.2%	0.0%	0.0%	0.0%	3.0%
500+	4.3%	3.8%	6.1%	0.0%	3.6%

- The job growth expectation is higher in the individuals in EEA.
- Innovation rate, measure by products/services new to their customers, is also higher in the individuals in EEA.

When compared with the new entrepreneurs, intrapreneurial employees demonstrated to have:

- More capacity to perceive opportunities
- More ability to start a business
- More disposition to be involved in a new independent business

7. Conclusions

The main points derived from the first GEM Caribbean research are:

- The population in the Caribbean shows a very high level in all the variables related to potentiality and willingness to become entrepreneurs. The results show a very positive entrepreneurial environment perception, which generates lots of potential entrepreneurs and lots of intentions of becoming entrepreneurs. People in the countries have the aspiration, perception of competences, perception of opportunities and willingness to overcome the fear of failure needed. They also have positive views on the social perceptions of entrepreneurship: entrepreneurship as a good career choice, high status to successful entrepreneurs and media attention to entrepreneurs.
- The TEA for the Caribbean countries shows high values Trinidad and Tobago (22.7%), fifth in the world, Colombia (21.4%), sixth, Jamaica (12.8%) 16th and Barbados (12.6%) 18th. This positive result shows that many people in the Caribbean are in the process of starting their ventures, but the TEA for new business is just 5.7%, which indicates that approximately for every 6 individuals who are in the 0-3 months span, only 2 are in the 3-42 months span. These results clearly indicate a problem in the entrepreneurial pipeline that can be solved by implementing new programs to improve the survival rate of the nascent business.
- A major concern is that only 6.7% of the population had an established business in 2011. This is alarming because it points again to a problem which exists along the entrepreneurial pipeline due to the high TEA rate. Again, new support systems should be developed to allow more enterprises to move and grow beyond the 42 month period.
- When the entrepreneurial activity was analyzed by countries, the data showed big differences regarding TEA and Established Business. These results suggest that entrepreneurial development policies cannot be standardized for the region, especially in entrepreneurial support and development programs, which should be designed and implemented for every country considering, their potentiality, and socio-cultural context.
- Some measurements from this investigation are negative for the Caribbean region entrepreneurial development. Very few enterprises have a real international orientation, use of modern technology, or develop innovative products. These conditions compromise and are counterproductive to national competitiveness. New strategies must be developed to orient new and established businesses toward innovation, international markets, growth and new product development. These policies should be included in the entrepreneurial policy of each country.
- Many of the new businesses created in Colombia and Jamaica still have a very strong “necessity motivation” which generates very small businesses with very low investments, very few jobs generated, and very low survival and growth perspectives. This may be the main cause of the exiting in the different stages of the entrepreneurial process. New policies should be designed to attend this critical situation.
- Gender is a variable that affects business creation. The study shows how men create more businesses than women. Research must be conducted to identify the causes of this disparity and find ways of encouraging women to be more actively involved in business creation.



- It was possible to debunk the common myth that education is not correlated with entrepreneurship. The results showed the higher the level of education the higher the TEA rate. To improve the quantity and the quality of the future Caribbean entrepreneurs, the quality of the education and particularly entrepreneurial education must be enhanced.
- GEM study measured intrapreneurship for the first time and the Caribbean region had very low rates, which indicates that enterprises in the region do not have a well established entrepreneurial culture when compared to other countries. To improve enterprise innovation and organizational dynamics, intrapreneurship orientation for employees must be developed.
- The experts considered that the entrepreneurial framework condition in the Caribbean is weak. Elements requiring immediate attention are: entrepreneurial finance, R & D transfers, government policies (bureaucracy and taxes), government programs, entrepreneurial education (elementary and high school), internal market development, entrepreneurial skills, intellectual property legislation, commercial and professional infrastructure.

8. Annexs

Annex 1. About the GEM Caribbean Project

GEM Caribbean is a three-year project, supported by Canada's International Development Research Centre (IDRC) that will establish, train and strengthen entrepreneurship research teams in five Caribbean countries: Colombia, Jamaica, Trinidad & Tobago, Barbados and Haiti⁸.

The research by these teams will measure the levels, underlying factors, and environmental constraints of entrepreneurship within each national environment and comparatively within the region by using the Global Entrepreneurship Monitor (GEM) methodology. The findings can assist policymakers, educators, and researchers (both applied and theory building) in creating supportive environments that encourage job creation and inclusive economic development through growth in entrepreneurship.

The overall objective of this project is to build research capacities on 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 include:

- 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.
- 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
- To facilitate discussion of these research findings and policy recommendations among the private sector, policy makers, educators, and researchers, particularly regarding promotion of high-growth entrepreneurship and gender and entrepreneurship.
- To generate a harmonized, publicly available database on entrepreneurship in the Caribbean through the application of the Global Entrepreneurship Monitor (GEM) methodology.

⁸ There's not a team working at this time in Haiti and for that reason there isn't any data for the country

Annex 2. National Teams GEM Caribbean 2011

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