GEM

COLOMBIAN ENTREPRENEURIAL DYNAMICS 2013

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COLOMBIAN ETREPRENEURIAL DYNAMICS

GLOBAL ENTREPRENEURSHIP MONITOR CARIBBEAN

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EXECUTIVE SUMMARY

The Center for Entrepreneurship Development of Universidad Icesi has been a member of the GEM Colombian team since 2006, in a joint academic venture with Universidad de los Andes, Universidad del Norte and Pontificia Universidad Javeriana de Cali; and a member of the GEM Caribbean project, executed, with the support of the International Development Research Centre of Canada (IDRC), since 2011, in a joint educational venture with the Arthur Lok Jack Graduate School of Business, University of the West Indies in Trinidad & Tobago; Cave Hill School of Business, University of the West Indies in Barbados; University of Technology in Jamaica.

GEM is the biggest and the most comprehensive study about entrepreneurship not only for its wide world coverage but also by the unified methodology that allows significant comparisons among countries, global regions and in some cases national regions and cities.

In the Caribbean region, a total of 12.330 interviews were applied to the adult population (18 - 64 years old), and a total of 162 interviews were made to national experts in the framework conditions for entrepreneurship.

This report presents the 2013 results for Colombia, but there is a report for each one of the other Caribbean countries (Jamaica, Barbados, Trinidad & Tobago, Suriname), and an integrated regional report for the Caribbean region and a Well-being and Health report for the Caribbean, which can be reviewed in: **www.gemcaribbean.org** and **www.gemconsortium.org**

The entrepreneurial pipeline concept indicates that, in the Colombian adult population, 77% have a positive socio-cultural perception about entrepreneurship and entrepreneurs, 65% are potential entrepreneurs, 55% are intentional entrepreneurs, 14% are nascent entrepreneurs, 10% are new entrepreneurs, and 6% of adults in Colombia are established entrepreneurs.

In terms of the total early entrepreneurial activity (nascent entrepreneurs + new entrepreneurs) the 24% TEA figure keeps Colombia in a high level of entrepreneurial activity: 8th worldwide, 4th among the efficiency driven

economies and 3rd among Latin America countries

In terms of the framework conditions, there have been some improvements in the last four years, but still in most of the nine basic categories the scores are below average (3.0).

Colombian enterprises still keep a low level in terms of business internationalization, innovation, and use of recent technology.

Along the report some new research areas are identified, one of them is to identify the reason for the disparity between males and females, other in terms of GEM research methodology and others about the evaluation of support systems for the different stages of the entrepreneurial pipeline.

Several policy recommendations are formulated: enhance the culture of entrepreneurship improving entrepreneurial education, designing support systems and programs for each one of the stages of the entrepreneurial pipeline, designing and implementing specific entrepreneurial development programs for young people, for females, and for the people in the third age, improving financial schemes, developing innovation and internationalization support programs for nascent/new and established business, developing entrepreneurial policies by regions, improving the regulatory system to encourage higher levels of formalization.

GEM Colombian team is open to attend any request for information about many of the variables that are not included in this executive report and also to receive recommendations about how to improve this study and the dissemination process of the results obtained in GEM.

1 INTRODUCTION

The Global Entrepreneurship Monitor (GEM) project is an annual assessment of the entrepreneurial activities, aspirations and attitudes of individuals across a wide range of countries. Initiated in 1999 as a partnership between London Business School and Babson College, the first study covered 10 countries. Since then nearly 100 'National Teams' from every corner of the globe have participated in the project, which continues to grow annually.

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

GEM focuses in these main objectives:

- To allow comparisons about the levels and characteristics of entrepreneurial activity among different economies.
- To determine the extent to which entrepreneurial activity influences economical growth within individual economies.
- To identify factors which encourage and/or hinder entrepreneurial activity.
- To guide the formulation of effective and targeted policies aimed at stimulating entrepreneurship.

GEM provides a comprehensive view of entrepreneurship across the globe by measuring the attitudes of the population, and the activities and characteristics of individuals involved in various phases and types of entrepreneurial activity. Research teams in each participating economy administer an Adult Population Survey (APS) of at least 2.000 adults annually. Complementing the APS is a National Expert Survey (NES), which provides in-depth opinions, from selected national experts, in the main factors that impact the nature and level of entrepreneurship in each economy.

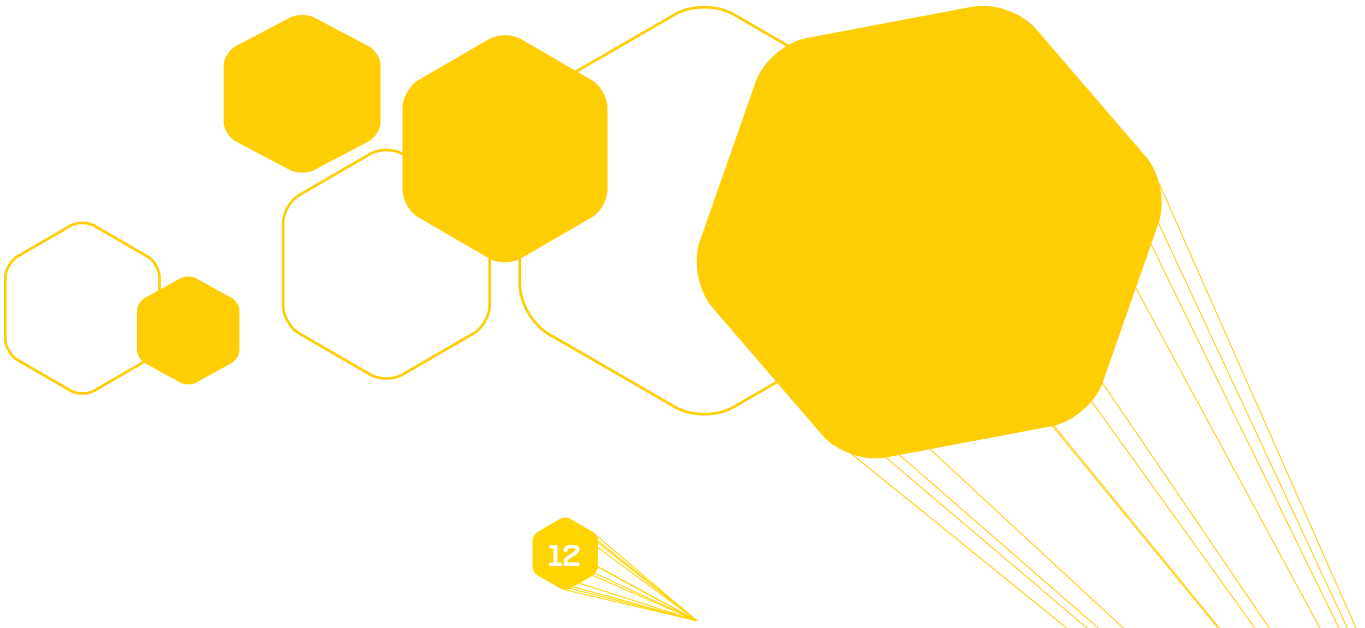
In 2013, more than 197.000 individuals were surveyed and approximately 3.800 national experts on entrepreneurship participated in the study across 70 countries, collectively representing 75% of the world´s population and 90% of the world's total GDP.

GEM groups different economies into geographic regions: Sub-Saharan Africa, the Middle East and North Africa (MENA), Latin America and Caribbean, Asia Pacific/ South Asia, Europe (distinguishing economies that are part of the European Union from those outside the European Union), and North America.

Additionally, GEM considers the World Economic Forum´s Global Competitiveness Report (Schwab K., et al, 2013) classification into three stages: In the first stage, the economy is factor-driven and countries compete based on their factor endowments (primarily unskilled labor and natural resources). Companies 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 well-functioning of public and private institutions, a well-developed infrastructure, a stable macroeconomic environment and a healthy workforce that has received at least a basic education.

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 efficiency production processes and increase product quality because wages have risen and they cannot increase prices. At this point, competitiveness is increasingly driven by 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.

Finally, as countries move into the innovation-driven stage, wages will have risen so much that they are able to sustain those higher wages and the associated standard of living only if their businesses are able to compete with 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.



2

GEM CARIBBEAN

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

The research done 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 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, to report and disseminate their findings, and to 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 researches findings and policy recommendations among the private sector, policy makers, educators, and researchers, particularly regarding promotion of high-growth entrepreneurship, gender and age entrepreneurship.
- To generate a harmonized database on entrepreneurship in the Caribbean open to the public from which independent researchers can conduct deeper analysis.

3 GEM MODEL

The GEM model defines the adult population as those aged between 18 and 64 years old. 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, with some adjustments, the main stages in which GEM divides the entrepreneurial process and how it classifies the entrepreneurs according to the level of their organizational development. The adjustments come from the "Entrepreneurial Pipeline" concept (Varela & Soler, 2013) which considers six main zones in the entrepreneurial process.

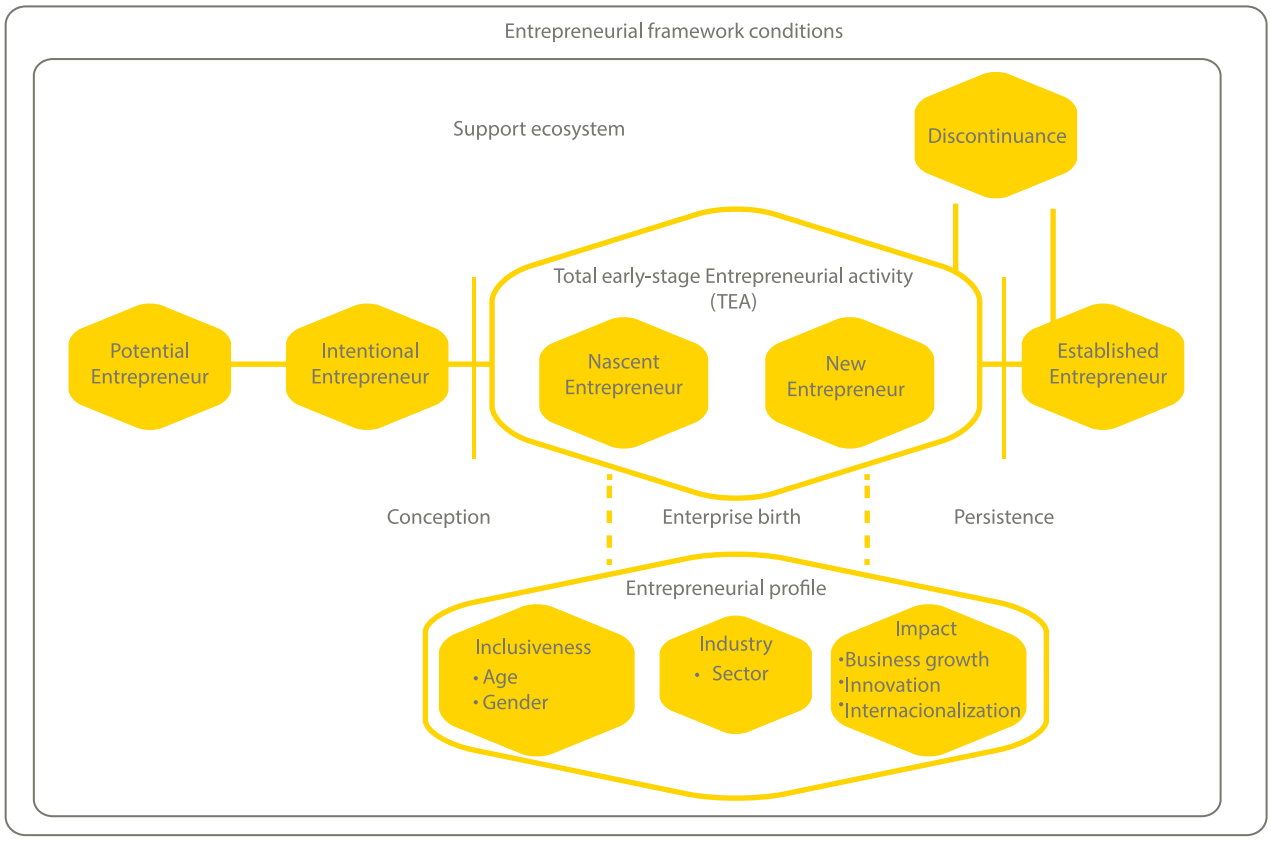
Socio Cultural Acceptance: The entrepreneurial process is a social process executed by people living in a specific cultural and social condition, for that reason the first stage measures the amount of people that have a positive perception on entrepreneurship. In the GEM research, people are asked if they consider that: 1) starting a new business is a good career choice, 2) they associate entrepreneurs with high status and 3) there is a lot of positive media attention for entrepreneurship.

A positive perception of the three concepts 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.

Potential Entrepreneurs: The second stage in the entrepreneurial process determines the amount of people that have the potential to become entrepreneurs in the future. Potential Entrepreneurs are those who consider that they are able to perceive opportunities in their environment, have the necessary skills and abilities to create and manage a new business and have the capacity to overcome the fear of failure.

Intentional Entrepreneurs: The third stage in the entrepreneurial pipeline happens when the potential entrepreneurs express their intention of starting a new business alone or with others within the next three years.

Figure 1. Entrepreneurial process



Source: Adjusted by authors from Global Entrepreneurship Monitor 2013 Global Report (2014)

Nascent Entrepreneurs: The fourth stage in the entrepreneurial pipeline happens when people have started to do specific activities in setting a business and have only paid salaries, wages or any other remuneration to employees and/or owners for less than three (3) months.

New Entrepreneurs: The fifth stage in the entrepreneurial pipeline happens when the people have been owning and managing a business and have paid salaries or any other remuneration to employees and/or owners for less than 42 months but more than 3 months.

Established Entrepreneurs: The sixth and final stage in the entrepreneurial pipeline happens when the people have been owning and managing a new business that has survived for more than 42 months paying salaries or any other remuneration to employees and/or owners.

It is important for GEM not only to know the quantity of the adult population in any stages of the entrepreneurial pipeline in a given year, but also to understand the entrepreneurial profiles and/or the characteristics of the individuals who are in each of the stages. For this reason, the research takes into consideration variables associates to industry and impact, in addition, to demographic elements.

GEM developed a conceptual model (Figure 2) to explain the relationships that exist between several environment variables, the entrepreneurial activity and the socioeconomic development indicators; and for that reason it measures those variables and correlates them with the indicators of the different stages of the pipeline.

The model explains how the social, cultural

and political contexts of each country have an influence on three sets of conditions: Basic Requirements, Efficiency Enhancers, Innovation and sophistication factors, 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 socioeconomic value creation is the defining variable of the socioeconomic development.

It is important to visualize that the socioeconomic development level, expressed through several indicators (job generation, growth GNP, innovation, social and economic value, wealth distribution, etc.), is affected by the entrepreneurial dynamic, expressed for the net value generated by enterprises (nascent, new and established) according to:

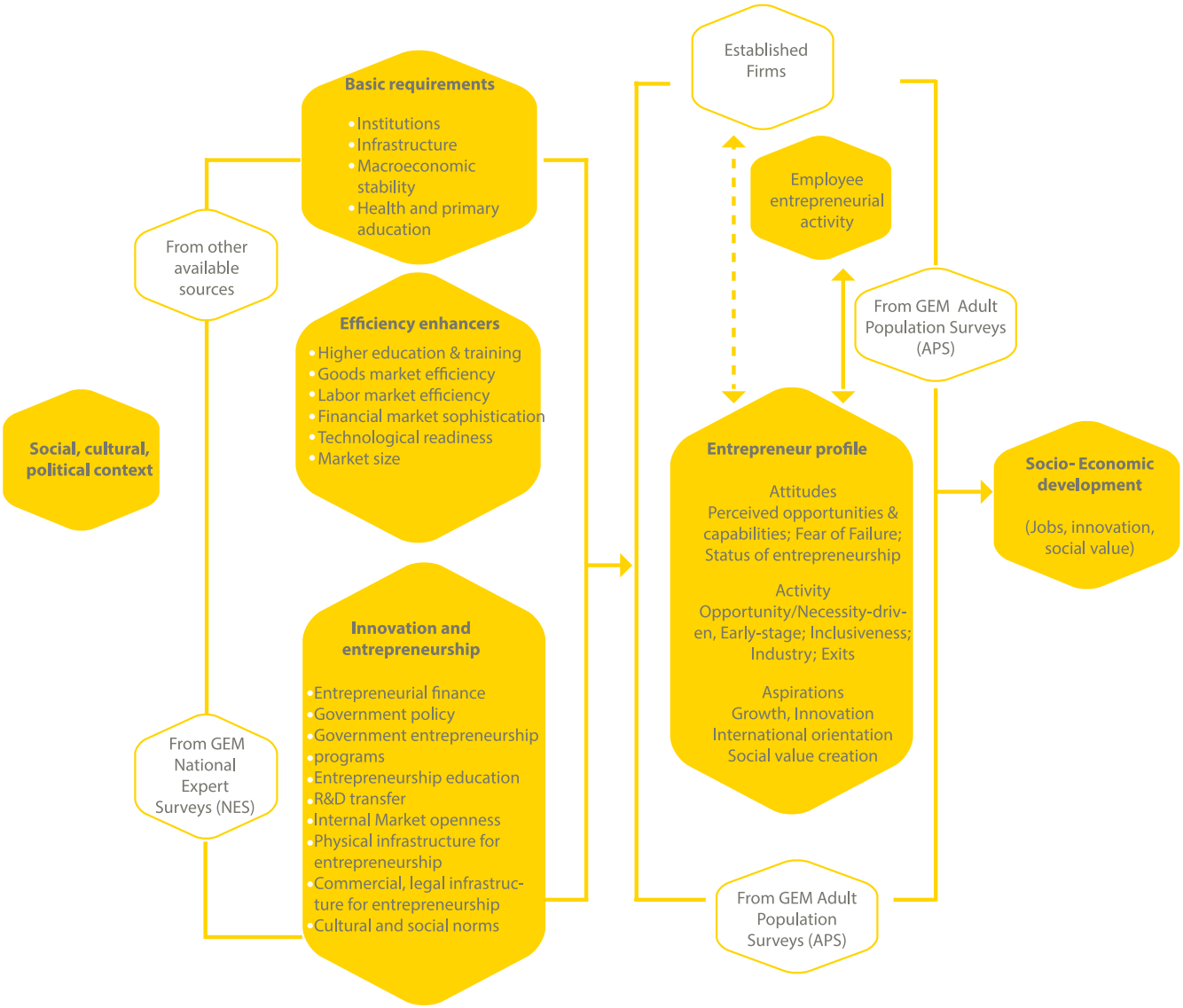
In the case of established enterprises, the internal capacity of the enterprise and employees to maintain a positive entrepreneurial dynamic (Net value generated) depends of the entrepreneurial orientation and the capacities that stimulate its managers, employees, labor force, to create new sources of value (Intrapreneurship, corporate entrepreneur).

In the case of nascent and new enterprises, the critical factors for the positive entrepreneurial dynamic are associated to the profile of entrepreneurs expressed in their attitudes, activities and aspirations.

In order to increase the socioeconomic development of a country, appropriate policies must be formulated to foster the three sets of conditions to enhance the creation of 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.

Net value generated = **Value added** (New business, innovation, expansion, growth) − **Value cost** (Business discontinuance, obsolescense, contractions, diminution)

Figure 2. GEM Model



Source: Global Entrepreneurship Monitor 2013 Global Report (2014)

4 RESEARCH DESIGN

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

The Adult Population Survey (APS) is a survey administered to the adult population aged 18-64. For Colombia in 2013, 3.400 surveys were done in the country covering 35 municipalities, representing the population in terms of urban, rural, age, gender and economic strata. These surveys measured the proportion of persons 18 - 64 who belonged to each one of the entrepreneurial pipeline stages. Additionally, the attitudes, aspirations and intentions regarding entrepreneurial activity, entrepreneurial profiles, businesses discontinuance and many other variables concerning entrepreneurs and their enterprises were measured.

The National Expert Survey (NES) is a survey administered to national experts who evaluate nine conditions: financial support, government policies, governmental programs, education & training, R&D transfer, commercial & service infrastructure, openness of the market, physical infrastructure, cultural and social norms. In addition to that, the experts added their perception on the following subjects: opportunity perceptions, skills for start-up, motivation towards entrepreneurship, intellectual property legislation, support to women entrepreneurs, and support to business growth, innovation, well-being and youth entrepreneurship. In 2013, Colombia conducted 36 surveys of this type.

The Secondary sources related to socioeconomic 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: World Bank,

International Monetary Fund, World Economic Forum, OCDE, UN, USA Census, EU, UNESCO, Doing Business Report, Heritage Foundation as well as from many other secondary sources of information.

5 MAIN RESULTS

Several types of comparisons were made for the analysis and interpretation of the results: in some cases a longitudinal analysis over time were made to identify changes and trends; in other cases, comparisons were made between geographical groups (especially Latin America and the Caribbean) and in other cases, comparisons were made respect to the three types of economies: factors, efficiency and innovation. Colombia is categorized in the efficiency driven group.

5.1 SOCIO CULTURAL PERCEPTION ABOUT ENTREPRENEURSHIP

The socio-cultural perception about entrepreneurship is measured by the percentage of people expressing a positive perception about three questions: a) Is the start of this business a desirable career option? b) Entrepreneurs have a high social status? c) Is there a lot of positive attention from media to the entrepreneurial activity? **Table 1** presents the results obtained in Colombia in the period 2010-2013.

When the three factors are analyzed in the

Table 1. Factors in socio-cultural perception about entrepreneurship in the economic groups (2010-2013)

	2010	2011	2012	2013
Good career	88.7%	89.4%	89.2%	90.9%
High Status	76.1%	78.7%	75.5%	71.4%
Media coverage	67.0%	67.4%	68.8%	67.5%

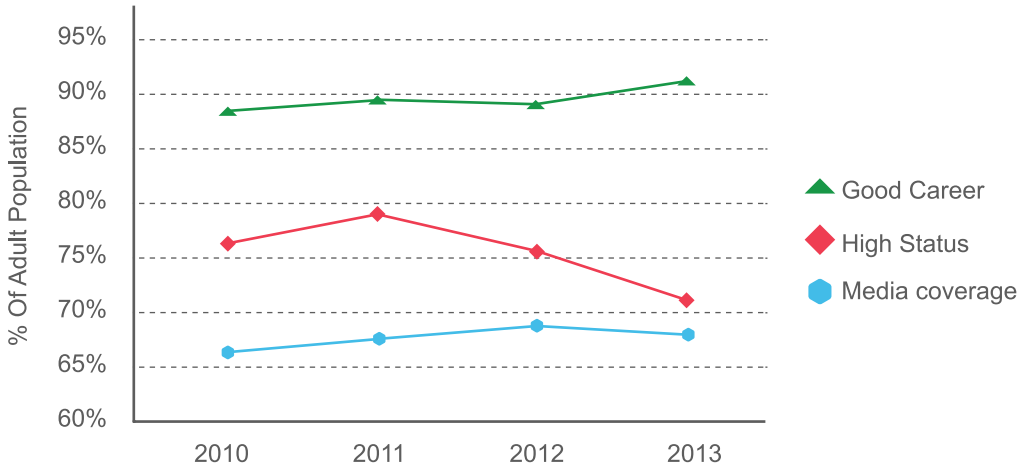
Source: Compiled by authors

2010-2013 cycle (see **Table 1** and **Figure 3**) it is possible to observe that significant changes have occurred only in the percentage of adults who believe that entrepreneurs have a high social status. The other two variables (good career and media coverage) have remained fairly stable.

When the Colombia 2013 data is compared with the three groups of economies (Table 2), it is found that Colombia has a superior positive perception, respect to all economic groups, in the factor " become an entrepreneur is a good career choice" . In terms of high status and positive media coverage, Colombia had a higher percentage than the innovation and efficiency driven economies; but a lower percentage than the factor driven economies.

These results, which measure socio cultural perception should be higher in the developed economies because they have more, bigger and older enterprises and entrepreneurs, but as shown by the data there are constrains that drive the socio cultural perception of entrepreneurship in the developing economies to very high levels. This situation will be better explained later in the report when talking about the motivations towards entrepreneurship, in each type of economy, and the type of enterprises

Figure 3. **Factors in socio-cultural perception about entrepreneurship. Colombia (2010-2013)**



Source: Compiled by authors

Table 2. **Factors in socio-cultural perception about entrepreneurship in the economic groups (2013)**

	Good career	Status	Media coverage
Factor-driven economies	75.3%	80.1%	69.8%
Efficiency-driven economies	67.8%	67.0%	61.4%
Innovation-driven economies	53.5%	67.3%	55.7%
Colombia	90.9%	71.4%	67.5%

Source: Compiled by authors

that are created in each one will be analyzed.

To consolidate this stage in the entrepreneurial pipeline model, an arithmetic average of the three factors is used to characterize the proportion of Colombians who have a positive socio-cultural perception of entrepreneurship. **Table 3** presents the indicator for Colombia in the period 2010-2013.

Table 3. Indicator of socio-cultural perception about entrepreneurship. Colombia (2010-2013)

	2010	2011	2012	2013
Socio cultural indicator	77.3%	78.5%	77.8%	76.6%

Source: Compiled by authors

In all these years, the Colombian aggregated results have been better than those of the three types of economies. In 2013, the results were: Colombia (76.6%), Factor driven (75.1%), Efficiency driven (65.4%), and Innovation driven (58.8%). These are positive results indicating that in terms of socio-cultural aspects, the idea of becoming an entrepreneur is accepted by a significant proportion of Colombians. The facts that 76.6% of the population means that approximately 23.5 million of Colombian adults have a good socio cultural perception of entrepreneurship.

Table 4 presents the results of the national expert survey (NES) in some factors associated with social perceptions. A scale from 1 to 5 is used, where 5 means "completely agree with the sentence" and 1 "completely disagree with the sentence". The highest values were assigned to the ideas "Most people think of entrepreneurs as competent, resourceful individuals" (3.94/5.0) and "Successful entrepreneurs have a high level of status and respect" (4.17/5.0).

As immediate policy implications, it is very important to improve the socio cultural acceptance of entrepreneurship and implement some activities as the following ones: Presentation of successful Colombian entrepreneurs in the media, development of scholarships for advanced entrepreneurial educational programs, entrepreneurial contests, and training of entrepreneurship professors.

Another important element about social perception toward entrepreneurship is the special characteristics that may be apply to women. As it will be shown along this document, women are usually behind men in terms of their participation in entrepreneurial activities.

Table 4. Socio cultural elements for entrepreneurship. NES Colombia 2013

	2013
The creation of new ventures is considered an appropriate way to become wealthy	3.28
Most people consider becoming an entrepreneur is a desirable career choice	3.58
Successful entrepreneurs have a high level of status and respect	4.17
You will often see stories in the public media about successful entrepreneurs	3.50
Most people think of entrepreneurs as competent, resourceful individuals	3.94

Source: Compiled by authors

In the NES, the experts were asked about their perceptions of the support offered to the women and table 5 shows that in terms of socio cultural perceptions there is not a very good environment for women to become entrepreneurs, and that there are clear limitations. These may be the cause of the differences shown, between men and women, throughout this study.

Table 5. Woman support. NES Colombia 2013

	2013
There are sufficient social services available so that women can continue to work even after they start a family	2.79
Starting a new business is a socially acceptable career option for women	3.54
Women are encouraged to become self-employed or start a new business	3.28
Men and women get equally exposed to good opportunities to start a new business	3.14
Men and women have the same level of knowledge and skills to start a new business	4.11

Source: Compiled by authors

5.2 POTENTIAL ENTREPRENEURS

GEM measures the potential entrepreneurs as the percentage of people expressing a positive perception of three factors: a) Ability to perceive business opportunities; b) Confidence in their abilities and skills to create and manage a new business; c) Ability to overcome the fear of failure, in the case they have already identified an opportunity (This factor is evaluated as the complement of those who say that they would not start a business due to the fear of failure).

Table 6 compares the results of Colombia and the three economy groups in 2013. The Colombian indicators are higher than those of the efficiency and innovation driven economy; but respect to fear of failure and perceived capabilities, the factor driven economies present better results than Colombia.

Table 6. Factors in Potential Entrepreneurs. Colombia (2013)

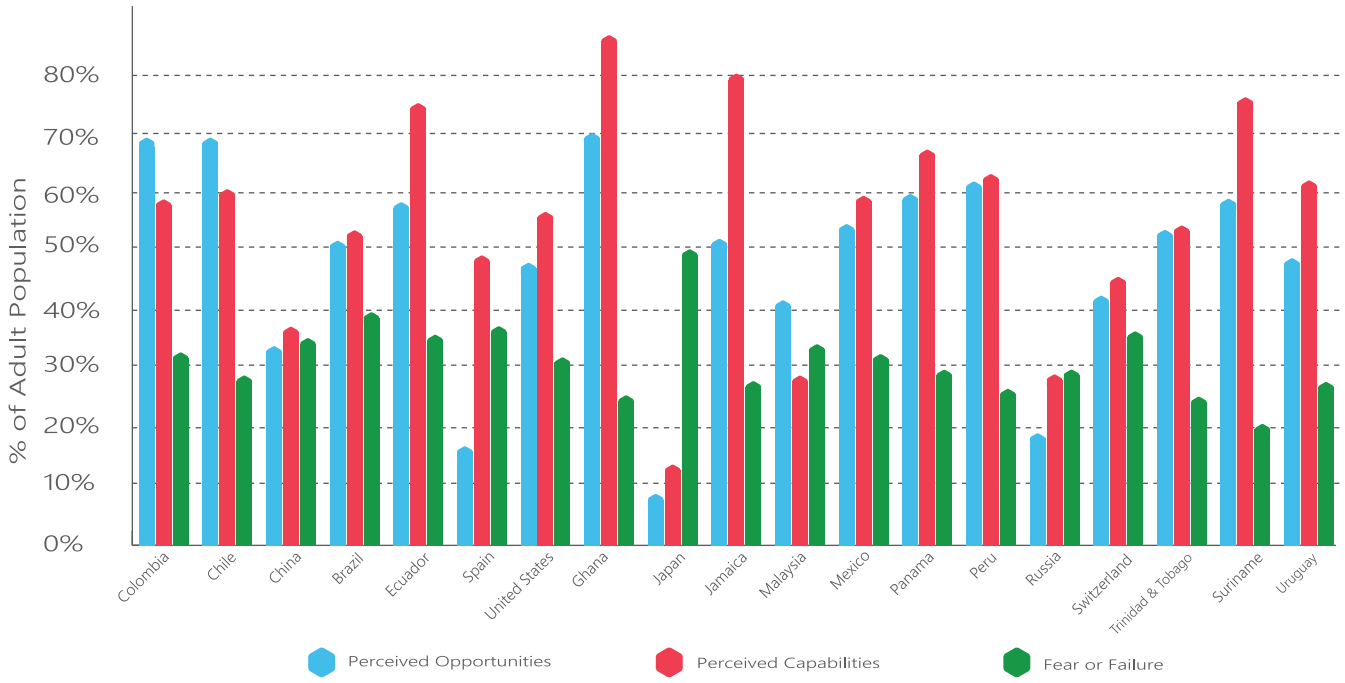
	Perceived opportunities	Perceived capabilities	Fear of failure
Factor-driven economies	60.8%	68.7%	31.0%
Efficiency-driven economies	41.7%	51.8%	33.8%
Innovation-driven economies	33.4%	40.6%	38.2%
Colombia	67.7%	57.8%	31.8%

Source: Compiled by authors

Figure 4 presents the results obtained in several countries in the three variables used to measure potential entrepreneurs. Ghana with 69.3% and Chile with 68.4% present the highest perceptions in terms of capacity to perceive opportunities; in terms of capacity to establish and manage a new business Ghana (85.8%) and Jamaica (79.1%) are the leaders, and in terms of perceptions about the fear of failure as a barrier to start a new business, the lowest values, the best ones, are presented by Trinidad & Tobago (19.8%) and Surinam (24.4%).

In Colombia, the perceived opportunities factor has been decreasing from 2012 (71.8%) to 2013 (67.7%); the perceived capabilities have been decreasing from 2010 (65.2%) to 2012 (56.6%), but in 2013 shows a trend to increase (57.8%); the fear of failure, has been increasing from 2010 (31.4%) to 2012 (34.7%), but, in 2013 the percentage has been decreasing (31.8%). In the fear of failure indicator, Colombia is placed as the 4th higher in Latin America & Caribbean, which indicates the need to develop training procedures to reduce risk aversion.

Figure 4. **Potential entrepreneur's indicators in some countries (2013)**



Source: Compiled by authors

Table 7 **Factors in potential entrepreneurs. Colombia (2010-2013)**

	2010	2011	2012	2013
Perceived opportunities	68,5%	73,1%	71,8%	67,7%
Perceived capabilities	65,1%	61,3%	56,6%	57,8%
Fear of failure	31,5%	32,6%	34,7%	31,8%

Source: Compiled by authors

To integrate these three variables, an average of the percentage of people giving positive responses to the perceived opportunities, to the ability to create and run a business, and those who do not indicate that the fear of failure will limit them in their entrepreneurial venture (this is the complement to the fear of failure) is obtained.

These results, presented in Table 8 for the period 2010-2013 indicate stability in this measurement. The indicator for Colombia is higher than the efficiency-driven and innovation driven economies and very similar to the factor driven economies.

Comparing the data in **Tables 3 and 8**, a difference between 10 and 12 percent points is observed. It means, there is a significant percentage of Colombians who fail to move from the area of positive sociocultural perception to the area of potential entrepreneur. This is a weakness that should be solved by the education system, so that more Colombians can move to this stage. The development of entrepreneurial competences is a critical step in that direction.

When the three factors of the potential entrepreneur are studied by their educational level (Figure 5), several research questions arise:

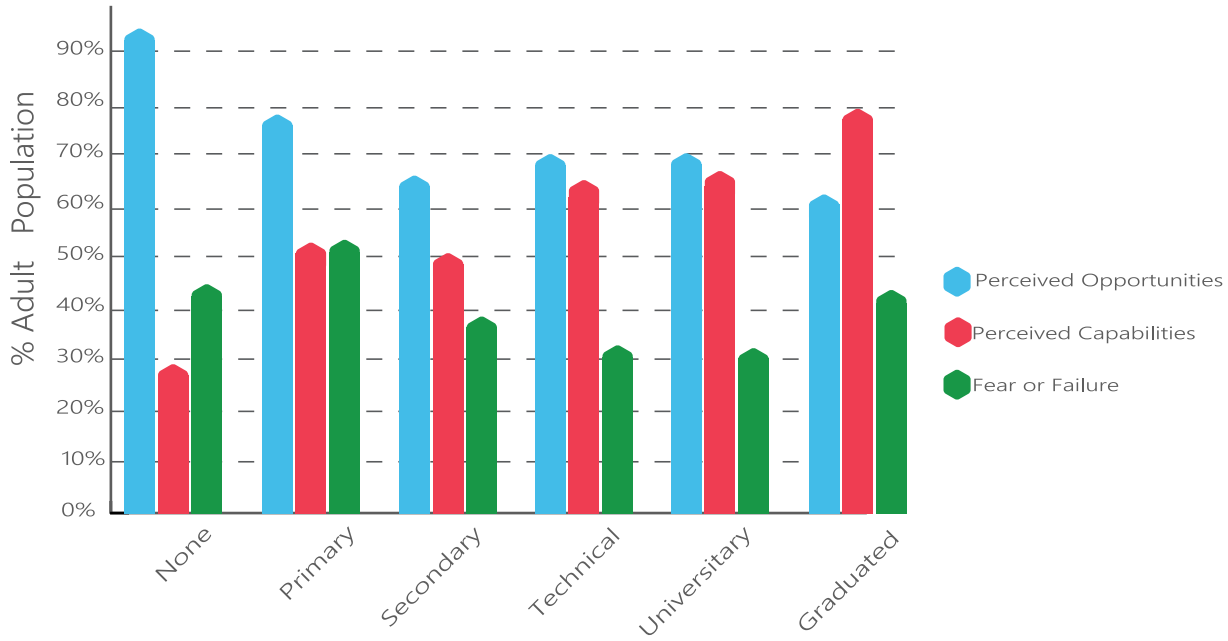
- How can the less educated people show the higher perception of entrepreneurial opportunities?
- What is the reason to the fact that the fear of failure decreases as educational level increases, up to the technical level and then it starts to grow at graduate levels?
- What has been done to get the fact

Table 8 **Indicator for Potential Entrepreneurs. Colombia (2010-2013).**

	2010	2011	2012	2013
Potential Entrepreneurs	67,4%	67,3%	64,6%	64,6%

Source: Compiled by authors

Figure 5 **Educational level vs. perception of opportunity/capabilities/fear of failure (2013).**



Source: Compiled by authors

that the confidence of the people about their capacities and skills to create and manage a new business grows as educational level increases?

When those three factors for potential entrepreneurs are analyzed by gender, differences appear in all three factors, but the biggest one is perceived capabilities with a disparity of 1.3: 1. When the indicator of potential entrepreneurs is calculated, 68.9% is the one for males and 60.2% is the one for females. At this initial point of the pipeline, a significant gender difference starts to show up. In the case of female entrepreneurs, national experts agree that men and women have the same level of knowledge and skills to start a new enterprise (4.11/5.0), but they are not so strong with the idea that men and women had equal access to good opportunities to start a new enterprise (3.14/5.0).

Some specific activities must be carried out with the Colombian women to improve their basic entrepreneurial skills in order to increase the potential for women to become entrepreneurs. Such activities can be: entrepreneurial education programs, development of entrepreneurial career plans, training in opportunity identification, improvements in their behavior towards risk, formulation and application of specific policy development for women entrepreneurs.

Table 9 **Factors of potential entrepreneurs by gender. Colombia (2013)**

	Male	Female	Disparity (Male/ Female)
Perceived opportunities	70,6%	64,9%	1,1
Perceived capabilities	65,9%	50,2%	1,3
No Fear of failure	70,3%	65,4%	1,1

Source: Compiled by authors

Table 10 presents the evaluation of the experts (NES) about the levels that Colombians had in terms of skills to start up. The score is very low in all five elements, quite different from the perceptions of the adult population.

Table 10 **Skills to start up NES Colombia (2010-2013)**

	2010	2011	2012	2013
Many people know how to start and manage a high-growth business	2.4	2.1	2.2	2.1
Many people know how to start and manage a small business	2.9	2.5	2.7	2.6
Many people have experience in starting a new business	2.6	2.2	2.4	2.0
Many people can react quickly to good opportunities for a new business	2.9	2.5	2.5	2.4
Many people have the ability to organize the resources required for a new business	2.7	2.3	2.4	2.4

Source: Compiled by authors

5.3 INTENTIONAL ENTREPRENEURS

At this stage, GEM identifies the proportion of people who are planning to start a new business alone or with others in the next three years. Figure 6 shows the evolution of the percentage of intentional entrepreneurs in Colombia and in the three economic groups.

Over the past four years, the percentage of intentional entrepreneurs in Colombia is higher than the three economic groups. In Colombia, intentional entrepreneurs are 4.5 times more frequent than in innovation driven economies, and 2 times more frequent than in efficiency driven economies.

Although the proportion of intentional entrepreneurs in Colombia decreased from 2012 (56.9%) to 2013 (54.5%), Colombia continues to have the highest percentage of intentional entrepreneurs in all the efficiency driven economies, followed by Chile (46.5%) and Ecuador (39.9%). Also, Colombia occupies the 4th place worldwide regarding the proportion of intentional entrepreneurs after Botswana (59.2%), Malawi (66.7%) and Uganda (60.7%) (Figure 7).

In table 11, the intentional entrepreneurs are analyzed by gender. Again, men show, at this level, a greater propensity towards entrepreneurship; and this confirms the need for specialized policies for women in their entrepreneurship development area.

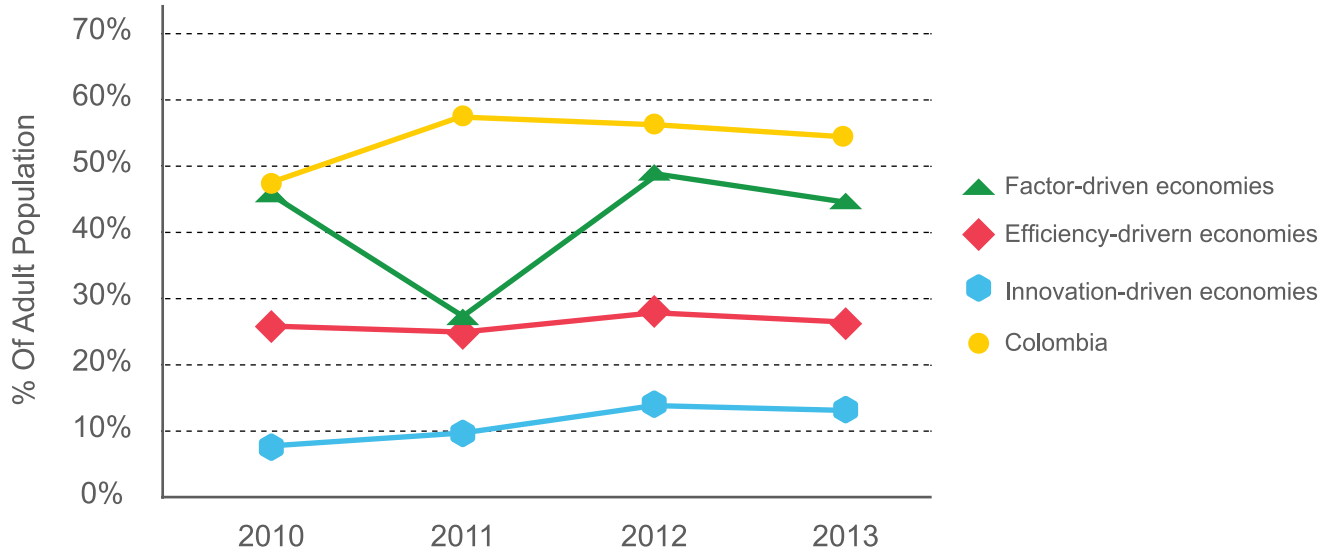
Table 11 **Intentional Entrepreneurs by gender. Colombia (2013).**

Male	61.1%
Female	48.9%
Disparity	**1.25**

Source: Compiled by authors

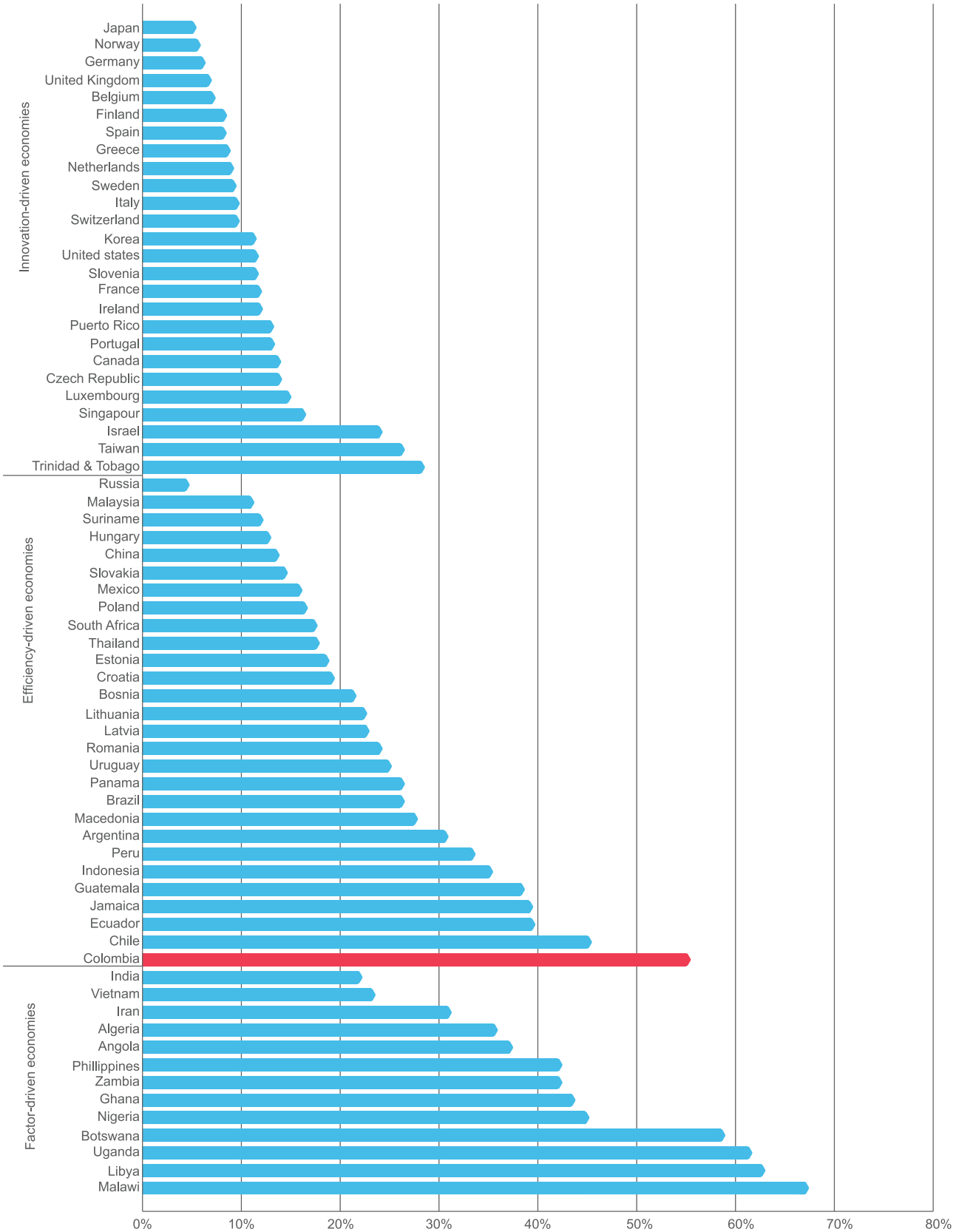
When the data of **Tables 3, 8** and of **Figure 6**, are compared, "leaks" in the entrepreneurial pipeline can be identified when a new stage of the process is included. In innovation based economies, they are at this stage only with 12.3% of their adult population, and in Colombia they are with 54.5% of their adult population, but Colombia had lost about 12% of their adult population going from potential to intentional.

Figure 6 **Intentional Entrepreneurs by economic groups (2010 – 2013)**



Source: Compiled by authors

Figure 7 **Intentional Entrepreneurs by Countries (2013)**



Source: Compiled by authors

To maintain this high level of entrepreneurial intent and to increase the rate at which this intention is converted in start-ups, and in established successful business, it is necessary to design and execute educational and promotional programs which allow the population to: acquire the knowledge and skills needed to engage in entrepreneurial activity, learn about the required entrepreneurial competences to start an enterprise, and develop an entrepreneurial career plan which allows them to move effectively into the following stages of the entrepreneurial process.

5.4 NASCENT ENTREPRENEURS

In GEM, a nascent entrepreneur is a person between 18 and 64 years old who has been in the past 12 months actively engaged in activities aimed at creating a new enterprise; but has only paid salaries, wages or any other remuneration to the employees and/or owners for less than three (3) months. The Figure 8 shows the results obtained in Colombia and in the three economic groups in the past four years.

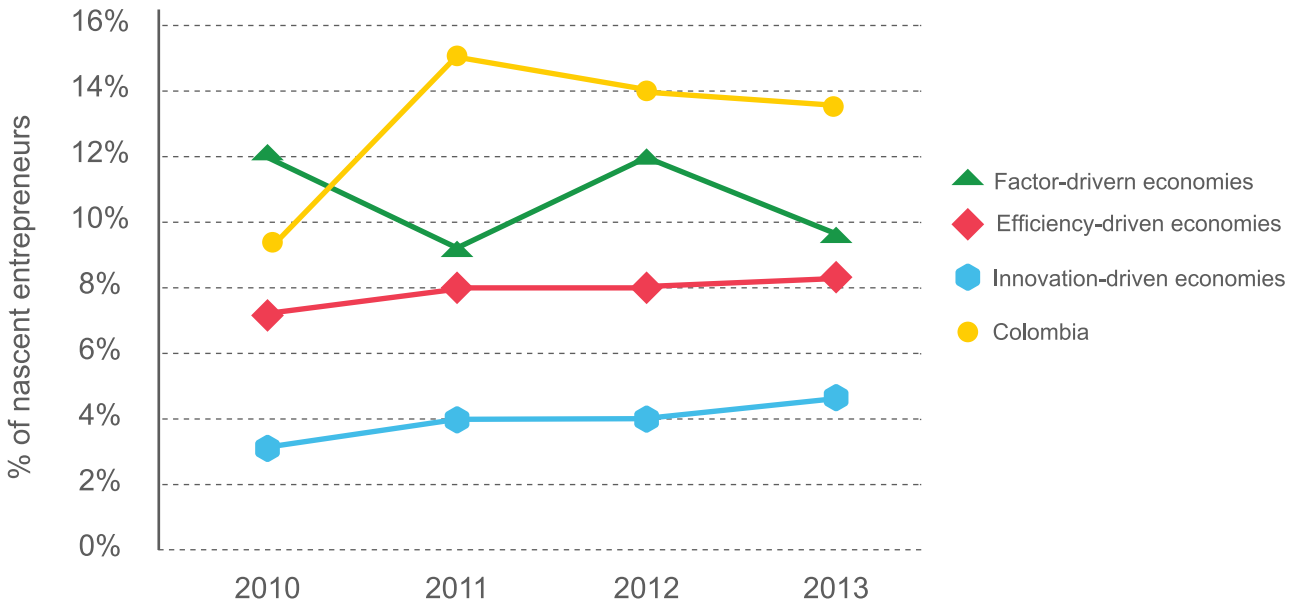
Colombia shows a very high percentage of people in this stage of the pipeline. In the 2010-2013 period, the results are higher than all the economic groups, except in 2010 when the factor driven economies obtained the higher proportion of nascent entrepreneurs. Compared with the innovation driven economies, the propensity is at least 3 times higher. It is important to observe that the innovation and efficiency countries are growing in this indicator and Colombia is decreasing.

The fact that the 13.6% of Colombians are nascent entrepreneurs in 2013 indicates that about 4.191.486 adults are in the process of starting an enterprise.

For the nascent Colombian entrepreneurs some important elements were identified:

- 85.9% of nascent entrepreneurs have already made their first sale.
- 100% of the nascent entrepreneurs who already made their first sale: 35.6% of them made their first sale in the last three months, 28.2% made it in the previous eight months, 7.4%

Figure 8 **Nascent entrepreneurs (2010 - 2013)**



Source: Compiled by authors

made it in the previous 12 months, and 18.8% made it more than 12 months ago.

- Most of the seed capital to start a nascent enterprise is derived from personal savings (55.2%), banks or other financial institution (18.5%), and family (11.1%).
- 20.4% of nascent entrepreneurs had started an enterprise before.
- 20.1% of nascent entrepreneurs needed less than one million to start their Enterprise, 16.1% needed ten million, and 16.7% needed more than ten millions. 11.4% of them consider that they did not need a capital contribution to start their enterprise or they do not know what was the total amount invested.

On the other hand, when the nascent entrepreneurs are analyzed by gender (table 12), males with a propensity of 17.5% have more presence than females with a propensity of 10%, and a disparity of 1.75. So the behavior identified in the potential and intentional entrepreneurs still occurs in the nascent entrepreneur's stage.

Table 12 **Nascent entrepreneurs by gender (2013).2013)**

Male	17.5%
Female	10.0%
Disparity	**1.75**

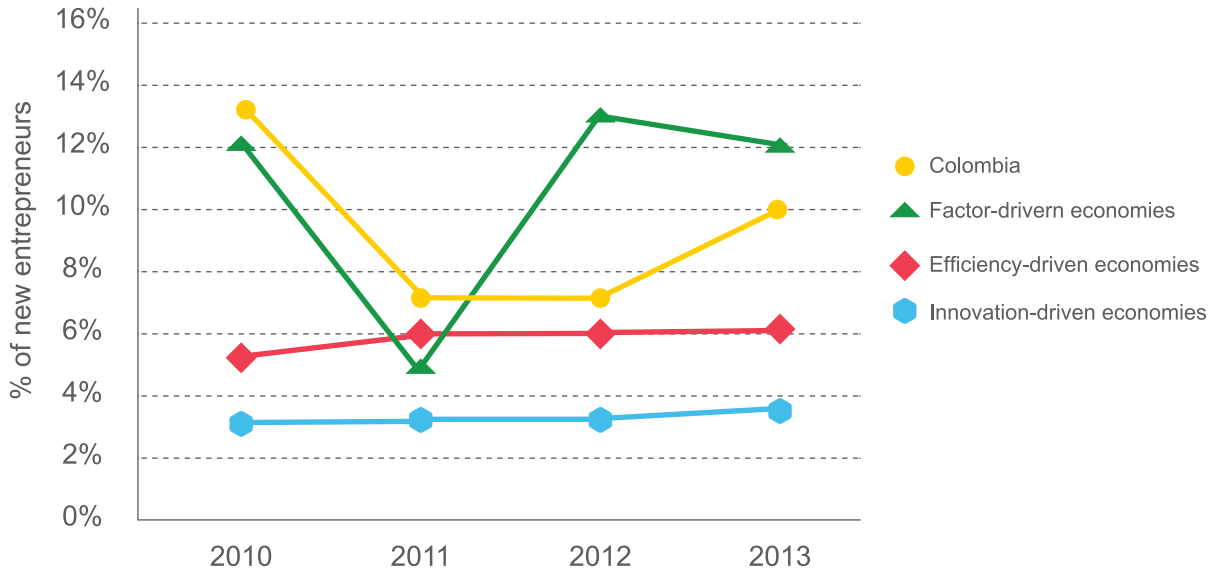
Source: Compiled by authors

5.5 NEW ENTREPRENEURS

In GEM, a new entrepreneur is an adult 18 to 64 years old who has been managing or owning a business and has paid salaries, wages or any other remuneration to employees and/or owners for more than 3 months but for less than 42 months (3.5 years).The **Figure 9** shows the results obtained in Colombia and the three economic groups in the past four years.

The new entrepreneurs indicator shows very significant fluctuation in Colombia (13% in 2010, 7% in 2011 and 2012, and 10% in 2013) and in the factor driven economies (12% in

Figure 9 **New entrepreneurs (2010 - 2013)**



Source: Compiled by authors

2010 and 2013, 6% in 2011, and 13% in 2012), but more steady values in the efficiency (5% in 2010, 6% in 2011 and 2012; and 6.4% in 2013) and in the Innovation driven economies (3% in 2010, 2011 and 2012; and 3.3% in 2013). The propensity to become a new entrepreneur in Colombia is higher, in all the 2010-2013 period, than the propensity in the efficiency driven and innovation driven economies group. In some years (2010 and 2011) the propensity is higher in Colombia than in the factor driven economies.

There are several elements that characterize the Colombian new entrepreneurs:

- 95% of new entrepreneurs have made already their first sale.
- Of the new entrepreneurs who already made their first sale: 23.5% of them made their first sale in the last three months, 28.3% made it in the last eight months, 8.8% made it in the last 12 months, and 32.7% made it more than 12 months ago.
- Most of the seed capital to start a new enterprise was derived from personal savings (57.9%), bank or some financial institution (11.8%), and family (9.4%).
- 14.2% of new entrepreneurs needed less than 1 million to start their enterprise, 16.9% needed less than 2 million, 23.1% needed less than 5 million, 12.1% needed less than 10 million, 29.2% needed more than 10 million, and 3.8% of them consider that they did not need a capital contribution to start their enterprise, or they do not know which was the total amount invested.

In this stage, the gender differences are still significant with a disparity of 1.82. As shown in table 13, there are more men (13.5%) than women (7.4%) involved in the fifth stage of entrepreneurial pipeline, and the disparity is becoming higher.

Table 13 **New entrepreneurs by gender (2013).**

Male	13.5%
Female	7.4%
Disparity	**1.82**

Source: Compiled by authors

5.6 TOTAL EARLY ENTREPRENEURIAL ACTIVITY (TEA)

The central measurement of GEM is the Total Early Entrepreneurial Activity (TEA), which as indicated earlier, is made up of the adult population aged 18 - 64 who have already started their business and are in one of the two initial stages: nascent entrepreneurs or new entrepreneurs.

Figure 10 present TEA for all the countries that participated in GEM 2013; and a very significant difference can be observed. The TEA moves from 3.4% in Italy to a 39.9% in Nigeria and Zambia.

Inside the economic groups some significant differences can be found:

- In factor driven economies, the TEA moves from 4.9% in Algeria to 39.9% in Nigeria and Zambia.
- In efficiency driven economies, the TEA moves from 5.1 % in Surinam to 36% in Ecuador.
- In innovation driven economies, the TEA moves from 3,4% in Italy to 19.5% in Trinidad & Tobago.

Inside the geographic groups also significant differences can be found:

- In Latin America and Caribbean, the TEA moves from 5.1 in Suriname to 36% in Ecuador.
- In the Middle East & North Africa, the TEA moves from 4.9% in Algeria to 12.3% in Iran.
- In Sub-Saharan Africa, the TEA moves from 10.6% in South Africa to 39.9% in Nigeria and Zambia.
- In Asia Pacific & South Asia, the TEA moves from 3.7% in Japan to 25.5% in Indonesia.
- In the European Union, the TEA moves from 3.4% in Italy to 13.3% in Latvia.
- In Europe-Non-EU28, the TEA moves from 5.8% in Russia to 10.3% in Bosnia and Herzegovina.
- In North America, the TEA moves from 8.3% in Puerto Rico to 12.7% in United States

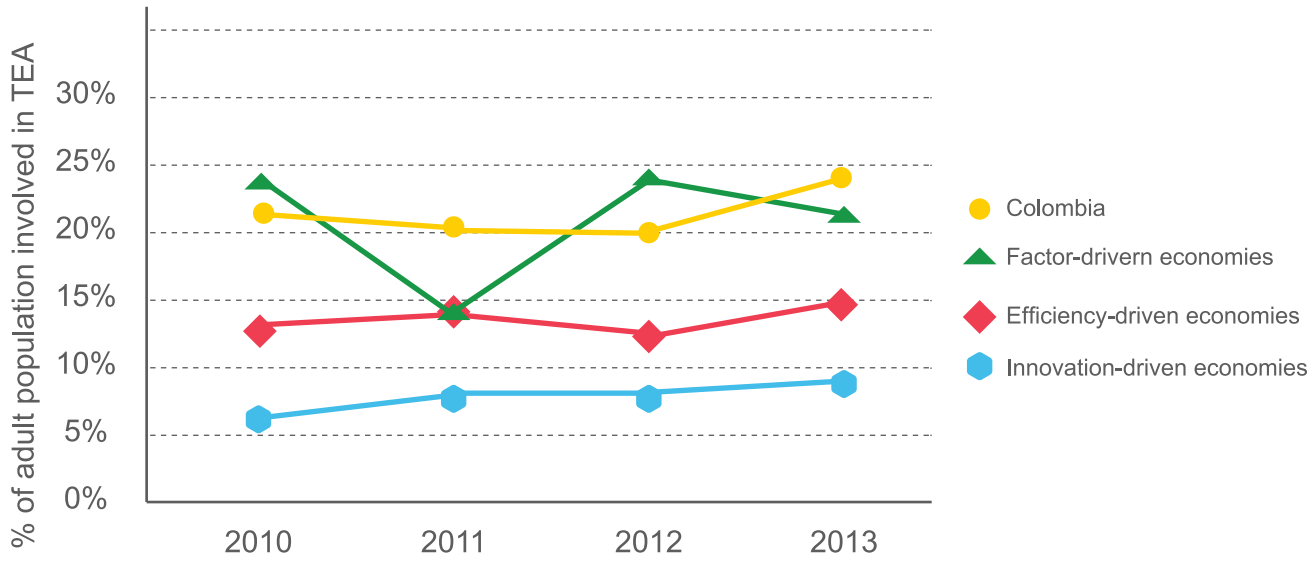
In the efficiency driven economies, Colombia with 23.7% is 4th in terms of TEA. In Latin America and the Caribbean, Colombia is 3rd in terms of TEA after Ecuador and Chile.

Figure 11 presents TEA for Colombia and for the three economic groups for the period 2010-2013.

Colombia shows an increasing trend from 21% in 2010 and 2011 to 23.7% in 2013. Similar trends are shown by the efficiency and innovation driven economies. In the factor driven, there are significant fluctuations year to year. The TEA values are higher in Colombia, almost 80% with respect to efficiency driven economies and almost 200% higher than the innovation driven economies.

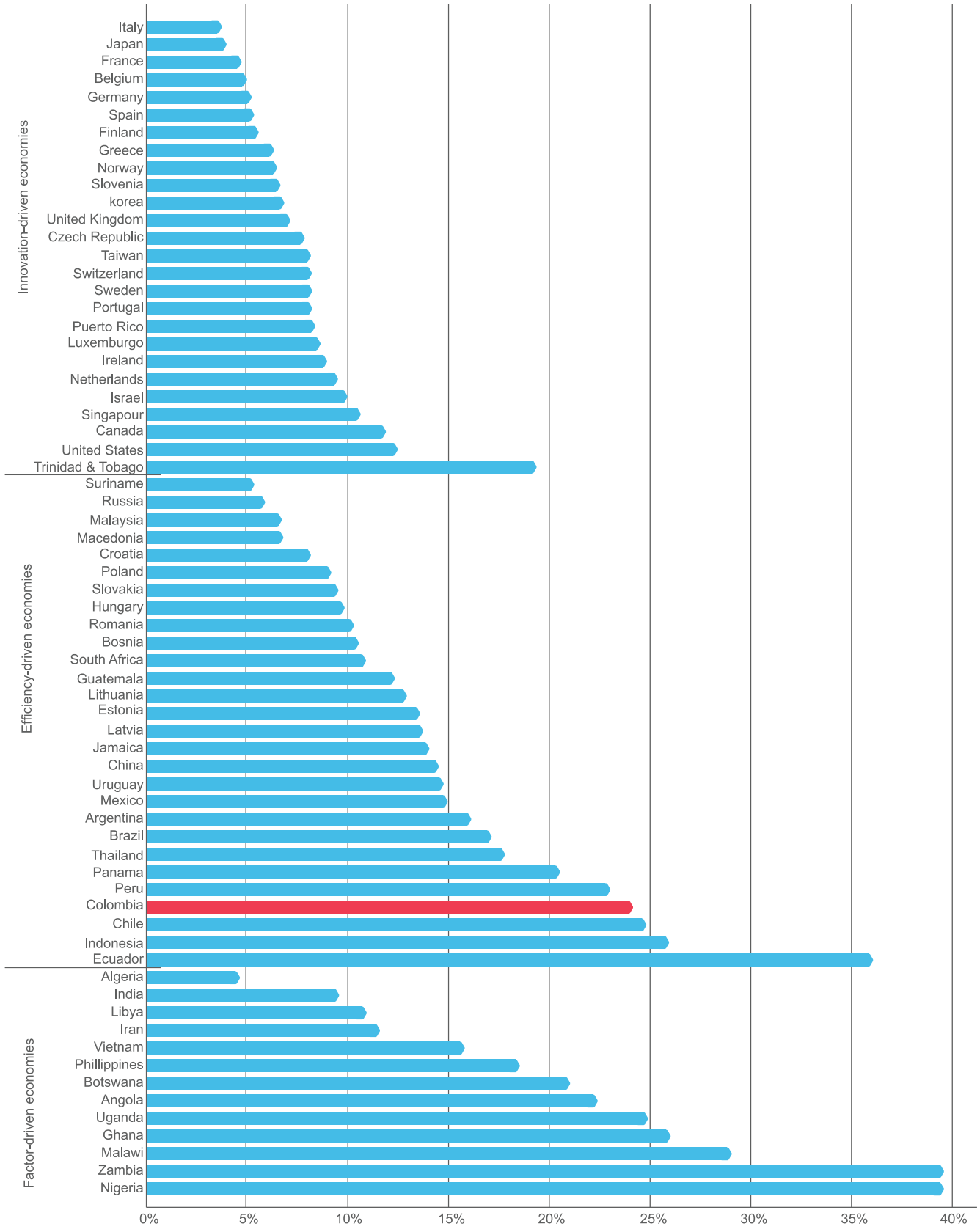
Table 14 analyzes for several countries the TEA composition. The relationship between nascent entrepreneurs and new entrepreneurs is a

Figure11 TEA (2010 - 2013)



Source: Compiled by authors

Figure10 TEA in participating countries in GEM 2013



Source: Compiled by authors

measure of the level of effectiveness that nascent entrepreneurs are having in the process to become new entrepreneurs. In the Colombian case for each 4 nascent entrepreneurs, there are 3 new entrepreneurs; and this indicator is very similar to the economies based on efficiency and innovation.

Some countries (Puerto Rico, Mexico, Suriname, and United States) show that many of nascent entrepreneurs fail to move to new entrepreneur´s stage; it means that the support mechanisms in these stages are not efficient enough.

There are countries (Brazil, China, Taiwan, Korea and the factor driven economies) in which: the number of nascent entrepreneurs is less than the number of new entrepreneurs. This behavior, in the long term, will reduce significantly the number of future entrepreneurs, because the entrepreneurial pipeline is running low in the nascent entrepreneur´s stage.

An important fact in the Colombian case is that the TEA growth between 2012 and 2013 was generated by growth in the proportion of new entrepreneurs, which would indicate that the entrepreneurial discontinuance going from "nascent" to "new" have decreased and this may be due to better mechanisms to support this transition, or because the incentive mechanisms to move from "intentional" to "nascent" entrepreneur are not working well enough.

Table 14 **Ratio between nascent and new entrepreneurs in some countries and economic groups (2013)**

	Nascent	New	Nascent/New
Colombia	13,6%	10,3%	1,3
Factor	9,4%	12,0%	0,8
Efficiency	8,4%	6,4%	1,3
Innovation	4,7%	3,3%	1,4
Japan	2,2%	1,5%	1,5
Brazil	5,1%	12,6%	0,4
Chile	15,4%	9,6%	1,6
China	5,2%	8,9%	0,6
Mexico	11,9%	3,3%	3,6
Taiwan	3,3%	5,0%	0,7
Korea	2,7%	4,2%	0,6
Trinidad & Tobago	11,4%	8,5%	1,3
Switzerland	4,5%	3,7%	1,2
United States	9,2%	3,7%	2,5
Spain	3,1%	2,2%	1,4
Puerto Rico	6,6%	1,8%	3,6
Suriname	3,9%	1,3%	3,0

Source: Compiled by authors

When the TEA is analyzed by gender, the results indicate that the TEA for male is 76% higher than the TEA for female. Again, the trend detected in the previous stages remains and the disparity increases.

Table 15. TEA by gender (2013).

Male	30.5%
Female	17.3%
Disparity	**1.76**

Source: Compiled by authors

According to the proportion of nascent and new entrepreneurs, the ones in TEA, a total of about 7.304.281 adult Colombians are involved in the orientation of their entrepreneurial initiatives and have paid remunerations to employees and owners for less than 42 months.

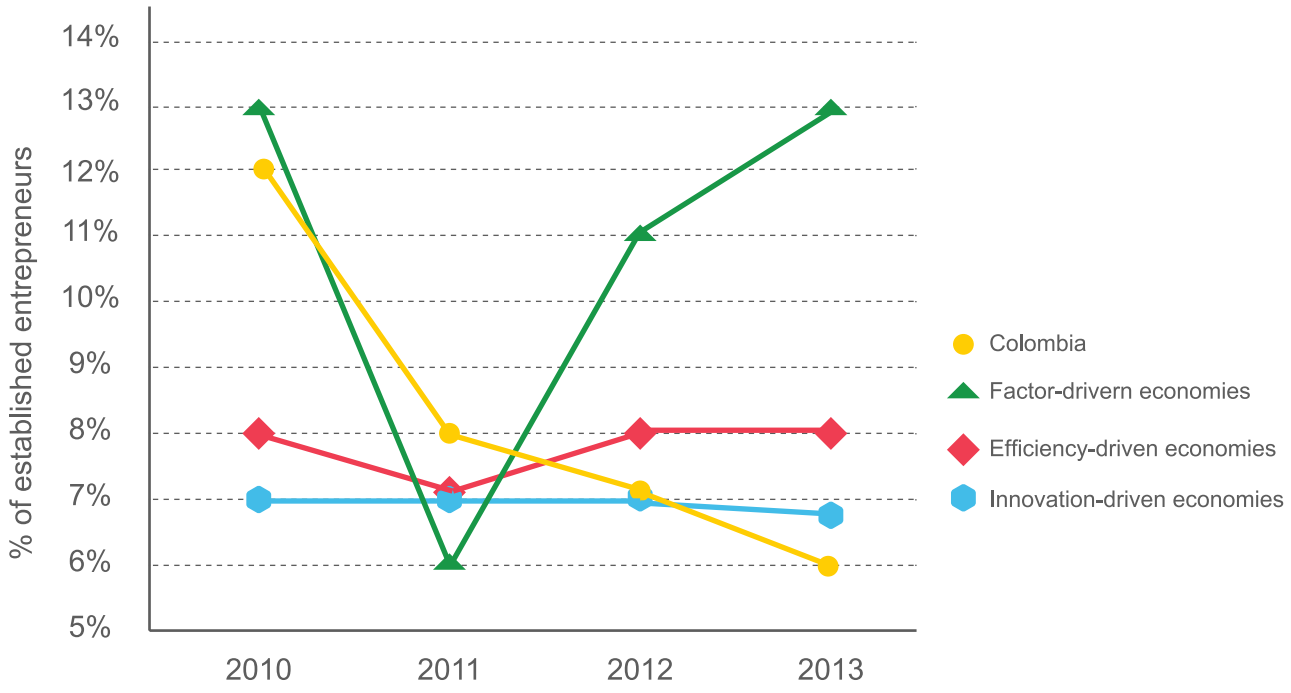
When the Colombian data in table 14 and in figure 6 are compared, the analysis indicates that while 54.5% of adult population is in the intentional entrepreneurial stage, only 13.6% is in the nascent entrepreneur´s stage and only 10.3% is in the new entrepreneur´s stage.

There is a huge "entrepreneurial leak", that must be solved because it indicates that a large percentage of Colombians have entrepreneurial intentions but fail to materialize it. Support mechanisms in terms of advising, mentoring, entrepreneurial skills development, prototype validation, suitable financial schemes, marketing support, network integration, internships; are elements to be analyzed for these critical phases of the entrepreneurial process.

5.7 ESTABLISHED ENTREPRENEURS

In GEM, an established entrepreneur is an adult between 18 and 64 years old who has been the owner or the manager of a business that has survived for more than 42 months paying salaries. **Figure 12** presents the percentage of established entrepreneurs in Colombia and the three economic groups in the period 2010 - 2013.

Figure 12 Established entrepreneurs (2010-2013)



Source: Compiled by authors

This indicator shows a decreasing trend for Colombia, which should draw attention of the entities responsible of entrepreneurial development, because having fewer entrepreneurs with established businesses is a bad sign for the future development of the country. Regarding economic groups, the level of established entrepreneurs in Colombia is lower (almost half) to the indicator presented in factor driven economies, and in recent years, lower than the indicators of the innovation and efficiency driven economies. The 5.9% rate of established business indicates that about 1.818.4365 adult Colombians are managing entrepreneurial initiatives that have paid remunerations to employees and owners for more than 42 months.

What is happening with the established businesses and established entrepreneurs in Colombia? The GEM data does not provide information about this important question but the indicator should draw the attention of entrepreneurial policy makers, mainly in terms of designing new support for enterprises after their initial years. A research specifically oriented towards this segment of entrepreneurs and enterprises is urgent, because the country needs that the efforts done in the previous stages of the entrepreneurial pipeline to be more productive in terms of established business.

Table 16 presents the propensity of males and females in the established business stage and again males show higher indicator than females. The disparity is very high indicating that for each female established entrepreneur; there are 2 male with established businesses.

5.8 THE INTEGRATED ENTREPRENEURIAL PIPELINE

When all the previous data are integrated, it is possible to construct an info graphic as the one shown in **figure 13 and 14** that represent the entrepreneurial pipeline for Colombia and Latin America (respectively). Several facts can be identified in these figures:

Table 16. TEA by gender (2013).

Male	7.9%
Female	3.9%
Disparity	**2.0**

Source: Compiled by authors

- In socio-cultural acceptance of entrepreneurship, Colombia with 77% is higher than Latin America (70%) and is in general higher than all the three economic groups.
- In potential entrepreneurs, even though there is a "leak" of about 12 points, in relation to the socio-cultural acceptance indicator, still Colombia (65%) and Latin America (64%) are higher than all the three economic groups.
- In intentional entrepreneurs a "leak" of 10 points in relation to the potential entrepreneurs, happen in Colombia´s case. Latin America shows a significant leak (31 points) from 64% to 33%, which should be analyzed by the different countries.
- Going from intentional to nascent, Colombia has the biggest leak, a decrease of 41 points. Latin America and the Caribbean region have a leak of 21 points. This data brings the need to analyze in detail what is happening with the support system in Colombia.
- Going from nascent to new entrepreneurs, a decrease of 4 point happens in Colombia and 5 points in Latin America and the Caribbean. Again this data arises the questions

about what is happening with the support system because practically for two "nascent" there is only one "new".

- Going from new to established entrepreneurs the leaks are 4% for Colombia, and 1% for Latin America and the Caribbean.

The integral entrepreneurial pipeline indicates that Colombia and the Latin America/ Caribbean region start with a high percentage of people with a positive social perception on entrepreneurship (77% in Colombia, 70% in Latin America) higher than any other group of countries; but at the end of the pipeline, Colombia and Latin America/Caribbean, show values very close to the ones of the innovation and efficiency driven countries. The relationship between established business and socio-cultural acceptance indicates that only 1 of every 12 people who consider entrepreneurship as something good, becomes an established entrepreneur in Colombia.

Figures 15 and 16 present the Colombian entrepreneurial pipeline for male and female entrepreneurs to integrate all the analysis made in the different stages. From them is clear that:

- Even though in the socio-cultural acceptance of entrepreneurship, females show a better indicator, in all the other stage indicators, there is a gap between males and females, with a disparity factor that goes up to 2.0.
- A deeper study is needed to identify the causes that produce these disparities in all stages of the entrepreneurial pipeline.
- The previous study should provide fundamental information to design a real entrepreneurial policy for women that can in the medium term, resolve the disparity.
- The policy should have very specific support systems for women entrepreneurs: including educational programs, career plan development, opportunity identification, risk taking behavior, entrepreneurial competences, financing schemes and lots of mentoring and follow up to start having successful cases that would be motivators for other women.

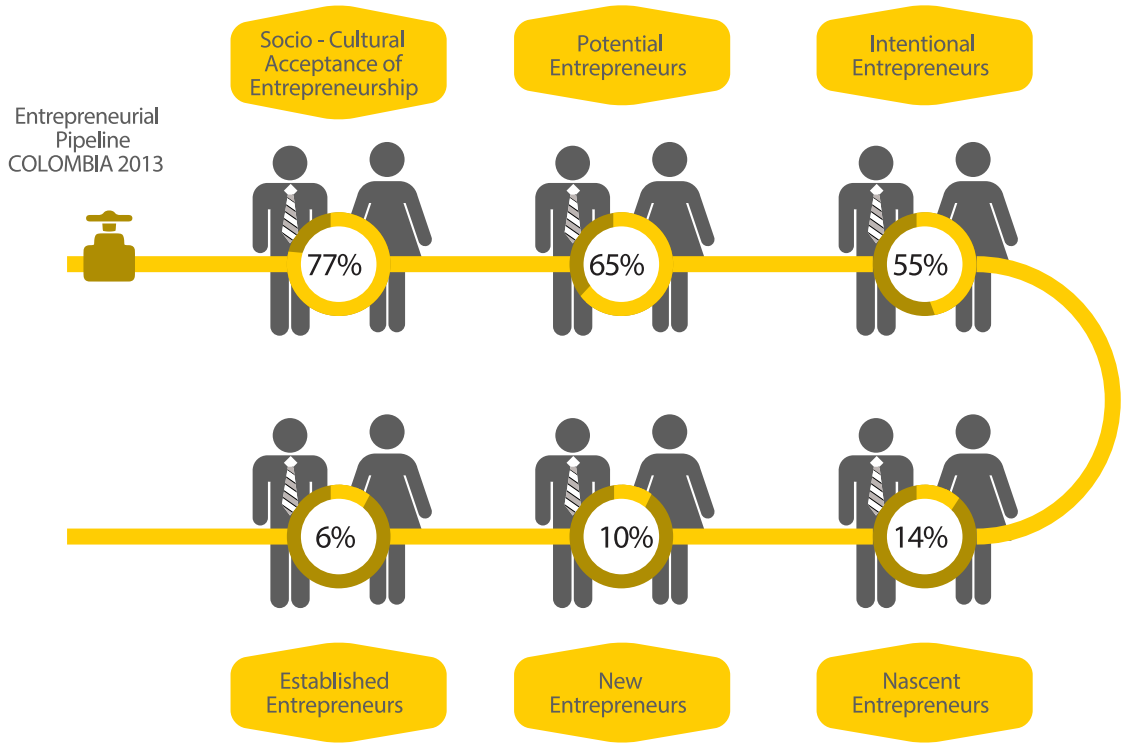
5.9 ENTREPRENEURIAL DISCONTINUANCE

GEM explores the proportion of adult population that in the last 12 months has closed, sold, discontinued or abandoned an entrepreneurial activity which was in operation. It is important to note that this measurement includes several causes, and it is not necessarily due to failure of the enterprise.

It is understood that the discontinuity of the action of the entrepreneur in an entrepreneurial initiative is due to multiple factors: problems with the development of the enterprise, problems with activities required to keep the company in operation, development of new and better opportunities for the entrepreneur (sale, exchange, integration of business), or issues related to their personal development (new job opportunities, travel, personal reasons), or health problems, or family problems, and circumstances such as: retirement, pensioning off and death.

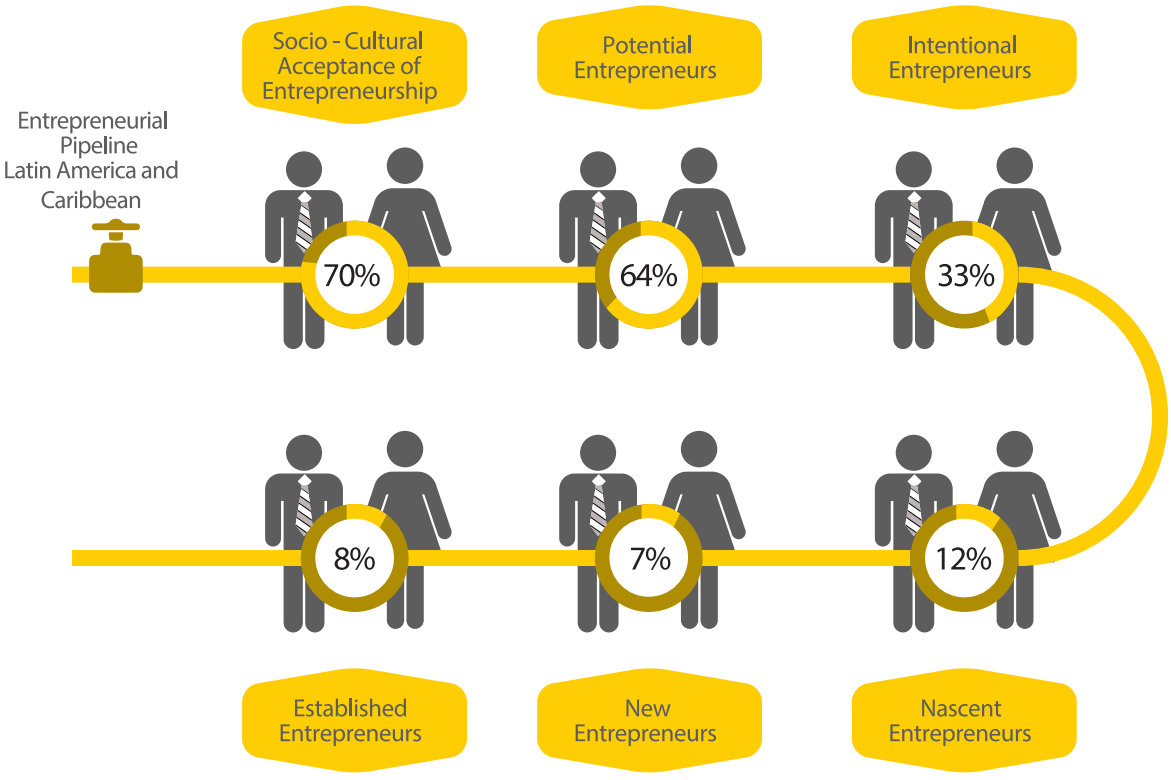
Figure 17 presents the discontinuance rate for Colombia and the economic groups (factor, efficiency and innovation driven). Colombia presents superior rates to the countries based on efficiency and innovation, but lower than the countries based on factors. A general increasing trend in the discontinuance rate has been happening in the last 4 years in Colombia,

Figure 13 Entrepreneurial pipeline. Colombia 2013



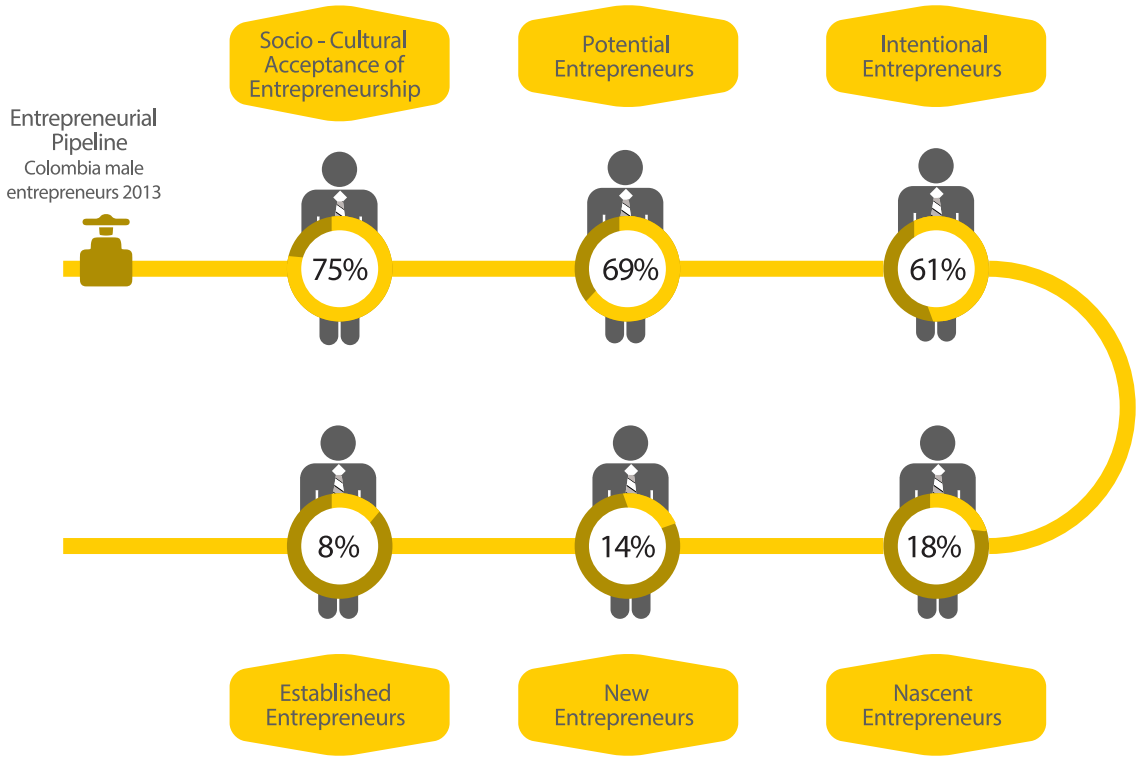
Source: Compiled by authors

Figure 14 Entrepreneurial pipeline. Latin America & the Caribbean region. 2013



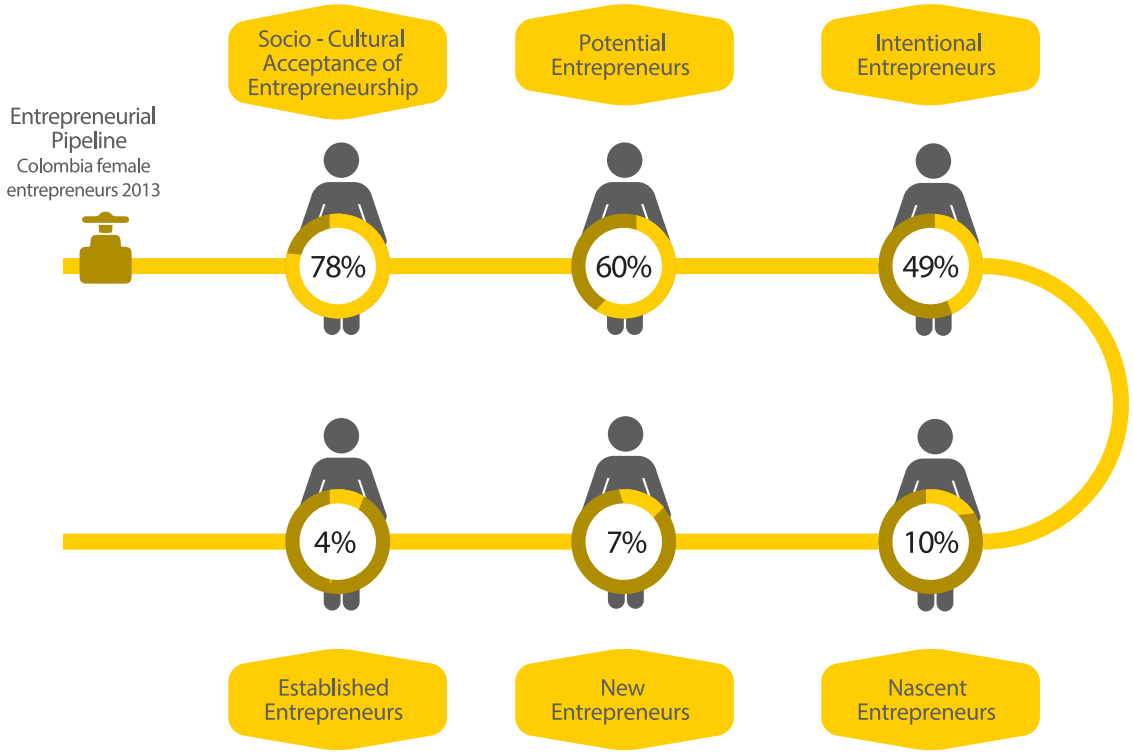
Source: Compiled by authors

Figure 15 Entrepreneurial pipeline for Colombian male entrepreneurs. 2013



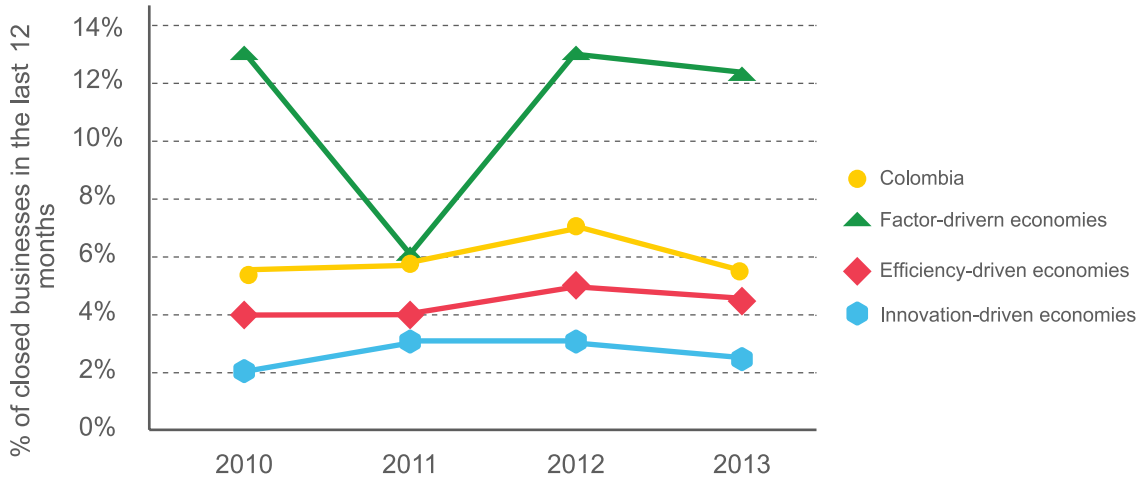
Source: Compiled by authors

Figure 16 Entrepreneurial pipeline for Colombian female entrepreneurs. 2013



Source: Compiled by authors

Figure 17 Entrepreneurial discontinuance (2010-2013)



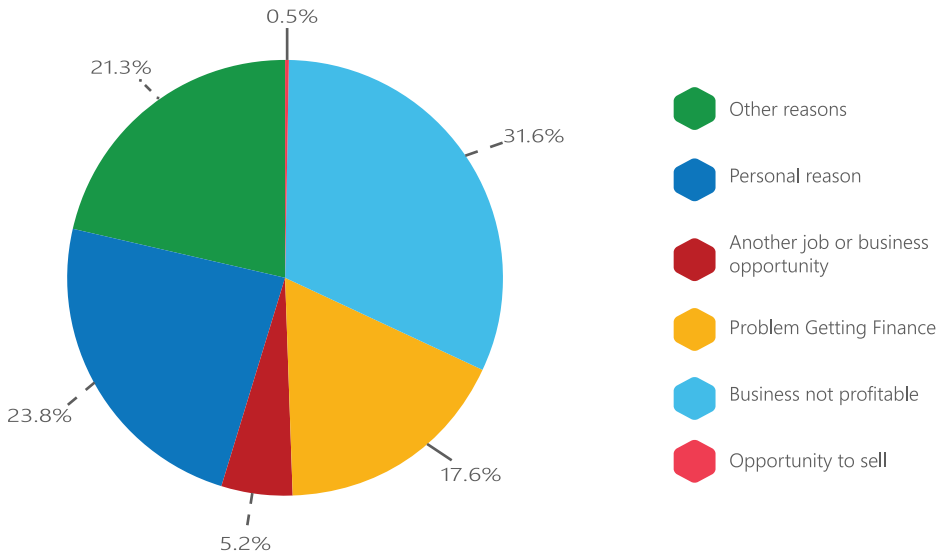
Source: Compiled by authors

and the rate is about two times the one in the innovation driven economies.

Figure 18 shows the main reasons of discontinuances in the last 12 months in Colombia: 31.6% of the discontinuances are due to the non-profitability of the business, 17.6% due to difficulties in financing the enterprise, 23.8% due to personal reasons, 21.3% due to other reasons, and in 5.2% because there was another employment opportunity.

In the analysis of the entrepreneurial pipeline a phenomenon of entrepreneurial desertion is observed, associated to the concept of "leak". Undoubtedly, some of these "leaks" occur before people actually carry out an entrepreneurial initiative; and others of these "leaks" are generate by the move of nascent entrepreneur (13.6%) to new entrepreneur (10.3%), and to established entrepreneur (6%).

Figure 18 Reasons for entrepreneurial discontinuance. Colombia 2013



Source: Compiled by authors

To improve the efficiency of the entrepreneurial process it is essential to reduce these discontinuities, and significant improvements in the support systems are required for the different stages, assigning to each one the required specific resources.

5.10 TEA AND SOCIO ECONOMIC DEVELOPMENT

One of the main goals of GEM is to study the relation that may exist between total early entrepreneurial activity (TEA) and economic development, measured by the Gross National Product per capita (GNP PC) based on the purchase power parity (ppp) concept. **Figure 19** shows this evident relationship in 3 very special areas:

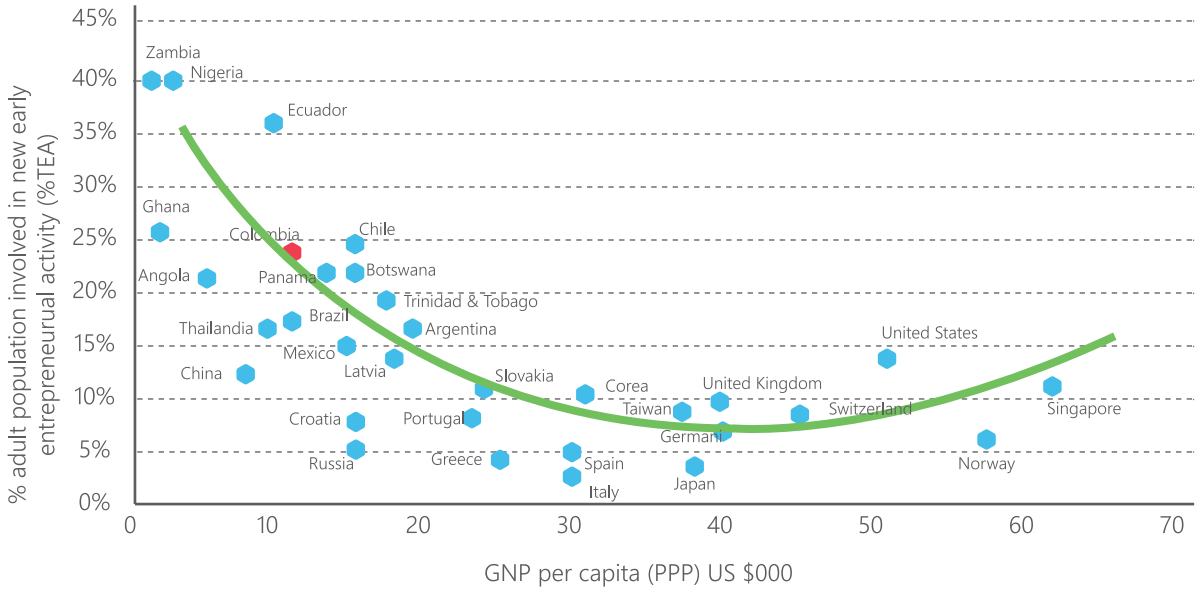
- Most of the countries, with low GNP PC (< US$10.000), which also are factor driven economies, present an inversely proportional trend: those with the lowest GNP-PC had the highest TEA, and TEA decreases quite rapidly as GNP-PC increases. In these countries unemployment and underemployment are in general high, stability in employment is low, and people have to look very intensely to the entrepreneurial option to solve their income need. Many of those entrepreneurial initiatives are focused in providing a survival income. So even though the TEA is high, their impact in value added to GNP and in employment may be very low. In these countries as the economic situation improves, the people begin to search for new employment opportunities and the TEA begins to decrease very quickly.

- In countries with a medium GNP PC (10.000 US$ a 30.000 US$), there is a very significant variation (3%<TEA<24%), mainly due to cultural and institutional environments that affect entrepreneurship, but again there is a trend, not as strong as in the factor driven economies, that indicates that TEA decreases as GNP PC increases. In these economies, the emergence of industrialization and service oriented activities, offer more job opportunities and for those reasons the TEA decreases. In these economies, there are a significant proportion of opportunity based enterprises, which may produce a growth in employment opportunities and in GNP. However, the effect of them in economic and social growth will present a time lag.

- In countries with a high GNP PC (>35.000 US$) the variations of TEA are smaller (4%<= TE<= 13%), and there is a small tend toward increasing TEA as GNP-PC increases, mainly due to the fact that the high incomes of the people will allow them to start investing in new projects and also people will start searching for new opportunities to fulfill their personal, professional and financial expectatives. In these economies, most of the businesses are opportunity based, having a significant effect in the GNP growth and in the job generation. In these economies quality in the TEA is more important than quantity.

In each one of the economic groups there are significant differences in TEA even with similar GNP-PC, and it is necessary to do a deeper study of different conditions to be able to develop a better correlation of TEA vs. GNP-PC or any other socio economic indicator.

Figure 19 TEA vs. GNP PC



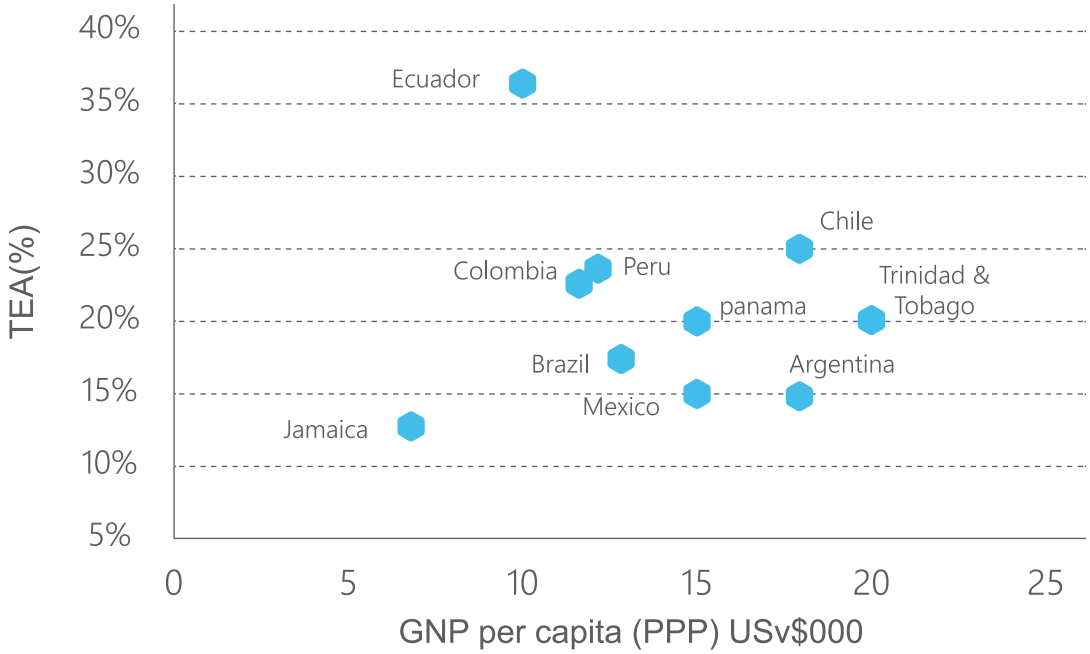
Source: Compiled by authors

5.11 TEA BY CITIES AND REGIONS

Given the size of the sample taken in 2013 in Colombia, which includes some regional studies, it is possible to analyze the situation of TEA by regions (**Table 17**), and to observe that there is not a significant difference between regions. In the case of cities, where big changes are observed (**figure 21**), it is not possible to develop general conclusions due to the small size of the sample.

Even though the policies to foster entrepreneurship in the different stages are usually

Figure 20 TEA versus. GNP per cápita en América Latina y el Caribe



Source: Compiled by authors

formulated at the central level, the differences between regions show that particular support programs should be designed at the state level and at the local level to adapt national policies to the conditions of the community, including all the variables that define the entrepreneurial support system.

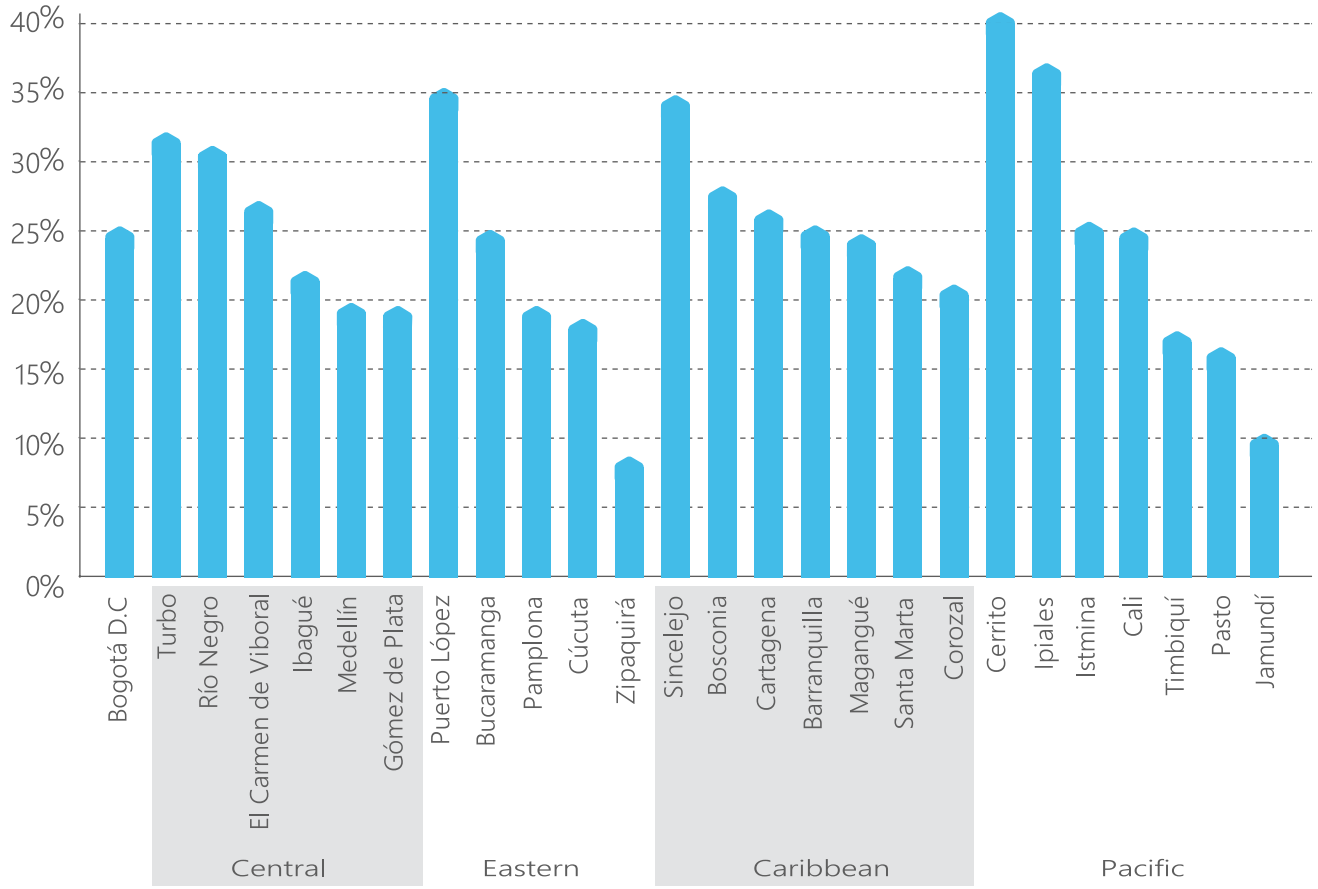
In order to have more elements to design regional policies, it is necessary to develop deeper regional GEM studies that allow measurements for every region and city, with statistically significant sample for each one of the variables of the entrepreneurial process and in that way be able to identify the differences among regions and cities in order to formulate the particular policies required in each one of them.

Table 17. Regional TEA. Colombia (2013)

Caribbean	Central	Bogota	Eastern	Pacific
25,7%	20,2%	24,1%	22,4%	25,8%

Source: Compiled by authors

Figure 21 TEA by cities. Colombia 2013



Source: Compiled by authors

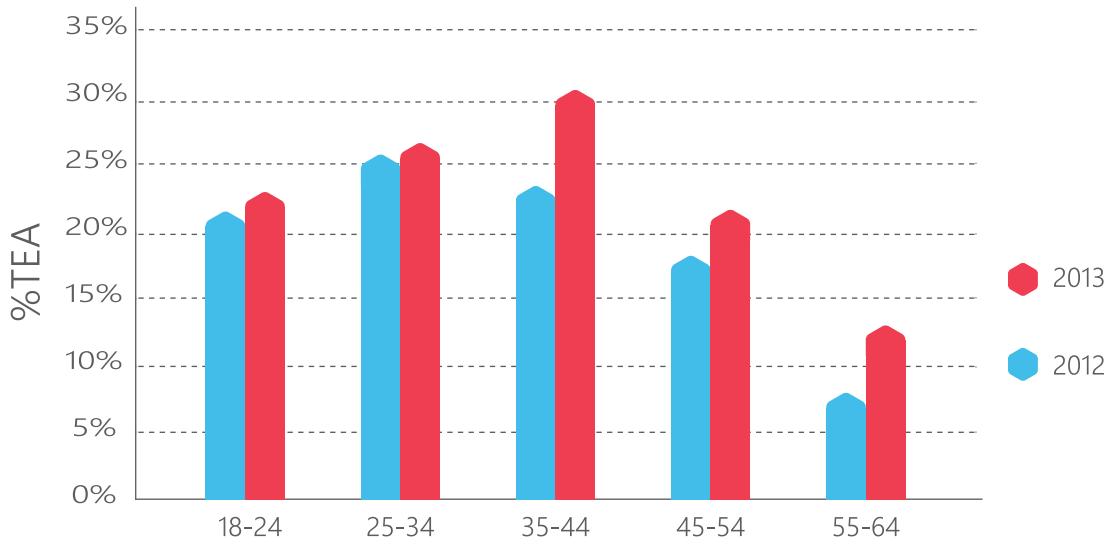
6 COLOMBIAN ENTREPRENEURS PROFILE

An important aspect of GEM data is the possibility it brings in terms of identifying different elements to characterize entrepreneurs. The analysis will be done with the persons that classified as nascent/new entrepreneurs (TEA) and with the persons that classified as established entrepreneurs.

6.1 AGE

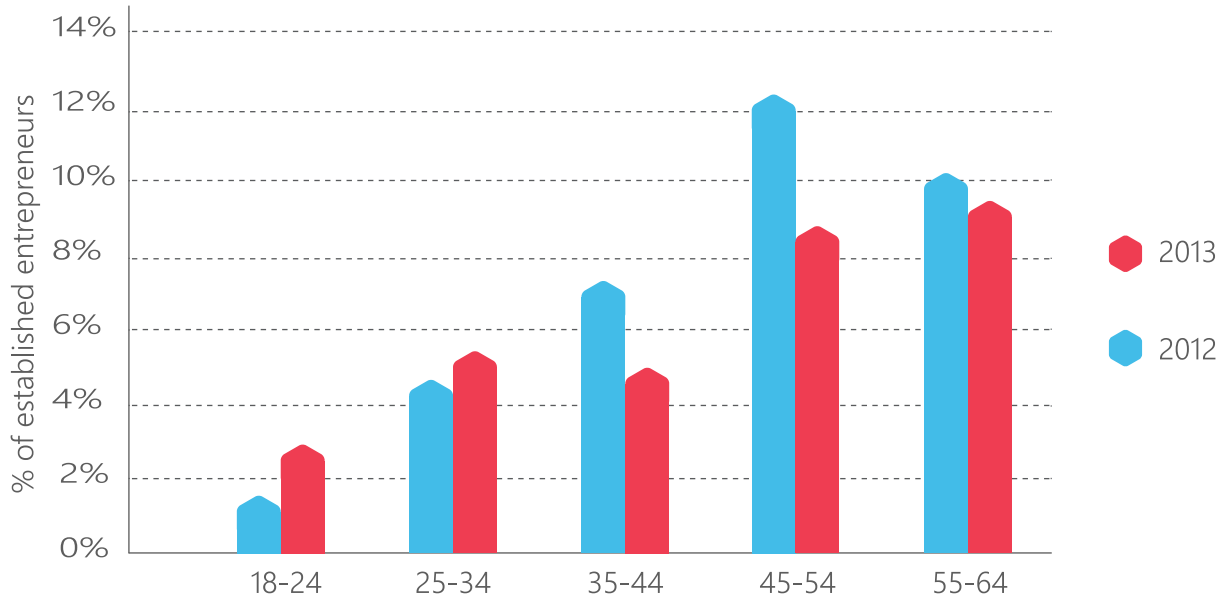
The propensity towards entrepreneurship, depending on the age groups, present for 2013 an important change with the results of previous years, because in 2013 the age group with the highest propensity for entrepreneurship is the 35 to 44 years old (30.6%) followed by the group of 25-34 years

Figure 22 **Propensity of nascent/new entrepreneurs by age. Colombia (2012- 2013)**



Source: Compiled by authors

Figure 23 Propensity of established entrepreneurs by age. Colombia (2012- 2013)



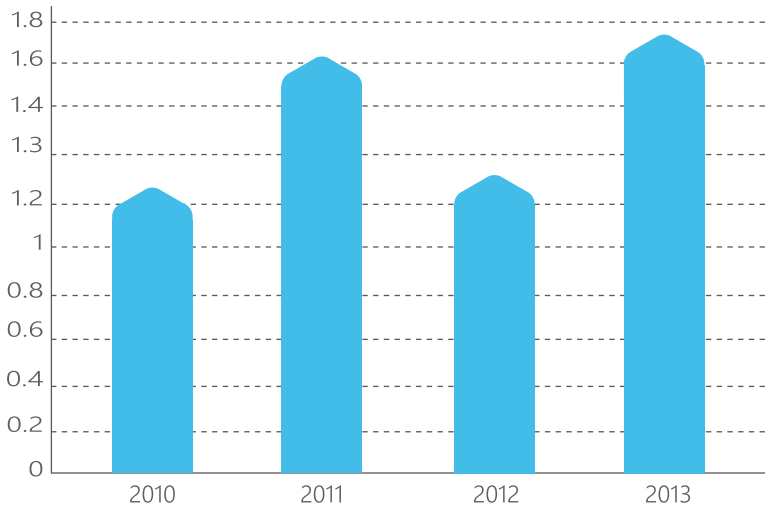
Source: Compiled by authors

old (25.8%). In previous years, the group with more propensity was the 25 to 34 years old followed by the 35 to 44 years old.

It is important to observe that the data of the TEA (2013) in all age groups are higher than in 2012, and to highlight the growth in the group of 55 to 64 years old, which has been growing over the years, indicating that every year more adults are involved in.

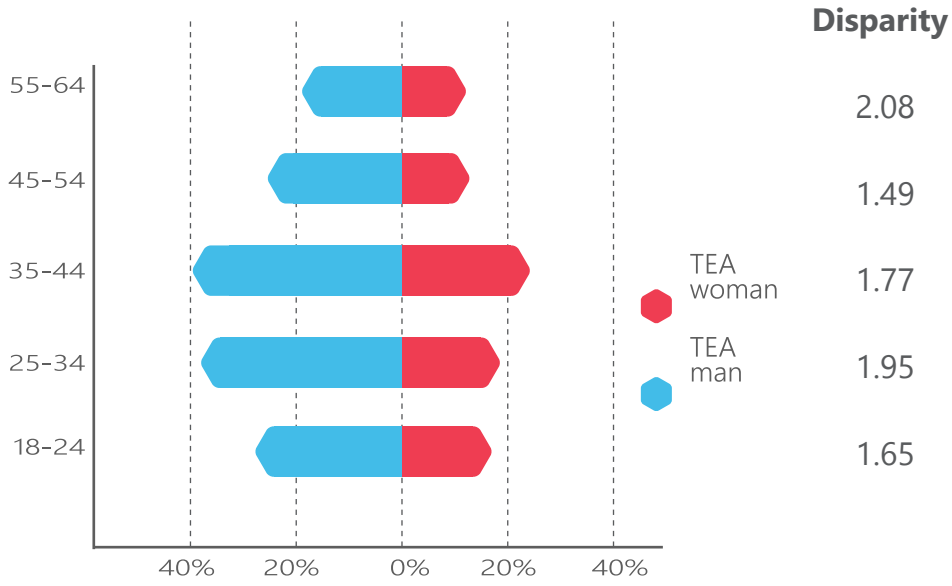
The high TEA levels of the groups 18-24 and 25-34, continue to demonstrate that youth has a very significant role in the process of enterprise creation; and the myth that to become an entrepreneur, a lot of experience and an advanced age is required is not true. In the case of established entrepreneurs, 2013 presents a

Figure 24 TEA male/TEA female. Colombia (2010-2013)



Source: Compiled by authors

Figure 25 TEA male/ TEA female by age. Colombia 2013



Source: Compiled by authors

change, because in the previous years the age group with the highest propensity towards the creation of established businesses was the 35-44 years old, and in 2013 was the group 45-54 years old. Reductions in the propensity of the age groups of 35-44, 45-54 and 55-64 between 2012 and 2013, explain the reduction in the overall rate and express that these groups are discontinuing the entrepreneurial activity.

From this analysis by age, several policy implications arise:

- It is necessary to differentiate the support programs to entrepreneurship by age and understand that although support programs for youth population (18-34) are needed, it is also true that support programs are needed for adults (35-64). These programs must be specially designed for the requirements of each age group.
- It is necessary to research in detail the situation that arises about the significant reduction of established entrepreneurs to know what actions should be taken in order to counter this trend.

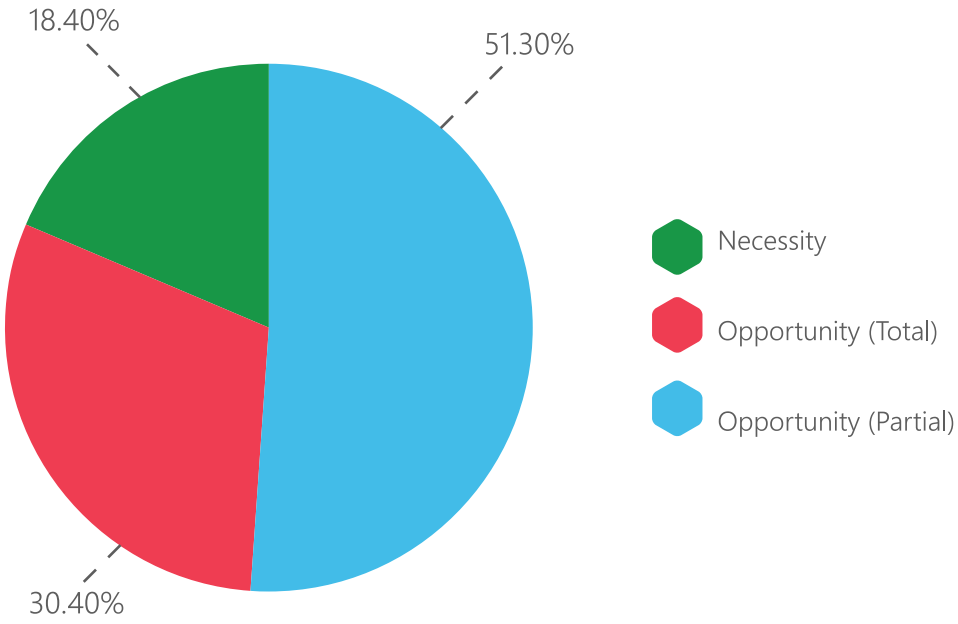
6.2 GENDER

When TEA is analyzed by gender the propensity of males is 30% and of females is 17%. The ratio TEA male/TEA female, in Colombia, is 1.76, one of the highest in the region. As indicated by **figure 24**. The behavior of the gender gap has fluctuated over the last 4 years, from 1.23 (2010) to 1.76 (2013).

When age and gender are included in the same analysis as indicated by **figure 25**, the 45-54 ages group present the lowest difference between the propensity toward entrepreneurship of male and females. The greatest gender disparity occurs in young adults (25-34 years old) with a 1.95, and in the group of 55 - 64 years old with 2.08.

In 2013, the propensity towards established entrepreneurs was 8% in males, and 4% in females, a very high disparity rate (2.0).

Figure 26 TEA male/ TEA female



Source: Compiled by authors

Throughout the study, significant disparities between men and women have been identified at every stage of the entrepreneurial process. This behavior occurs in almost every country in the world, and forces to ask several questions:

- What are the reasons behind the gender gap?
- What to do to reduce it?
- What should be included in the public policies for the entrepreneurial development to strengthen the role of women in businesses so that they may have a greater role in social and economic development?
- How to make young women aware about the high potential they have in terms of an entrepreneurial career?
- How to use the many successful women entrepreneurs as a role model?

6.3 MOTIVATION

An important aspect of the entrepreneurial process is the understanding of the motivation that drives the entrepreneur when they decide to start up a business. GEM considers that entrepreneurs can be in two basic situations: "motivation by necessity", understood as a situation in which the employer is required to start a business because cannot find a better choice of work; and "motivation by opportunity", understood as the use of an entrepreneurial opportunity. Between these two extremes there are combinations necessity/ opportunity.

Figure 26 shows that in 2013, 81.7% of Colombian entrepreneurs (nascent/new) consider that when starting their business they were motivated by the opportunity either partly or completely.

Figure 27 compares the data for 2012 and 2013 for two extreme motivations in Colombia and in the three economic groups. One is necessity and the other is "improvement driven

opportunity", which includes those nascent and new entrepreneurs that besides expressing a motivation by opportunity indicate a greater desire toward independence in their work and/or seek to maintain or improve their revenues.

Table 18 **Nascent/new entrepreneur's necessity driven. Colombia (2009-2012)**

	2010	2011	2012	2013
% TEA driven by necessity	41%	25%	12%	18%

Source: Compiled by authors

It is important to observe that in Colombia, the percentage of entrepreneurs driven by improvement opportunity has been decreasing and the entrepreneurs motivated by necessity have been increasing. The percentage of Colombians driven by improvement opportunity in 2013, is lower than the percentage of other economic groups, and is half of the rate of innovation driven economies.

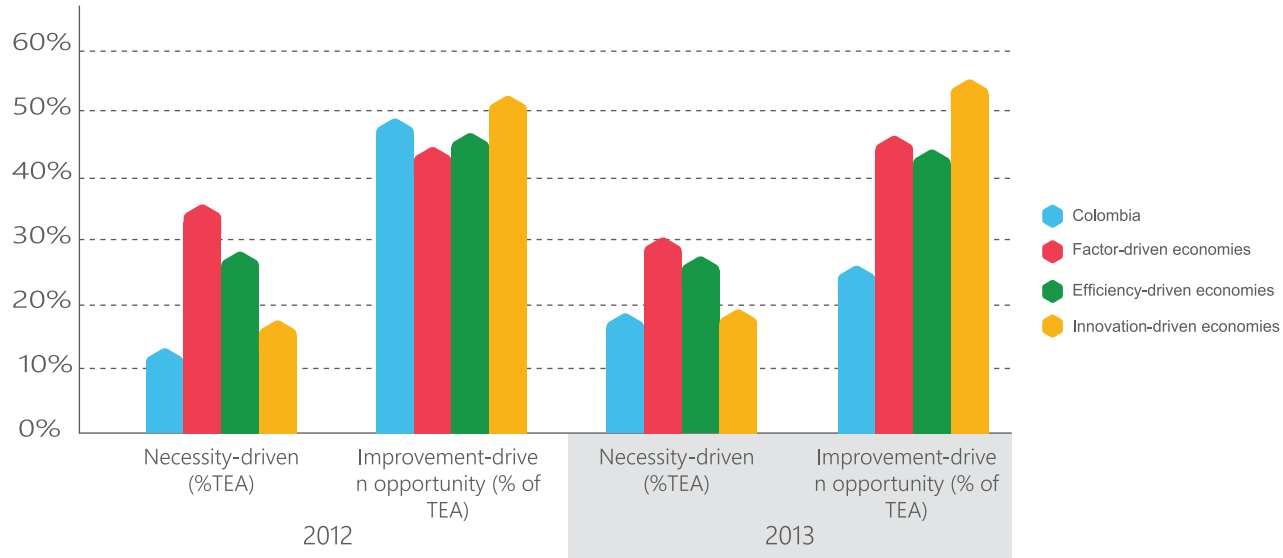
The proportion of nascent and new entrepreneurs who present the necessity as their motivation, decreased in the period 2010-2012, but in 2013 it raised again to 18%. **Table 18** presents this data.

This trend may be caused by the improvement of socio-economic conditions, but can also be explained by the cultural bias that makes people avoid the necessity as an explanation of their entrepreneurial activity. It is necessary a more detailed analysis to identify and better understand the motivations that drive entrepreneurs in Colombia. It is very important to develop specific programs for entrepreneurs motivated by necessity to improve their entrepreneurial competences and to increase their probability of success.

Figure 28 shows that motivation driven by necessity is substantially higher in older age groups. Job losses, difficulty in obtaining a new job, the lack of resources for retirement, among others, are reasons that generate this behavior in the adult population.

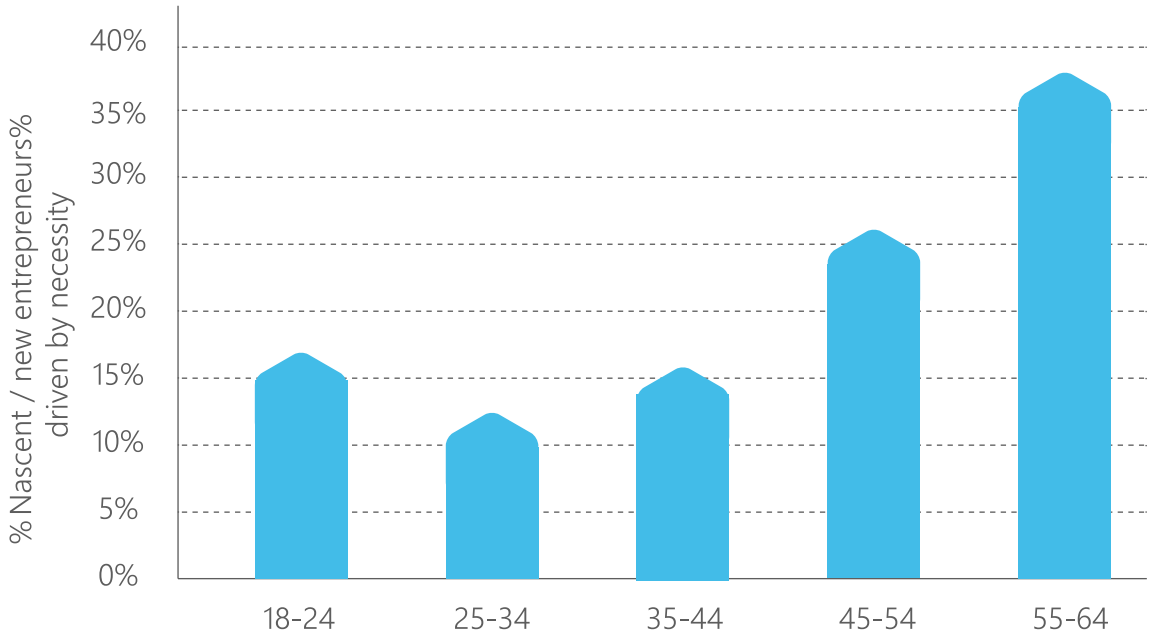
Many improvements are necessary for the support system for potential, intentional, nascent and new entrepreneurs to increase initiatives

Figure 27 **Motivation in nascent/new entrepreneurs. Colombia and the three economic groups 2013**



Source: Compiled by authors

Figure 28 TEA driven by necessity by age. Colombia 2013

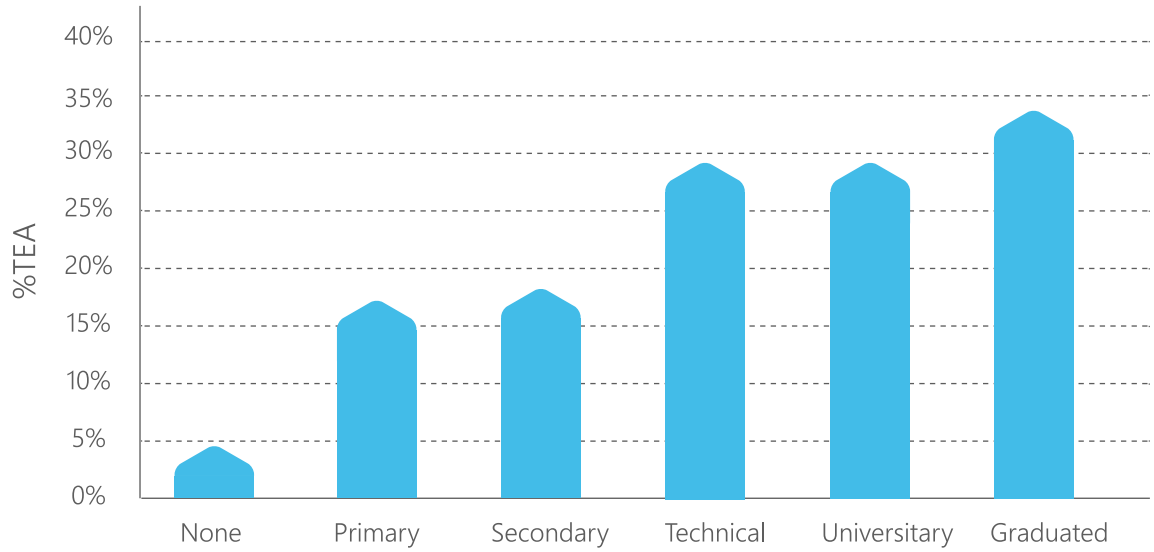


Source: Compiled by authors

based in real opportunities because necessity driven initiatives are risky and their entrepreneurs lack the competences to generate sustainability and growth in the medium and long term.

When the motivations are explored by gender, it is found that 86% of men indicated that they are driven by opportunity, while 71% of women raise the opportunity as their main motivator. On the other hand, 27% of women express necessity as main motivator of their entrepreneurial process and in the case of men only 13% attributed their motivation to necessity.

Figure 29 TEA by education level. Colombia 2013



Source: Compiled by authors

6.4 EDUCATION

The entrepreneurial competencies are developed through different learning experiences, but one important variable to study is the relation that the level of formal education has with TEA and the basic motivation to start a business.

Figure 29, which presents the TEA in each educational group, shows a trend of increasing TEA as the level of education increases.

Other important result is a relationship between necessity driven motivation and educational level. **Table 19** shows that the percentage of entrepreneurs (nascent and new) motivated by necessity decreases as the educational level increases.

Table 19 **Necessity driven vs. educational level. Colombia 2013**

Primary	33%
Secondary	22%
Technical	15%
University	16%
Graduated	12%

Source: Compiled by authors

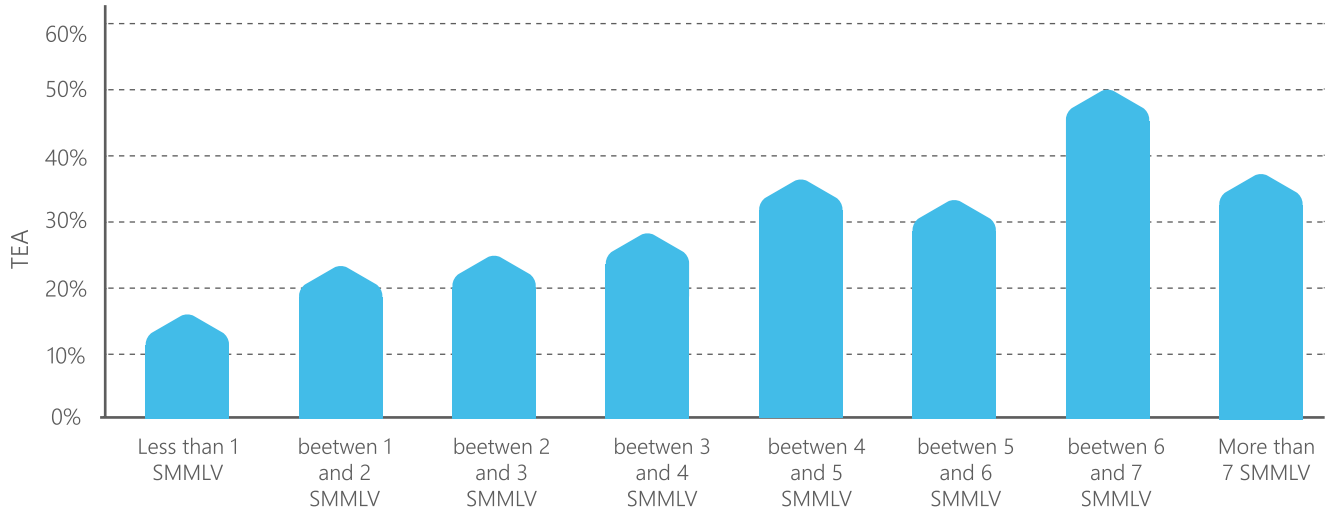
6.5 HOUSEHOLD INCOME LEVEL

The economic condition of the entrepreneurs (nascent and new) has a role not only in terms of the propensity toward entrepreneurship, but also about the motivation (necessity/opportunity).

GEM measures the economic condition of the entrepreneurs in terms of the number of minimum monthly legal salaries (SMMLV) that the household is receiving. The propensity of each income level toward entrepreneurship is presented in **figure 30**, indicating that the level of entrepreneurial activity increases as the household income level increases.

Table 20 presents the proportion of adults, in every level of household income, which are in their early stage entrepreneurial process and shows necessity driven motivation. As expected, the lower household income the higher proportion of people driven by necessity.

Figure 30 **Nascent/new entrepreneurs by income level. Colombia 2013**



Source: Compiled by authors

Table 20 TEA by necessity vs household income. Colombia 2013

Household income (SMMLV)	Involved in Necessity early-stage Entrepreneurial Activity
Less than 1 SMMLV	37,1%
From 1 to 2 SMMLV	20,1%
From 2 to 3 SMMLV	11,5%
From 3 to 4 SMMLV	21,0%
From 4 to 5 SMMLV	18,5%
From 5 to 6 SMMLV	14,7%
From 6 to 7 SMMLV	5,1%
More than 7 SMMLV	9,7%

Source: Compiled by authors

6.6 LABOR SITUATION

GEM asks about the work status of the adults at the time of the interview. **Table 21** shows that 33.7% of the adults (at any stage of the entrepreneurial pipeline) consider themselves as self-employees, and this percentage is higher than the one obtained in 2012 (28.8%).

When new and nascent entrepreneurs are analyzed, this proportion rises to 58.6% in 2013, improving the percentage compared to 2012. It is worrying the high levels of nascent and new entrepreneurs who continue as full-time employees or part-time thus they cannot devote 100% to their time to their entrepreneurial initiative and it difficult to expect that these initiatives may have a high probability of success. This fact may explain the "leaks" that are identified by passing from nascent entrepreneur to new entrepreneur and from new entrepreneur to established entrepreneur. These situations can arise from multiple causes including: lack of decision about the entrepreneurial career, fear of failure, lack of income for new and nascent entrepreneurs to maintain their standard of living, family pressures, etc.

Table 21 Labor situation. Colombia 2012 -2013

	Total population 2012	Total population 2013	TEA 2012	TEA 2013
Employee full time	34,4%	35,0%	32,7%	31,8%
Employee part time	7,9%	6,4%	4,8%	5,0%
Self employed	28,2%	33,7%	51,7%	58,6%
Seeking employment	9,6%	13,2%	3,6%	2,6%
Retired or disabled	3,0%	3,1%	0,5%	0,4%
Student	4,8%	3,3%	2,4%	0,8%
Homemaker	12,1%	5,4%	4,2%	0,8%

Source: Compiled by authors

7 ENTERPRISES CHARACTERISTICS

7.1 SECTOR

For the characterization of business by sector, GEM uses the following classification of the basic economic sectors (Table 22):

Figure 31 shows the distribution of the enterprises, "new/nascent" and "established", by economic sector.

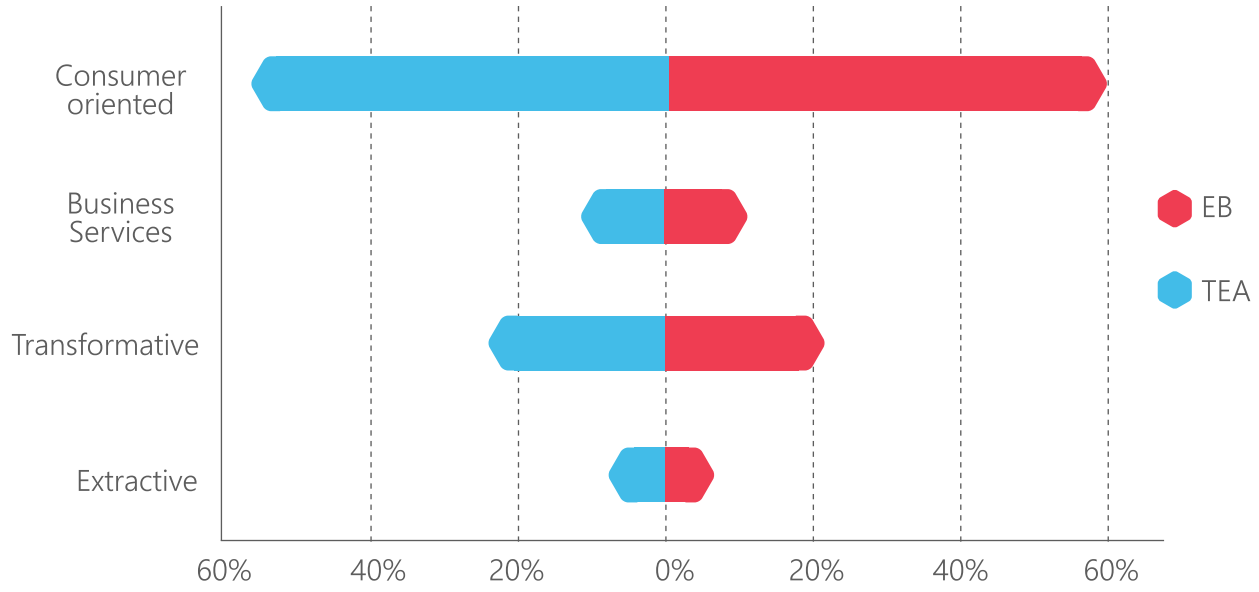
The extractive sector shows a very low participation and the consumer oriented sector is

Table 22 Economic Sectors Classification

Sector	Definition	Economic activities
Extractive	Production of raw materials.	Agriculture, forestry, fishing, and all mining
Transformative	Transformation in the finished product.	Construction, manufacturing, transportation, communication, utilities, and wholesale
Business services	Provision of services to business.	Finance, insurance, real estate, all business services
Consumer oriented	Provision of services to consumers.	Retail, motor vehicles, lodging, restaurants, personal services, health, education and social services, recreational services

Source: Compiled by authors

Figure 31 Economic sector in nascent/new and established business. Colombia 2013



Source: Compiled by authors

the most prevalent. There are not relevant differences between the participation of the different sectors in the nascent/new businesses (52%) and the established businesses (60%).

Tables 23 and 24 show the evolution of the composition of the nascent/new and established businesses in each of the 4 groups of sectors in the period 2010-2013

In both cases, along the years there are fluctuations in the composition in the nascent/new businesses and in the established businesses, but the relevance of the sectors are maintained: Consumer services, Transforming, Business services and Extractive.

Table 23 Economic sector of nascent and new business. Colombia (2010-2013)

	2010	2 011	2012	2013
Extractive	3,6%	3,3%	2,9%	8,6%
Transforming	21,4%	24,5%	31,3%	26,8%
Business Services	14,3%	13,7%	16,8%	12,4%
Consumer Oriented	60,8%	58,6%	49,1%	52,2%

Source: Compiled by authors

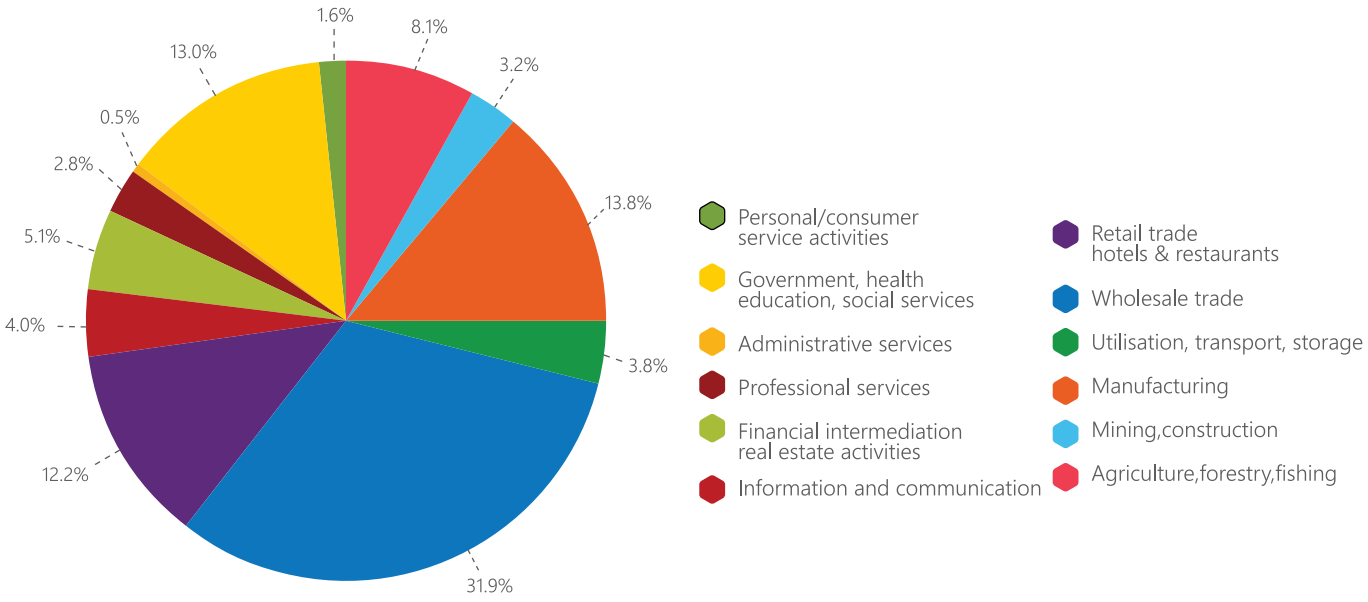
Table 24 Economic sector of established business. Colombia (2010-2013)

	2010	2011	2012	2013
Extractive	6,0%	3,9%	1,7%	6,4%
Transforming	33,6%	40,3%	37,2%	21,4%
Business Services	12,8%	11,6%	11,2%	12,3%
Consumer Oriented	47,6%	44,3%	49,9%	59,9%

Source: Compiled by authors

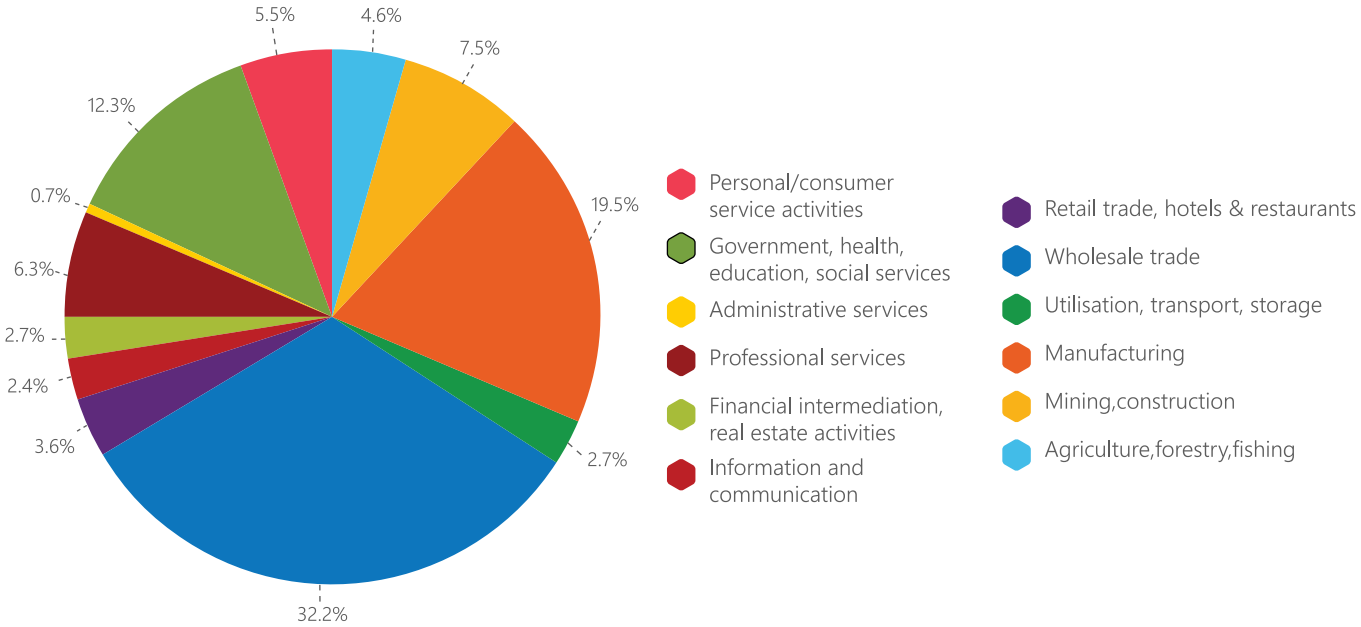
When a more detail analysis is done, as shown by figures 32 and 33, it is observed that the sub sectors: "wholesale trade", "manufacturing", "retail trade, hotels and restaurant", "Government, health, education, social services", are the most significant.

Figure 32 Economic sector distribution in nascent/new enterprises. Colombia 2013



Source: Compiled by authors

Figure 33 Economic sector distribution in established business. Colombia 2013



Source: Compiled by authors

7.2 JOB GENERATION

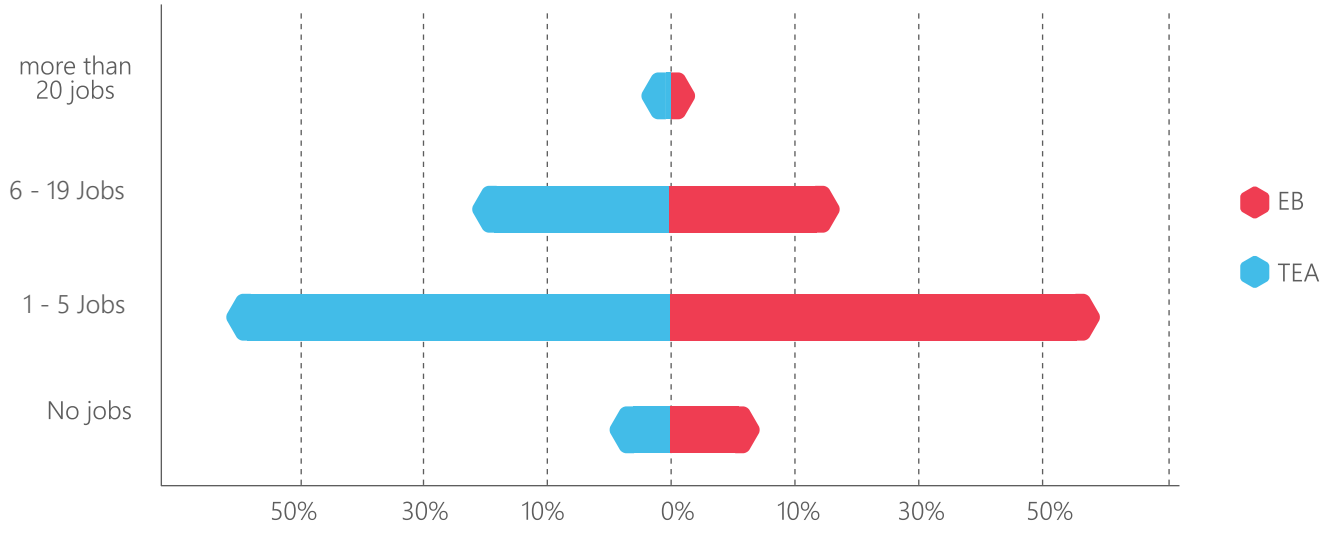
The effect on job generation is one of the main contributions of the enterprise creation process. GEM analyzes two moments in the life of the enterprises: The current situation and the prospective one in 5 years.

Figure 34 shows the results for nascent/new and established businesses. The mode in both cases is to generate between 1 and 5 jobs: established businesses in 58.1% of cases and the nascent/new businesses 60% of cases. As shown in the figure, a significant proportion of businesses (19.2% and 20.4%) do not create jobs and a very low proportion of businesses generated more than 20 jobs (1.7% and 3.6%).

Figure 35 shows the results for the job generation expected in 5 years. A significant number of nascent/new businesses will generate more than 20 jobs (30%), 33% will generate between 6 and 9 jobs, 39% generate between 1 and 5 jobs and only 3% will not generate jobs. The nascent/new businesses show a higher projection of job generation than the established businesses.

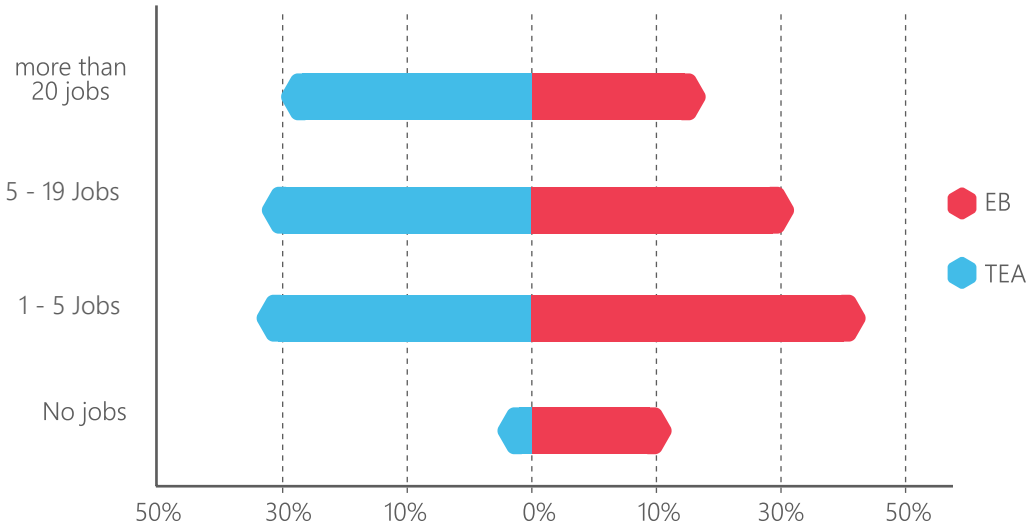
It is interesting at this point to contrast the results about growth with the notions the experts have about the growth support system. Table 25 presents their perceptions, and the framework condition best evaluated (3.8) was "People working in entrepreneurship support initiatives have sufficient skills and competence to support high-growth firms".

Figure 34 Job creation by nascent/new and by established enterprises. Colombia 2013



Source: Compiled by authors

Figure 35 **Job creation in the next five years for nascent/new and for established business. Colombia 2013**



Source: Compiled by authors

Table 25 **Growth support. NES Colombia 2013**

In Colombia	2012	2013
There are many support initiatives that are specially tailored for high-growth entrepreneurial activity	3,14	3,09
Policy-makers are aware of the importance of high-growth entrepreneurial activity	3,29	3,46
People working in entrepreneurship support initiatives have sufficient skills and competence to support high-growth firms	3,48	3,8
Potential for rapid growth is often used as a selection criterion when choosing recipients of entrepreneurship support	3,27	3,42
Government programs are highly selective when choosing recipients of entrepreneurship support	3,2	3,53

Source: Compiled by authors

Given the low proportion of established firms, and the low proportion of growth in terms of jobs created, the support system of new and established enterprises has to be significantly improved along the entrepreneurial pipeline but specifically in the "nascent" stage to get more enterprises into the "new" stage and in the "established" stage, but if survival through the stages is very important, an orientation towards growth will need very specific mechanisms in all areas of planning, implementing, marketing, financing, mentoring, etc., to be able to have a significant effect on the most important variable for Colombia: employment.

These results should derive in a policy toward the development of Centers for Entrepreneurship Development all over the country that will provide support services to all types of entrepreneurs. The experience of the Centros Alaya en Cali, the Cedezo in Medellin and other similar institutions have to be expanded to provide wider coverage. The actual initiative of the Ministry of Commerce Industry and Tourism to adapt the experience of the Small Business Development Centers (SBDC) from the USA to Colombia is a move in

the right direction.

The initiatives that Colombia´s government is promoting to get high impact entrepreneurial initiatives through programs from INNPULSA, APPS.CO, among others, need to be strengthen and stabilized in the long run to achieve growth and sustainability of the new firms.

7.3 TECHNOLOGY

One essential element for competitivity is the use of appropriate technology. GEM measures technology levels by evaluating how long this technology the enterprises are using has been in the local markets. **Figure 36** present the composition of the nascent/new and the established enterprises according to the technology level.

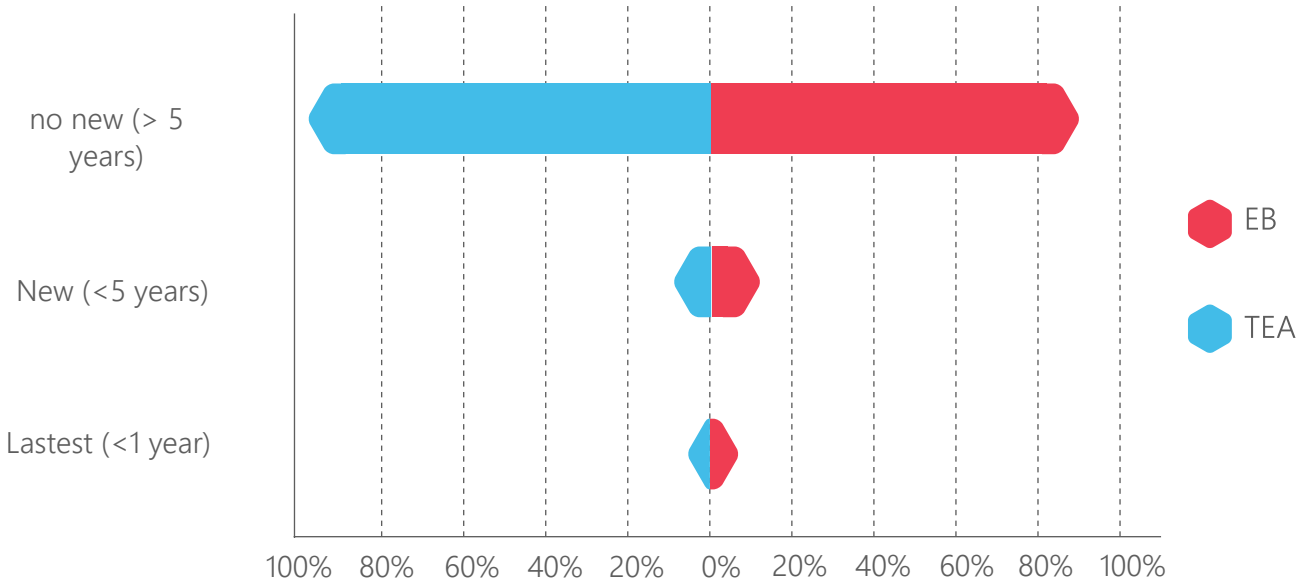
The results, especially for the established businesses are not good at all because almost 90% of the businesses are supported by technologies that have been available in the local market for more than 5 years. The situation is not better for the nascent/new enterprises where only 1% are using very recent technologies, at least in the local market.

It is very important that all entrepreneurial actors: entrepreneurs, government, educational systems, support systems, understand the importance of updated technologies to be able to compete in the globalized economy in which the country is more involved; but also it is very important to stimulate R&D, not only inside the enterprises but also inside universities research institutions and competitivity centers to develop appropriate technologies in the country. The role of Colciencias in the development of new technologies is crucial for the country development.

7.4 INNOVATION

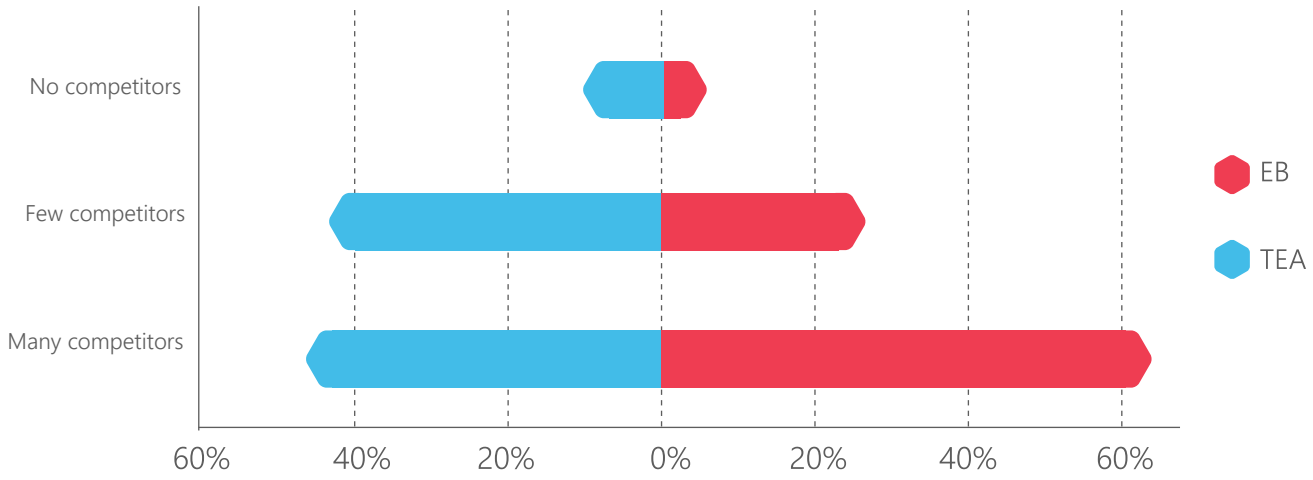
GEM measures the level of innovation in three phases. The first is the novelty of the products on the market, in the sense of whether the products offered by the businesses have "many", "few" or "no" competition.

Figure 36 Technology level for nascent/new and established business. Colombia 2013



Source: Compiled by authors

Figure 37 **Innovation level for nascent/new and established enterprises. Colombia 2013.**

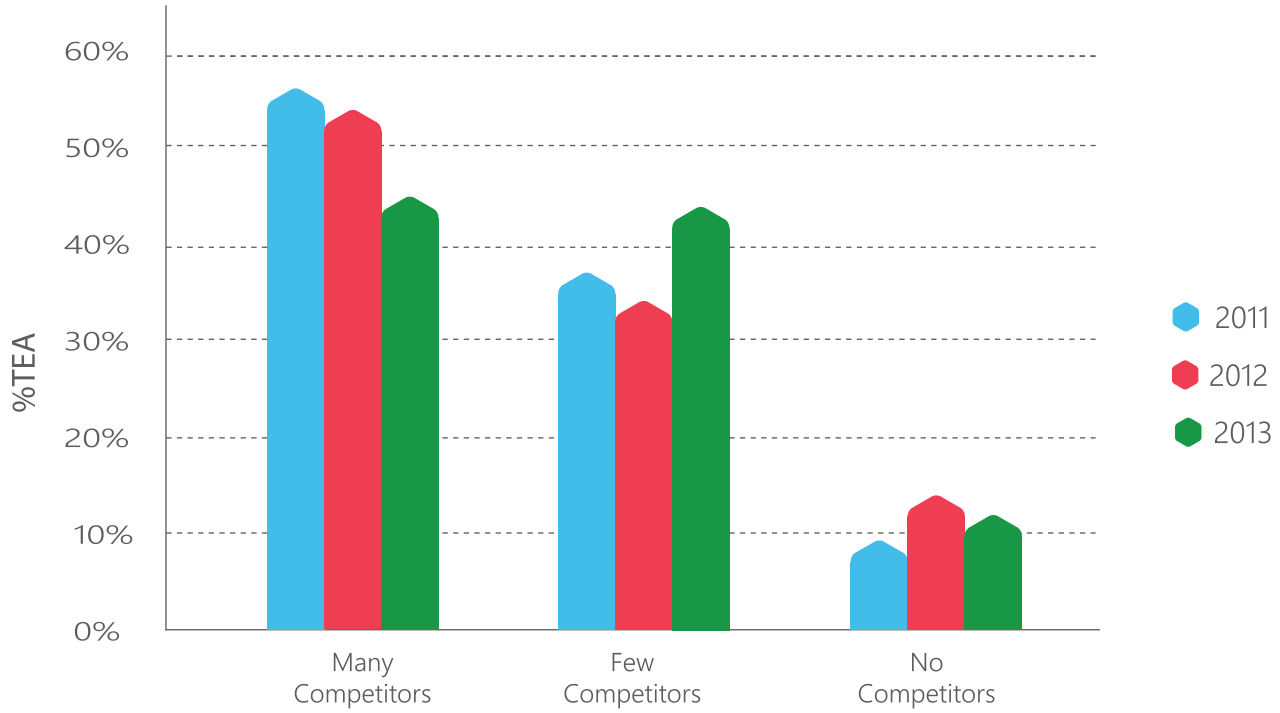


Source: Compiled by authors

As indicated in **figure 37**, most of the nascent/new and the established businesses are in very competitive markets because their products are very similar to the ones offered by their competitors.

Figure 38 shows that in the period 2011-2013, the percentage of nascent/new businesses that are generating products for which there is no competition or limited competition (innovative products) have been growing, meaning that these businesses are improving their

Figure 38 **Innovation level for nascent/new enterprises. Colombia 2011-2013**



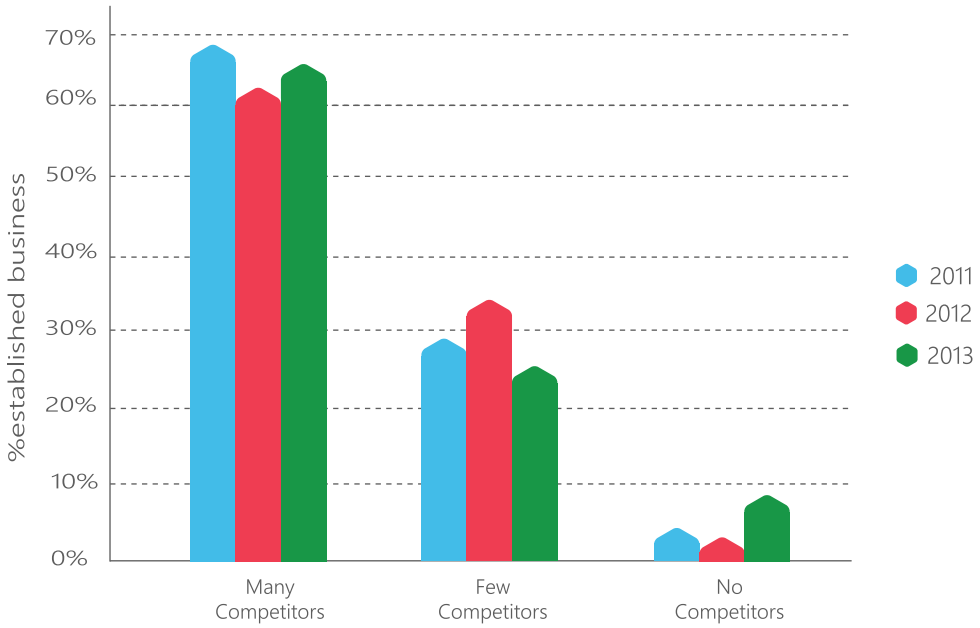
Source: Compiled by authors

innovation capacity.

For established businesses, as shown in figure 39, the trend is similar but with lower incidence. This limitation of innovativeness of established businesses may be one reason why the proportion of established businesses has declined in recent years.

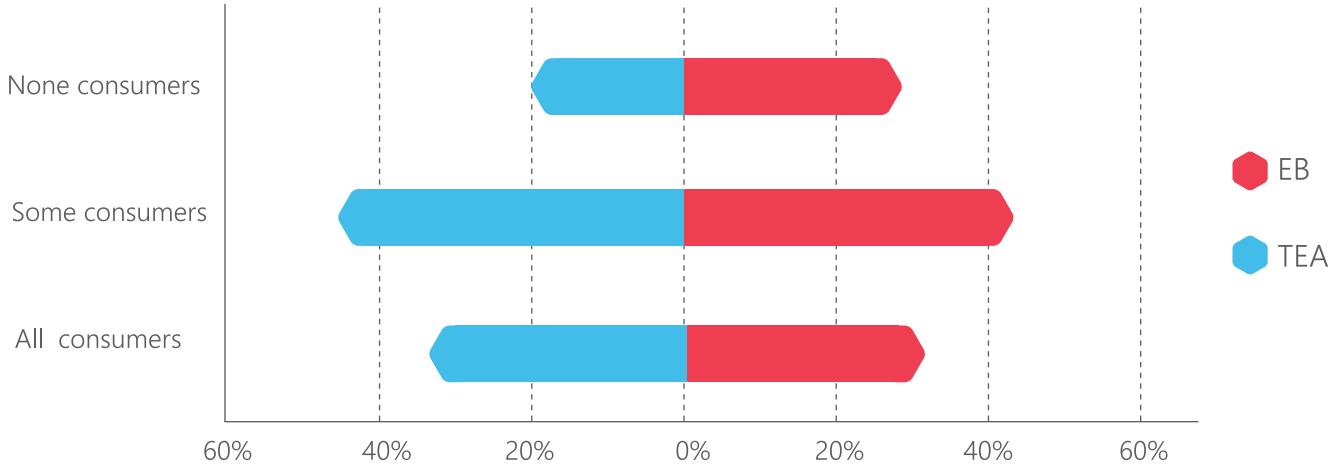
The other innovation measure made by GEM is the evaluation of the proportion of consumers that will consider the products/services new and unfamiliar. **Figure 40** indicates that 71% of the established businesses and 80% of nascent/new businesses consider that some or all of their consumers perceive their products or services are innovative ones.

Figure 39 **Innovation level for established business. Colombia 2011-2013**



Source: Compiled by authors

Figure 40 **Innovation level (unfamiliar products/services) for nascent/new and established enterprises. Colombia 2013**



Source: Compiled by authors

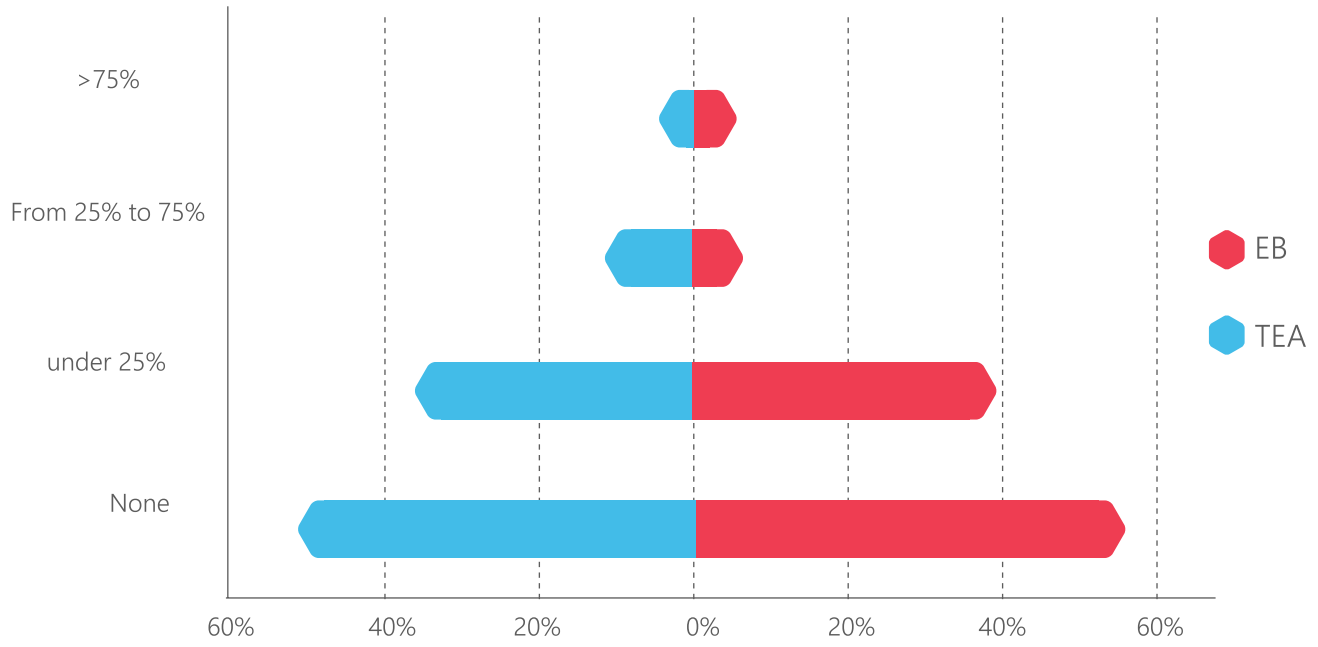
The third approach to innovation is measuring the proportion of consumers that the enterprise has in international markets. As indicated in figure 41, the percentage of businesses with a significant proportion of their consumers (from 25% to 100%) in other countries is very low: 15% for established businesses and 11% for nascent/new businesses.

This is an area in which the entrepreneurial sector needs significant improvements, because the globalization processes, the internationalization and all the activity of the national government in terms of the free trade agreements, requires that new and existing firms to be oriented toward new markets that are opening. Programs oriented to improve the export capability, the utilization of digital marketing and other mechanisms that promote the identification and the loyalty of foreign customers, are urgent elements in the entrepreneurial development policy.

Table 26 presents the perception of national experts in terms of innovation which indicates a positive trend in the fact "Innovation is highly valued by consumers" (3.97) and "Consumers like to try out new products and services" (3.86); but a negative one in the fact, "Companies like to experiment with new technologies and with new ways of doing things" (3.23).

The creation of significant value is associated with new products and new markets; thus all the entrepreneurial development programs must explain, teach and reinforce the concepts of: innovation, flexibility, market orientation, and widening market perspective as essential elements for success and growth of the new businesses. Government and universities must foster innovation and create a culture driven by innovation and competitiveness.

Figure 41 **Innovation level (internationalization) for nascent/new and established enterprises. Colombia 2013**



Source: Compiled by authors

Table 26 **Innovation. NES Colombia 2013**

In Colombia	2012	2013
Companies like to experiment with new technologies and with new ways of doing things	3,02	3,23
Consumers like to try out new products and services	3,55	3,86
Innovation is highly valued by companies	3,22	3,54
Innovation is highly valued by consumers	3,6	3,97
Established companies are open to using new, entrepreneurial companies as suppliers	2,8	3,27
Consumers are open to buying products and services from new, entrepreneurial companies	2,94	3 ,61

Source: Compiled by authors

8 SPECIAL TOPICS

In 2013, GEM decides to study at a global level special subject that traditionally has not been measured in the entrepreneurial activity: the relation between well-being and entrepreneurship including: life satisfaction, work-life balance and satisfaction with the job. Parallel to that decision, the GEM Caribbean countries decided to include as a special topic the "health condition" of the entrepreneurs.

8.1 "WELL-BEING" AND "ENTREPRENEURSHIP"

The subject of well-being was for many years a subject that was not included in all the socio economic measurements of development, but in the last decade many researches have been working on the idea that it is a very important objective of any development policy. Agner (2010) and Stiglitz et al (2009), indicate that the times are ripe for our measurement system to shift emphasis from measuring economic production to measuring well-being. New "happiness" measurements as the World Happiness Report (Helliwell et al., 2013), and the OECD measurement of well-being (OECD, 2009) are examples of this trend.

Given the area of work of GEM, some questions could arise to relate entrepreneurship and well-being: Are the entrepreneurs happier or do they have a higher subjective feeling of well-being than the employees? Are there differences in well-being between male and female entrepreneurs? Are there differences between opportunity and necessity driven entrepreneurs? Unfortunately there is not much literature and empirical evidence about this matter at an individual level (Cooper & Artz, 1995; Carree & Verheul, 2012; Naude et al 2013).

The entrepreneurial literature indicates that given the autonomy, flexibility, independence, self-determination, leadership position, possibility of carrying their own ideas, the entrepreneurs should have a higher level of job satisfaction than the employees (Benz & Frey, 2004); Blanchflower, 2004; Lange, 2012; Moskowitz & Vissing-Jargansen, 2002; Ajayi-obe & Parker 2005; Taylor, 2004).

Block and Koellinger (2009) mention that entrepreneurs experience "procedural utility", because the process of being an entrepreneur provides enjoyment over and above the material success of being an entrepreneur.

GEM decided to include the subject in the adult population survey (APS) with a set of questions to get direct measurements of the several related aspects from the actors and in the national expert survey (NES) with a series of sentences, to get an idea of the entrepreneurial framework conditions (EFC) associated with well-being.

Conceição & Bandura (2008) indicated that there is not a clear consensus about how to measure well-being. GEM adapted a set of tested constructs related to subjective well-being (life satisfaction), work-life balance and satisfaction with the job.

To measure subjective well-being, the Satisfaction With Life Scale (SWLS) (Pavot & Diener, 2008), a five-item instrument designed to measure global cognitive judgments of satisfaction with one´s life, was adopted (**Table 27**).

Table 27 **Subjective well-being**

1. In most ways, my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far I have obtained the important things I want in life
5. If I could live my life again, I would not change anything

Source: Compiled by authors

Table 28 **Work conditions**

1. I can decide on my own how I go about doing my work.
2. The work I do is meaning for me.
3. At my work, I am not exposed to excessive stress.
4. I am satisfied with my current work.
5. I am satisfied with my current income from work.

Source: Compiled by authors

Table 29 **Work-life balance**

1. I am satisfied with the way my time is divided between work and private life.
2. I am satisfied with my ability to balance the needs of my work with those of my personal or family life.
3. I am satisfied with the opportunity to perform well at work and to substantially contribute to home-related responsibilities at the same time.

Source: Compiled by authors

To measure work conditions the ideas of Spritzer et al (1997) and of the EU Commission, allowed the design of five questions presented in table 28, which also were evaluated in a Likert scale from 1 "strongly disagree" to 5 "strongly agree".

Satisfaction with the work-life balance is defined as "an overall level of contentment resulting from an assessment of ones degree of success at meeting work and family role demands (Valcour, 2007).

The NES approach included four statements to inquire whether the national conditions help the work - life balance of individuals and the perception about work and life satisfaction (**Table 30**).

In all the 3 cases a Likert scale was used, with 1 meaning "strongly disagree" and 5 meaning "strongly agree". The results were processed and for each category of people (entrepreneurs, male entrepreneurs, female entrepreneurs, opportunity driven entrepreneurs, necessity driven entrepreneurs, employees, unemployed) standardized Z scores were developed to measure mean differences. In each one of the factors

Figure 42 presents the indicators standardized with Z values in the scale -1.7 (low level of well-being) and 1.7 (high level of well-being) for Colombia and for the three economic groups (factors, efficiency and innovation) for several segments of population identified in the GEM study.

It is interesting to observe that in all groups studied, the results for Colombia exceed those of the groups of countries. This means that Colombian entrepreneurs (nascent/new or established), motivated by opportunity or necessity, whether men or women, they feel better than the equivalents in the other economic groups. In Colombia, the highest levels of subjective well-being are in the established businesses (0.31), in the male entrepreneur (nascent/new) (0.30), and in the entrepreneurs (nascent/new) by opportunity (0.33).

The Colombian general population has an indicator of 0.17, and the entrepreneurs driven by necessity of 0.03. For none of the groups analyzed, Colombia presents negative results.

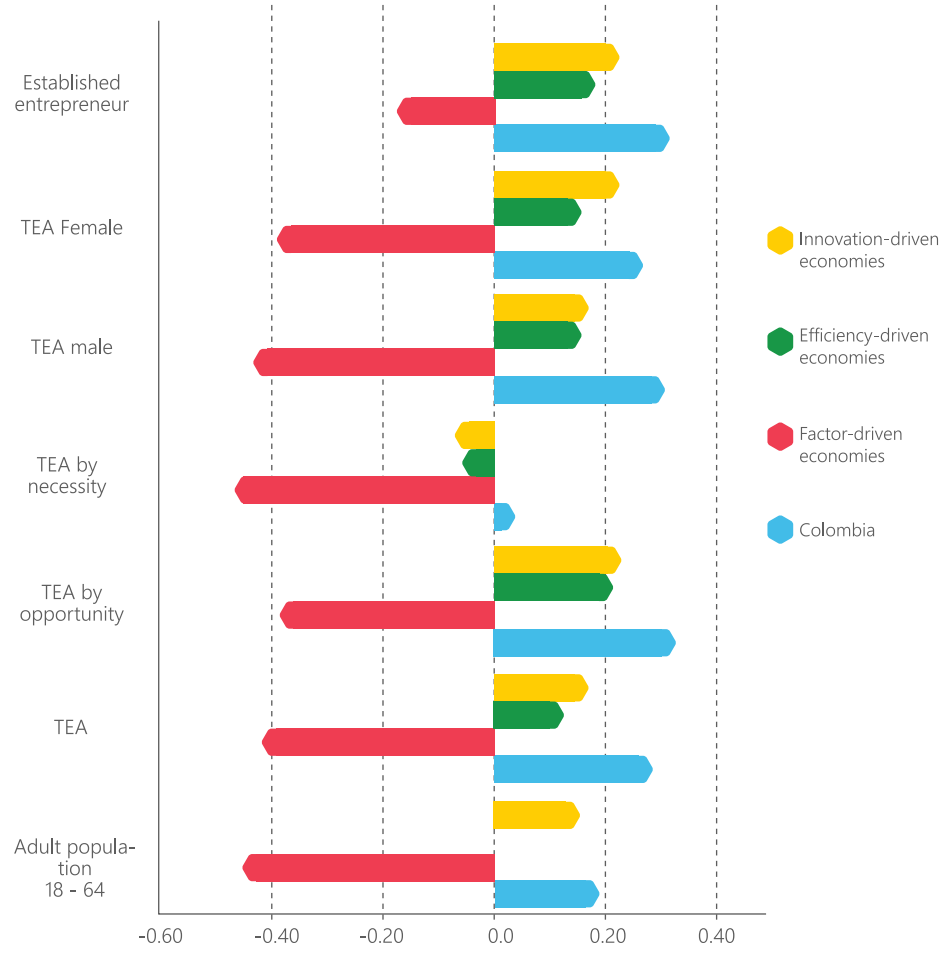
It is interesting to observe the following facts when analyzing the results with the three economic groups:

Table 30 NES questions.

1. In my country, the general conditions (economic, social, political, cultural) allow people to perfectly harmonize personal and working life
2. In my country, Existing labor regulations allow people to perfectly harmonize personal and working life
3. In my country, Entrepreneurs usually appear as more satisfied with their working life than non-entrepreneurs
4. In my country, Entrepreneurs usually appear as more satisfied with their personal life than non-entrepreneurs

Source: Compiled by authors

Figure 42 **Subjective well-being Indicators. General results by Caribbean countries and economic groups. 2013**



Source: Compiled by authors

- In Colombia, established entrepreneurs have the highest indicators of subjective well-being compared to the nascent/new entrepreneurs.
- Except in the case of necessity, the innovation and efficiency driven economies have positive indicators of subjective well-being. Factor driven economies present in all the cases negative indicators.
- In the innovation driven economies, women present better results than men in subjective well-being.
- In Colombia and in all economic groups, entrepreneurs driven by opportunity have better results than entrepreneurs driven by necessity.
- All entrepreneurial groups analyzed, except groups driven by necessity, perform better than the overall adult population.

Table 31 presents the results for all Latin America and Caribbean countries and for the three economic groups. In http://gemconsortium.org/docs/download/3106 it is possible to find the data for each one of the countries studied in the well-being section.

Table 31 **Subjective well-being Indicators. General results by geographic region. 2013**

	18-64 population	Early-stage entrepreneurial activity (TEA)	TEA by opportunity	TEA by necessity	TEA male	TEA female	Established entrepreneurs
Latin America & Caribbean	**0,31**	**0,40**	**0,45**	**0,24**	**0,44**	**0,34**	**0,42**
Argentina	0,41	0,39	0,46	0,20	0,40	0,38	0,52
Brazil	0,17	0,14	0,28	-0,21	0,23	0,05	0,22
Barbados	0,08	0,10	0,10	0,10	0,16	0,03	0,28
Chile	0,58	0,65	0,73	0,30	0,67	0,61	0,76
Colombia	0,17	0,27	0,33	0,03	0,30	0,24	0,31
Ecuador	0,54	0,62	0,68	0,49	0,69	0,54	0,56
Guatemala	0,37	0,44	0,49	0,32	0,46	0,41	0,40
Jamaica	-0,53	-0,42	-0,44	-0,37	-0,23	-0,63	-0,44
Mexico	0,21	0,22	0,37	0,07	0,18	0,28	0,39
Panama	0,72	0,66	0,67	0,61	0,73	0,55	0,73
Peru	0,46	0,71	0,77	0,51	0,75	0,66	0,42
Suriname	0,01	0,39	0,50	-0,01	0,42	0,34	0,02
Uruguay	0,29	0,34	0,34	0,33	0,33	0,35	0,43
Trinidad & Tobago	0,38	0,37	0,37	0,38	0,36	0,39	0,70
Puerto Rico	0,49	0,79	0,78	0,75	0,90	0,60	0,91
Factor-driven economies	**-0,445**	**-0,409**	**-0,364**	**-0,504**	**-0,422**	**-0,382**	**-0,253**
Efficiency-driven economies	**-0,002**	**0,135**	**0,227**	**-0,077**	**0,133**	**0,146**	**0,171**
Innovation-driven economies	**0,143**	**0,182**	**0,240**	**-0,115**	**0,145**	**0,252**	**0,271**

Source: Compiled by authors

The analysis of the global data presents some interesting facts:

- In all categories: total adult population, nascent/new entrepreneurs nascent/new driven by opportunity, nascent/new driven by necessity, nascent/new male entrepreneurs, nascent/new female entrepreneurs, established entrepreneurs; the scores of the Latin America & the Caribbean countries indicated a better well-being of their citizens with respect to the people in the same category in the factor, efficiency and innovation driven countries. Jamaica is the exception in all the categories and Brazil in some of them.
- Trinidad & Tobago present a better indicator of well-being in all the categories among all the Caribbean countries, and Jamaica presents the worst.
- Colombia, Barbados, Suriname and Trinidad & Tobago obtained scores above average in all the categories. Jamaica scores are below average in all the categories.
- In Colombia, Barbados, Jamaica and Trinidad & Tobago the established

entrepreneurs present better scores than the nascent/new entrepreneurs.

- In Colombia, Barbados, Suriname and Jamaica the nascent/new female entrepreneurs present lower scores than the nascent/new male entrepreneurs. In Trinidad & Tobago, the result is better for the nascent/new female entrepreneurs.
- When nascent/new entrepreneurs driven by opportunity are compared with the ones driven by necessity, different behaviors are observed: Colombia, Suriname, innovation driven, efficiency driven and factor driven economic group presents better well-being levels for the opportunity driven; meanwhile Barbados presents similar well-being levels, but Trinidad & Tobago present better well-being levels for the necessity drive.

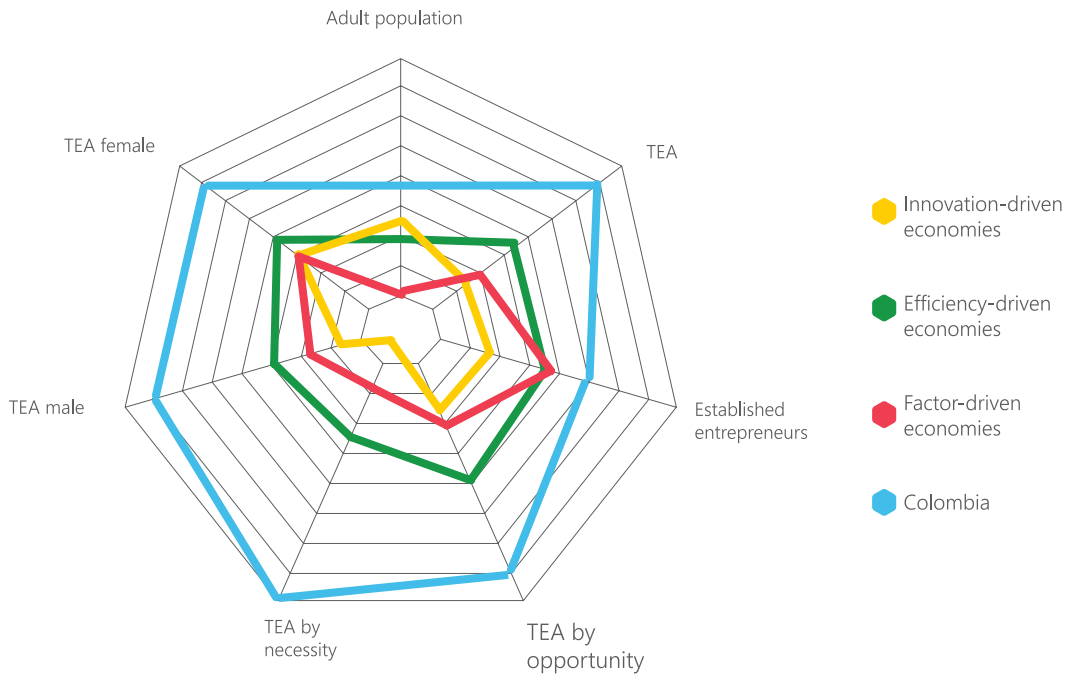
8.2 WORK CONDITIONS AND WORK - LIFE BALANCE.

To evaluate the job satisfaction and the level of balance between work and personal life, the indicators presented in the figure 43 indicate that for all entrepreneurial groups analyzed, the results of Colombian entrepreneurs are higher than those of entrepreneurs of the three country groups.

Comparing Colombia averages for men and women, it was found that there is significant difference between these groups. Comparing opportunity-driven entrepreneurs with necessity-driven entrepreneurs, it is observed that there are no statistically significant differences between the two groups, showing similar levels in the job satisfaction and in the balance between personal and professional life.

When the nascent/new entrepreneurs are compared with the established entrepreneurs it was found that the first group was more satisfied with its work life and its balance between personal life and professional life.

Figure 43 Satisfaction with balance between personal and professional life. 2013



Source: Compiled by authors

8.3 ENTREPRENEURSHIP FRAMEWORK CONDITIONS AND WELL-BEING

When the national experts evaluate the general framework conditions that may allow the entrepreneurs to harmonize their personal and their professional life, they found that there are deficits in the general conditions and in the labor regulations and those are positive conditions in the satisfaction with the personal and professional life of the entrepreneurs with respect to the non-entrepreneurs.

8.4 HEALTH

GEM Colombia in partnership with research teams from GEM Barbados, GEM Jamaica, GEM Trinidad & Tobago, and GEM Suriname, included as a special topic of the research in the APS 2013, a questionnaire with a set of questions oriented to have a measurement about the health condition of the Colombian entrepreneurs to be able to compare them with the employees and with the total adult population.

Table 32 **Well-being. NES 2013.**

	2013
In my country, the general conditions (economic, social, political, cultural) allow people to perfectly harmonize personal and working life	2,72
In my country, Existing labor regulations allow people to perfectly harmonize personal and working life	2,86
In my country, Entrepreneurs usually appear as more satisfied with their working life than non-entrepreneurs	3,43
In my country, Entrepreneurs usually appear as more satisfied with their personal life than non-entrepreneurs	3,52

Source: Compiled by authors

Table 33 **The 5 Dimensions of the EQ-5D-5L Descriptive System and their Levels.**

Level	Mobility	Self-care	Usual Activities (e.g. work, study, housework, family or leisure activities)	Pain/Discomfort	Anxiety/Depression
1	I have no problems in walking about	I have no problems bathing or dressing myself	I have no problems doing my usual activities	I have no pain or discomfort	I am not anxious or depressed
2	I have slight problems in waking about	I have slight problems bathing or dressing myself	I have slight problems doing my usual activities	I have slight pain or discomfort	I am slightly anxious or depressed
3	I have moderate problems in waking about	I have moderate problems bathing or dressing myself	I have moderate problems doing my usual activities	I have moderate pain or discomfort	I am moderately anxious or depressed
4	I have severe problems in waking about	I have severe problems bathing or dressing myself	I have severe problems doing my usual activities	I have severe pain or discomfort	I am severely anxious or depressed
5	I am unable to walk about	I am unable to bathe or dress myself	I am unable to do my usual activities	I have extreme pain or discomfort	I am extremely anxious or depressed

Source: Compiled by authors

The EQ-5D-5L descriptive system that has been shown in several studies and used in different countries, based in the "Self Report Health (SHR)" which has 5 health dimensions that should be evaluated at 5 levels, as indicated in **table 33**, was the methodology used.

In addition to these dimensions, each person was asked to produce an overall rating of their health on a scale of 0 (worst possible health) to 100 (best possible health), called the Visual Analogue Scale (VAS).

Analyzing the percentage of entrepreneurs that score themselves at the levels 1 and 2 of each dimension, it is possible to conclude that entrepreneurs have a good health situation.

In the first three dimensions more than 86.9% of entrepreneurs express a perfect health state (level 1). In the dimensions of pain/discomfort and anxiety/depression, 66.1% of entrepreneurs are in the level 1 and a number close to 30% is at levels 2 and 3. In all dimensions, the health critical situations (levels 4 and 5) were quite low.

In order to achieve an indicator for each of the dimensions in the different groups, an average was developed with the five levels. Given the definitions in table 34, values close to one (1) in any one dimension mean a good health condition; and average values close to five (5) in any of dimensions, indicates a very low health condition.

Table 34 **Health Indicators. Colombia 2013**

Level	Mobility	Self-care	Usual activities	Pain/discomfort	Anxiety/depression
1	86,9	96,4	87,9	68,6	66,1
2	7,6	1,7	7,3	21,2	20,5
3	3,7	0,7	3,3	7,6	10,7
4	0,8	0,1	0,8	1,5	1,3
5	0,4	0,2	0,1	0,3	0,6

Source: Compiled by authors

Table 35 presents the results obtained in each of the dimensions for nascent/new entrepreneurs (TEA), established entrepreneurs, for no entrepreneurs and for total population. From the data several conclusions can be drawn:

- The nascent/new entrepreneurs have better indicators in four dimensions than the established entrepreneurs. Here there may be an age effect, since in general the first group is younger than the second group.
- The nascent/new entrepreneurs have better indicators in dimensions (usual activities, pain/discomfort, and anxiety/depression) than people who are actively seeking employment.
- In general, Colombian population has good indicators in relation to health.
- In all cases, the health problems recognized as the most delicate are anxiety/depression (1.43 - 1.54) and the less serious is self-care ability (1.01-1.03).

Table 35 **Health dimensions by categories. Colombia 2013**

	TEA	EB	Seeking employment	Total population
Mobility	1.14	1.16	1.11	1.18
Self-care	1.03	1.01	1.02	1.03
Usual activities	1.14	1.20	1.16	1.11
Pain/discomfort	1.33	1.42	1.35	1.41
Anxiety/depression	1.46	1.46	1.54	1.43

Source: Compiled by authors

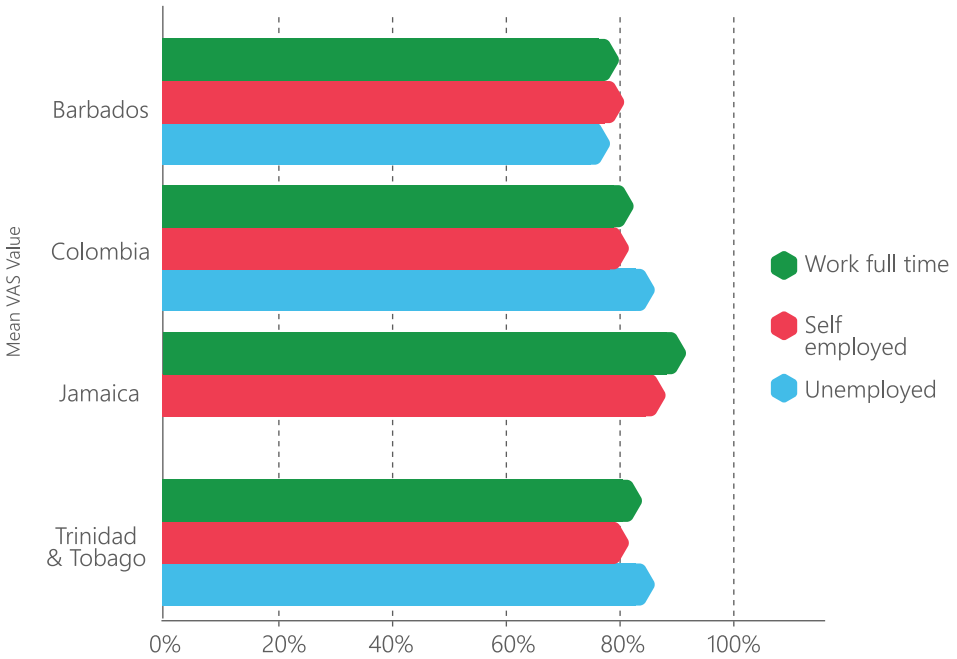
Using the VAS scale generated in each country for each segmented group: full-time employees, entrepreneurs and unemployed (**Figure 44**), it was found that generally, entrepreneurs rate their health slightly lower than full-time employees and the unemployed. In the Colombian case, the results are: employees (86.1%), entrepreneurs (84.4%) and unemployed (85.7%).

When analyzing the VAS scale by age group, significant differences are found as indicated in figure 45 which shows that the 18-24 age group scored their health level in 88.9 while the 55-64 age group scored their health level in 79.4.

In figure 46 it is possible to observe that the overall self-evaluation of entrepreneurs (nascent/new and established) is better than the Colombian total population. Comparing nascent/new entrepreneurs with established entrepreneurs, the first group in all age groups, except 45-55, assigns better health indicators.

Another topic of interest is the way in which

Figure 44 **VAS Scores for Respondents Broken down by Work Arrangements. 2013**



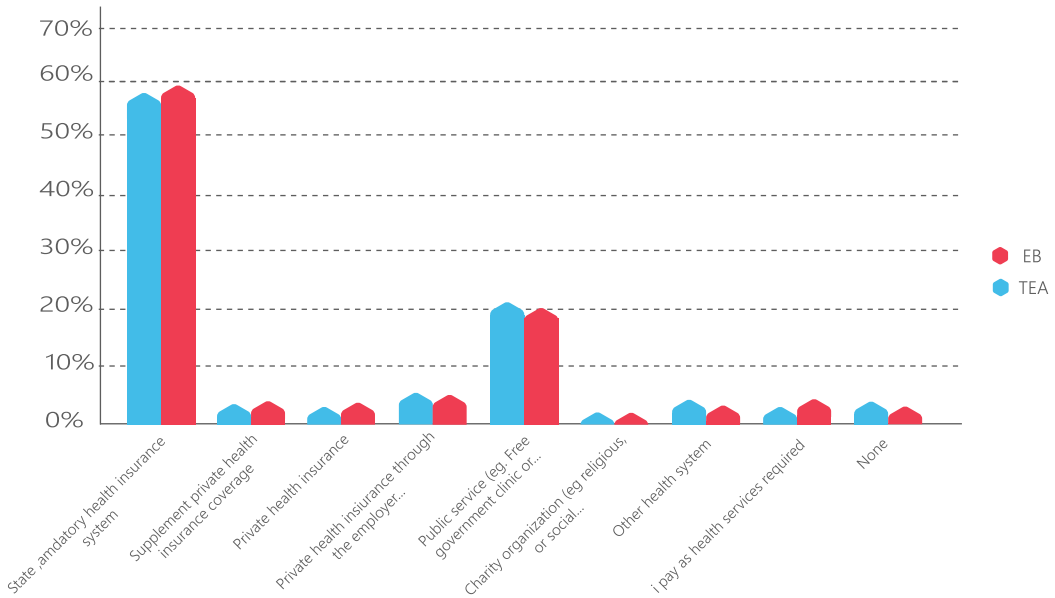
Source: Compiled by authors

entrepreneurs meet their health needs. DANE (2012) indicates that 90.6% of the Colombian population is affiliated to the general system of social security health. Figure 41 presents the health systems that are using the nascent/new entrepreneurs and the established entrepreneurs. It can be observed that a lower proportion (5%) is not affiliated to any health system.

Figure 45 VAS by age and groups. Colombia 2013

Source: Compiled by authors

Figure 46 Health System affiliations. Colombia 2013



Source: Compiled by authors

5 ENTREPRENEURIAL FRAMEWORK CONDITIONS

As indicated in section 2, the GEM model considers that socio economic growth is associated to the business dynamic and this business dynamic in turn is associated by the established and the new entrepreneurs. But it also considers that to have more and better entrepreneurs some Entrepreneurial Framework Conditions (EFC) should be developed, because if they are at a favorable level, it will influence the entrepreneurial opportunities, capacities, preferences, aptitudes, aspirations, activities, and the decision of the entrepreneurs to develop more and better enterprises.

To measure these conditions, GEM applies a National Expert Survey (NES) to 36 national experts in 9 core areas. In 2013, Colombia surveyed 36, in the 9 different areas indicated in the GEM model: Social and cultural norms, physical infrastructure, internal market openness, commercial and business infrastructure, R&D transfer, education and training, government programs, government policies, financing.

Each expert, evaluates a different set of statements using a Likert scale from 1 to 5, where 5 indicates that the statement fosters entrepreneurship and 1 that the statement blocks entrepreneurship.

For every EFC, a Likert evaluation for each country or group of countries was averaged to get an indicator about it. Table 36 presents the nine entrepreneurial framework conditions (Education, Government policy and International markets divided in two groups) for the different Latin American countries and for some country groups.

This table shows than in many of the countries the experts considered that many of the EFC were at the low level (below 3) and in very few cases a figure above four was provided as average.

Among the Latin America & the Caribbean countries, the relative situations are as follows:

Table 36 Entrepreneurial framework conditions in the world. 2013

	Financing	Public Policy (General policies)	Government policy (Regulation)	Government programs	Education (Primary & Secondary)	Education (University)	R&D transfer	Commercial infrastructure	Internal market (Dynamics)	Internal market (Openness)	Physical infrastructure	Cultural & Social norms
Latin America & Caribbean	**2,4**	**2,6**	**2,3**	**2,6**	**2,0**	**3,1**	**2,2**	**2,9**	**2,7**	**2,4**	**3,7**	**2,9**
Argentina	2,2	2,0	1,5	2,8	2,2	3,3	2,7	3,0	3,2	2,6	3,5	3,2
Barbados	2,0	2,8	2,0	2,3	2,0	2,7	1,6	3,0	2,5	2,4	3,4	2,5
Brazil	2,3	2,5	1,7	2,3	1,5	2,4	2,0	2,4	3,0	2,1	3,0	2,7
Chile	2,5	3,4	3,2	3,1	1,7	2,7	2,2	2,7	2,4	2,3	4,2	2,8
Colombia	2,3	2,8	2,6	3,0	2,3	3,2	2,4	2,8	2,9	2,8	3,3	3,1
Ecuador	2,2	2,9	2,1	2,5	2,0	3,2	2,1	2,9	2,3	2,4	4,2	3,1
Guatemala	2,2	2,2	2,1	2,4	1,8	3,2	2,2	3,4	2,4	2,4	3,8	2,6
Jamaica	2,9	2,6	2,2	2,3	2,2	3,5	2,3	3,2	3,8	2,7	3,8	3,5
Mexico	2,4	3,0	2,2	3,1	2,0	3,3	2,6	2,7	2,5	2,4	3,9	3,1
Panama	2,4	2,7	2,8	3,1	1,6	2,8	2,3	2,8	2,8	2,4	3,8	3,0
Peru	2,3	2,0	2,1	2,2	2,1	2,8	1,9	2,7	2,6	2,6	3,4	2,9
Suriname	2,4	2,4	2,2	2,0	2,1	3,3	1,8	2,8	2,7	2,2	3,3	2,8
Trinidad & Tobago	3,1	2,2	2,2	2,4	2,1	3,0	2,0	3,1	2,8	2,0	3,8	3,0
Uruguay	2,2	2,3	2,8	3,2	1,7	3,5	3,0	3,1	2,0	2,8	3,8	2,4
Middle East & North Africa	**2,6**	**2,3**	**2,1**	**2,1**	**1,8**	**2,7**	**2,2**	**2,8**	**3,3**	**2,4**	**3,6**	**2,9**
Sub-Saharan Africa	**2,5**	**2,5**	**2,2**	**2,3**	**2,1**	**2,7**	**2,0**	**2,8**	**3,2**	**2,7**	**3,0**	**2,9**
Asia Pacific & South Asia	**3,0**	**2,8**	**2,6**	**2,7**	**2,2**	**2,9**	**2,6**	**3,1**	**3,6**	**2,7**	**3,8**	**3,2**
Europe-Non-EU28	**2,5**	**2,5**	**2,5**	**2,6**	**2,3**	**2,9**	**2,5**	**3,1**	**3,1**	**2,5**	**3,6**	**2,7**
Europe-EU28	**2,6**	**2,6**	**2,4**	**2,8**	**2,1**	**2,8**	**2,5**	**3,2**	**3,1**	**2,6**	**4,0**	**2,6**
North America	**2,4**	**2,7**	**2,0**	**2,6**	**2,0**	**2,9**	**2,3**	**3,1**	**3,1**	**2,6**	**3,8**	**3,2**

Source: Compiled by authors

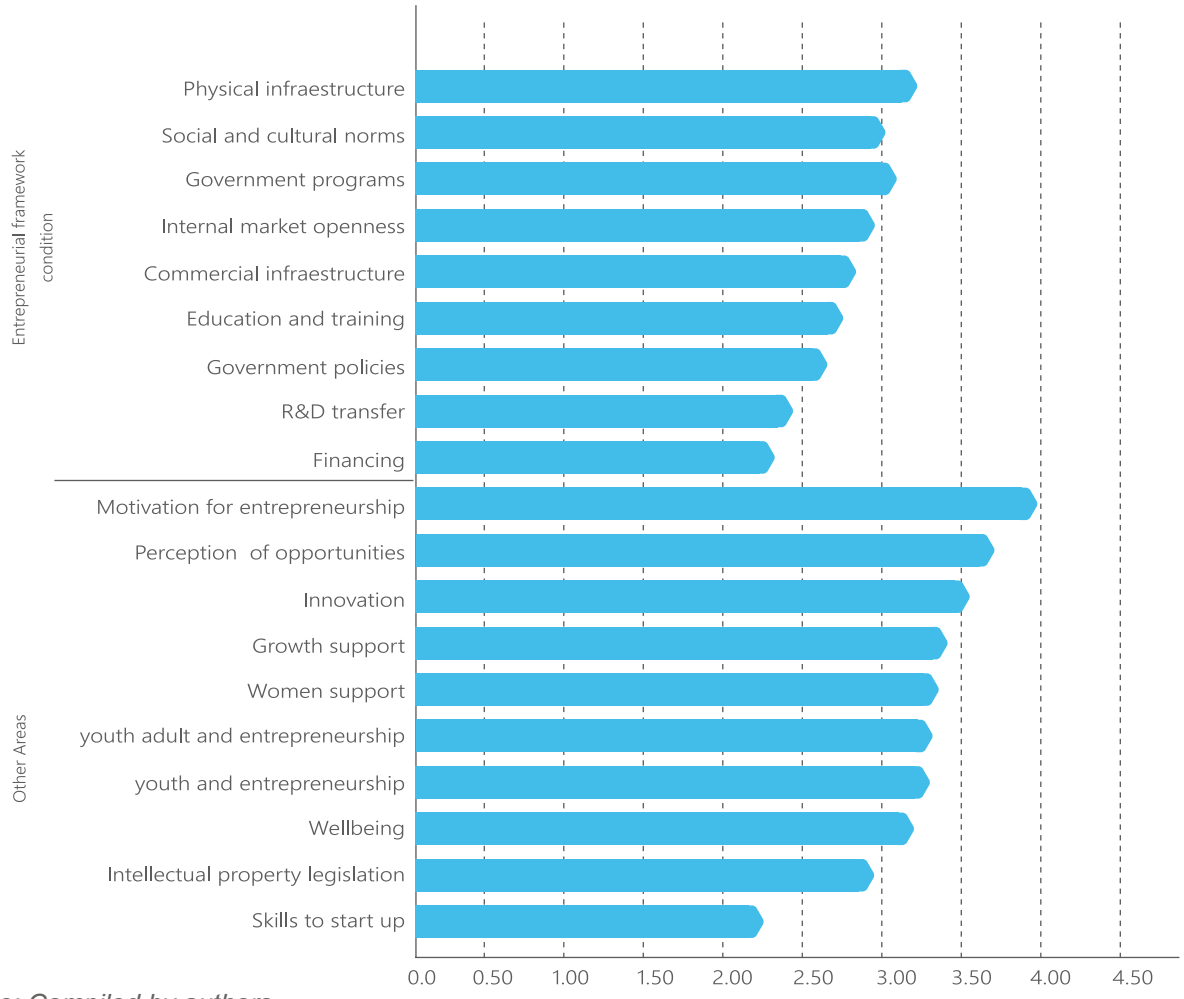
- In Financing, Trinidad & Tobago have the highest value (3.1) whereas Barbados has the lowest one (2.0)
- In Public policy (regulation), Chile with 3.4 is at the top and Peru and Argentina (2.0) are at the bottom.
- In Public policy (general), Argentina with 1.5 is the one with the lowest acceptance and Panama and Uruguay with 2.8 are the ones with the best situation.
- In Public policy (regulation), Brazil (1.7) has the less favorable conditions and Chile (3.2) the best one.
- In Government programs, Suriname (2.0) presents a very low condition and Uruguay (3.2) is at the top.
- In Education (primary and secondary), the lower level is Brazil (1.5) and the higher one is Colombia (2.2). This condition received an extremely low value for all the Latin American countries but also very

low value for most of the country groups.

- In Education (university), Jamaica and Uruguay (3.5) are the leaders and Brazil (2.4) is the country with the lowest score.
- The critical situation of R&D transfer moves from Barbados (1.6) to Uruguay (3.0) with an average for the Latin America & the Caribbean of 2.2.
- Commercial Infrastructure was evaluated in the range Brazil (2.4) to Guatemala (3.4).
- In internal market (dynamics), the indicator moves from Uruguay (2.0) to Jamaica (3.8).
- Internal market (openness) was best evaluated in Uruguay and Colombia (2.8) and worst evaluated in Trinidad & Tobago (2.0).
- The physical infrastructure in Uruguay (2.4) received the lowest score and in Chile (4.2) had the highest score.
- Cultural and Social norms fluctuated from 2.4 in Uruguay to 3.5 in Jamaica.

These results show without doubt that significant work has to be done in all the Latin

Figure 47 **Entrepreneurial framework conditions. NES Colombia 2013**



Source: Compiled by authors

American & the Caribbean countries to improve the level of the framework conditions: The fact that only two of the twelve EFC received a score above 3.0, which means average, indicates the entrepreneurial environment is far from a favorable one.

Figure 47 integrates the Colombian results for the EFC in the 2013 GEM cycle:

- In the traditional 9 entrepreneurial framework conditions, only three of them (physical infrastructure, socio cultural norms and governmental programs) obtained an indicator higher than 3. The other conditions presented values between 2.25 and 2.8; that indicates the existence of significant limitations in the conditions to foster the entrepreneurial activity.
- In the other areas, that were evaluated in 2013, the scores obtained go from 2.29 (skills for start-up) to 3.96 (motivation for entrepreneurship), showing in general better results that the 9 traditional framework conditions.

Even though through the document some of the NES results have been analyzed, it is important to consider in detail, some of them to be able to generate some policy recommendations.

Table 37 presents the results of the components of financing conditions for 2012 and 2013, and it can be observed that in the experts' opinion, the financing condition shows no improvement trend since 2012, specially, two of them:

- Sufficient government subsidies available for new and growing firms
- Sufficient funding available from private individuals (other than founders) for new and growing firms.

Table 37 Financing (2012-2013)

	2012	2013
There is sufficient equity funding available for new and growing firms	2,10	2,06
There is sufficient debt funding available for new and growing firms	2,34	2,46
There are sufficient government subsidies available for new and growing firms	2,84	2,54
There is sufficient funding available from private individuals (other than founders) for new and growing firms	2,51	2,23
There is sufficient venture capitalist funding available for new and growing firms)	2,18	2,12
There is sufficient funding available through initial public offerings (IPOs) for new and growing firms	2,07	2,09

Source: Compiled by authors

Also, with regard to other entrepreneurial conditions, the score obtained in the "financing" condition is very low. The design and effective implementation of new financing mechanisms (agile, appropriate, and effective coverage) are required for all new businesses. The strengthening of: grant funds, seed capital, credit lines with suitable conditions, network of private investors (angels groups and venture companies), incentives to invest in new companies, associative systems etc., are urgent elements in the business environment.

Table 38 presents the results for several factors that measure the "R&D transfer" condition. When the results of 2012 and 2013 are analyzed, the scenario is quite negative, since the indicators are low and have been declining from 2012 to 2013.

The lack of capacity of the growing firms to buy/develop/adapt the latest technologies (1,94), the lack of an efficient transfer of science, technology and knowledge from the university and research centers (2.42), the lack of adequate subsidies (2.24), the lack of support to engineers and scientists to commercialize their ideas (2.31) are all significant limitations to the development of the Colombian enterprises in terms of use of new technologies, innovation, competitivity and international market orientation.

It is necessary to design and implement some specific actions to solve the limitations: Increase the investment in R&D, increase the number of people with high academic degrees and with research orientation, increase the support to applied research, increase the connections between universities and research centers with enterprises through the financing of projects oriented to transfer research and development results either by Colciencias and/or royalties, and/or inter institutional agreements.

Some specific policy recommendations are:

- Integrate entrepreneurship and new enterprise creation in the curricula of all engineering, science and technology programs.

Table 38 **Research & development transfer (2012-2013)**

	2012	2013
New technology, science, and other knowledge are efficiently transferred from universities and public research centers to new and growing firms	2,50	2 ,42
New and growing firms have just as much access to new research and technology as large, established firms	2,30	2 ,28
New and growing firms can afford the latest technology	2 ,10	1,94
There are adequate government subsidies for new and growing firms to acquire new technology	2,40	2 ,24
The science and technology base efficiently supports the creation of world-class new technology-based ventures in at least one area	3,30	3 ,19
There is good support available for engineers and scientists to have their ideas commercialized through new and growing firms	2,60	2 ,31

Source: Compiled by authors

- To include in all the educational process of all knowledge areas the development of competences as: innovation, creativity, technology appropriation and adaptation.
- To give academic recognition and economic value to the work oriented to the use of the research results for the establishments of new enterprises (spin-off, technology commercialization, patents, trade markets, business models, etc.).
- Increase the public and private investment in R&D, in programs to enhance the relationship between university and enterprises oriented to transfer technology.
- Develop support programs specifically oriented to help new and existing enterprises in the acquisition of new technologies and in the commercialization of their technological developments.

Table 39 presents the evaluation of factors associated to "Government policy". Again, some factors have low scores with a decreasing trend from 2012 to 2013. The low scores in the factors related to: taxes, permits, regulations, licensing, public procurement and bureaucracy, in general, indicate the need to work stronger in these areas.

Several recommendations arise here:

- It is necessary that the policy to support new entrepreneurs and new enterprises should create mechanisms in its procurement processes, so that new businesses can have a share in them.
- It is urgent to review the taxation conditions (fees, procedures, penalties, incentives, etc.) so that the process of creation and entrepreneurial development will be facilitated.

The capacity of the entrepreneur to go from an idea to the realization of a successful business

Table 39 Government policies (2012-2013)

Government Policies	2012	2013
Government policies (e g , public procurement) consistently favor new firms	2,77	2,35
The support for new and growing firms is a high priority for policy at the national government level	3,40	3,37
The support for new and growing firms is a high priority for policy at the local government level	3,06	2,85
New firms can get most of the required permits and licenses in about a week	2,43	2,35
The amount of taxes is NOT a burden for new and growing firms	2,49	2,31
Taxes and other government regulations are applied to new and growing firms in a predictable and consistent way	2,98	3,06
Coping with government bureaucracy, regulations, and licensing requirements it is not unduly difficult for new and growing firms	2,63	2,51

Source: Compiled by authors

is related to the entrepreneurial competences (knowledge, abilities and skills) the individual may have developed in the educational process.

Table 40 presents the scores obtained by factors that define the condition: "Education and training" for 2012 and 2013. Although all components have improved from 2012 to 2013, the results are still very low especially at the primary and secondary education.

It seems that the strategies defined by the 1014/2006 law are not operating as expected. The higher education institutions (colleges and universities) show average results.

Several specific actions are suggested:

- Enriching the curriculum at all levels not only with the development of labor competences but also with entrepreneurial competences. Therefore it is necessary to identify and convene a group of Colombian experts in the subject of entrepreneurial education to develop an advisory team to the Ministry of Education that assists in the design of the curricula needed to develop the entrepreneurial competences that facilitate the creation of new businesses.
- Boosting concepts of creativity and innovation in all educational programs, in a transversal way, to develop an attitude in the people that consider these two elements as permanent elements in all vital activities.
- Allocate resources for research in entrepreneurship education and for the training of teachers, professors and national researchers in this area.
- Implement training programs in all educational segments that enable the development of entrepreneurial skills and allow to know: how?,

Table 40 **Education and training (2012-2013**

Education & Training	2 012	2013
Teaching in primary and secondary education encourages creativity, self-sufficiency, and personal initiative	2,60	2,59
Teaching in primary and secondary education provides adequate instruction in market economic principles	2,30	2,15
Teaching in primary and secondary education provides adequate attention to entrepreneurship and new firm creation	2,30	2,03
Colleges and universities provide good and adequate preparation for starting up and growing new firms	2,90	2,86
The level of business and management education provide good and adequate preparation for starting up and growing new firms	3,40	3,42
The vocational, professional, and continuing education systems provide good and adequate preparation for starting up and growing new firms	3,10	3,31

Source: Compiled by authors

where?, with whom?, when?, and how? to create and manage an enterprise.

- Adjust the 1014/2006 law to enforce the development of entrepreneurial competences at all the educational levels and in all the education programs.

Table 41, presents the scores obtained by the factors that define the condition: "Government programs" for 2012 and 2013. The factors best evaluated are: "Science parks and business incubators provide effective support for new and growing firms" and "there are an adequate number of government programs for new and growing businesses".

The following recommendations are made:

- To assign resources to programs oriented to support new entrepreneurs and new enterprises covering all the steps of the entrepreneurial pipeline. The models developed by Centro Alaya (Universidad Icesi), by Cedezos (Medellín), by Chamber of Commerce (Bogotá), should be expanded to other regions and to other population segments.
- To design and implement development and training programs to form and train: advisors, consultants, mentors, coaches, specifically for the activities related to the creation and development of new enterprises.

Table 42 presents the results for the condition: "Commercial and Professional infrastructure". For nascent and new entrepreneurs, to have access to a good commercial infrastructure (suppliers and subcontractors) and professional (advisors, consultants, partners, etc.), it is a required condition to develop businesses effectively. The results are low in most of the categories and decreasing with respect to 2012.

Table 41 Government programs (2012-2013)

	2012	2013
A wide range of government assistance for new and growing firms can be obtained through contact with a single agency	2,59	2,53
Science parks and business incubators provide effective support for new and growing firms	2,90	3,44
There are an adequate number of government programs for new and growing businesses	3,23	3,29
The people working for government agencies are competent and effective in supporting new and growing firms	3,21	3,24
Almost anyone who needs help from a government program for a new or growing business can find what they need	2,82	2,71
Government programs aimed at supporting new and growing firms are effective	2,83	2,85

Source: Compiled by authors

Table 42 **Commercial & Professional Infrastructure (2012-2013)**

	2012	2013
There are enough subcontractors, suppliers, and consultants to support new and growing firms	3,17	3,11
New and growing firms can afford the cost of using subcontractors, suppliers, and consultants	2,39	2,36
It is easy for new and growing firms to get good subcontractors, suppliers, and consultants	2,76	2,66
It is easy for new and growing firms to get good, professional legal and accounting services	2,84	3,03
It is easy for new and growing firms to get good banking services (checking accounts, foreign exchange transactions, letters of credit, and the like)	2,72	2,77

Source: Compiled by authors

Some of the recommendations presented in the condition "Government programs "are valid here because the lack of institutions that provide advisory, consulting, mentoring, etc., under appropriate conditions of cost and orientation are critical factors. Also, the problem of banking services and its cost demand a stronger interaction between the government and the financial institutions to facilitate the processes of banking of new businesses.

Table 43 presents the factors associated with the condition: "Internal market openness" and here although the scores are low, an improving trend in the 2012-2013 period is shown.

The government needs to develop and implement policies in a joint effort with the private sector to improve the conditions on the internal market openness, especially when the free trade agreements and the revaluation policy have been favoring the foreign entrepreneurs and enterprises.

Table 43 **Internal Market Openness (2012 - 2013)**

	2012	2013
The markets for consumer goods and services change dramatically from year to year	2,50	2,91
The markets for business-to-business goods and services change dramatically from year to year	2,50	2 ,91
New and growing firms can easily enter new markets	2,60	2,71
The new and growing firms can afford the cost of market entry	2,40	2 ,54
New and growing firms can enter markets without being unfairly blocked by established firms	2,80	2,74
The anti-trust legislation is effective and well enforced	2,60	3,00

Source: Compiled by authors

The difficulties in finding a real niche in the market may be one of the main causes of the number of "nascent entrepreneurs" that are not able to get to the "new entrepreneur" stage. If the new businesses cannot access the local market, there is not a chance that they will be able to get a place in the international markets.

It is very important to redesign the formation and development programs, to develop in the new entrepreneurs their market orientation competence and to promote in them the international market orientation. Models like ExpoPyME should be revised and re implemented to improve the international orientation of entrepreneurs and enterprises.

Table 44 indicates that the factors associated to the condition: "Cultural and social norms" have improved from 2012 to 2013.

In the entrepreneurial pipeline analysis, it was shown that the adult population has a very positive perception of entrepreneurship, but in the potential entrepreneurs a high fear to failure was shown. The experts identify the existence of a problem with the risk taking. In the case of women, the study shows that the risk propensity of them is lower, and this may be the partial explanation for the lower scores that women show along the entrepreneurial pipeline.

Several recommendations arise from these results:

- It is very important to keep the process of recognizing the positive contribution of entrepreneurs in the construction of social values, well-being, jobs, wealth, etc., and in that sense media diffusion about these subjects should be a priority to motivate more people to be part of the entrepreneurial culture.
- The cultural norms: self-sufficiency, autonomy, personal initiative, risk-taking, creativity, and innovativeness, associated with an entrepreneurial culture, should be developed and reinforced by the educational system, through entrepreneurial education, in order to develop a stronger entrepreneurial culture.
- There should be some recognition processes to the entrepreneurs that are doing significant contributions

Table 44 Cultural and Social Norms (2012 - 2013)

	2012	2013
The national culture is highly supportive of individual success achieved through own personal efforts	3,30	3,44
The national culture emphasizes self-sufficiency, autonomy, and personal initiative	3,22	2,19
The national culture encourages entrepreneurial risk-taking	2,64	2,72
The national culture encourages creativity and innovativeness	2,82	2,78
The national culture emphasizes the responsibility that the individual (rather than the collective) has in managing his or her own life	3,24	3,33

Source: Compiled by authors

in their region and/or their sector.

Table 45 presents the assessment of the experts to the factors associated with the condition "Physical Infrastructure". This is the condition best scored along the years, and generally shows a trend to improvement.

The support that the physical infrastructure provides to new and growing firms is the category with the lowest scores. It is associated with the problems of good highways, transportation system, airports and in general, logistic. This is a very sensitive area because it affects the value generation and hinders the openness and the internationalization of the enterprises, by increasing the costs.

The higher cost and the lower quality of communications and basic utilities are problems that should be considered because they will reduce the competitivity of the Caribbean enterprises.

There are two other conditions that should be addressed in the entrepreneurship policy formulation: the competences to create new enterprises and the intellectual property rights. The first one could be solved with the different recommendations provide in this section about the implementation of the entrepreneurial education in all educational programs and at all educational levels. The second one requires a governmental action that would make the process to register intellectual property easier and cheaper and consequently the payments for the use of that intellectual property would be mandatory.

Table 45 **Physical Infrastructure (2011 - 2013)**

	2012	2013
The physical infrastructure (roads, utilities, communications, waste disposal) provides good support for new and growing firms	2,18	2,50
It is not too expensive for a new or growing firm to get good access to communications (phone, Internet, etc.)	3,10	3,53
A new or growing firm can get good access to communications (telephone, internet, etc.) in about a week	3,31	3 ,43
New and growing firms can afford the cost of basic utilities (gas, water, electricity, sewer)	3,27	3 ,35
New or growing firms can get good access to utilities (gas, water, electricity, sewer) in about a month	3,81	3,79

Source: Compiled by authors

10 RECOMENDATIONS

There are several recommendations that arise from the 2013 study:

- To improve the socio-cultural perceptions about entrepreneurship, it is necessary to carry out joint actions with the media to highlight the social and economic value of enterprises, entrepreneurs and entrepreneurial culture. This process should make visible the achievements and contributions of successful entrepreneurs to the country. The Colombian entrepreneurial history should be researched and diffused throughout the education system.

- Given the "leaks" that exist between the stage of socio-cultural perception and potential entrepreneurs, it is necessary to investigate the reasons that make that almost 30% of Colombians stop their entrepreneurial initiatives due to the fear of failure, and to design actions to reduce this figure. It is important to improve the education processes, at all levels, to guarantee that the capabilities to identify opportunities and to startup and operate new enterprises are kept at the higher levels .

- Colombia has the highest rate worldwide about intentional entrepreneur and it is necessary to know the reasons for this fact. Very detailed research to identify the causes of this phenomenon should be supported.

- Among intentional entrepreneur and nascent entrepreneur there is a "leakage" of almost 40 percentage points, which may be due to a very well done motivational stage toward entrepreneurship, but also to a support system that do not provide enough support to move from intention to action. Specialized programs to support this conversion

process should be designed and implemented to reduce the presented gap.

- Given the fact that from 3 nascent entrepreneurs (0-3 months) only 2 become new entrepreneurs, and from every 2 new entrepreneurs (3-42 months) only one becomes an established entrepreneur (more than 42 months), changes in the current support mechanisms are required. It is necessary to validate the potential of programs such as the Centro Alaya at Universidad Icesi in Cali, the Cedezos in Medellín, the Bogotá Emprende program to identify best practices focused to support entrepreneurs in these stages.

- In order to improve the technological level and competitiveness of Colombian enterprises several actions are needed including: strong drive to implement entrepreneurial educational in all engineering, science and technology programs, support for research projects that may lead in spin-offs.

- To resolve the problem of the lack of innovation in Colombian enterprises, several actions are proposed: introduce creativity and innovation as generic skills in all educational processes, financing the establishment and operation of centers of innovation, creating innovation competitions, finance and stimulate the entrepreneurial initiatives that offer innovative products to the market.

- To develop and implement programs that target different age´s niches: youth, young adults and adults.

- The Colombian economy needs to be presence in all global markets, especially those with whom government has signed free trade agreements. Therefore, it is necessary to support nascent and new enterprises that target those markets. Implement and adjust version of programs like ExpoPyME would be an appropriate way to improve the international presence of Colombian enterprises in the world.

- There are differences in entrepreneurial propensities at all stages of entrepreneurial pipeline, between men and women, indicating the need of a detailed research to identify the causes of the phenomenon, and the possible mechanisms of development and support required to bring women entrepreneurs at the same propensity indicators than men.

- Given that the entrepreneurial propensity is positive correlated with the education level, several actions should be intensified in the education of entrepreneurs at the university level, both undergraduate and postgraduate. Research in the different aspects of entrepreneurship should be part of those programs.

- While the 1014 law raised the mandatory courses at primary and secondary levels to encourage the development of entrepreneurial skills, it is necessary to extend it to the university level and make this one of the elements of the accreditation of programs and of IES. This implementation requires an appropriate program design and it is suggested

that the Ministry of Education creates a Colombian commission of experts in entrepreneurial education to design the educational programs and to define a process of teacher training at all levels.

- A special effort should be devoted to improve the conditions of financing, paperwork, taxes, incentives required to encourage the appearance of more and better Colombian enterprises.
- Colciencias must create a national entrepreneurship program to fund research required in this area of knowledge and mechanisms to facilitate transfer of results of research and development to enable the emergence of new business initiatives.
- INNpulsa and the Ministry of Industry, Trade and Tourism, should increase their financial and technical support to the different units that support entrepreneurs looking to improve their development as well as their enterprises.
- It is necessary to develop and implement programs that are specifically adapted to the needs of the regions. The government cannot keep the idea that there is a single national program to support business development.

11 CONCLUSIONS

The main conclusions derived from the GEM 2013 Colombian research are:

- For the country, it is strategic to have annual measurements about the entrepreneurial dynamics, based in a research procedure and in a model proved and improved for more than 15 years. This will allow valid comparison with other countries and economic groups. The government, Chambers of Commerce, and Business Associations should support financially and logistically this type of studies.
- In 2013 the Colombian entrepreneurial pipeline presented higher indicators in all the entrepreneurial stages, except in established entrepreneurs, than the Latin American and the Caribbean pipeline.
- There has been stability in the propensity toward each entrepreneurial stage in the last years, except in the established entrepreneurs where a significant decrease has been occurring.
- The women entrepreneurial pipeline presents lower indicators than the men entrepreneurial pipeline except in the socio cultural acceptance of entrepreneurship.
- In the period 2010-2013 the total early entrepreneurial activity in Colombia (TEA) has been higher that in the innovation and efficiency driven economies and it has presented small fluctuation.
- In 2013 significant variations in TEA between cities were found, when regions were analyzed the changes were smaller.
- For the first time in 8 years, the age group with the highest propensity for creating new enterprises was the 35-44 years group, followed by

the group that has traditionally led , the 25 to 34 years. It is important to highlight that the propensity of the group 55 to 64 has been growing over the years and therefore special actions for this group should be considered.

- There is a direct relationship between educational level and propensity towards entrepreneurship, therefore more efforts should be assigned to the improvement of the coverage and the quality of general education. But very special effort should be oriented to the entrepreneurial education development and improvement.
- The indicator of entrepreneurial motivation due to necessity has been decreasing since 2010.
- There is a trend that indicates that entrepreneurial necessity motivation is higher at the older groups.
- There is a trend that indicates that when the level of household income grows, the motivation by necessity decreases, and TEA grows.
- The highest proportion of entrepreneurial initiatives, either as nascent/new or as established, happens at the service consumer sector.
- Very few of the entrepreneurial initiatives (nascent/new and established) have generated more than 5 jobs, but on a 5-year projection 63% of nascent/new enterprises and 46% of established enterprises will have more than 5 jobs.
- The level of use of the latest technology is quite low in both nascent/new and established enterprises.
- Most of enterprises are aimed at highly competitive markets and offer very similar products to the ones offered by their competitors.
- Very few nascent/new or established enterprises have a significant orientation towards international markets.
- According to experts, the entrepreneurial framework conditions are still at a level lower than the average. The areas of: financing, transfer of research and development, government policies, education and training, commercial and professional infrastructure, opening domestic market, are receiving the worst scores.
- Colombian entrepreneurs in all subgroups analyzed have better indicators of subjective well-being than the entrepreneurs in countries driven by factors, efficiency and innovation. The nascent/new and established entrepreneurs in Colombia present better results than the rest of the adult population. Male entrepreneurs have higher levels of subjective well-being than the female entrepreneurs and the entrepreneurs motivated by opportunity feel better than the entrepreneurs motivated by necessity.
- In terms of the balance between personal and professional life, Colombia has better indicators than the entrepreneurs in the three economic groups, and there are not

differences in the level of entrepreneurs motivated by necessity or by opportunity.

- The consideration about the special topic: "health of entrepreneurs" (measured across 5 indicators: mobility, self-care, usual activities, pain/discomfort and anxiety/depression) indicates that in general, Colombian entrepreneurs suffer less these problems, and that the unemployed suffer more from problems such as anxiety and depression.

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ANNEX 1. Field Research

Universe

The study sample consisted of men and women between 18 and 64 years old, belonging to all socio-economic levels, who live in the 5 main cities (Bogotá, Cali, Medellin, Bucaramanga, Barranquilla), in 6 department capital cities and in 27 municipalities of Colombia, with the purpose of covering urban and rural areas, different regions, different socioeconomic and demographic groups by age. The field research was conducted by the Centro Nacional de Consultoria (CNC) with ongoing support and supervision of the statistical GERA group.

Sample

3,400 surveys distributed as indicated in Table A1 were applied, which allows estimates with a total error margin of 1.7% with a confidence level of 95%, assuming a 50/50 ratio (P = 0.50; Q = 0.50) for dichotomous variables.

Type of Sampling

The technique of stratified random sampling in two stages was used to select the specific person to be interviewed in each household. In each strata the household to be surveyed was selected randomly from census data and then using a random rule the person to be interviewed was chosen. The interviews were done by telephone, In Bogota, a regional study was conducted and the sample selected was 2000 persons.

Departament	Municipality	Region	Sample
Atlántico	Barranquilla	ATLANTICA	137
Bolívar	Cartagena	ATLANTICA	104
Magdalena	Santa Marta	ATLANTICA	47
Sucre	Sincelejo	ATLANTICA	28
Bogotá, D.C.	Bogotá, D.C.	BOGOTA	2000
Antioquia	Medellín	CENTRAL	293
Tolima	Ibagué	CENTRAL	56
Santander	Bucaramanga	ORIENTAL	61
Norte de Santander	Cúcuta	ORIENTAL	67
Valle del Cauca	Cali	PACIFICA	265
Nariño	Pasto	PACIFICA	42
Bolívar	Magangué	ATLÁNTICA	13
Sucre	Corozal	ATLÁNTICA	13
Cesar	Bosconia	ATLANTICA	13
La Guajira	Barrancas	ATLANTICA	12
La Guajira	Hatonuevo	ATLANTICA	12
Bolívar	San Martín de Loba	ATLANTICA	12
Antioquia	Rionegro	CENTRAL	13
Antioquia	Turbo	CENTRAL	13
Antioquia	El Carmen de Viboral	CENTRAL	13
Quindío	Circasia	CENTRAL	12
Huila	San Agustín	CENTRAL	12
Antioquia	Gómez Plata	CENTRAL	12
Cundinamarca	Zipaquirá	ORIENTAL	13
Norte de Santander	Villa del Rosario	ORIENTAL	13
Norte Santander	Pamplona	ORIENTAL	13
Meta	Puerto López	ORIENTAL	12
Santander	Puente Nacional	ORIENTAL	12
Cundinamarca	Yacopí	ORIENTAL	12
Nariño	Ipiales	PACIFICA	13
Valle del Cauca	Jamundí	PACIFICA	13
Valle del Cauca	El Cerrito	PACIFICA	13
Chocó	Istmina	PACIFICA	12
Valle del Cauca	Restrepo	PACIFICA	12
Cauca	Timbiquí	PACIFICA	12
			3.400

ANEXO 2. RESEARCH TEAM

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Vendor: Centro Nacional de Colombia (CNC)

www.centronacionaldeconsultoria.com

Web page:

GEM Colombia

www.gemcolombia.org

GEM Caribbean

www.gemcaribbean.org

ANNEX 4. PARTICIPATING TEAMS IN GEM 2013

Data from the 70 participating teams of GEM 2013, sponsors, vendors, methodology used in the surveys, number of surveys and contact data are included in the GEM global report, that can be download in the web page: www.gem-consortium.org

ANNEX 5. GLOSSARY OF MAIN MEASURES AND TERMINOLOGY

Measure	Description
Entrepreneurial Attitudes and Perceptions	
Perceived Opportunities	Percentage of 18–64 age group who see good opportunities start a firm in the area where they live.
Perceived Capabilities	Percentage of 18–64 age group who believe to have the required skills and knowledge to start a business.
Entrepreneurial Intention	Percentage of 18–64 age group (individuals involved in any stage of entrepreneurial activity excluded) who intent to start a business within three years.
Fear of Failure	Percentage of 18–64 age group with positive perceived opportunities who indicate that fear of failure would prevent them from setting up a business.
Entrepreneurship as Desirable Career Choice	Percentage of 18–64 age group who agree with the statement that, in their country, most people consider starting a business as a desirable career choice.
High-Status Successful Entrepreneurship	Percentage of 18–64 age group who agree with the statement that, in their country, successful entrepreneurs receive high status.
Media Attention for Entrepreneurship	Percentage of 18–64 age group who agree with the statement that, in their country, they will often see stories in the public media about successful new businesses.
Entrepreneurial Activity	
Nascent Entrepreneurs	Percentage of 18–64 age group who are currently a nascent entrepreneur, i.e., actively involved in setting up a business they will own or co-own but this business has not paid salaries, wages or any other payments to employees and to the owners for more than three months.
New Entrepreneurs	Percentage of 18–64 age group who are currently an owner-manager of a new business, i.e., owning and managing a running business that has paid salaries, wages or any other payments to employees or owners for more than three months, but not more than 42 months.
Total Early-Stage Entrepreneurial Activity (TEA)	Percentage of 18–64 age group who are either a nascent entrepreneur or a new entrepreneur.
Established Entrepreneurs	Percentage of 18–64 age group who are currently owner-manager of an established business, i.e., owning and managing a running business that has paid salaries, wages or any other payments to the employees and to the owners for more than 42 months.
Discontinuous Entrepreneurs	Percentage of 18–64 age group who have, in the past 12 months, discontinued a business, either by selling, shutting down or otherwise discontinuing an owner/management relationship with the business. Note: This is not a measure of business failure rates.
Necessity-Driven Entrepreneurial Activity	Percentage of those involved in total early-stage entrepreneurial activity (as defined above) who are involved in entrepreneurship because they had no other option for work
Opportunity-Driven Entrepreneurial Activity	Percentage of those involved in total early-stage entrepreneurial activity (as defined above) who (i) claim to be driven by opportunity, as opposed to finding no other option for work; and (ii) who indicate the main driver for being involved in this opportunity is being independent or increasing their income, rather than just maintaining their income
Entrepreneurial Aspirations	
Job Expectation	Percentage of total early-stage entrepreneurs (as defined above) who expect to employ in the next five years at least: less than five persons (low), between five and twenty persons (medium), more than twenty persons (high).
New Product-Market Oriented Early-Stage Entrepreneurial Activity	Percentage of total early-stage entrepreneurs (as defined above) who indicate that their product or service is new to at least some customers and indicate that not many businesses offer the same product or service.
International Orientation Entrepreneurial Activity	Percentage of total early-stage entrepreneurs (as defined above) with more than 25% of customers coming from other countries.
Entrepreneurial Framework Condition (EFC´s)	
Financing	The availability of financial resources, equity, and debt, for new and growing firms including grants and subsidies.
Government policies	The extent to which government policies reflected in taxes or regulations or the application of either are - neutral or encourage new and growing firms.
Government programs	The presence and quality of direct programs to assist new and growing firms at all levels of government (national, regional, municipal).
Education and training	The extent to which training in creating or managing small, new, or growing business is incorporated within the educational and training system at all levels.
R&D transfer	The extent to which national research and development will lead to new commercial opportunities and whether or not these are available for new, small and growing firms.
Commercial & professional infrastructure	The presence of commercial, accounting, and other legal services and institutions that allow or promote the emergence of new, small, or growing businesses
Market openness	The extents to which commercial arrangements undergo constant change and redeployment as new and growing firms compete and replace existing suppliers, subcontractors, and consultants.
Physical & services infrastructure	Ease of access to available physical resources communication, utilities, transportation, land or space at a price that does not discriminate against new, small or growing firms.
Cultural and social norms	The extent to which existing social and cultural norms encourage, or do not discourage, individual actions that may lead to new ways of conducting business or economic activities and may, in turn, lead to greater dispersion in personal wealth and income.

ANNEX 6. ENTREPRENEURIAL ATTITUDES AND PERCEPTIONS IN THE GEM 2013 COUNTRIES

		Perceived Opportunities	Perceived Capabilities	Fear of failure	Intentional entrepreneur	Good career	High status	Media coverage
Factor driven economies	Algeria	61,9	55,5	32,9	36,0	79,6	84,2	47,4
	Angola	56,7	56,3	63,7	38,3	66,8	72,6	62,1
	Botswana	65,9	67,4	18,6	59,2	80,7	83,7	85,6
	Ghana	69,3	85,8	24,6	45,6	81,6	94,1	82,4
	India	41,4	55,8	38,9	22,8	61,5	70,4	61,4
	Iran	37,0	56,5	36,4	30,6	64,1	82,4	59,9
	Libya	52,3	58,6	33,0	62,1	85,2	84,3	38,2
	Malawi	78,9	89,5	15,1	66,7			
	Nigeria	84,7	87,0	16,3	46,8	81,2	61,9	76,5
	Philippines	47,9	68,4	36,2	44,1	84,9	79,3	86,8
	Uganda	81,1	83,8	15,0	60,7	88,3	95,3	87,5
	Vietnam	36,8	48,7	56,7	24,1	63,4	81,5	80,5
	Zambia	76,8	79,6	15,4	44,5	66,5	71,2	69,0
	Total	**60,8**	**68,7**	**31,0**	**44,7**	**75,3**	**80,1**	**69,8**
Efficiency driven economies	Argentina	40,9	61,7	24,9	31,0			
	Bosnia	23,3	50,5	26,1	21,8	82,3	71,9	39,2
	Brazil	50,9	52,6	38,7	27,2	84,6	82,2	84,1
	Chile	68,4	59,6	28,0	46,5	69,1	67,2	66,3
	China	33,1	36,3	34,3	14,4	69,6	73,5	71,3
	Colombia	67,7	57,8	31,8	54,5	90,9	71,4	67,5
	Croatia	17,6	47,2	35,2	19,6	61,5	43,1	42,9
	Ecuador	57,3	74,3	34,9	39,9	66,5	67,7	79,1
	Estonia	46,1	40,0	38,8	19,4	53,2	58,6	40,7
	Guatemala	58,8	66,4	33,3	39,0	86,8	71,5	55,1
	Hungary	18,9	37,5	44,8	13,7	45,7	74,1	28,4
	Indonesia	46,7	62,0	35,2	35,1	70,8	79,8	75,3
	Jamaica	51,2	79,1	27,0	39,5	79,4	80,9	81,7
	Latvia	34,8	47,8	41,6	22,7	61,4	59,5	58,6
	Lithuania	28,7	35,4	41,7	22,4	68,6	57,2	47,6
	Macedonia	37,2	49,7	35,6	29,1	69,5	67,9	66,8
	Malaysia	40,7	28,0	33,3	11,8	41,8	45,0	62,2
	Mexico	53,6	58,5	31,6	16,9	57,8	62,3	50,8
	Panama	58,7	66,4	28,9	27,0	64,4	59,2	70,4
	Peru	61,0	62,2	25,7	33,9	70,4	71,2	71,5
	Poland	26,1	51,8	46,7	17,3	66,8	59,9	58,5
	Romania	28,9	45,9	37,3	23,7	73,6	72,6	61,3
	Russia	18,2	28,2	29,0	2,6	65,7	68,0	49,0
	Slovakia	16,1	51,0	33,2	16,4	49,2	58,5	51,7
	South Africa	37,9	42,7	27,3	12,8	74,0	74,7	78,4
	Suriname	52,7	53,5	24,4	13,1	75,6	79,3	65,9
	Thailand	45,3	44,4	49,3	18,5	74,5	74,8	77,2
	Uruguay	47,9	61,1	26,9	25,3	58,1	56,0	57,5
	Total	**41,7**	**51,8**	**33,8**	**24,8**	**67,8**	**67,0**	**61,4**

	Belgium	31,5	33,8	46,6	7,8	54,8	52,2	43,9
	Canada	57,4	48,5	35,2	13,5	60,6	70,1	69,6
	Czech Republic	23,1	42,6	35,8	13,7		47,8	
	Finland	43,8	33,3	36,7	8,3	44,3	85,5	68,5
	France	22,9	33,2	41,1	12,6	55,3	70,0	41,4
	Germany	31,3	37,7	38,6	6,8	49,4	75,2	49,9
	Greece	13,5	46,0	49,3	8,8	60,1	65,1	32,4
	Ireland	28,3	43,1	40,4	12,6	49,6	81,2	59,9
	Israel	46,5	36,2	51,8	24,0	60,6	80,3	49,1
	Italy	17,3	29,1	48,6	9,8	65,6	72,4	48,1
	Japan	7,7	12,9	49,4	4,1	31,3	52,8	57,6
	Korea	12,7	28,1	42,3	12,1	51,3	67,8	67,6
	Luxembourg	45,6	43,3	42,9	14,1	39,4	70,6	36,3
Innovation driven economies	**Netherland**	32,7	42,4	36,8	9,1	79,5	66,2	55,2
	Norway	63,7	34,2	35,3	5,2	49,3	75,5	56,9
	Portugal	20,2	48,7	40,1	13,2			
	Puerto Rico	28,3	53,0	24,6	13,1	17,9	50,1	68,8
	Singapore	22,2	24,8	39,8	15,1	50,9	59,4	75,3
	Slovenia	16,1	51,5	29,6	12,4	57,4	68,1	50,5
	Spain	16,0	48,4	36,3	8,4	54,3	52,3	45,6
	Sweden	64,4	38,8	36,6	9,5	52,0	71,5	58,5
	Switzerland	41,5	44,7	28,2	9,8	40,5	65,0	47,8
	Taiwan	42,0	27,2	40,7	27,8	73,0	64,5	87,1
	Trinidad & Tobago	58,0	75,3	19,8	28,7	79,5	72,0	61,0
	United Kingdom	35,5	43,8	36,4	7,2	54,1	79,3	49,6
	United States	47,2	55,7	31,1	12,2			
	Total	**33,4**	**40,6**	**38,2**	**12,3**	**53,5**	**67,3**	**55,7**

ANNEX 7. ENTREPRENEURIAL ACTIVITIES IN THE GEM 2013 COUNTRIES

		Nascent entrepreneur	New entrepreneur	TEA	Established entrepreneur	Discontinuance	TEA by necessity	TEA by opportunity
Factor driven economies	Algeria	2,2	2,6	4,9	5,4	3,3	21,3	62,3
	Angola	8,0	14,7	22,2	8,5	24,1	26,1	40,3
	Botswana	11,0	10,2	20,9	3,4	17,7	26,3	52,0
	Ghana	8,5	17,7	25,8	25,9	8,3	33,3	44,1
	India	5,1	4,9	9,9	10,7	1,5	38,8	35,9
	Iran	6,4	6,1	12,3	10,6	5,7	38,0	35,8
	Libya	6,6	4,7	11,2	3,4	8,1	8,1	60,3
	Malawi	10,1	18,8	28,1	12,0	30,2	43,7	29,4
	Nigeria	20,0	20,7	39,9	17,5	7,9	25,4	52,3
	Philippines	12,0	6,7	18,5	6,6	12,3	43,6	38,0
	Uganda	5,6	20,0	25,2	36,1	20,1	25,1	47,5
	Vietnam	4,0	11,5	15,4	16,4	4,2	25,1	62,2
	Zambia	22,6	18,0	39,9	16,6	19,8	38,8	37,2
	Total	**9,4**	**12,0**	**21,1**	**13,3**	**12,6**	**30,3**	**46,0**
Efficiency driven economies	Argentina	10,5	5,6	15,9	9,6	5,5	29,8	47,4
	Bosnia	5,8	4,6	10,3	4,5	6,2	58,9	22,0
	Brazil	5,1	12,6	17,3	15,4	4,7	28,6	57,4
	Chile	15,4	9,6	24,3	8,5	7,6	20,1	57,7
	China	5,2	8,9	14,0	11,0	2,7	33,9	35,9
	Colombia	13,6	10,3	23,7	5,9	5,4	18,1	26,7
	Croatia	6,3	2,0	8,3	3,3	4,5	37,4	29,8
	Ecuador	25,3	13,6	36,0	18,0	8,3	33,6	32,1
	Estonia	8,8	4,5	13,1	5,0	2,1	14,8	50,1
	Guatemala	7,6	4,9	12,3	5,1	3,0	31,4	44,2
	Hungary	6,0	3,7	9,7	7,2	2,9	28,0	38,7
	Indonesia	5,7	20,4	25,5	21,2	2,4	25,4	43,7
	Jamaica	8,0	6,0	13,8	6,3	7,4	40,6	34,2
	Latvia	8,1	5,3	13,3	8,8	3,5	21,2	52,7
	Lithuania	6,1	6,4	12,4	8,3	3,5	23,3	55,2
	Macedonia	3,4	3,5	6,6	7,3	3,3	61,0	22,9
	Malaysia	1,5	5,2	6,6	6,0	1,5	18,4	64,9
	Mexico	11,9	3,3	14,8	4,2	6,6	6,7	26,3
	Panama	15,4	5,2	20,6	3,5	3,4	18,6	39,8
	Peru	17,8	5,9	23,4	5,4	4,2	22,5	54,2
	Poland	5,1	4,3	9,3	6,5	4,0	47,4	32,7
	Romania	6,2	4,2	10,1	5,3	4,3	31,6	31,6
	Russia	3,0	2,8	5,8	3,4	1,6	35,4	42,0
	Slovakia	6,1	3,6	9,5	5,4	5,5	40,2	40,2
	South Africa	6,6	4,0	10,6	2,9	4,9	30,3	31,5

	Belgium	3,1	1,9	4,9	5,9	1,9	29,0	43,9
	Canada	7,8	4,7	12,2	8,4	4,4	15,1	66,9
	Czech Republic	4,9	2,7	7,3	5,3	3,4	22,7	60,3
	Finland	2,7	2,7	5,3	6,6	2,0	17,9	66,0
	France	2,7	1,8	4,6	4,1	1,9	15,7	60,9
	Germany	3,1	2,0	5,0	5,1	1,5	18,7	55,7
	Greece	3,3	2,3	5,5	12,6	5,0	23,5	35,8
	Ireland	5,5	3,8	9,2	7,5	2,5	18,0	43,8
	Israel	5,3	4,8	10,0	5,9	4,8	17,4	49,2
	Italy	2,4	1,1	3,4	3,7	1,9	18,7	18,4
	Japan	2,2	1,5	3,7	5,7	1,5	25,0	59,6
	Korea	2,7	4,2	6,9	9,0	2,5	36,5	51,1
	Luxembourg	6,0	2,8	8,7	2,4	2,8	5,6	56,6
Innovation driven economies	**Netherland**	4,7	4,8	9,3	8,7	2,1	8,0	67,1
	Norway	2,9	3,4	6,3	6,2	1,6	4,0	60,8
	Portugal	4,2	4,2	8,2	7,7	2,8	21,4	50,7
	Puerto Rico	6,6	1,8	8,3	2,0	1,8	21,5	42,9
	Singapore	6,4	4,4	10,7	4,2	3,3	8,4	68,8
	Slovenia	3,6	2,9	6,5	5,7	2,6	24,1	53,4
	Spain	3,1	2,2	5,2	8,4	1,9	29,2	33,2
	Sweden	5,9	2,5	8,2	6,0	2,4	9,7	58,4
	Switzerland	4,5	3,7	8,2	10,0	2,3	7,5	67,2
	Taiwan	3,3	5,0	8,2	8,3	5,0	28,7	45,8
	Trinidad & Tobago	11,4	8,5	19,5	11,4	4,1	11,2	76,0
	United Kingdom	3,6	3,6	7,1	6,6	1,9	16,1	45,2
	United States	9,2	3,7	12,7	7,5	3,8	21,2	57,4
	Total	**4,7**	**3,3**	**7,9**	**6,7**	**2,8**	**18,3**	**53,7**

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