



# Colombia National Report 2012







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# GLOBAL ENTREPRENEURSHIP MONITOR CARIBBEAN

COLOMBIAN NATIONAL REPORT 2012

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*Este trabajo se llevó a cabo con la ayuda de una subvención del Centro Internacional de Investigaciones para el Desarrollo (IDRC), Ottawa, Canadá*

Universidad Icesi  
Santiago de Cali, October 2013



IDRC | CRDI

Global Entrepreneurship Monitor Caribbean: 2012 Colombian National Report  
/ Rodrigo Varela V., Ph. D., Jhon Alexander Moreno, Juan David Soler. Cali:  
Universidad Icesi, Ediciones Icesi 2013.

96 p.; 21.5 cm x 28 cms

ISSN 2357-3597

## Global Entrepreneurship Monitor



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Sponsoring Institutions:  
International Development Research Centre - Canada

ISSN 2357-3597

Cover design and interior page: Atelier 33  
Style correction:  
Editorial Coordination: Jhon Alexander Moreno  
Printing: Asterisco Impresores

Printed in Colombia  
November 2013

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### Acknowledgements

The GEM Caribbean project and the Center for Entrepreneurship Development at Universidad Icesi thank several institutions that have been of valuable support for the development of this research:

- The International Development Research Center of Canada for the financial support and the constant academic support given by Carolina Robino.
- To the GEM Colombian team, integrated by Universidad del Norte, Universidad de los Andes, Universidad Javeriana de Cali, Universidad Icesi, who gave access to the Colombian database.
- To GERA and all participating GEM 2012 national teams for allowing us to use their aggregated data.
- To the authors of the 2012 GEM Global Report, from which ideas, graphics and texts were derived to enrich this report.
- To Lois Stevenson who provided valuable insights to this report.

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## LIST OF ABBREVIATIONS

**APS:** Adult Population Survey  
**CATI:** Computer Aided Telephone Interview  
**CONFECAMARAS:** Colombian Confederation of Chambers of Commerce  
**DANE:** Colombian National Department of Statistics  
**EB:** Established Business  
**EU:** European Union  
**EFC:** Entrepreneurial Framework Condition  
**GEM:** Global Entrepreneurship Monitor  
**GNPPC:** Gross National Product Per Capita  
**GNP:** Gross National Product  
**IDRC:** International Development Research Centre of Canada  
**ILO:** International Labor Organization  
**NES:** National Experts Survey  
**OCDE:** Organisation for Economic Co-operation and Development  
**PPP:** Purchase Power Parity  
**PEI:** Institutional Educative Program  
**R&D:** Research and Development  
**SV:** Secondary Variables  
**SMMLV:** Minimum Monthly Salary  
**SBDC:** Small Business Development Centers  
**TEA:** Total Early-Stage Entrepreneurial Activity  
**USD:** United State Dollar  
**USA:** United States of America  
**UN:** United Nations  
**UNESCO:** United Nations Educational, Scientific and Cultural Organization

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## EXECUTIVE SUMMARY

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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 project GEM Caribbean, executed, with the support of the International Development Research Center 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 10.500 interviews were applied to the adult population (18 - 64 years old), and a total of 120 interviews were made to national experts in the framework conditions for entrepreneurship.

This report presents the 2012 results for Colombia, but there is a report for every Caribbean country, an integrated regional report for the Caribbean region and a youth report for the Caribbean, which could be reviewed in: [www.gemcaribbean.org](http://www.gemcaribbean.org)

The entrepreneurial pipeline concept indicates that, in the Caribbean adult population, 78% have a positive socio-cultural perception about entrepreneurship and entrepreneurs, 65% are potential entrepreneurs, 57% are intentional entrepreneurs, 14% are nascent

entrepreneurs, 7% are new entrepreneurs, and 7% of adults in Colombia are established entrepreneurs.

In terms of the total early entrepreneurial activity (nascent + new) the 20% TEA figure keeps Colombia in a high level of entrepreneurial activity: 11th worldwide, 4th among the efficiency driven economies and 4th among Latin America countries.

The differences between men and women in the different entrepreneurial stage are clear, and some research should be executed to find out the main reason for the differences and ways to solve it.

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 kept a low level in terms in business internationalization, innovation, and use of recent technology.

The complete characterization of the youth Colombia entrepreneurs and an entrepreneurial pipeline was developed for them.

The special topic, immigration and entrepreneurship did indicate that in Colombia, the immigrant entrepreneurs have a lower propensity toward early entrepreneurial activity than the native Colombian population.

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

Several policy recommendations are formulated; among them: enhance of the culture of entrepreneurship improving entrepreneurial education, designing support systems and programs for each one of the stages of the entrepreneurial pipeline, designing and implemented specific entrepreneurial development programs for young, 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 a recommendation about how to improve this study and the dissemination process of the results obtained in GEM.





# 1

## INTRODUCTION

A broad agreement exists among the academia and public policy makers about the importance of entrepreneurial activity and entrepreneurs in the dynamics of economic development. New businesses drive innovation, create jobs and, stimulate productivity and competition thereby developing the economy and adding social value.

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

activity and with particular elements in the different stages that compose the entrepreneurial process.

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

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



## GEM CARIBBEAN

**G**EM Caribbean is a three-year project, supported by Canada's International Development Research Centre (IDRC) that will establish, train, and strengthen entrepreneurship research teams in Colombia, Jamaica, 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 help 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 create research findings on entrepreneurship on a national and regional level, with a focus on high-growth entrepreneurship, particularly among youth and women as well as on creative industries in the Caribbean.
- To facilitate discussion of these research findings and policy recommendations among the private sector, policy makers, educators, and researchers, particularly regarding promotion of high-growth entrepreneurship and gender and entrepreneurship.
- To generate a harmonized, publicly available database on entrepreneurship in the Caribbean through the application of the Global Entrepreneurship Monitor (GEM) methodology.





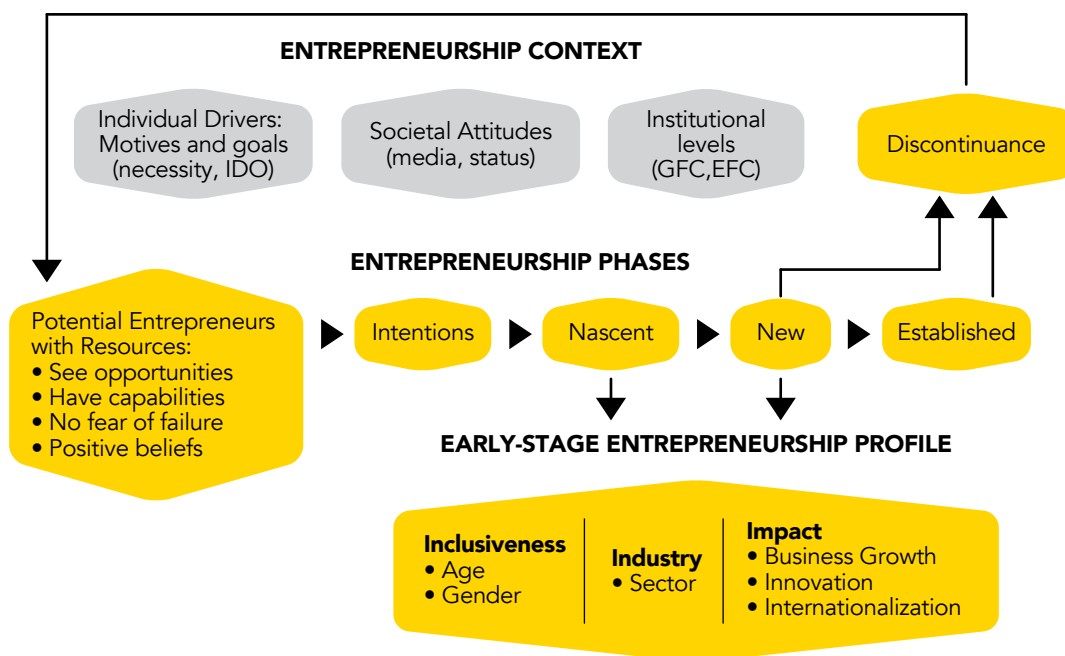


## GEM MODEL

The GEM model defines the adult population as those aged 18-64. Since they are the object of study, a representative sample is interviewed in order to learn about their attitudes, activities and aspirations towards the intention, creation, growth, and closure aspects of entrepre-

neurship. Figure 1 shows the entrepreneurial cycle that it defines the main stages in which GEM divides the entrepreneurial process and classifies the entrepreneurs according to the level of their organizational development:

Figure 1. Entrepreneurial process



Source: Global Entrepreneurship Monitor: 2012 Report (2013)



For the analysis of GEM results, “The Entrepreneurial Pipeline” concept (Varela & Soler, 2013) will be used considering the next stages:

**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 number of people that have a positive perception about entrepreneurship. In the GEM study, people are asked if: 1) they consider starting a new business as 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 mentioned above will foster motivation, professional orientation, commitment and resilience in people, thereby increasing the proportion of adults willing to try to start up new enterprises, and the number of active entrepreneurs willing to keep their business growing.

**Potential Entrepreneurs:** The second stage in the entrepreneurial process determines the number of people that have the potentiality to become an entrepreneur in the future. Potential Entrepreneurs are those who consider that they: are able to perceive opportunities in their area of living, have the necessary skills and abilities to create and manage a new business and have the ability 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.

**Nascent Entrepreneurs:** The fourth stage in the entrepreneurial pipeline happens when people have started to do specific activities in setting business and has 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 has been owning and managing a business and has 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 has 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.

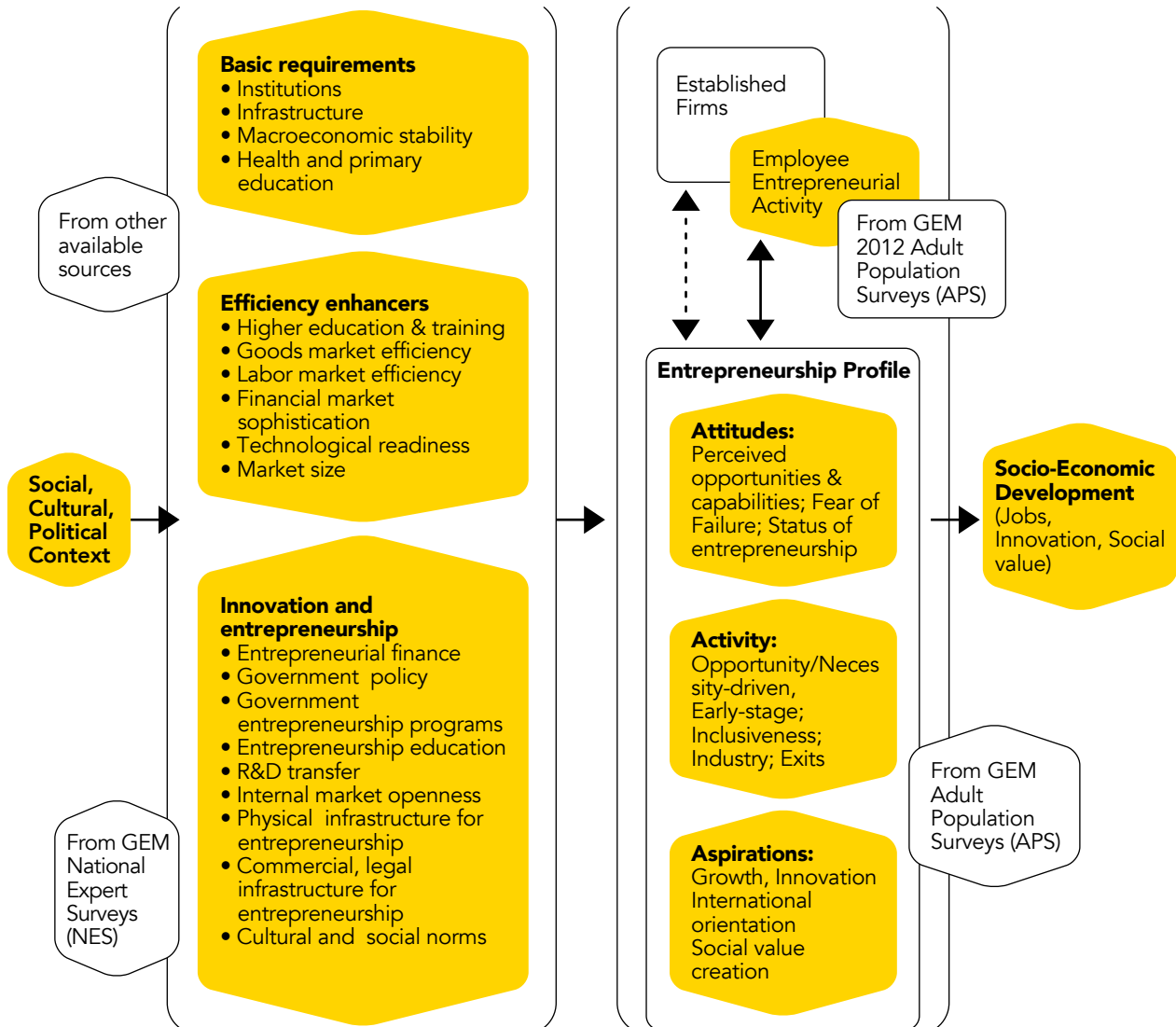
It is important for GEM not only to know the amount of the adult population in any stages of the entrepreneurial pipeline in a given year, but also to understand the entrepreneurial profiles that characterize the persons who are in each of the stages. For this reason, the study takes into consideration variables associates to industry and impact, in addition to demographic components. GEM developed a conceptual model (Figure 2) to explain the relationships that exist between several environmental variables, the entrepreneurial activity and the socioeconomic development indicators; and for that reason it measures those variables and correlate them with the qualitative indicator of the different stages of the pipeline.

The model explains how the social, cultural and political contexts of each country has an influence on three sets of conditions—Basic Requirements, Efficiency Enhancer, Innovation Entrepreneurship—which are the critical factors for the value creation of the socioeconomic dynamism generated by the established firms and the new enterprises. The magnitude of the socio-economic value creation is the defining variable of the socioeconomic development.

In order to increase the socioeconomic development of a country, appropriate policies must be formulated to foster the three sets of conditions so as to create more and better enterprises, more and better entrepreneur and through them more not value

added to the economy and to the society. The main role of GEM is to obtain measurements of different entrepreneurial variables in order to evaluate the effectiveness of these policies.

Figure 2. GEM model



Source: Global Entrepreneurship Monitor: 2012 Report (2013)



## RESEARCH DESIGN



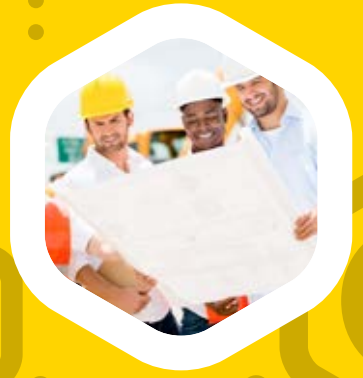
In order to compare outcomes among participating countries, the methodology used in the GEM study is standardized worldwide, and it is composed of three basic processes:

**1. The Adult Population Survey (APS).** It's applied to a sample of the general population aged 18–64. For Colombia in 2012, around 6.334 surveys were done in the country covering 61 municipalities, representing the population in terms of urban, rural, age, gender and economic strata. These surveys measured the proportion of persons 18–64 who belong 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.

**2. The National Expert Survey (NES).** It's applied to a select group of 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 expert added their perception on

the following subjects: opportunity perceptions, skills for start-up, motivation towards entrepreneurship, intellectual property legislation, support to woman entrepreneurs, support to business growth, innovation, immigration, intrapreneurship, entrepreneurial networks, young entrepreneurs. In 2012, Colombia conducted 50 surveys of this type.

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



## MAIN RESULTS



The GEM countries are grouped into three economic groups: factor driven, efficiency driven and innovation driven economies, in line with the classification generated by the World Economic Forum's Global Competitiveness Report (2013). According to this, Colombia is categorized in the efficiency driven group.

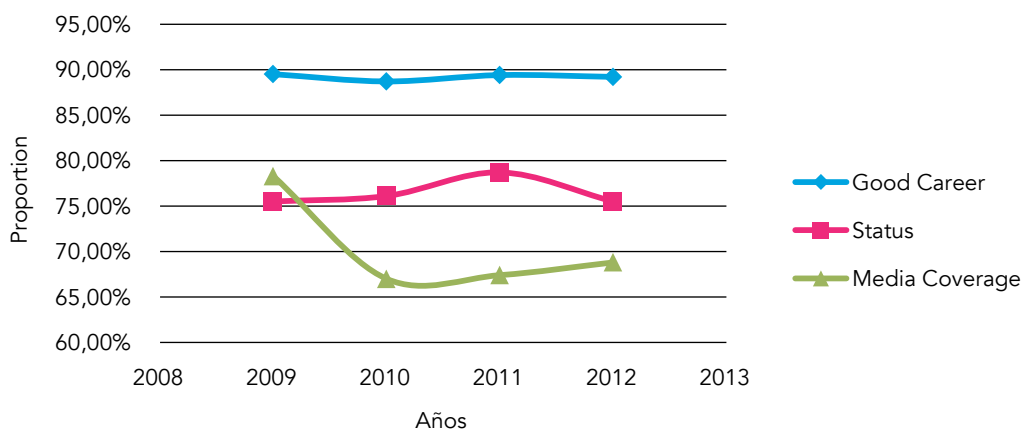
The results are analyzed using the entrepreneurial pipeline concept. In some cases, they will be analyzed in terms of time trends, in

others comparing with the three economic groups and in others with specific countries.

### 5.1 SOCIO CULTURAL PERCEPTION ABOUT ENTREPRENEURSHIP

The socio-cultural perception of entrepreneurship is measured by the percentage of people who has positive perception about three subjects: a) starting a new business is a good career choice; b) entrepreneurs have high social status; c) there is a lot of positive

**Figure 3.** Factors in socio-cultural perception about entrepreneurship. Colombia (2009-2012)



**Source:** Compiled by authors





media attention for entrepreneurship. Table 1 presents the results obtained for Colombia in these three variables from 2009 to 2012.

**Table 1.** Factors in socio-cultural perception about entrepreneurship. Colombia (2009-2012)

	2009	2010	2011	2012
<b>Good career</b>	89.5%	88.7%	89.4%	89.2%
<b>Status</b>	75.5%	76.1%	78.7%	75.5%
<b>Media coverage</b>	78.3%	67.0%	67.4%	68.8%

**Source:** Compiled by authors

As indicated in figure 3, the “Good career” and the “Status” factors have been stable in the 2009-2012 periods, but “Media coverage” had showed a significant decline since 2009.

Table 2, shows that the three factors for Colombia in 2012, are higher than the factors of the three economic groups, in “media coverage” and in “good career”; and better in “status” than the efficiency and the innovation driven economies.

**Table 2.** Factors in socio-cultural perception about entrepreneurship in the economic groups (2012)

	Good career	Status	Media coverage
<b>Factor-driven economies</b>	76%	80%	68%
<b>Efficiency-driven economies</b>	70%	69%	60%
<b>Innovation-driven economies</b>	55%	70%	56%
<b>Colombia</b>	89%	76%	69%

**Source:** Compiled by authors

For the entrepreneurial pipeline concept, an arithmetic average of the three factors is used to characterize the proportion of Colombians who has a positive socio-cultural perception.

Table 3 presents the indicator for the period 2009-2012.

**Table 3.** Indicator of socio-cultural perception about entrepreneurship. Colombia (2009-2012)

	2009	2010	2011	2012
<b>Socio cultural indicator</b>	88.1%	77.3%	78.5%	77.8%

**Source:** Compiled by authors

For all the years, the aggregated Colombian results are better than the three economies groups. This is a positive results indicating that in terms of socio-cultural aspects, the idea of becoming an entrepreneur is accepted by a significant proportion of Colombians (77.8% in 2012).

Table 4 presents the results of the national experts survey (NES) in some variables associated with social perceptions. A scale from 1 to 5 was used, where 5 means “completely true” and 1 “completely false” with the concept. The highest values were assigned to the ideas “most people think of entrepreneurs as competent, resourceful individuals” (3.5/5.0) and “successful entrepreneurs have a high level of status and respect” (3.4/5.0).

The perceptions shown by the adult population and the national experts, indicates that in Colombia, there is a high level of positive socio-cultural perception about entrepreneurship in all the three factors: status, good career and media coverage; nevertheless, the decrease of the solo cultural indicator from 2009 (88.1%) to 2012 (77.8%). Clearly indicates that new actions at the education system and in the media should be taken to recuperate the lost points.

As immediate policy implications, it’s very important to implement some activities as the following ones: Presentation of successful Colombian entrepreneurs in the media, scholarships for advanced entrepreneurial educa-

tional programs, entrepreneurial contest, and training of entrepreneurship professors.

**Table 4.** Socio cultural elements for entrepreneurship. NES Colombia 2012

2012	
The creation of new ventures is considered an appropriate way to become rich	2.9
most people consider becoming an entrepreneur as a desirable career choice	2.9
successful entrepreneurs have a high level of status and respect	3.4
you will often see stories in the public media about successful entrepreneurs	2.9
most people think of entrepreneurs as competent, resourceful individuals	3.5

Source: Compiled by authors

Another important element about social perception toward entrepreneurship is the special characteristics that may apply to the woman. As will be shown along this document, women are usually behind men in terms of their participation in entrepreneurial activities. The experts in the NES survey were asked about their perceptions in social factor to promote women entrepreneurs and table 5 shows that in terms of solo cultural perceptions there is not a very good environment for women to become entrepreneurs.

**Table 5.** Woman support. NES Colombia 2012

2012	
There are sufficient social services available so that women can continue to work even after they start a family	2.9
Starting a new business is a socially acceptable career option for women	3.3
Women are encouraged to become self-employed or start a new business	3.2

Source: Compiled by authors

## 5.2 POTENTIAL ENTREPRENEURS

GEM measures the potential entrepreneurs as the percentage of people who have a positive perception about three subjects: a) ability to perceived business opportunities; b) Confidence on their capacities and skills to create and manage a new business; c) capacity to overcome the fear of failure (this one is evaluated as the complement of those who will be refrain of becoming entrepreneurs due to the fear of failure).

Table 6, shows, that compared to the different economic phases, Colombia presents a higher percentage of persons who perceived good opportunities, presents the second higher percentage, after factor-driven economies, in “perceived capabilities” and the second lowest indicators of fear of failure (35%).

**Table 6.** Factors in potential entrepreneurs. Colombia (2012)

	Perceived opportunities	Perceived capabilities	Fear of failure
Factor-driven economies	63%	71%	28%
Efficiency-driven economies	42%	52%	37%
Innovation-driven economies	32%	38%	45%
Colombia	72%	57%	35%

Source: Compiled by authors

Table 7 shows that these three factors have been changing in Colombia in the 2009-2012 period. The competence to perceive opportunities has shown an increase from a low of 51.2% (2009) to a high of 71.8% (2012), but the competence to start and run the business has been decreasing from 67.6% (2009) to 56.6% (2012), and the fear of failure has increased from 27.6% (2009) to 34.7% (2012).



**Table 7.** Factor in potential entrepreneurs. Colombia (2009-2012).

	2009	2010	2011	2012
<b>Perceived opportunities</b>	51.2%	68.4%	73.1%	71.8%
<b>Perceived capabilities</b>	67.6%	65.2%	61.3%	56.6%
<b>Fear of failure</b>	27.6%	31.4%	32.6%	34.7%

**Source:** Compiled by authors

The entrepreneurial pipeline concept uses as an indicator of potential entrepreneurs, the average of the percentage of people who perceived opportunities, who consider having the capabilities and who are not affected by the fear of failure. As indicated by table 8, this indicator has no changed very significantly in the last four measurements in Colombia.

**Table 8.** Indicators for potential entrepreneurs. Colombia (2009-2012).

	2009	2010	2011	2012
<b>Potential entrepreneurs</b>	63.7%	67.4%	67.3%	64.6%

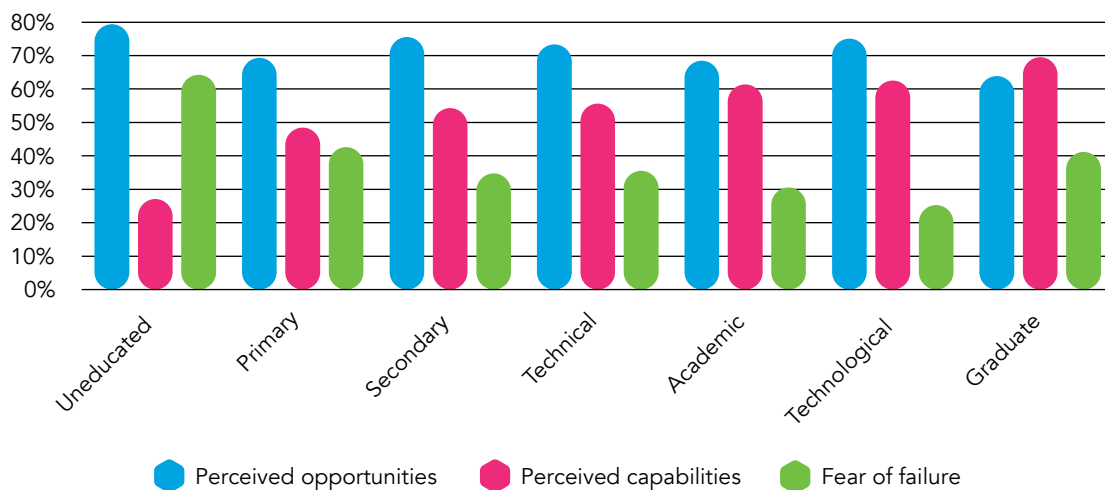
**Source:** Compiled by authors

When these three factors are studied in each of the educational groups (Figure 4), several considerations arise:

- How come that the less educated people show the higher perception of ability to perceived business opportunities?
- The fear of failure decreases as educational level increases, until the technological level and then it start to grow at university and graduate levels. What is the reason?
- The confidence of the capacities and skills to create and manage a new business grows as educational level increases, which seem logical.

Figure 5 presents the results obtained in different countries in the three variables used to measure potential entrepreneurs. Ghana with 79% and Colombia with 72% presents the highest perceptions in terms of capacity to perceive opportunities; in terms of capacity to establish and manage a new business Ghana (86%) and Trinidad & Tobago (76%) are the leaders, and in terms of perceptions about the fear of failure as a barrier to start a

**Figure 4.** Educational level vs. perception of opportunity/capabilities/fear of failure (2012).



**Source:** Compiled by authors

new business, the lowest values are presented by Panama (12%) and Ghana (12%).

In the case of woman, the experts agree that men and women have the same level of knowledge and skills to start a new business (4.0/5.0), but they are not so strong with the idea that men and women got equally exposed to good opportunities to start a new business (3.3/5.0).

However, when the three factors are analyzed by gender, significant difference appear mainly in perceived capabilities with a disparity of 1.31, and fear of failure with a disparity of 0.71. When the indicator of potential entrepreneurs is calculated males had 69.3 and females 59.6. At this initial point of the pipeline, a significant difference starts to show up.

Table 9 shows that women feel the highest fear of failure (40.8%) than men (28.9%) to venture in some entrepreneurial activity; women have a lower perception of capabilities about herself (49.2%) than men (64.4%), but, regarding to the opportunity perception, the disparity between women and men is the lowest of the three factors (1.04).

**Table 9.** Factors of potential entrepreneurs by gender. Colombia (2012)

	Male	Female	Disparity (Male/Female)
Perceived opportunities	73,4%	70,3%	1.04
Perceived capabilities	64,4%	49,2%	1.31
Fear of failure	28,9%	40,8%	1.41

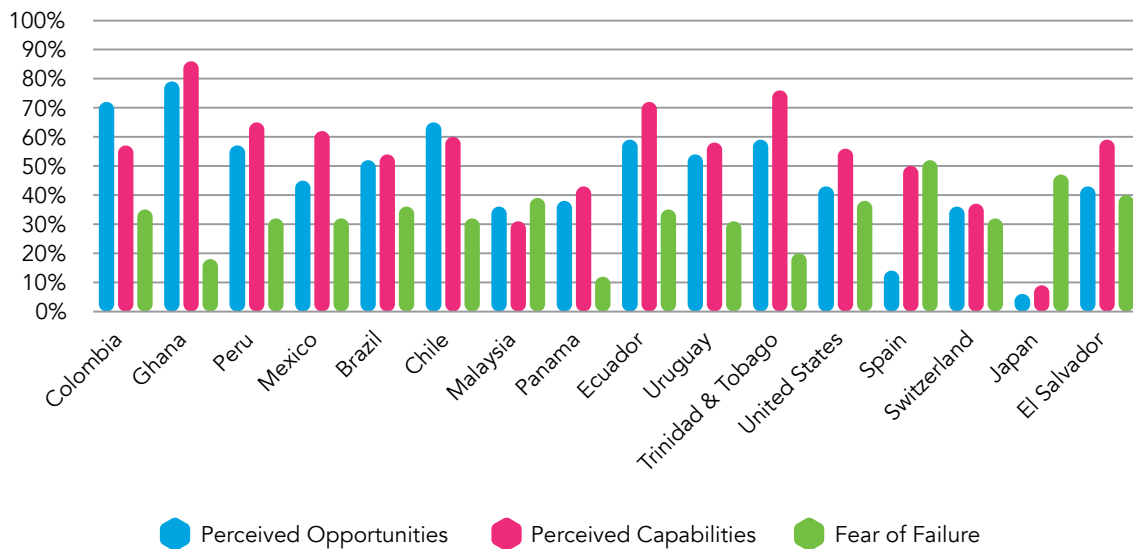
Source: Compiled by authors

Some specific work has to be done with women to improve their basic skills to become a potential entrepreneur: educational programs, career plan development, opportunity identification, risk taking behavior, are needed.

At this level of the pipeline a very significant difference starts to show up between men and women that as will be shown along the report, require the development of a specific policy for the development of women entrepreneurs.

Table 10 presents the evaluation of the experts about the levels that Colombians had

**Figure 5.** Potential entrepreneurs indicators in some countries 2012



Source: Compiled by authors



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 (2009-2012)

	2009	2010	2011	2012
Many people know how to start and manage a high-growth business	2.2	2.4	2.1	2.2
Many people know how to start and manage a small business	2.6	2.9	2.5	2.7
Many people have experience in starting a new business	2.5	2.6	2.2	2.4
Many people can react quickly to good opportunities for a new business	2.6	2.9	2.5	2.5
Many people have the ability to organize the resources required for a new business	2.3	2.7	2.3	2.4

Source: Compiled by authors

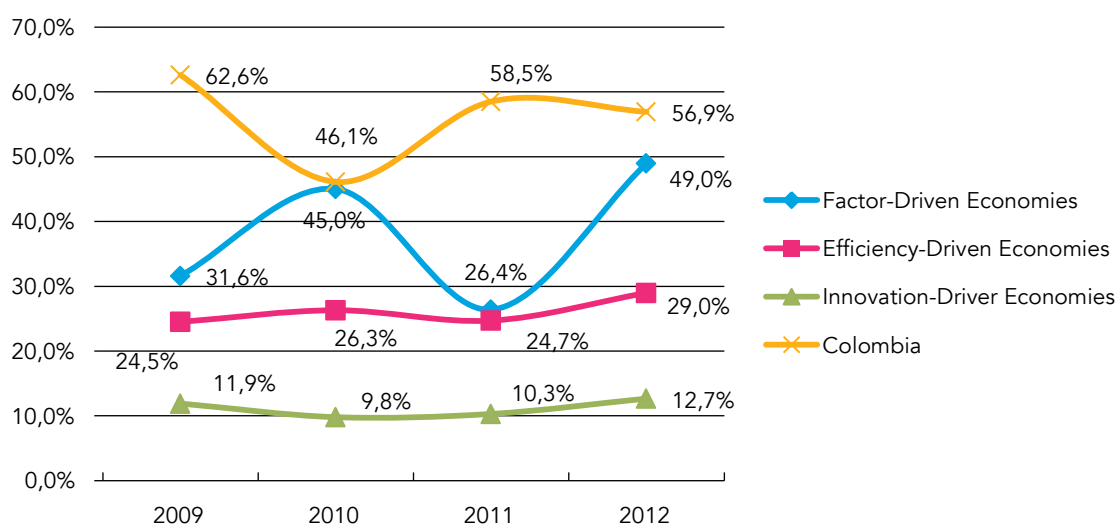
### 5.3 INTENTIONAL ENTREPRENEURS

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

In all the four years the percentage of adult Colombians planning to start a new business in the next three years, is higher than the percentage in the three economic groups. The proportion of intentional entrepreneurs in Colombia is very close to 5 times higher than in the innovation driven economies, which indicates very significant entrepreneurial intentions in the Colombian population.

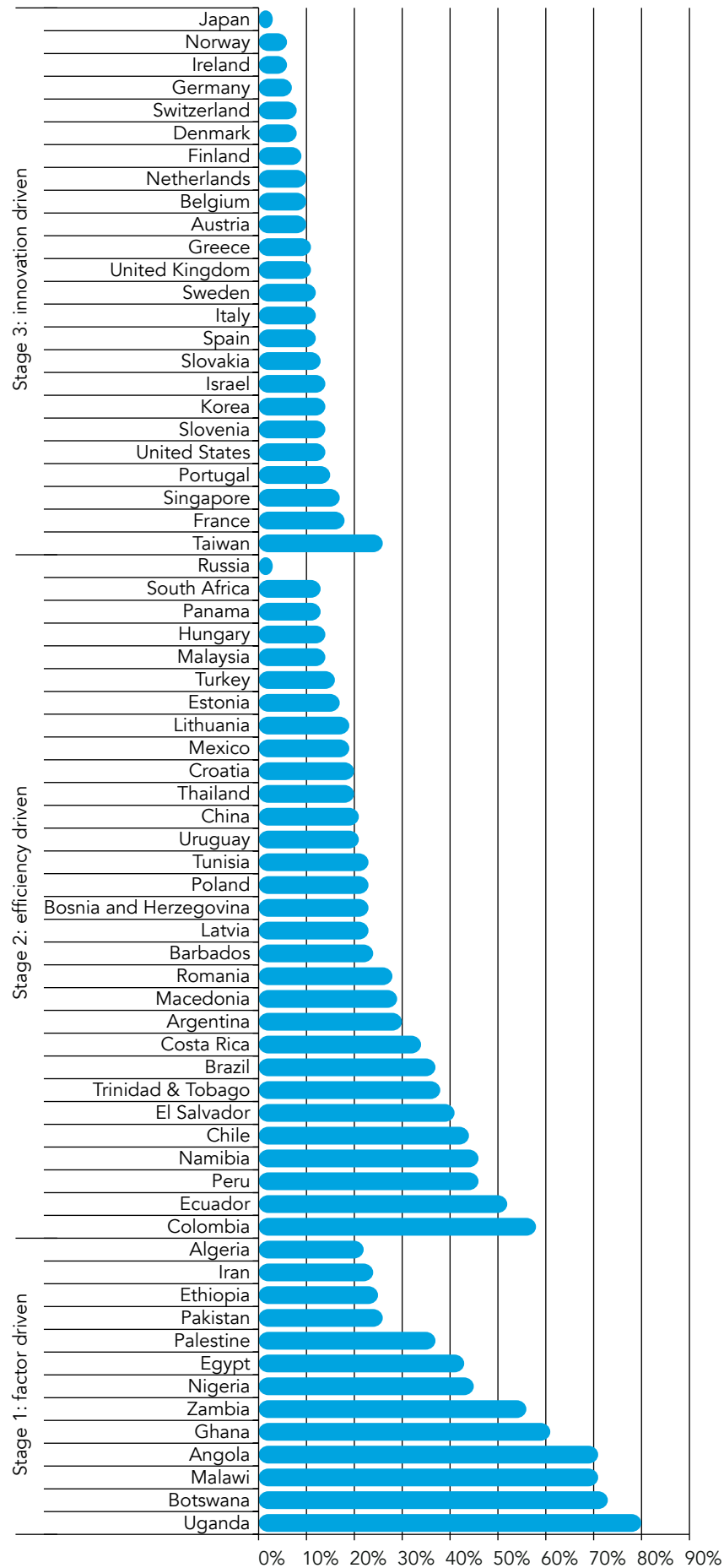
Figure 7 presents the data for each one of the countries in 2012. Colombia with 56.9% presents the highest proportion in all the efficiency driven countries and the 7<sup>th</sup> highest proportion worldwide. This implies that about 17.567.258 Colombians are intentional entrepreneurs. In this stage, it is possible to observe that, in every economy group, there are significant differences among countries.

**Figure 6.** Intentional Entrepreneurs by economic groups (2009 – 2012)



Source: Compiled by authors

**Figure 7. Intentional Entrepreneurs by Countries 2012**



Source: Compiled by authors



To maintain this high level of entrepreneurial intent and to increase the rate at which this intention is converted to nascent entrepreneurship and new business start-ups, 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 a business, and develop an entrepreneurial career plan which allows them to move effectively into the following stages of the entrepreneurial process.

In table 11, the intentional entrepreneur are analyzed by gender, and the males show a higher propensity than the females (disparity factor 1.28)

**Table 11.** Intentional Entrepreneurs by gender. Colombia (2012).

<b>Male</b>	64.0%
<b>Female</b>	50.2%
<b>Disparity</b>	1.28

**Source:** Compiled by authors

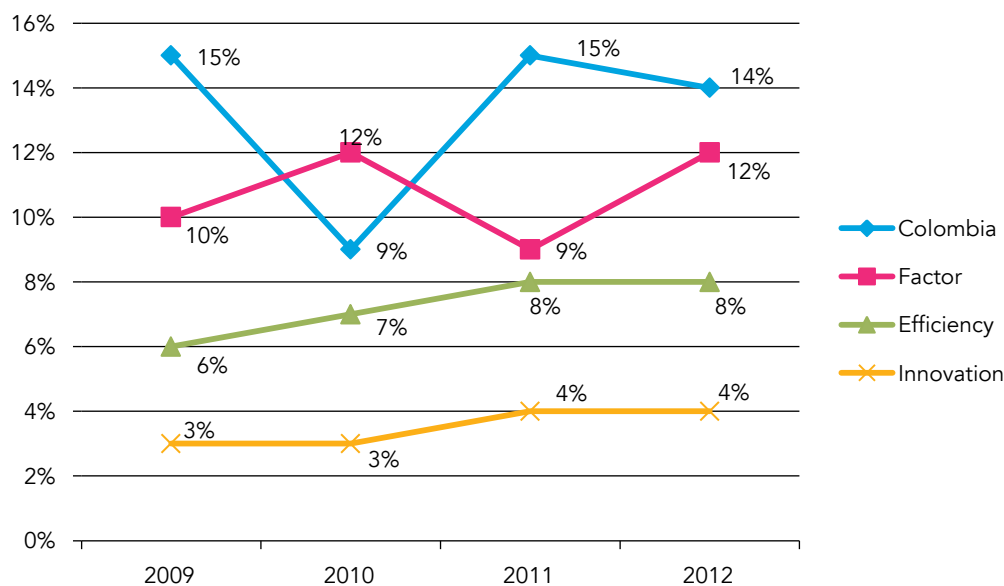
### 5.4 NASCENT ENTREPRENEURS

In GEM, a nascent entrepreneur is an adult (16 – 64 year old) who has been in the last 12 months actively involved in setting up a business they will own or co own, but the business has not paid salaries, wages or any other kind of remuneration to employees or owner for more than 3 months. Figure 8 shows the results obtained in Colombia and the three economic groups, in the last four years.

The Colombian results are very high in this stage of the pipeline, and in all the years, -except 2010 with the factor driven economies-, the result are higher than all the economic groups. 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.

Colombia in 2012, with 14% of nascent entrepreneurs, indicates that about 4.314.765 adults are in the process of starting a business, figure that is twice the Colombian looking for a job.

**Figure 8.** Nascent entrepreneurs (2009–2012)



**Source:** Compiled by authors

For the nascent Colombian entrepreneurs some important elements were identified:

- 37% of them made their first sale in the last three months, 16% made it between the last 3 and 6 months, 19% made it between 6 and 12 months and, 28% made it more than 12 months ago.
- 95% have clearly defined the product or service that they will offer.
- 70% have a business plan.
- 38% have established contact with other people to finance their business.
- 48% have a support human group for the development of their.
- 36% already have purchased machinery, equipment and/or implements for their business.
- 33% already have bought raw materials, inputs, products or services to suppliers.
- 29% consider that their enterprise is in operations.

It's interesting to observe that even though the proportion of nascent entrepreneurs is very high in Colombia, a significant proportion of them (70.9%) consider that they are not in an operational level even though they have made some sales of their product/ services. This fact will be very important to consider when in section 5.6 the total early stage entrepreneurial activity (TEA) will be analyzed.

**Table 12.** Nascent entrepreneurs by gender (2012).

<b>Male</b>	15.0%
<b>Female</b>	12.3%
<b>Disparity</b>	1.25

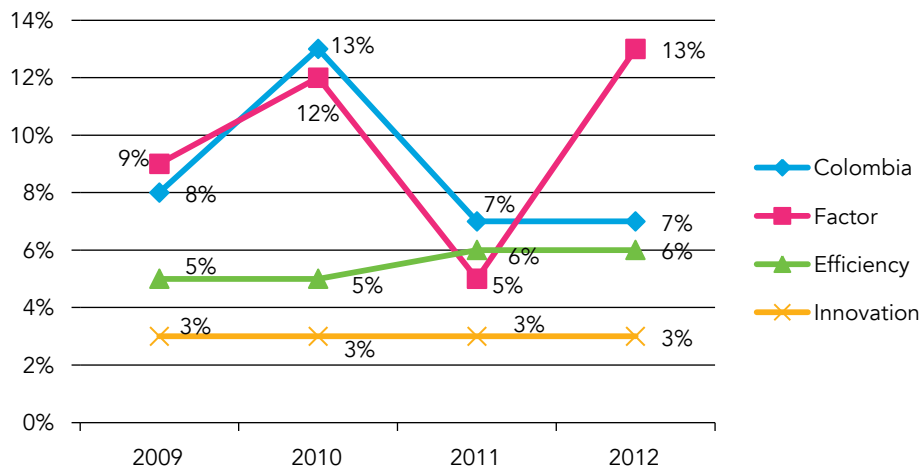
**Source:** Compiled by authors

When the nascent entrepreneurs are analyzed by gender (Table 12), the males with a propensity of 15.0% had more presence than the females with a propensity of 12.3%, and the disparity of 1.25, smaller than the one in potential and intentional entrepreneurs.

### 5.5 NEW ENTREPRENEURS

In GEM, a new entrepreneur is an adult (16 – 64 year old) who has been managing and

**Figure 9.** New entrepreneurs (2009–2012)



**Source:** Compiled by authors





owning a business which has paid salaries, wages or any other kind of remuneration to employees or owner for more than 3 months but less than 42 months (3.5 years). Figure 9 shows the results obtained in Colombia and the three economic groups, in the last four years.

The new entrepreneurs indicator shows very significant fluctuation in Colombia (13% in 2010 and 7% in 2012) and the factor driven economies (5% in 2011 and 13% in 2012), and more steady values in the efficiency (5 – 6%) and in the Innovation driven economies (3%). The propensity to be a new entrepreneur in Colombia is higher, in all the 2009-2012 period than the propensity in the efficiency driven and innovation driven economies group, and in some years than the factor driven economies.

There are several elements that the Colombian new entrepreneurs show:

- 99% consider that they have completely defined the product and/or the services they have for their customers.
- 71% have a business plan.
- 44% have had meeting with banks and other financial sources to search for financial resources.
- 51% have a support entrepreneurial group.
- 75% have purchased machinery, equipment, implements and/or from suppliers.
- 77% have bought raw material/products or services from suppliers.
- 89% consider that their enterprise is in operations.

These results are quite different as expected, of the results obtained with the nascent entrepreneurs.

In this stage, the gender difference is still significant with a disparity of 1.33

**Table 13.** New entrepreneurs by gender (2012).

<b>Male</b>	8.2%
<b>Female</b>	5.7%
<b>Disparity</b>	1.33

**Source:** Compiled by authors

As shows table 13, although there are more men (8.2%) than women (5.7%) involved in the fifth stage of entrepreneurial pipeline, the disparity is becoming smaller.

## 5.6 TOTAL EARLY ENTREPRENEURIAL ACTIVITY (TEA)

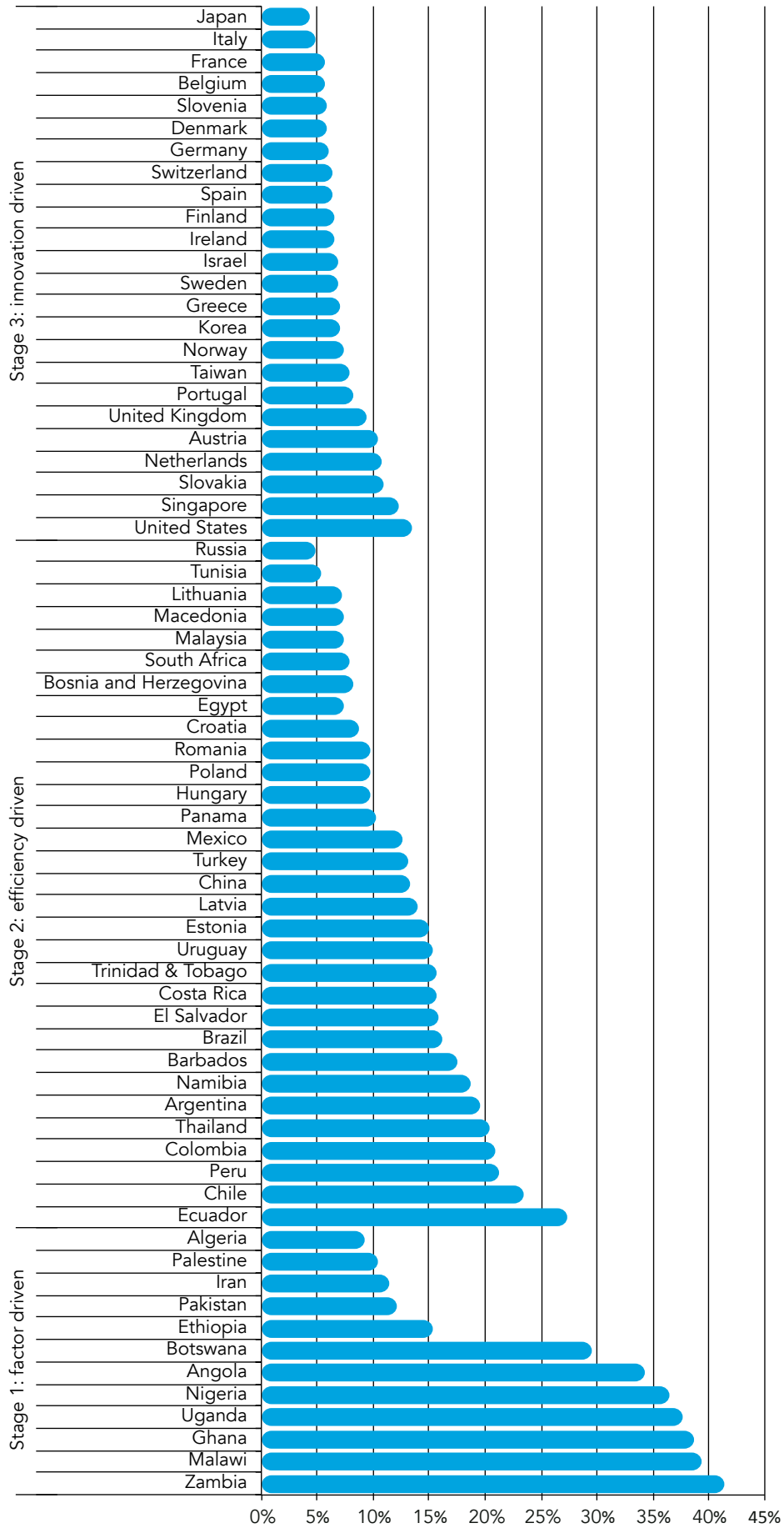
The main indicator GEM produces is the total early entrepreneurial activity (TEA), which is composed by the percentage of population (18-64 years old) who is either a nascent (0-3 months) or a new entrepreneur (3-42 months).

Figure 10 present TEA for all the countries that participated in GEM 2012; and a very significant difference can be observed. The TEA moves from 4% in Japan to a 42% in Zambia. Inside the economic groups also significant differences can be found:

- In factor driven countries from 8% in Egypt to 41% in Zambia.
- In efficiency driven countries from 4% in Russia to 27% in Ecuador.
- In innovation driven countries from 4% in Japan to 13% in United States.

In the efficiency driven economies, Colombia with 20% is 4<sup>th</sup> in terms of TEA. In Latin America: Ecuador, Chile and Peru do have higher TEA rates than Colombia.

Figure 10. TEA in participating countries 2012



Source: Compiled by authors



Figure 11 presents TEA for Colombia and for the 3 economic groups for the period 2009-2012.

The TEA rate for Colombia has been showing a declining trend from 25% in 2008 to 20% in 2012. These results may be explained by the fact that the general socio-economical conditions of the country have been improving: growth of GNP, decrease of unemployment, increase in foreign investments among other elements. However, in the 2009-2012 period, Colombia has had a TEA higher than the average of the other economic groups in most of the years.

It is very important to contrast the composition of TEA in Colombia: 14% of "nascent" and 7% of "new" which indicates that for every "new entrepreneur" there are 2 "nascent".

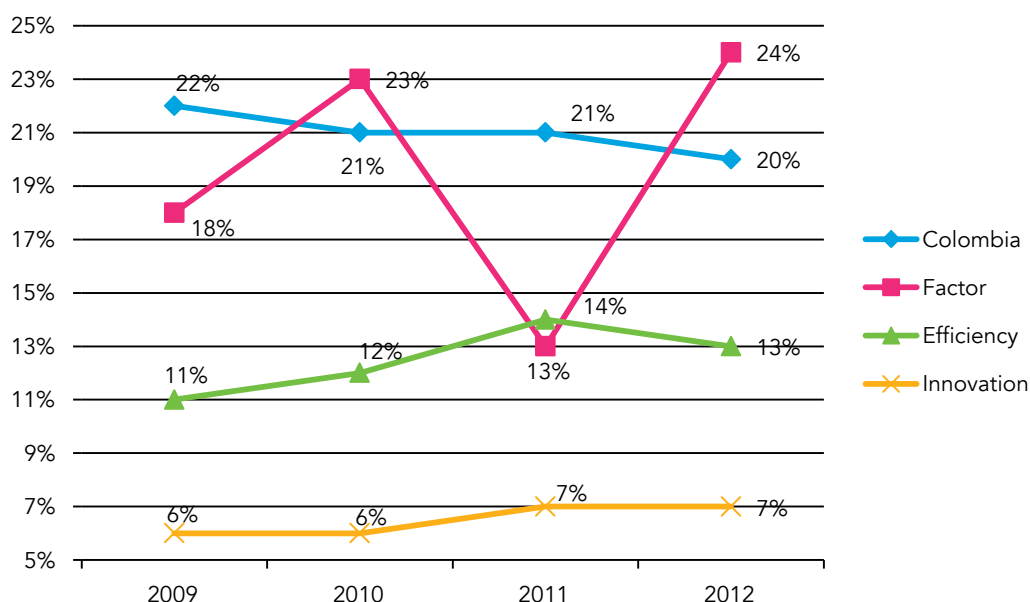
**Table 14.** Nascent vs. new entrepreneurs in some countries and economic groups (2012).

	Nascent	New	Nascent/New
<b>Colombia</b>	14	7	2,0
<b>Factor</b>	12	13	0,9
<b>Efficiency</b>	8	6	1,3
<b>Innovation</b>	4	3	1,3
<b>USA</b>	9	4	2,3
<b>Chile</b>	15	8	1,9
<b>Brazil</b>	4	11	0,4
<b>Denmark</b>	3	2	1,5
<b>China</b>	5	7	0,7
<b>Mexico</b>	8	4	2,0
<b>United Kingdom</b>	5	4	1,3
<b>Taiwan</b>	3	4	0,8
<b>Korea</b>	3	4	0,8

Table 14 presents this proportion for other economic groups and some selected countries.

Source: Compiled by authors

**Figure 11.** TEA (2009–2012)



Source: Compiled by authors

The fact that Colombia show one of the highest proportions of nascent/new, indicates that there are problems in the transition from nascent to new and that new mechanisms and support programs should be implemented to improve this rate of conversion.

Helping the intentional entrepreneurs to develop stronger entrepreneurial initiatives, providing mentoring and training in the very early stages to develop their entrepreneurial competences, helping in the commercialization, providing appropriate financial schemes for these stages, and providing follow-up to their project may improve this conversion rate.

When TEA is analyzed by gender, again males show a higher propensity (23%) than females (18%).

According to the proportion of nascent and new entrepreneurs, the ones in TEA, a total of about 6.164.000 Colombians are involved in the orientation of their entrepreneurial initia-

tives and have paid remunerations to employees and owners between 0 and 42 months.

**Table 15.** TEA by gender (2012).

<b>Male</b>	22.8%
<b>Female</b>	17.6%
<b>Disparity</b>	1.28

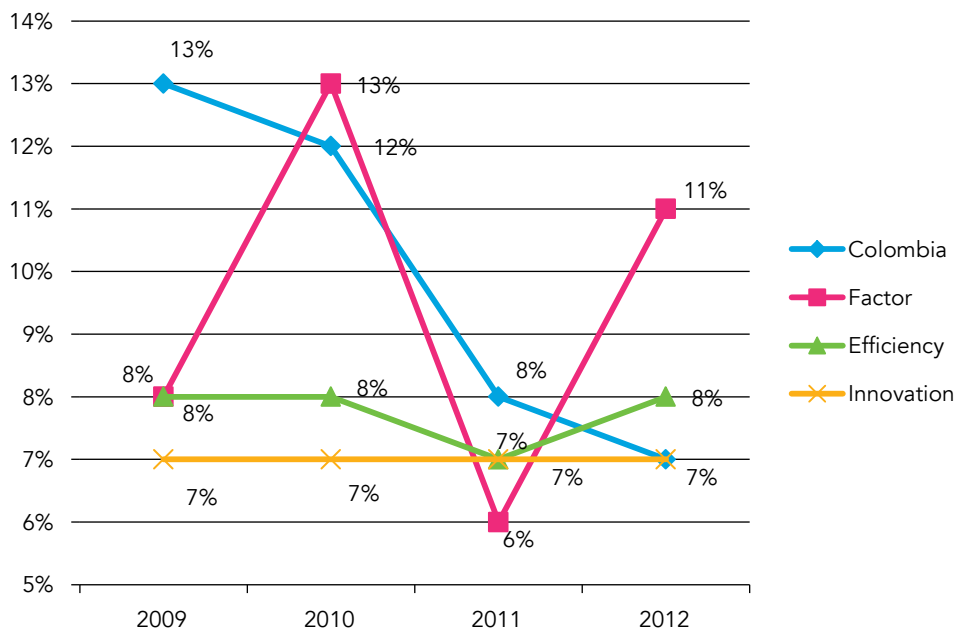
**Source:** Compiled by authors

As shows table 15, there are more men (23%) than women (18%), it means, the gap between male and female still persists in the Total Early-Stage Entrepreneurial Activity, along all entrepreneurial pipeline.

### 5.7 ESTABLISHED ENTREPRENEURS

In GEM, the adults owning and managing a business who have paid salaries or wages, or any other kind of remunerations to employees or owners, for more than 42 months, are defined as established entrepreneurs. Figure

**Figure 12.** Established entrepreneurs (2009-2012)



**Source:** Compiled by authors



12 presents the percentage of established entrepreneurs in Colombia and the three economic groups in the period 2009-2012.

Colombia shows a decreasing trend from a 13% (2009) to a 7% (2012). In the factor driven economies, the results are also very unstable from 6% (2011) to 13% (2010) in the rate of established business owners. The efficiency driven countries have had fluctuation from 7% to 8% and the innovation driven economies had been completely stable at 7%.

The Colombian indicator has reached a value very close to the innovation driven economies when four years ago it was practically twice as big. What is happening with the established business. GEM data does not provide information about this important question but the indicator should call the attention of entrepreneurial policy formulators, mainly in term of designing new support for business after their initial years.

Table 16 presents the propensity of males and females toward the established business stage and again males show higher indicator than females. The disparity is very high (1.8).

The 7% rate of established business indicates that about 2.167.400 adult Colombians are managing entrepreneurial initiatives that have paid remunerations to employees and owners for more than 42 months.

**Table 16.** Established business by gender (2012).

<b>Male</b>	9.0%
<b>Female</b>	4.6%
<b>Disparity</b>	1.8

**Source:** Compiled by authors

A research specifically oriented towards this segment of entrepreneurs and enterprises is urgent, because the country needs that the efforts, in the previous stages of the entre-

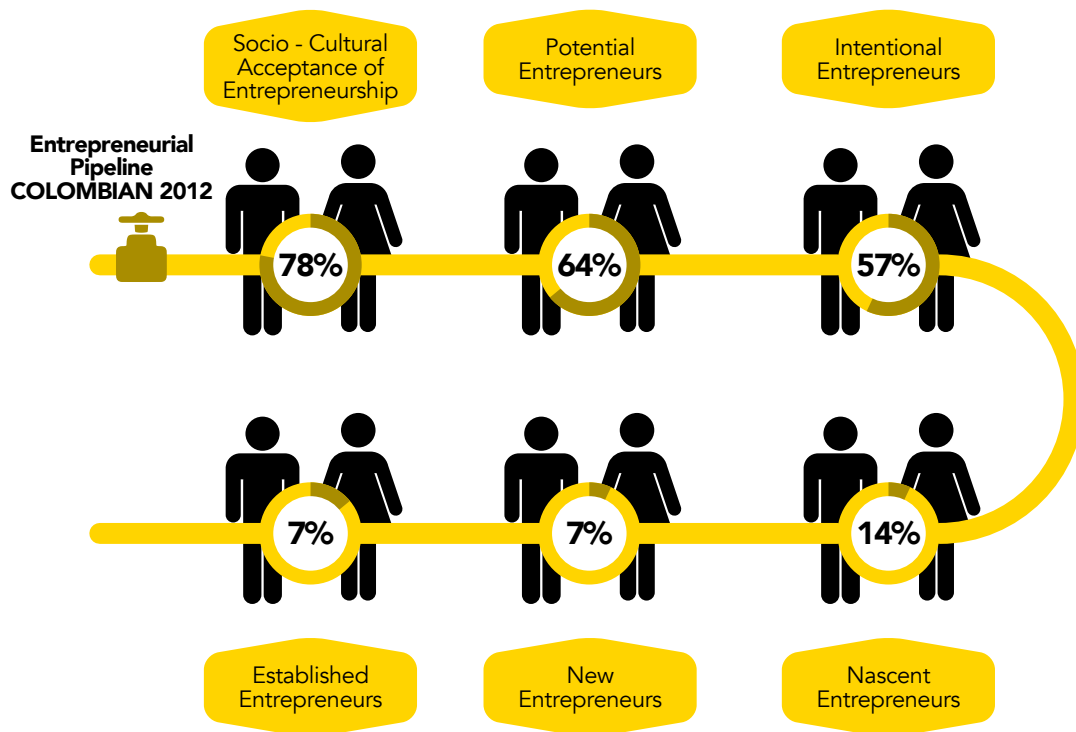
preneurial pipeline, be more productive in terms of established business.

## 5.8 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:

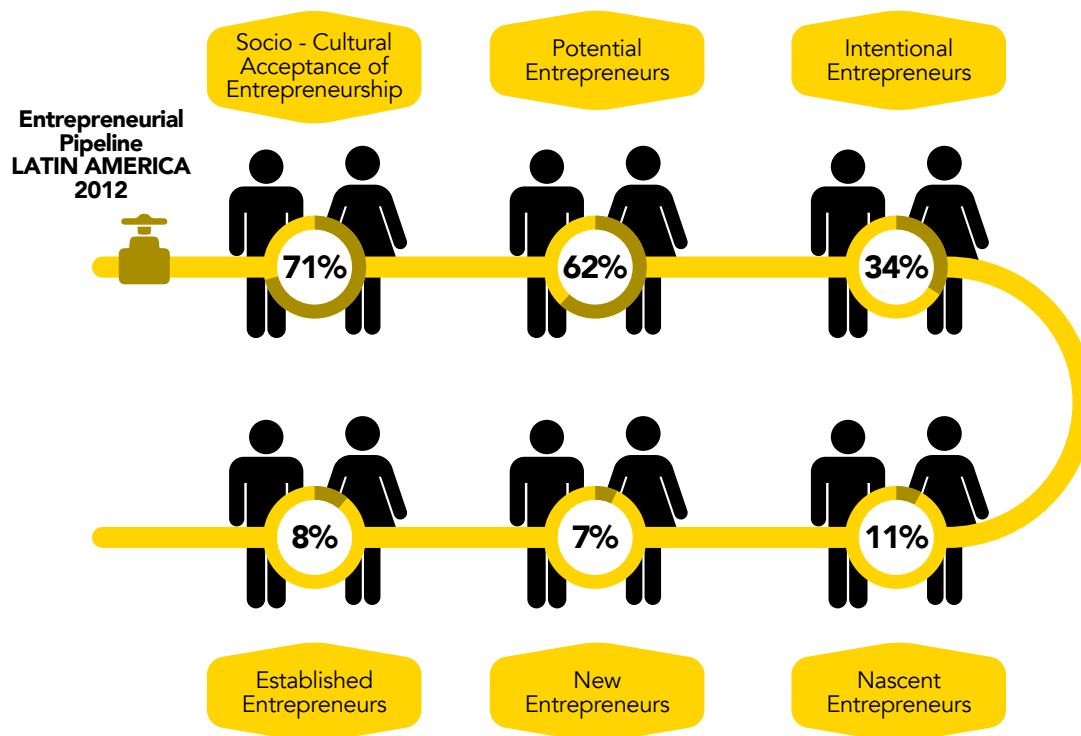
- In socio-cultural acceptance of entrepreneurship, Colombia with 78% is higher than Latin America (71%) and is general higher than all the three economic groups.
- In potential entrepreneurs, even though there is a “leak” of about 14 points, in relation to the socio-cultural acceptance indicator, still Colombia (64%) and Latin America (62%) are higher than all the economic groups.
- In intentional entrepreneurs a “leak” of only 9 points in relation to the potential entrepreneurs, happen in the Colombia’s case. Latin America shows a significant leak from 62% to 34%, which should be analyzed by the different countries.
- Going from intentional to nascent, Colombia has the biggest leak, a decrease of 43 points. Latin America drop only 23%. This data brings the need to analyze in detail what is happening with the support system in Colombia.
- Going from nascent to new, a decrease of 7 point in Colombia and 5 points, in Latin America, get that the total figures for Colombia and Latin America get equal in 7%. Again this data arise the point about what is happening with the support system because practically for two nascent there is only one new.

Figure 13. Entrepreneurial pipeline. Colombia 2012



Source: Compiled by authors

Figure 14. Entrepreneurial pipeline. Latin America 2012



Source: Compiled by authors



- Going from new to established the leaks are 0% for Colombia, and 1% for Latin America; nevertheless, this final data is very close to the innovation driven economies.

The integral entrepreneurial pipeline indicates that Colombia and Latin America do start with a high percentage of people with a positive social perception on entrepreneurship (78% in Colombia, 71% in Latin America) higher than any other group of countries, but at the end of the pipeline, Colombia and Latin America, show the same values than innovation and efficiency driven countries. The relationship between established business and socio-cultural acceptance indicates that only 1 of every 11 people becomes an established entrepreneur.

Figures 15 and 16 present the Colombian entrepreneurial pipeline for males and females 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 go from 0,97 to 1,80.
- 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 the 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 a motivator for other women.

## 5.9 DISCONTINUOUS ENTREPRENEURS

GEM analyzes also the different circumstances that entrepreneurs face and that move them to discontinue their initiative either temporarily or definitely. The discontinuance rate is due to several factor, including problems with the enterprise development, with activities required to keep the business in operation, with new and better opportunities either about their business (sell, exchange, integrated, etc.) or about their personal development (new employment opportunities, travel choice, etc.), as well as with other factor dealing with health problems, living conditions, family requirements and retirement.

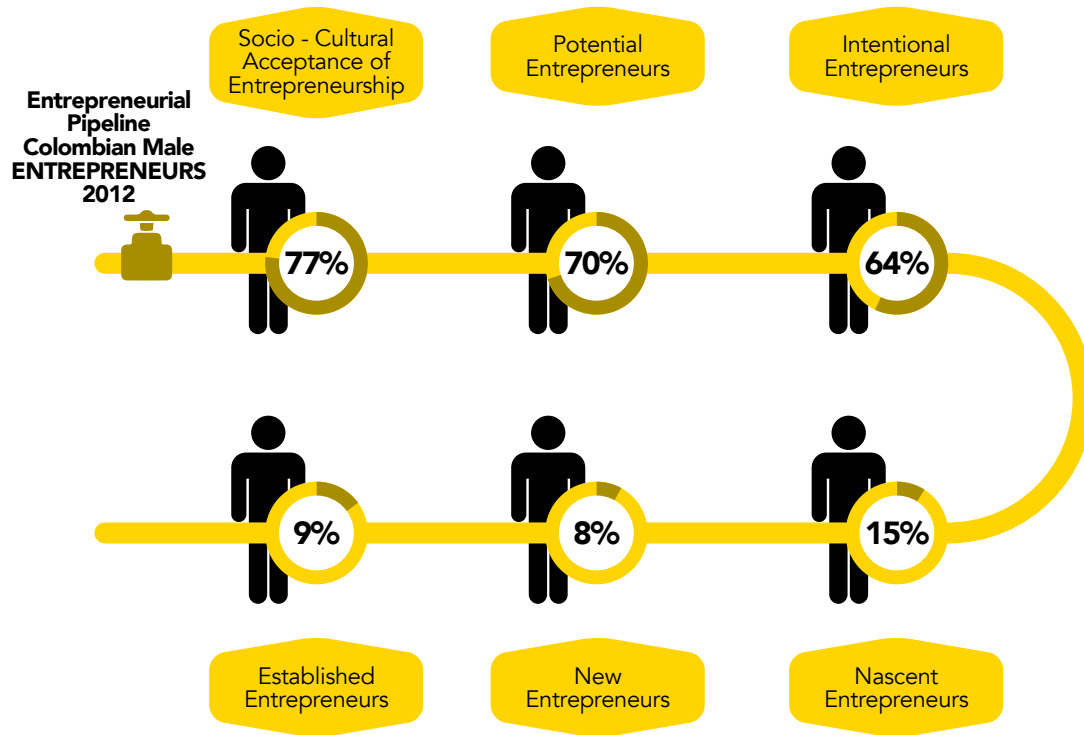
Figure 17 presents the discontinuance rate for Colombia and the economic groups (factor, efficiency and innovation driven). Colombia's results have been in the 5% to 7% range in the 2009-2012 periods, higher that the efficiency and the innovation driven economies, but lower than the factor driven which had shown a very significant fluctuation (6% to 12%).

Figure 18 shows the main reason that the adults had in 2012, to discontinue their entrepreneurial activity in the last 12 months, in Colombia. About 1/2 of the discontinuances are due to the non-profitability of the business, 1/2 to difficulties to financing the business and 1/3 due to other reasons. In 6.7% of the cases, the exit was planned, and in 3.7%, there was an opportunity to sell.

In the Colombian case, the discontinuance rate has been growing since 2010, but the same trend has happened in the efficiency and innovation driven economies, perhaps as a reflex of the different economic problems that all countries have had in the last years.

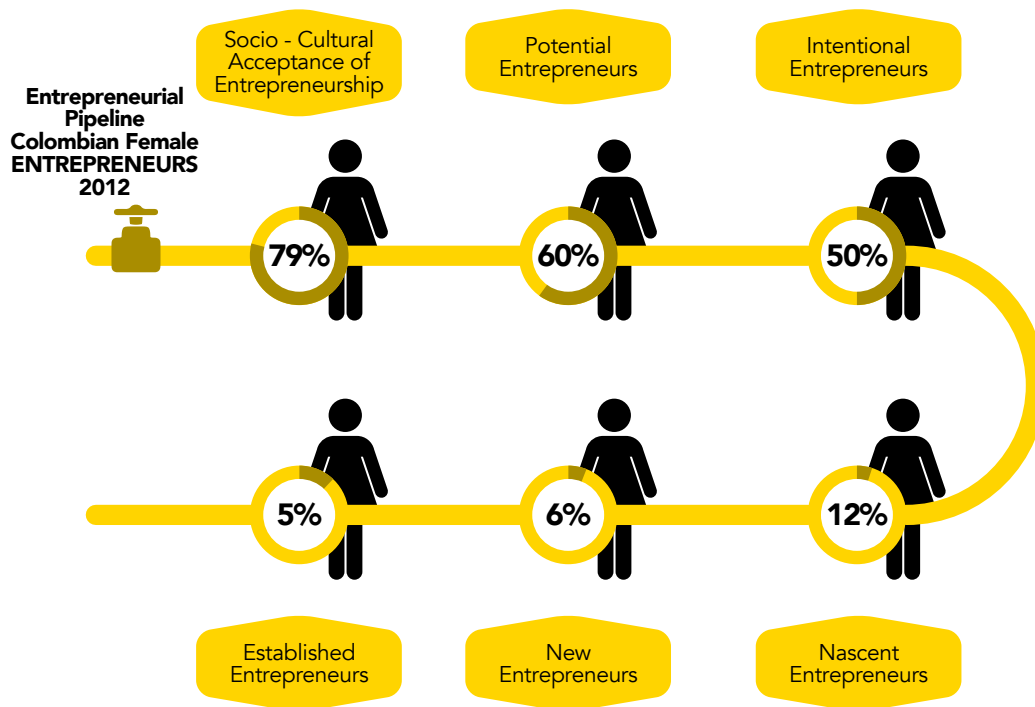
The rise of the discontinuance rate may be partly the cause of the reduction of the

Figure 15. Entrepreneurial pipeline of Colombian male entrepreneurs. 2012



Source: Compiled by authors

Figure 16. Entrepreneurial pipeline of Colombian female entrepreneurs. 2012

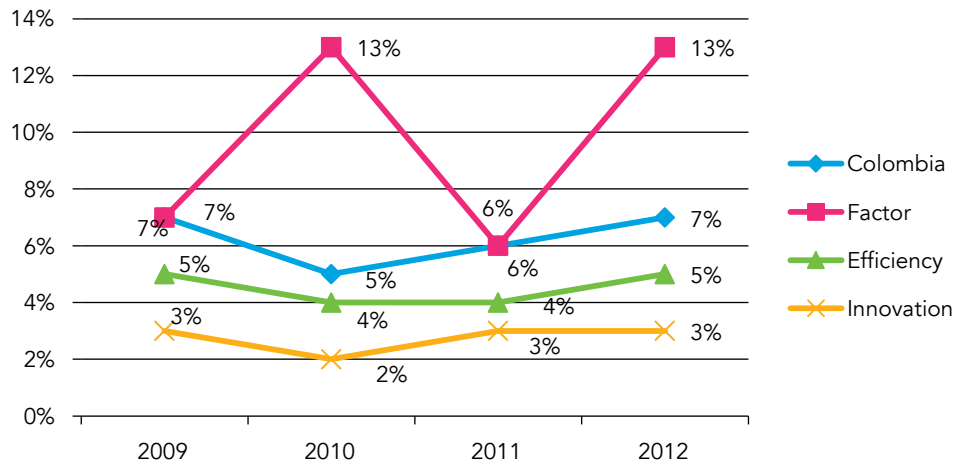


Source: Compiled by authors





**Figure 17.** Discontinuance rate (2009-2012)



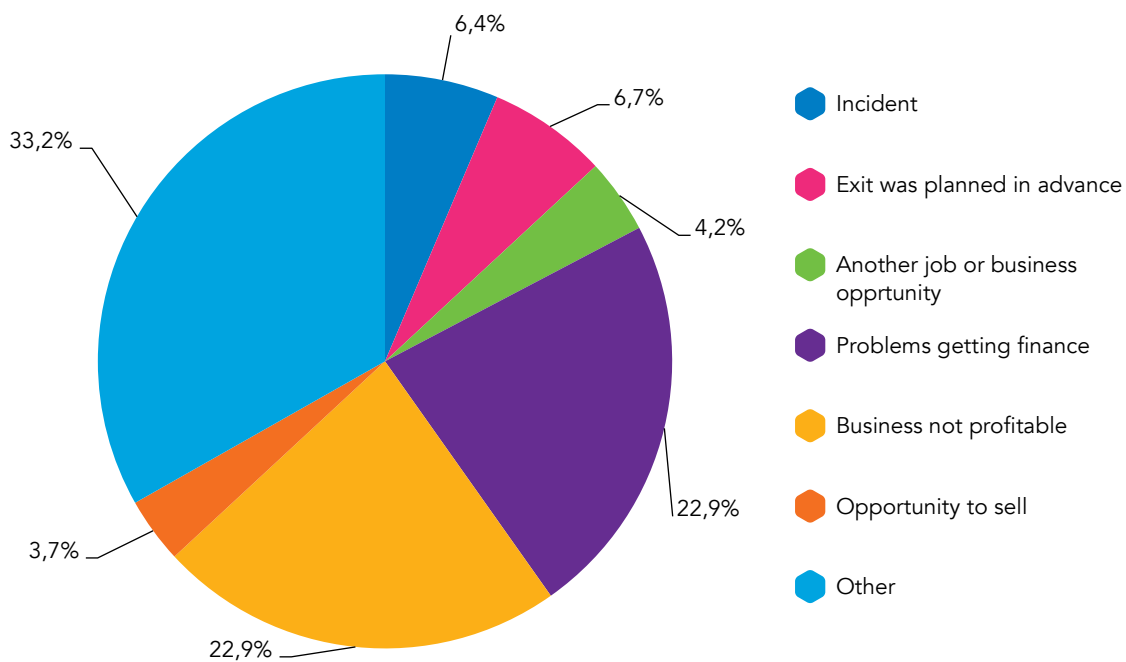
**Source:** Compiled by authors

established business. A policy implication may be to improve all the entrepreneurial support system to decrease the number of entrepreneurs that discontinue their entrepreneurial endeavor due to non-profitability and financing difficulties.

### 5.10 TEA AND 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

**Figure 18.** Reasons for discontinuance. Colombia 2012



**Source:** Compiled by authors

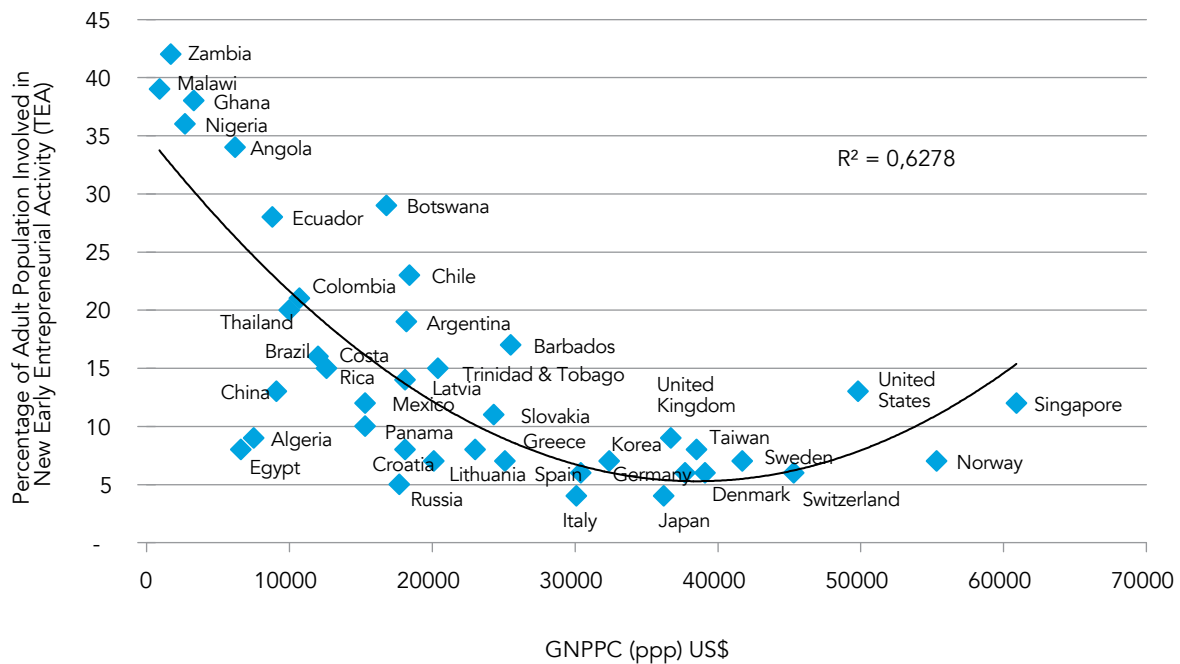
development, measured by the Gross National Product per capita (GNP PC) based on the purchase power parity (ppp) concept. Figure 19 shows that relationship' and there are three sections with very different performance.

- Most of the countries, with low GNP PC (<7.000 US\$), 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 GNPPC 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 and value added to GNP may be very low. In these countries as the economic situation improves, the people begin to search for new employ-

ment opportunities and the TEA begin to decrease very quickly.

- In countries with a medium GNP PC (7.000 US\$ to 20.000 US\$), there is a very significant variation ( $4% < TEA < 28%$ ), 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 indicated that TEA decrease as GNP PC increases. In these economies, the appearance of industrialization and service oriented activities, offer more job opportunities and for that 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 (>20.000 US\$) the variations of TEA are smaller ( $4% \leq$

Figure 19. TEA vs. GNP PC



Source: GEM Colombia: Reporte Nacional 2012



TEA ≤ 17%) and the decline of TEA with the growth in GNPPC is slow. In previous years, the graph did show an increase in TEA at the highest level of GNP PC, explained with the idea that the high incomes of the people will allow them to start investing in new projects. In these economies, most of the businesses are opportunity based, generating new opportunities and having an effect in the GNP growth: quality in the TEA is more important in these economies than quantity.

When analyzing figure 19 is necessary to understand that there are many economic, environmental, cultural, political, historical, variables that through the years have affected the development of the GNPPC and that are significant difference in TEA due to other cultural and social conditions.

One important point in this graph is to observe some clustering phenomenon happen-

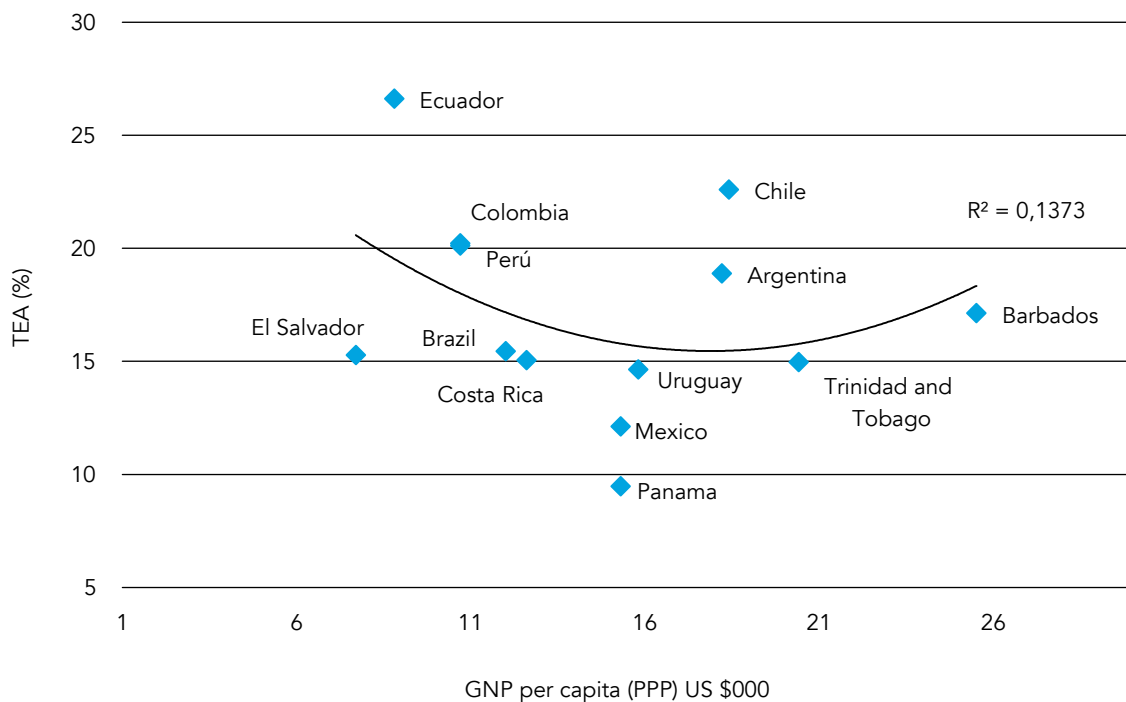
ing for groups of countries: the Latin American countries, the east European countries, the African countries, the Middle East and the northern African countries, the west European countries, the Asian developed countries. A deeper study is needed inside each group, including socio-cultural variables and other economic and institutional variables to explain the variations in TEA.

Figure 20, which includes only the cluster of Latin and Caribbean countries, clearly shows that many other variables are needed to explain the variations in TEA among countries.

### 5.11 TEA BY CITIES AND REGIONS

Given the size of the sample taken in 2012 in Colombia, which includes some regional studies, it is possible to analyze the situation of TEA by regions (Table 17) and by cities (Figure 21). It's very interesting to observe the significant variation, in TEA rates,

**Figure 20.** TEA vs. GNPPC. Latin America and Caribbean countries 2012



**Source:** Compiled by authors

by cities (4,5% to 50,5%), and the not so significant differences between regions (17,9% to 24,6%). Some of the differences in the cities are due to the result of small samples in those cities. In the case of Bogotá, Medellín and Cali, the data is fully reliable because 2000 interviews were done in each city.

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

**Table 17.** TEA by regions. Colombia (2012)

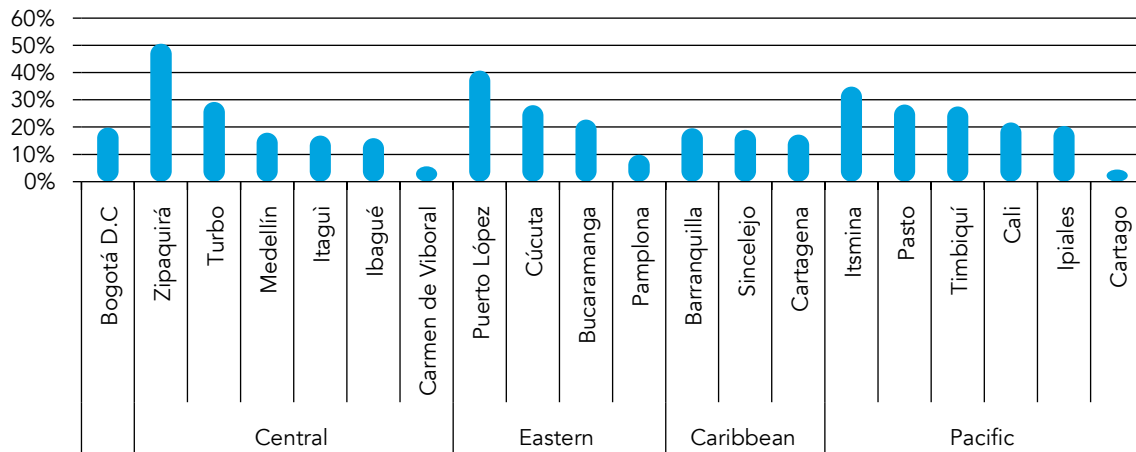
Caribbean	Central	Bogotá	Eastern	Pacific
18,4%	17,9%	19,8%	24,6%	21,8%

**Source:** Compiled by authors

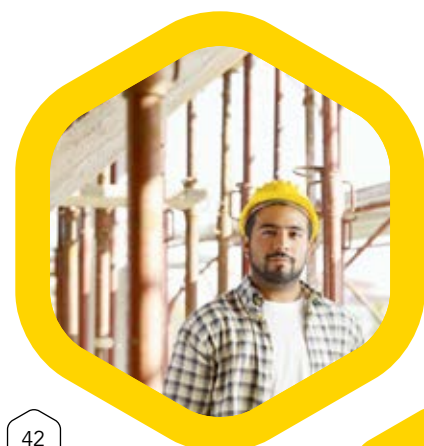
In order to have more elements to design regional policies, it is necessary to develop deeper regional GEM studies that allow measurements for every region, with statistically significant sample for each one of the variables of the entrepreneurial process and allow the identification of the differences among regions and the formulation of the particular policies.

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

**Figure 21.** TEA by cities. Colombia 2012



**Source:** Compiled by authors







## COLOMBIAN ENTREPRENEURS PROFILE

Another important aspect of GEM data is the possibility it brings in terms of identifying different elements to characterize entrepreneurs and enterprises. The analysis will be made with the persons and enterprises that classified in the TEA (Nascent and New Entrepreneurs) and with the persons and enterprises that classified as established entrepreneurs.

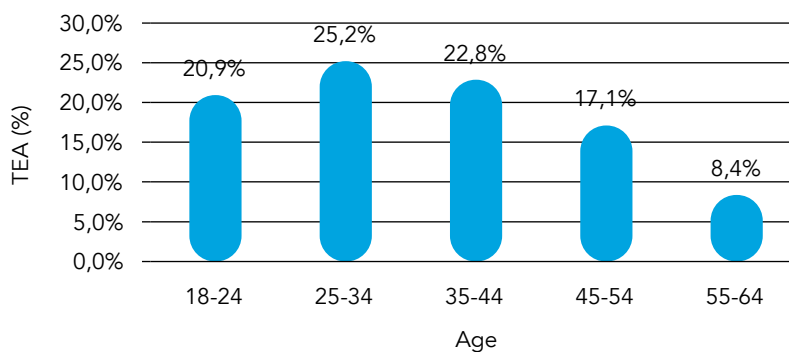
### 6.1 AGE

One important variable in the entrepreneurial process is to study the effect that age

may have in the propensity to develop new entrepreneurial initiatives, and also identify the distribution of the established entrepreneurs in terms of their age.

Figure 22 presents the data for Colombia in 2012 in terms of the propensity that every age group has toward entrepreneurship. The age group with the highest propensity is the 25-34 years, which shows a TEA of 25.2%, which means that from the adult population with ages between 25-34; the 25,2% is in the early stages of entrepreneurship (Nascent and New entrepreneurs).

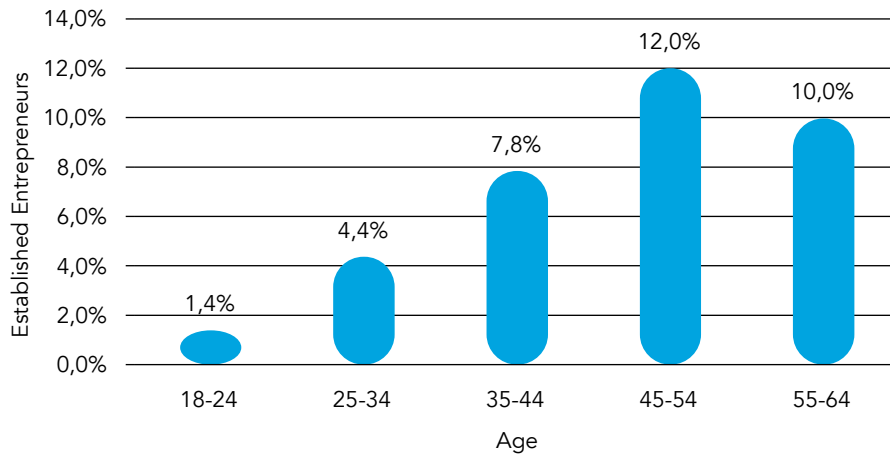
**Figure 22.** Propensity toward entrepreneurship by age—Colombia 2012



**Source:** Compiled by authors



**Figure 23.** Established entrepreneurs by age—Colombia 2012



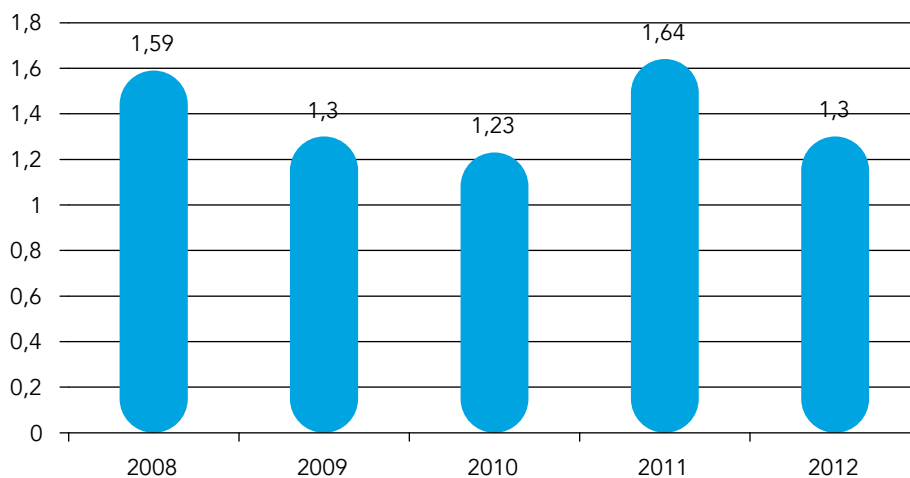
**Source:** Compiled by authors

The adult young population (25-34), show the highest propensity toward early stage entrepreneurial initiatives in Colombia, but the young population (18-24) shows a high propensity too (20.9%) which demonstrates that the myth that to become an entrepreneur need to be old, is not true. These results also show the significant relevance that development and support programs for youth should have in any entrepreneurial development policy, but also show the need to de-

velop programs for adults, who may have an advantage due to their experience and practical knowledge.

Figure 23 present the propensity of the established entrepreneurs in terms of their age. The group (45-64 years old) has the highest percentage with 22%. The difference in age between the highest propensities for nascent/new entrepreneurs and established entrepreneurs are quite understandable along

**Figure 24.** TEA male/TEA female Colombia 2012



**Source:** Compiled by authors

the pipeline, but they brought the need to enhance support programs for youth to keep the flow of entrepreneurs to the established business, but to produce an economic impact in the socio-economic growth of the country policies should be implemented to get the established business to grow.

## 6.2 GENDER

When the early entrepreneurial activity is analyzed by gender the propensity of the males is 22.8% and of the females is 17.6%. The ratio TEA male/TEA female, in Colombia, is 1.3, one of the highest in the region. As indicated by figure 24, there was a significant improvement in this ratio in the period 2008-2010, but then in 2011 the proportion was again very high.

Why do males have a 30% bigger propensity toward entrepreneurship than females in Colombia?

When age and gender are included in the same analysis as indicated by figure 25, only

the 45-54 ages group present a low difference between the propensity toward entrepreneurship of male and females, and the worst ratio is the young where the males have a 54% higher propensity than the females.

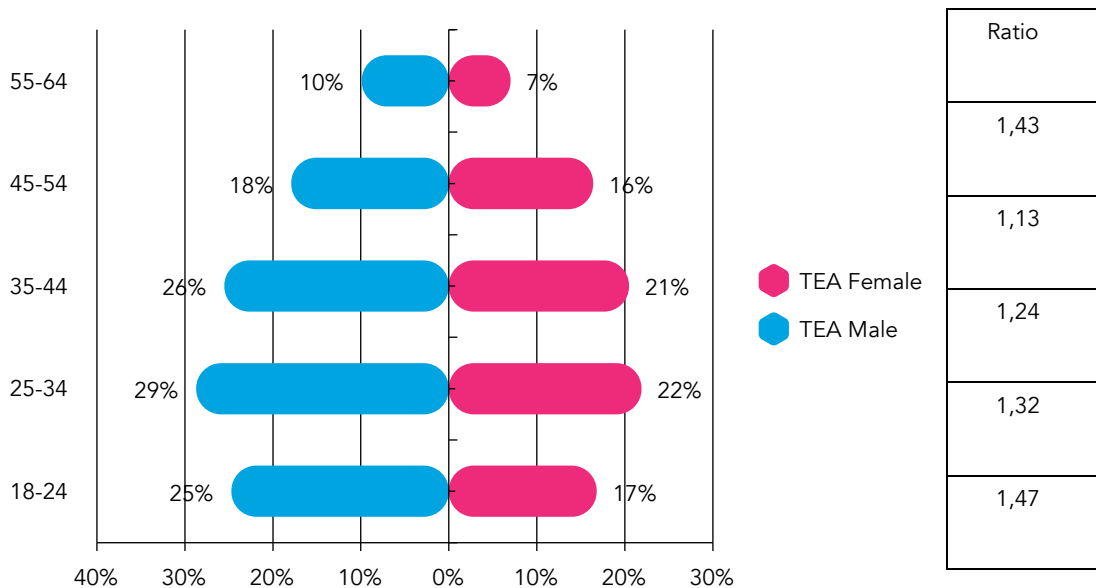
In the established business, 64, 6% of the owner managers are male, and 35,4% are females. The disparity rate here is higher (1.82).

The whole goal of the policy should be to strengthen the role of women's entrepreneurship in the economy with particular subprograms that made aware to young women about the high potential they have in terms of an entrepreneurial career. These subprograms should include the use of many successful women entrepreneurs as a role model and many other educational and promotional activities.

## 6.3 MOTIVATION

One very important aspect of the entrepreneurial process, is the understanding of the motivation that drives the entrepreneur,

Figure 25. TEA male/TEA female by age. Colombia 2012



Source: Compiled by authors





when decides to start a new entrepreneurial activity. GEM provides to the entrepreneurs two basic situations: "by necessity" understood as "no better choice for work" and "by opportunity" as "taking advantage of a business opportunity". Between these two extremes, there are entrepreneurs that consider that both circumstance motivated their action.

Figure 26 shows that, in 2012, 87.5% of the Colombian entrepreneurs (Nascent and New) consider themselves motivated by opportunity (purely or partly). When the motivations are compared within the main three economic groups, the proportion of necessity motivation is distributed as follows: factor driven (35%), efficiency driven (28%), Innovation driven (18%). However, when a new category is built: Improvement driven opportunity, (composed of those who are opportunity driven but, in addition they desire greater independence, in their work or seek to maintain or improve their income), the Colombian figure moves to 48%, the factor driven to 42%, the efficiency driven to 46% and the innovation driven to 51%.

There are also differences in the motivation by gender: in Colombia, the male entrepreneurs in 89,8% of the cases consider that their motivation was opportunity based, and 84,9% of the females have the same consideration. Whereas 93 % of young people (18-34), male or female, consider that their motivation was "opportunity oriented".

It's important to mention that the proportion of entrepreneurs that present as their main motivation "necessity" have been decreasing very significantly in the last years, in Colombia, as indicated by Table 18.

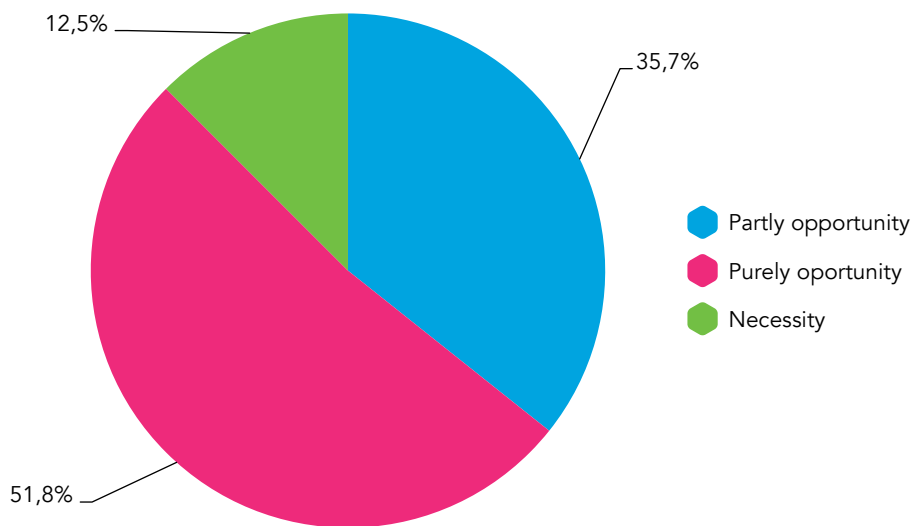
**Table 18.** Nascent/new entrepreneurs necessity driven. Colombia (2009-2012)

	2009	2010	2011	2012
<b>%Necessity Driven</b>	34%	41%	25%	12%

**Source:** Compiled by authors

This trend may be caused by the improvement of the socio-economic conditions, but also may be the result of a cultural bias that is moving people to avoid the "necessity"

**Figure 26.** Motivation in TEA. Colombia 2012



**Source:** Compiled by authors

as an explanation of their entrepreneurial activity. A more detailed study is needed to understand the motivations that drive the entrepreneurs in Colombia.

The increase in opportunity driven entrepreneurs does not correlate with the significant loss from the nascent to the new entrepreneur stages defined in the entrepreneurial pipeline. So it is necessary not only to get better precision in the real motivation of the nascent and new entrepreneurs, but also to improve the training and support system to enable the entrepreneurs to harvest the opportunities they are identifying.

In the case of necessity driven entrepreneurs, it is very important to develop programs that enable them to identify better business initiatives, to better manage them, and in general to be able to pursue a real business opportunity, even though their basic needs are strongly pushing them just to do "something".

Figure 27 shows that the necessity driven motivation is substantially higher in the

older age groups. The loss of jobs, the difficulty to get a new job at higher age, the lack of resources for retirement, may be some of the causes that generate these different results. Specific development and support programs are needed for the adult population.

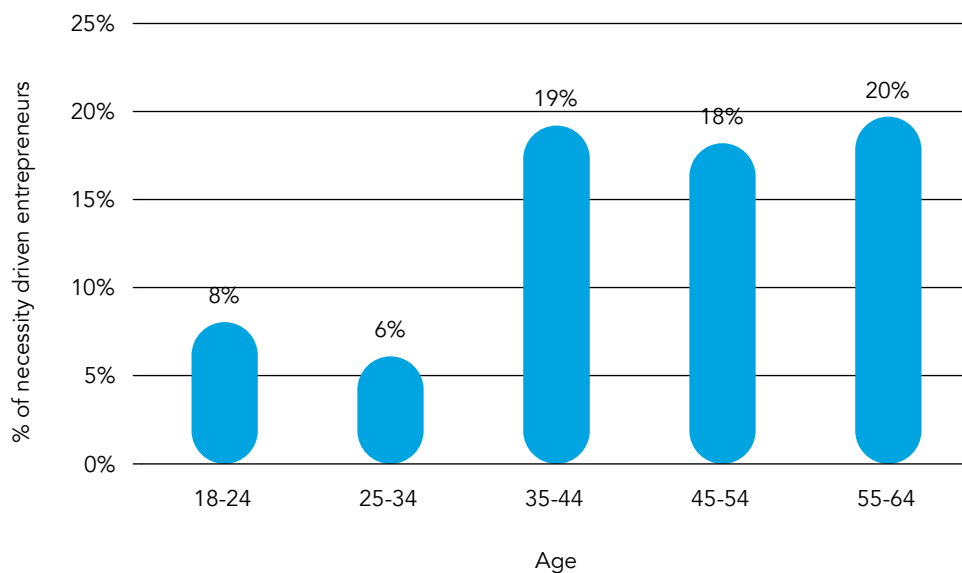
Many improvements are needed for the potential, intentional and nascent entrepreneur support system, to increase the likelihood of real opportunity based initiatives because the necessity driven ones are riskier and less able to generate sustainability and growth in the medium and long term.

#### 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 company.

Figure 28, which presents the TEA in each educational group, shows a trend of in-

**Figure 27.** Nascent/new entrepreneurs necessity driven by age. Colombia 2012



Source: Compiled by authors



creasing TEA as the level of education increases, except at the graduate level. The higher figure of the technological level with respect to the undergraduate level may be explained more from the educational orientation viewpoint than from the level. Technological level has more action oriented training, better applicative technology and science orientation.

The graduate group may be composed of people who have had the opportunity to hold good positions in employment and for that reason their competences may be less oriented toward the business creation process. In addition to that is important to recognize that most of the graduate programs in Colombia have not already included entrepreneurial orientation and education in their curricula, which is a weakness of the educational system because they are the ones with the best elements to develop new enterprises with high impact and better potential in the long term.

Other important hypothesis to test is if there 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 2012

Educational level	Percentage
Primary	16.1%
Secondary	19.2%
Technical	11.7%
Technological	13.0%
Undergraduate	6.0%
Graduate	2.1%

Source: Compiled by authors

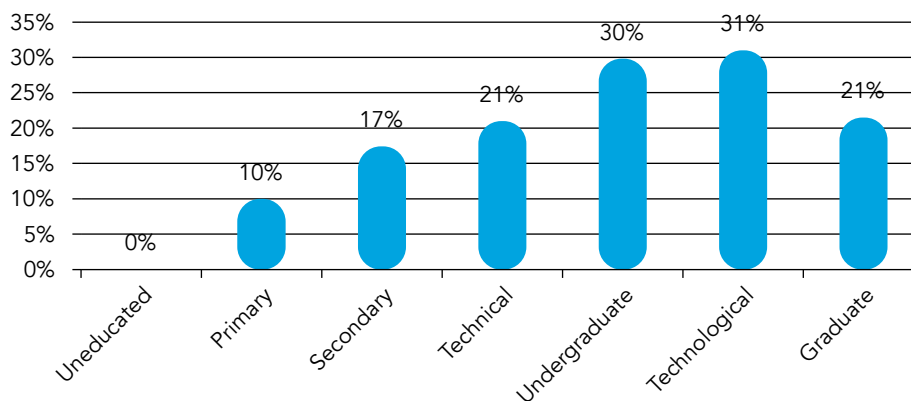
The explanation of two odd points: secondary and technological level will require a deeper research and maybe a disaggregation between the ones that finished each educational level and those that did not complete the level.

It is very important to observe the low necessity driven figure at the undergraduate level and for the graduate level. More knowledge, more experience, get people to analyze better option and to design their entrepreneurial opportunity.

### 6.5 HOUSEHOLD INCOME LEVEL

The economic condition of the entrepreneurs (nascent and new) has a role not only

**Figure 28.** Nascent/new entrepreneurs by educational level. Colombia 2012



Source: Compiled by authors

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 29, indicating that the level of entrepreneurial activity increases as the household income level increase.

Table 20 present the proportion of adults, in every level of household income, which is 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.

New orientation programs are needed to adults with low household income to improve the orientation of their entrepreneurial initiatives.

**Table 20.** Household income vs. necessity driven. Colombia 2012

Household income (SMMLV)	Involved in Necessity early-stage Entrepreneurial Activity
Less than 1	24,8%
From 1 to 2	14,3%
From 2 to 3	10,2%
From 3 to 4	10,7%
From 4 to 5	13,0%
More than 5	6,7%

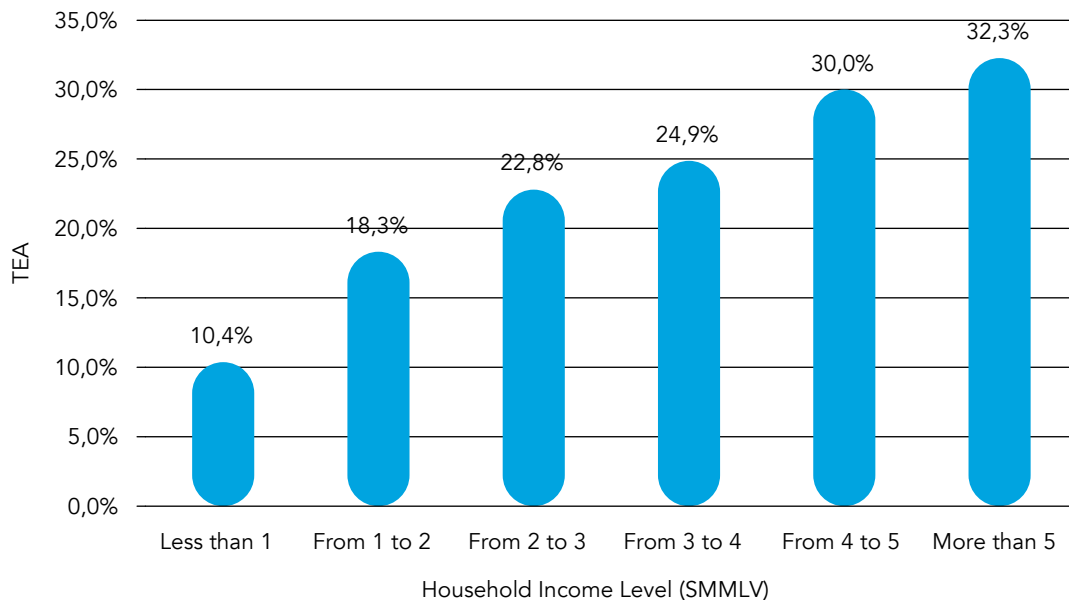
Source: Compiled by authors

### 6.6 LABOR SITUATION

GEM asks about the work status of the adults at the time of the interview. Table 21 shows that 28.2% of the adults consider themselves as self-employee.

However, when only the new and nascent entrepreneurs are analyzed, 51.7% of them consider self-employed and 32.7% of them are employees in full time, which means that

**Figure 29.** Nascent/new entrepreneurs by income level. Colombia 2012



Source: Compiled by authors



they are not fully devoted to their entrepreneurial initiative. This situation may be the explanation of the low proportion of “nascent” going to “new” and of the low level of “established” entrepreneurs.

**Table 21.** Labor situation. Colombia 2012

	<b>Total population</b>	<b>New and nascent entrepreneurs</b>
<b>Employee full time</b>	34,4%	32,7%
<b>Employee part time</b>	7,9%	4,8%
<b>Self employed</b>	28,2%	51,7%
<b>Seeking employment</b>	9,6%	3,6%
<b>Retired or disabled</b>	3,0%	0,5%
<b>Student</b>	4,8%	2,4%
<b>Homemaker</b>	12,1%	4,2%

**Source:** Compiled by authors





## 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 30 shows the distribution of the enterprises, “new and nascent” and “established”, by economic sector.

The extractive sector shows a very low participation and the consumer oriented sector is the most prevalent. There are some differences between the participation of the different

sectors in the nascent and new enterprises and the established business.

Table 23 and 24 shows the changes in the composition by sector of the “nascent/new” and “established” business in the 2009-2012 period.

In general, either in the nascent/new or the established categories, the most prevalent sectors are the consumer oriented followed by the transforming. The business services sector has been quite stable in its representation in the two categories, and the

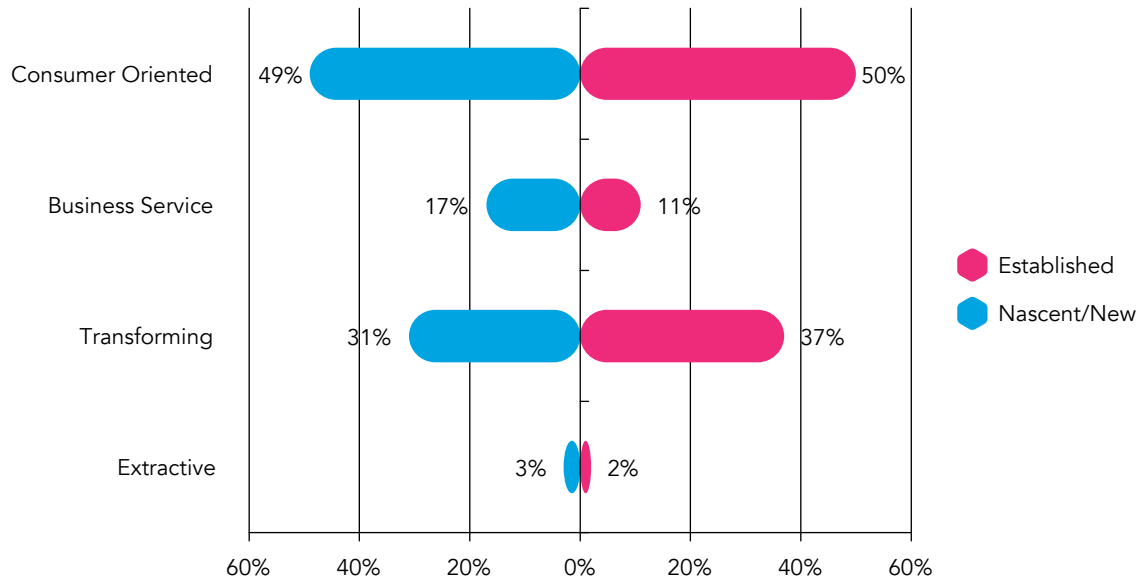
**Table 22.** Classification of economic sectors

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

**Source:** Compiled by authors



**Figure 30.** Economic sector in nascent/new and established business. Colombia 2012



Source: Compiled by authors

**Table 23.** Economic sector of established business. Colombia (2009-2012)

	2009	2010	2011	2012
<b>Extractive</b>	7,4%	3,6%	3,3%	2,9%
<b>Transforming</b>	25,7%	21,4%	24,5%	31,3%
<b>Business Services</b>	13,6%	14,3%	13,7%	16,8%
<b>Consumer Oriented</b>	53,2%	60,8%	58,6%	49,1%

Source: Compiled by authors

**Table 24.** Economic sector of established business. Colombia (2009-2012)

	2009	2010	2011	2012
<b>Extractive</b>	9,9%	6,0%	3,9%	1,7%
<b>Transforming</b>	40,1%	33,6%	40,3%	37,2%
<b>Business Services</b>	10,2%	12,8%	11,6%	11,2%
<b>Consumer Oriented</b>	39,8%	47,6%	44,3%	49,9%

Source: Compiled by authors

extractor sector not only is the least represented but, it has been decreasing its participation along the years.

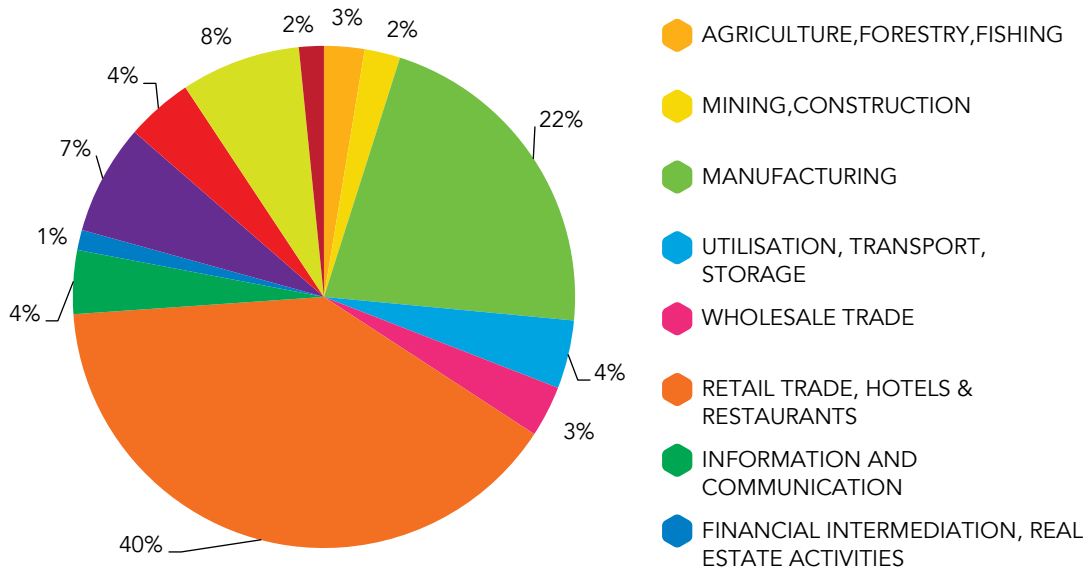
## 7.2 JOBS

The creation of jobs is a very important characteristic to be analyzed. In the case of the nascent/new and of the established enterprises the current distribution of enterprises as a function of the number of jobs generated is presented in figure 33.

As expected the established business job distribution is skewed to higher values than the new and nascent business, however, only 19.9% of the established businesses have more than 6 jobs, which confirms the data about the prevalence of the micro and small size enterprises in Colombia.

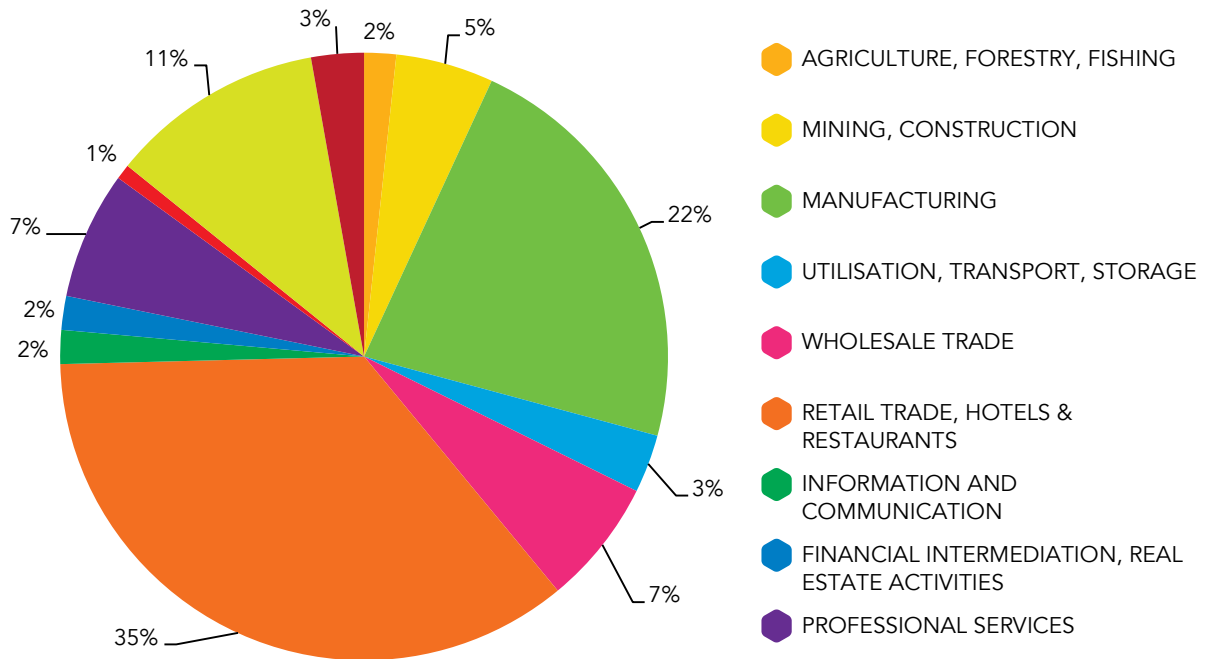
When the two groups of enterprises, nascent/new and established are asked about their expected jobs generation in five years, the results change quite significantly as indicated by figure 34.

**Figure 31.** Economic sector distribution in nascent/new enterprises. Colombia 2012



**Source:** Compiled by authors

**Figure 32.** Economic sector distribution in established business. Colombia 2012

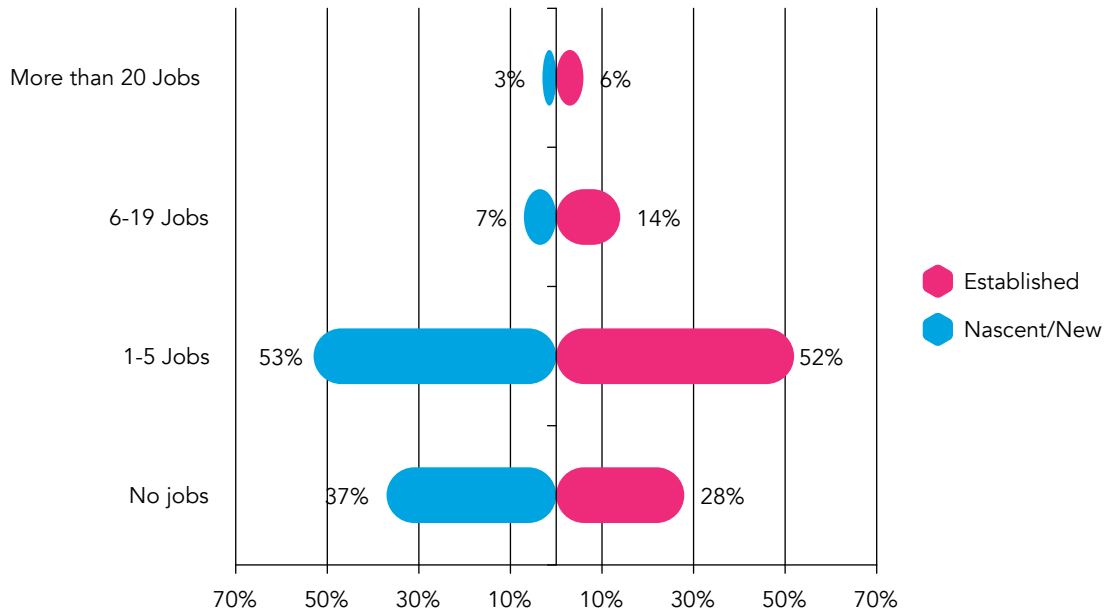


**Source:** Compiled by authors





**Figure 33.** Job creation by nascent/new and by established enterprises. Colombia 2012

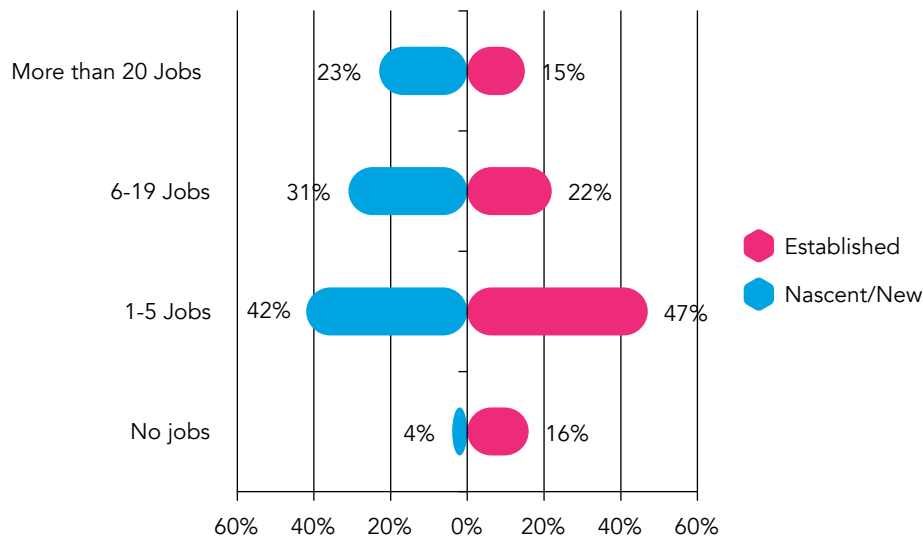


**Source:** Compiled by authors

It is important to observe how the nascent/new enterprises present a better perspective in terms of job generation than the established one, and also the sense of the capacity to grow is clearly more optimistic in the nascent/new enterprises, from 3% to 23%, in the area of "more than 20 jobs".

The decrease from 37% to 4% in the area of no jobs confirms the positive perception that the nascent/new entrepreneurs have in terms of growth. In the established ones, there are some improvements, but it is disappointing that 16% of them consider that after 5 years, they will still have no job created.

**Figure 34.** Job creation in the next five years for nascent/new and for established business. Colombia 2012



**Source:** Compiled by authors

It is interesting at this point to consider the notions the experts have about the growth support system. Table 25 presents their perceptions, and this is the best evaluated framework condition (3.48)

wards 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.

The work in 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 the "established" stage, but if survival through the stages is very important, an orientation to-

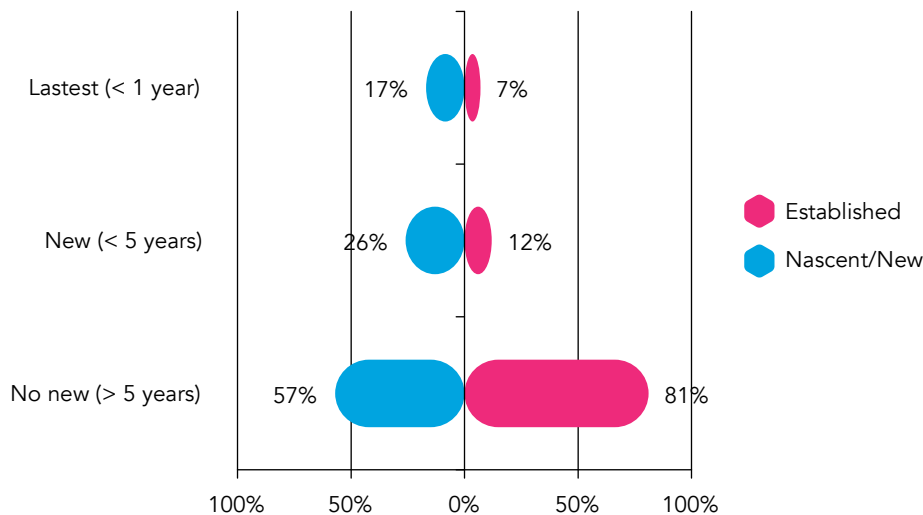
These results should derive in a policy toward the development all over the country of Centers for Entrepreneurship Development that provides support services to all types of entrepreneurs. The experience of the Centros Alaya in Cali, the Cedezo in Medellin and other similar institutions have to be expan-

**Table 25.** Growth support. NES Colombia 2012

In my country...	2012
There are many support initiatives that are specially tailored for high-growth entrepreneurial activity	3.14
Policy-makers are aware of the importance of high-growth entrepreneurial activity	3.29
People working in entrepreneurship support initiatives have sufficient skills and competence to support high-growth firms	3.48
Potential for rapid growth is often used as a selection criterion when choosing recipients of entrepreneurship support	3.27
Government programs are highly selective when choosing recipients of entrepreneurship support	3.20

Source: Compiled by authors

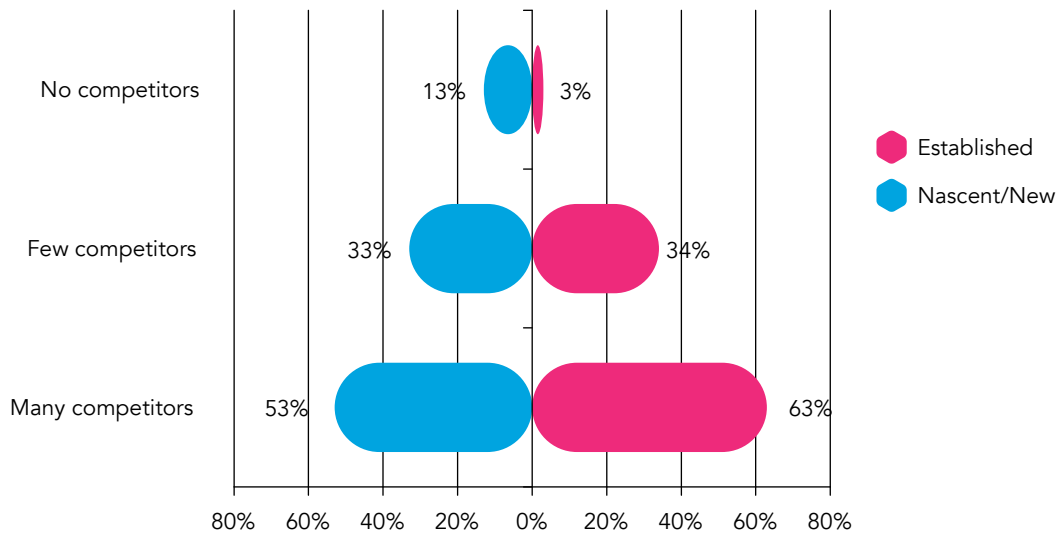
**Figure 35.** Technology level for nascent/new and established business. Colombia 2012



Source: Compiled by authors



**Figure 36.** Innovation level for nascent/new and established enterprise. Colombia 2012



**Source:** Compiled by authors

ded 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) of the USA to Colombia is a move in the right direction.

The initiatives that the Colombia government is promoting to get high impact entrepreneurial initiatives through programs from INNPULSA, APSS.CO, among others, need to be strengthened and stabilized in the long run.

### 7.3 TECHNOLOGY

One essential element for competitiveness is the use of appropriate technology. GEM measure technology level by evaluating for how long has been in the local market the technology the enterprises are using. Figure 35 present the composition of the nascent/new and the established enterprises according to the technology level.

The results, especially for the established business are not good at all because 81.1% of the enterprises are supported by techno-

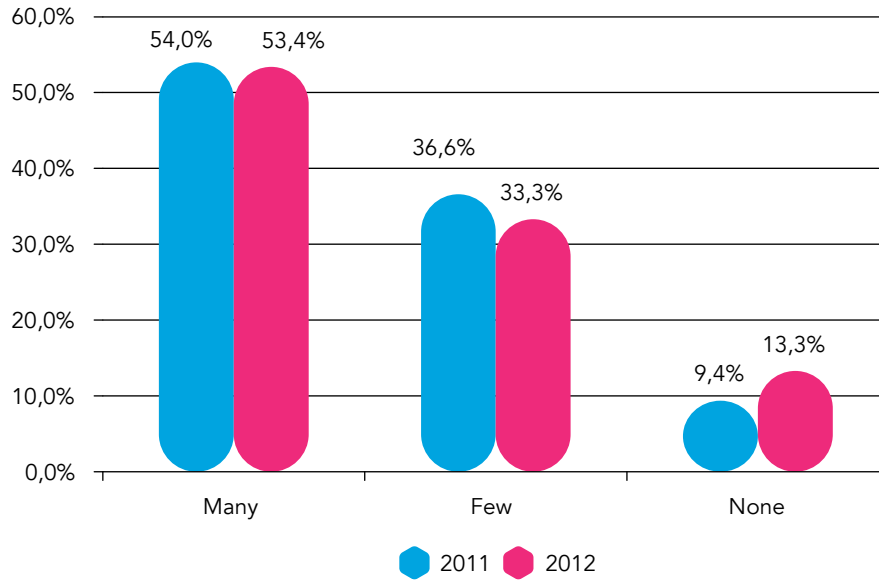
logies that have been available in the local market for more than 5 years. The situation is better for the nascent/new enterprises where 17.3% are using very recent technologies, at least in the local market.

It is very important that all entrepreneurial actors: entrepreneurs, government, educational systems, understand the importance of updated technologies to be able to compete in the globalized economy in which the country is every day more involved; but also is very important to stimulate R&D not only inside the enterprises but also inside universities research institutions and competitiveness 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 INNOVATIONS

The innovation level is measured in GEM, in terms of the newness of the products in the market, in the sense if the products of the enterprise will be challenged by none, few, or many products that all already in the market.

**Figure 37.** Innovation level for nascent/new enterprises. Colombia 2012



**Source:** Compiled by authors

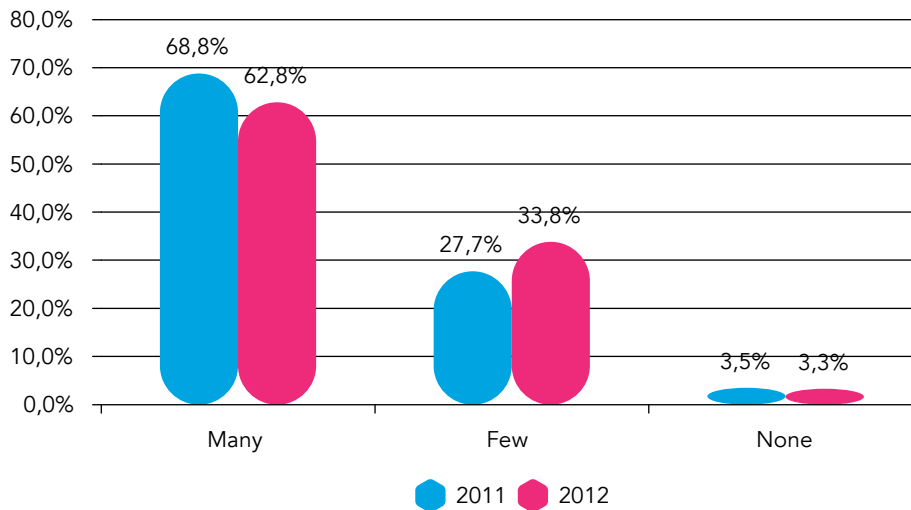
As indicated by figure 36, most of the nascent/new and the established business are in very competitive markets because their products are very similar to the ones offered by their competitor.

There is a positive factor in the nascent/new enterprises that show a trend to increase the

development of products that do not have many competitors.

Figure 37 and 38 show the evolution of this indicator in the 2011-2012 periods for established and nascent/new enterprises. A small improvement is observed in the nascent/new business.

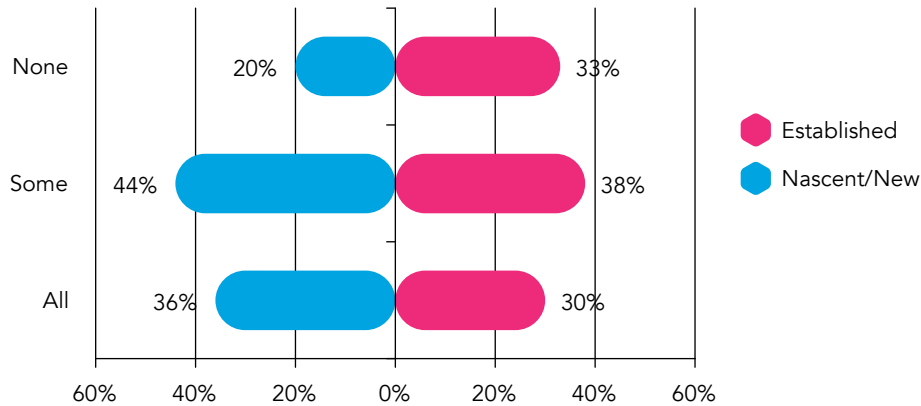
**Figure 38.** Innovation level for established business. Colombia 2012



**Source:** Compiled by authors



**Figure 39.** Innovation level (unfamiliar products/services) for nascent/new and established enterprises. Colombia 2012



Source: Compiled by authors

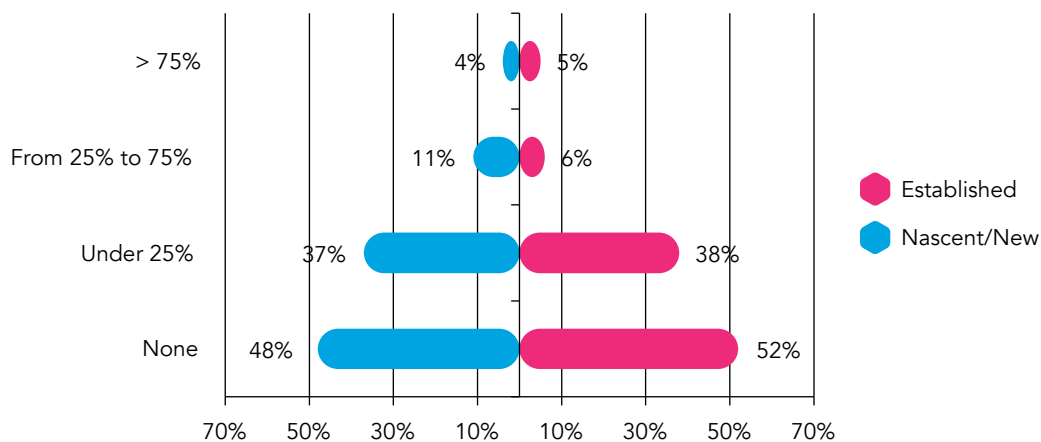
The other innovation measure made by GEM is the evaluation of the proportion of consumers that will consider the products/services new and unfamiliar. Figure 39 present the results for nascent/new and established business in 2012. Again better indicators are obtained by the new enterprises.

Again the results are not good because in the nascent/new and the established between 85% and 89% of the enterprises have more than 75% of their customers inside Colombia. Less than 5% of nascent/new and established enterprises are oriented to international markets.

The third GEM approach to innovation is measuring the proportion of consumers that it has in international markets. Figure 40 shows the results for the new and established business, in 2012, in this concept.

Table 26 present the perception of experts in terms of innovation which indicates a positive trend in the fact "consumers like to try out new products and services "(3.55) but a negative one in the fact, "consumers are

**Figure 40.** Innovation level (internationalization) for nascent/new and established enterprises. Colombia 2012



Source: Compiled by authors

open to buy products and services from new entrepreneurial companies” (2.94).

**Table 26.** Innovation. NES Colombia 2012

In my country...	2012
Companies like to experiment with new technologies and with new ways of doing things	3.02
Consumers like to try out new products and services	3.55
Innovation is highly valued by companies	3.22
Innovation is highly valued by consumers	3.60
Established companies are open to using new, entrepreneurial companies as suppliers	2.80
Consumers are open to buying products and services from new, entrepreneurial companies	2.94

Source: Compiled by authors

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 a new business.

Government and universities must foster innovation and create a culture driven by it so that regardless of whether individuals are entrepreneurs or employees, they recognize the importance that innovation has for competitiveness.

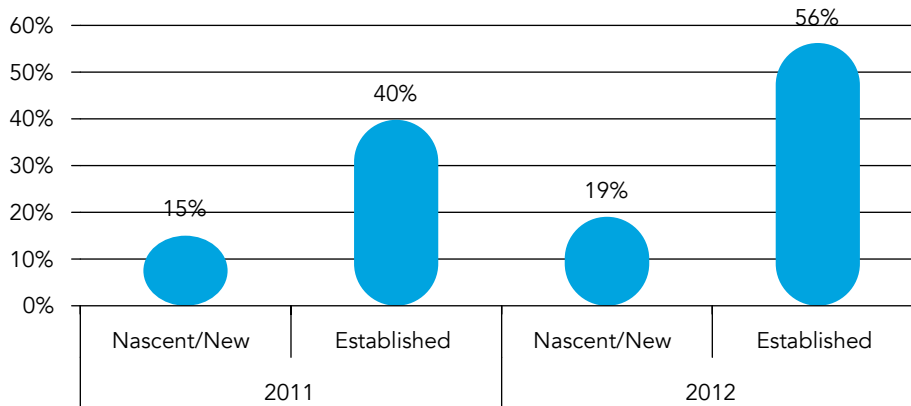
“Innpulsa” (2012) is the program the national government has initiated to foster innovation. It is an instrument aimed to improve the development and competitiveness of the country which intends to motivate more entrepreneurs to venture in high impact businesses driven by innovation. It is also important that Universities and Colciencias create programs which support technology based business in order to promote the creation of enterprises.

### 7.5 FORMALIZATION

According to DANE (Colombian National Department of Statistics), the proportion of people working in the informal sector is 49.2% in the first semester of 2013. It means that almost 50% of enterprises in Colombia are in informality situation.

The Colombian government has been promoting the formalization of the Colombian enterprises. New rules, procedures, and

**Figure 41.** Registration for nascent/new and for established business. Colombia (2011-2012)



Source: Compiled by authors



stimulus have been set out. Confecamaras as the network of Chambers of Commerce has developed support programs to the formalization framed in the Law 905/04.

As indicated by figure 41, the proportion of registered business has increased from 2011 to 2012, in the nascent/new category but also in the established business category.

Table 27, analyze in deeper detail the formalization process of the enterprises, and it shows that only 9.3% of all the nascent entrepreneurs have formalized their entrepreneurial activity; 34.3% of the new entrepreneurs have done the formalization and 56.2% of the established entrepreneurs are formalized. It is understandable that, as shown previously, many of the nascent entrepreneurial initiatives will not survive and then they will not do any formalization procedure for those initiatives. After the 3 month period of payment or remuneration, the entrepreneurs may have a more clear idea about the future of their enterprise and she/he will start registering that initiatives.

**Table 27.** Registration for nascent, new and established business. Colombia (2012)

Registered	Nascent	New	Established Business
Yes	9,3%	34,3%	56,2%

**Source:** Compiled by authors

When the reasons for not formalization process, are analyzed in Table 28, it is possible to observe that 58.4% of the established entrepreneurs consider that they do not need to be formalized to carry on their business. The other 40% is split in equal proportion between lack of information or training, lots of

paper work or requirements, high taxes, and other reason.

**Table 28.** Reasons for not formalize the enterprise in nascent/new and established business. Colombia (2012)

	Nascent/ New	Established
Lack of information or training	13,1%	10,6%
A lot of paper work or requirements	6,3%	10,6%
Fear of being audited	0,2%	0,0%
Not needed for your operation	28,4%	58,4%
High taxes	6,2%	10,6%
Other	41,9%	9,3%

**Source:** Compiled by authors

In the case of nascent/new entrepreneurs, 28.4% consider that they do not need to be formalized for their operation, 13.1% lack of information or training, and 41.9% present other reasons not specifics as their main reason to lack formalization.

There are still many barriers to business registration (i.e. formalization of new enterprises), in spite of recent efforts on the part of the government to introduce simplification rules, procedures, incentives, and support programs developed by the Chambers of Commerce. Nascent and new entrepreneurs lack information about formalization procedures and the benefits of formalizing and deterred by expectation of burdensome paperwork, compliance requirements, and high taxes. This is an area requiring further attention by the government.



## YOUTH ENTREPRENEURSHIP

The last decades had been showing a negative trend in terms of employment opportunities for young people. There are currently 1.2 billion young people in the world, and the number is expected to continue to rise until 2035. Young people are about 18% of the world population, but they represent about 40% of all the unemployed people in the world. About 200 million youth are earning under USD \$2/day and there is a need to create 600 million new jobs over the next 10 years just to sustain current levels of employment (Ellis, K., & Williams, C., 2012).

In Colombia, 29% of the population is in the range 14-26 years old; thus it is a very significant group of people with the potential and the responsibility for the future of the country. In Latin America and the Caribbean, the global youth unemployment is 14.9% in 2012, twice as the overall unemployment rate in the region 6.7% (ILO, 2013). The International Labor Organization, projected for the period 2013-2018 that the youth unemployment rate will oscillate between 13.2% and 13.6% (ILO, 2013), for young males from 11.1% to 11.2% and for young females from 16.3% to 17%.

These facts, in addition to the GEM measurements, that show that the age group with the

highest propensity toward new enterprise creation is the 25-34 years old that the 18-24 years old group shows a significant value in TEA, and the fact that there are many cases of young people establishing very successful organization had brought interest in the study of youth entrepreneurship.

In 2012, several countries decided to include a section in the APS and in the NES to study youth entrepreneurship as a pilot exercise. The first difficulty with the research was the definition of young entrepreneurs.

Chigunta (2012) proposes a broad categorization into three transitional phases:

- “Pre-entrepreneurs (in the age of 15-19 years): This is the formative stage. These younger youth are often in transition from the security of the home or education to the work place. But, as Curtain (2000) observes, for many young people, the transition from education to work is not a single step of leaving the educational system and entering the world of work.
- Budding entrepreneurs (in the age of 20-25 years): This is the growth stage. These youth are likely to have gained some experience, skills and capital to enable them run





their own enterprises. They often face three enterprise pathways: 1) remaining stuck in marginal activities; 2) going out of business; and 3) running successful enterprises.

- **Emergent entrepreneurs** (in the age of 26-29 years). This is the prime stage. With valuable experiences in business, emergent entrepreneurs have a higher level of maturity than youth in the lower age groups. Hence they are more likely to run more viable enterprises than younger people.

In order to obtain a more specific view on potential young entrepreneurs, Lewis & Massey (2003) provide a diagnostic framework for young entrepreneurs. Depending on the level of readiness (level of skill and/or exposure to enterprise) of young people to engage in business and the level of intention to be enterprising, they distinguish four different groups of potential young entrepreneurs (Figure 42).

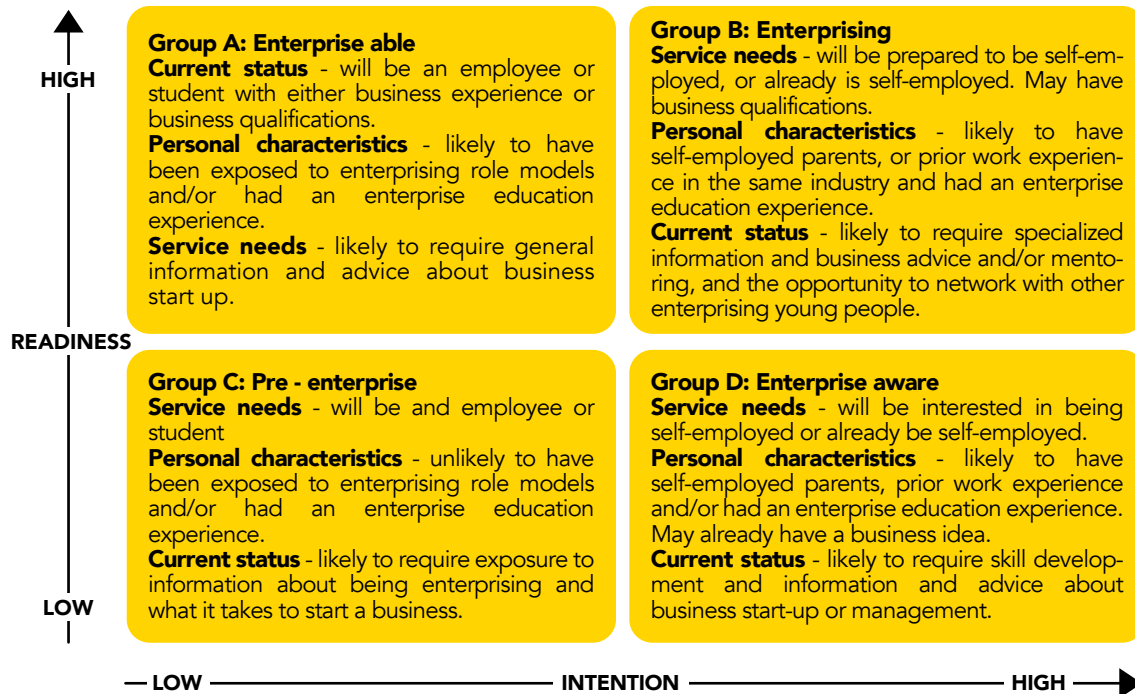
This kind of framework can assist researchers, planners and policy-makers to obtain a better understanding of the particular needs of the young people as a group, and to identify appropriate methods and promotion programs to improve the enterprise culture in a selected country or region".

GEM defines and identifies two groups of young people: the first one called "Youth" which cover people between 18 and 24 years old, the second called "Young Adults" which cover people between 25 to 34 years old. These two groups have been used always by GEM in all their studies.

The main results obtained for Colombia young population were:

- The social perception of entrepreneurship in the young population (18-34) is high, in 2012, it was 76%, and in 2011 it was 77%.

Figure 42. Diagnostic framework for youth entrepreneurs



Source: Lewis and Massey (2003)

- The potential entrepreneurs are also high: 64% in 2012 vs. 68% in 2011. In 2012, 71% of young Colombians considered that they are able to perceive opportunities, 52% considered they have the capabilities to establish and run an enterprise and 70% were not afraid to start their business due to the risk of failure.
- The level of intentional entrepreneurs was also high among young Colombians (64% in 2011 and 65% 2012), and that figure is higher than the Colombian overall population figure, indicating that young people has a higher intention rate to become entrepreneurs that older people.
- When gender is considered, the data reveals that the intentional entrepreneur rate among young males is 70.4%, but among young females is 59.7%. These results indicate that the gender gap is not closing among young people as might be expected. More research is needed to determine the major reasons for the gender disparity in entrepreneurial intent and identify remedial actions.
- A very important data is that when young people were asked about their long term preferences, 99% of the young Colombians indicated "Running my own business" and only 1% indicated "Employed by others". This perception should be seriously considered by educators and should move them to include in the curricula more Entrepreneurial Education.
- The nascent entrepreneurial rate among young Colombians was 16% for 2011 and 15% for 2012. Very much at the same level that the overall Colombian rate.

For youth nascent entrepreneurs in Colombia some important elements were identified:

- The 34% of them made their first sale in the last three months, 24% made it between the last 3 and 6 months, 12% made it between 6 and 12 months, and finally, 29% made their first sale more than 12 months back.
- 96% have clearly defined the product or service to offer.
- 70% have elaborated a business plan.
- 43% have established contact with other people to finance their business.
- 57% have a support group for the development of their business.
- 37% already have purchased machinery, equipments, inputs, implements for their business.
- 35% already have bought the raw material, inputs, products or supplier services.
- 26% consider that their enterprise is in operations.
- 83% already made their first sale.
- The new entrepreneurial rate among young Colombians was 7% for 2011 and 8% for 2012, a little higher that the overall Colombian rate (7%).

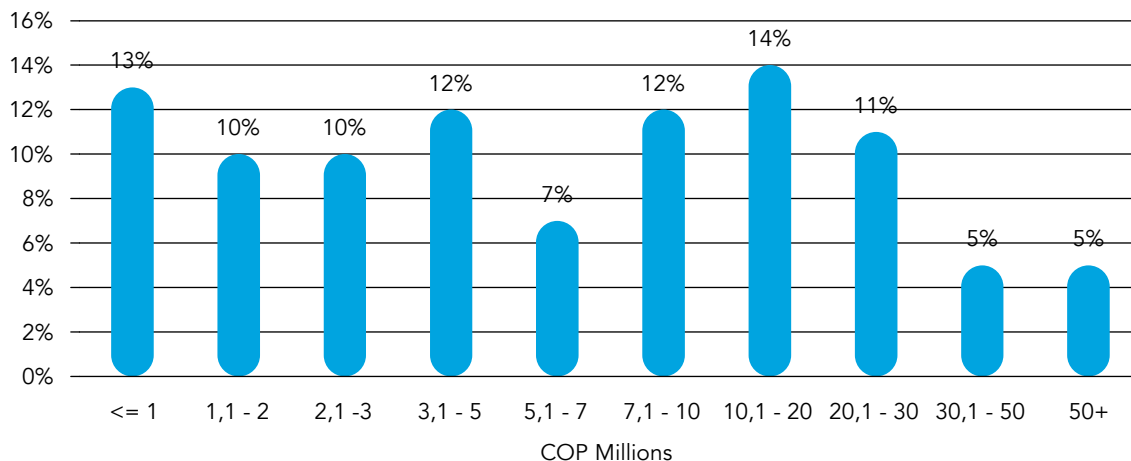
There are several elements that the youth new entrepreneurs in Colombia show:

- 100% consider that they have defined the product and/or the services they have for their customers.
- 71% have a business plan.
- 53% have had meeting with banks and other financial sources to search for financial resources.
- 54% have a support entrepreneurial group.



- 73% have purchased machinery, equipments, inputs, implements for their business.
- 75% have bought the raw material/products or services from suppliers.
- 91% consider that their enterprise is in operations.
- 94% already made their first sale.
- The total early entrepreneurial activity (TEA) for young Colombian was 23% in both years, higher than the overall Colombia TEA, which shows a bigger propensity of the young population toward entrepreneurship.
- The gender gap in the TEA rate is larger for the youth population than for the overall adult population: 26.7% among young males, and 19.3% among young females. This is a difference of 7.4 percentage points (or a ratio of 1.38 young male entrepreneurs for everyone young female entrepreneur) compared to a gap of 5.2 percentage points for the whole adult population (a ratio of 1.3 male entrepreneurs for everyone female entrepreneur). These results again confirm the gender disparity along the entrepreneurial pipeline.
- The established entrepreneur rate for the young Colombians, in 2012, as expected is lower (3%) compared to the Colombia overall population (7%),
- The discontinuance rate for the young Colombian is 6% in 2011 and in 2012, higher in the female young population (6,8%) than in the male young population (5,3%).
- The main finance sources for the Colombian new young entrepreneurs are personal savings (54.3%), banks and financial institutions (19%), family savings (15.1%) and friends (5.2%). The fact that government programs do not appear as a source is an indicative of the lack of specific policy from the government to finance young entrepreneurs. Given the fact that the government has established different financing schemes: Fondo Empringer, INNpalsa, Bogotá Empringe, Cultura E (Medellin), Acción Social, Chamber of Commerce Programs; and that very frequently the government indicates that there are unutilized financial resources for the nascent/new entrepreneur, it is necessary to research this topic not only in general, but very specifically for the young population. Maybe the lack of confidence of the young to ask for financial resources and the lack of confidence of the governmental institutions in the young people may be the cause of the different statements made by the young and the government. However, in terms of policy formulation should be clear that the conditions for financing new enterprises oriented by young people are quite different from the ones for old people.
- One interesting point was the fact the parents of the nascent/new young entrepreneurs were basically employees or not employed (50.4% of the fathers and 46% of the mothers respectively), and a low proportion of mothers were running their own business (18%), which shows again the lack of validity of the myth about "born entrepreneur".
- The main influencer in the decision of the youth Colombian to start a new business were the friends (41%), the parents (23%) and other family member (16%).
- Figure 43 shows the investment that young Colombian entrepreneurs required to start their business. In 64% of the cases less than \$ 10.000.000 COP about USD \$ 2.000 was needed.

**Figure 43.** Capital required starting a business by youth entrepreneurs. Colombia 2012



**Source:** Compiled by authors

- Table 29 and Figure 44 show the entrepreneurial pipeline for young (18-24), for young adults (25-34), for adults (35-64) and the Colombians as a group.
- The entrepreneurial pipeline for these different categories shows a low variation in the scores between categories. The social perception oscillates between 74.4% and 78%, the potential entrepreneurs from 64.2% to 65%, and the discontinuous entrepreneurs from 5.7% to 7%. However it is interesting to observe that there is a notable difference be-

tween TEA in the adult population and TEA in youth adult (25-34 years old), which reinforce the importance that has to be given to the entrepreneurial youth policy as the main source of the new enterprises that will enrich the entrepreneurial Colombian environment. The difference in the established business figure 9.9% for 35-64 and 4.4% for 25-34 and 1.4% for 18-24 is a logical difference because it is well known in all the countries that the owners and managers of established companies are persons with higher experience and higher age.

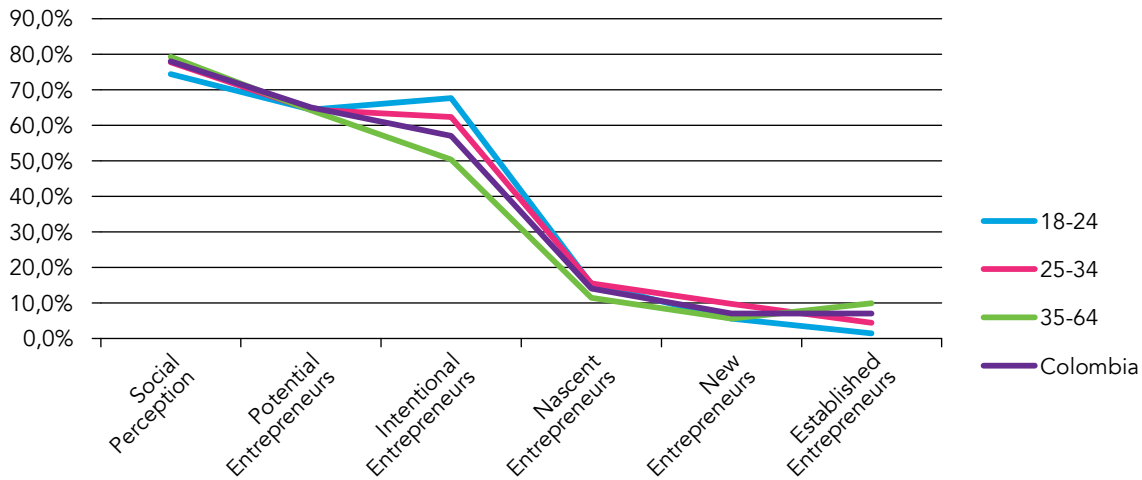
**Table 29.** Entrepreneurial pipeline: youth, adult youth and adult population. Colombia 2012

	18-24	25-34	35-64	Colombia
<b>Social perception</b>	74,4%	77,7%	79,2%	78,0%
<b>Potential entrepreneurs</b>	64,4%	64,4%	64,2%	65,0%
<b>Intentional entrepreneurs</b>	67,6%	62,3%	50,3%	57,0%
<b>Nascent entrepreneurs</b>	15,3%	15,5%	11,4%	14,0%
<b>New entrepreneurs</b>	5,6%	9,7%	5,9%	7,0%
<b>TEA</b>	20,9%	25,2%	17,3%	20,0%
<b>Established entrepreneurs</b>	1,4%	4,4%	9,9%	7,0%

**Source:** Compiled by authors



**Figure 44.** The entrepreneurial pipeline: youth, adult youth, adult and Colombia population. Colombia 2012



**Source:** Compiled by authors

These GEM results suggest that Colombian youth are very aspirational toward entrepreneurship and that there is a very high entrepreneurial potential in the young people which represents 29% of the population (Programa Colombia Joven, 2001), but also it shows the need to nurture their entrepreneurial skills from the very early stages of formation. This would require that the educational system move more strongly and quicker to adopt the idea of including entrepreneurial competence as a basic element in the Institutional Education Plan (PEI in Spanish). Including and integrating entrepreneurial innovation, value creation, entrepreneurial training in all stages of the Colombian education system

should be a must for the Colombian educational development policies. Those actions will not only increase the level of knowledge of students about the many facts of entrepreneurship, but also will cultivate in them an employer mindset rather than an “employee mindset”. The educational adjustment should include specific elements to develop women entrepreneurs.

It is impossible to envision a prosperous and dynamic entrepreneurship ecosystem without a strong focus on entrepreneurial education that prepares youth for productive and self-sufficient lives.





## IMMIGRATION AND ENTREPRENEURSHIP

Through the years, the idea that immigrants have a stronger orientation toward entrepreneurship has been expressed and exemplified (Jews in different countries, Cuban and Latin America in U.S.A, Chinese and Indies all over the world, Middle East people in many countries). Even inside the countries, immigrants from one region to other region had been mentioned as more entrepreneurial than the locals (In Colombia, the “paisas” have been identified as entrepreneurs in many other regions).

GEM took the decision to research, in the 2012 cycle, this important variable in the entrepreneurial process, because as globalization grows every country will have a growing effect in their social, cultural, economic structure from the different immigrant groups and the entrepreneurial interactions with other countries will grow.

“An especial set of questions on immigration in the APS and in the NES questionnaire were

included to measure the entrepreneurial activities and motivation of immigrants in 69 economies. The analysis specifically considers the impact of immigrants’ entrepreneurial activity in the economies in which they operate and measure variables as: growth-, innovation- and internationalization-orientation” (Roland, X, et al.,2013).

“International migration is a key contributor to globalization in cultures and in business. Today there are more than 210 million international immigrants worldwide and the long-term trend indicates a further increase within the next decades. Since the year 2000 alone, the number of international immigrants increased by 50 million” (United Nations, 2013).

“An important area of debate on the socio-economic effects of immigration, and on the implementation of corresponding strategies, centers on the labor-market. In economies with large numbers of immigrants, this



debate focuses on facilitating the economic and social integration of the immigrant population as well as on regulations to ease the immigration-related pressure on the labor-market. In particular, the inflow of highly-qualified immigrants is considered beneficial in many recipient economies to the extent it alleviates a shortage of skilled labor.

On the other hand, for economies of origin, emigration is usually associated with negative development prospects regarding the selectivity of migration. In many emigration economies, the outflow of highly-qualified persons raises concerns about a “brain-drain” and the loss of development potential. However, in the past decade emigration has also been related to positive effects in economies of origin. In this respect, social ties of emigrants to their community of origin, financial remittances and return migration potentially induce economic development.

Discussions on the labor-market issues of immigration usually view immigrants as dependently-employed, which is arguably the typical case. Only recently has the potential self-employment of immigrants been considered a vehicle for their socio-economic integration and a catalyst for economic growth. In this respect, empirical evidence from a number of economies suggests that immigrants differ from the non-in migrant population in their prevalence for entrepreneurial activity, their attitudes toward self-employment as well as their motivation for starting a firm” (Roland, X, et al.,2013).

In Colombia, the influx of immigrants in many entrepreneurial activities has been recognized through the years: Bavaria, Manuelita, Carulla, Supertiendas Olimpica, Café Águila Roja and many more were originally established by immigrants (Revista Dinero, 2004); but, also many Colombians that emigrated to other countries have had a significant role on the entrepreneurial context of those countries, but also many of them have contributed very

significantly to the Colombian economy nor only for the money they send back for their families development but also because they take Colombian production for their new living countries and in some cases when their return they are better equipped (Knowledge, experiences and resources) to start a local business. In all areas related to immigration, the studies are quite limited, and there is a need to increase the knowledge about the effects they have in the economy.

“Immigrants leave their home country in most of the developing countries because the local economies do not offer many opportunities for the development and they have the idea that developed economies will provided them those opportunities. In entrepreneurial terms the main motivation will be necessity driven immigration.

The migration of the developed countries to the developing countries, even though may have some necessity driven situations, in many cases is more an opportunity driven process where the immigrants have especial knowledge or relations that gave them a competitive advantage to the development of a new enterprise.

It is important to keep in mind that many immigrants when they arrive to the new country may have very difficult time finding a good job and developing a career inside an enterprise, not only due to lack of contacts, lack of languages in some cases, but also due to their personal expectations and their cultural differences” (Roland, X, et al.,2013).

For the study GEM identified two levels in the immigration process:

- **First generation migrants** which include individuals that were born outside the country in which they now reside.
- **Second generation migrants** which include individuals that were born in the

country in which they now reside, but any one of their parents was born outside the country.

In some areas of the world, GEM sample was able to include a significant sample of first and/or second generation migrants but in other areas and many countries the size of the sample was small. For that reason in many cases, the data will be integrated for regions or for economies groups to be able to produce some general indications about the subject.

In the Colombian case, only 1.3% of the sample identifies itself as first or second immigrant generation. Table 30 presents the results obtained in total early entrepreneurial activity (TEA), in different areas of the world, in first and second generation and compares the results with the TEA of the general population of those regions or countries.

The differences in TEA in the different regions of the world for the total population are kept for the immigrants of first and second generation. In the Colombian case, neither the first generation nor the second generation presents higher TEA than the overall population. Similar behavior is shown in South

and Central America. In other regions, the first generation shows higher TEA than the one of the overall population. In innovation driven economies, the highest TEA is shown in the first generation and the lowest in the non-immigrants; in efficiency driven economies the highest value is in non-immigrants and the lowest is in the first generation, and in the factor driven economies the highest values is for first generation and the lowest for non-immigrants.

These differences in TEA show that there are many more significant variables in the behavior of the people that the fact of being or not immigrant in a country of the region. The competences of the immigrants, the level of development of the country, the entrepreneurial framework condition, are very significant variables, in the decision to become an entrepreneur.

Figure 45 shows a significant difference between immigrants and the overall population in Colombia in terms of motivation to start new entrepreneurial activities. Only 3.3% of the immigrant entrepreneurs do it by necessity meanwhile 12.5% of the entrepreneurs do it by necessity.

**Table 30.** TEA for immigrants (first and second generation)

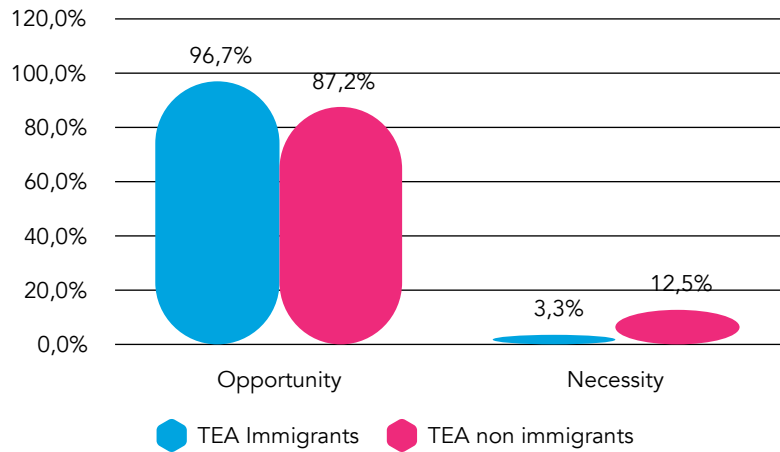
<b>World Region</b>	<b>TEA (Total Population)</b>	<b>TEA (First Generation)</b>	<b>TEA (Second Generation)</b>
<b>Colombia</b>	20.1%	15.9%	16.2%
<b>South and Central America</b>	18.8%	17.1%	17.5%
<b>U.S.A</b>	12.9%	16.4%	12.3%
<b>Western Europe (Including Israel)</b>	6.1%	8.2%	7.9%
<b>Eastern Europe (Including Russia)</b>	8.2%	8%	9.9%
<b>ASIA</b>	9.4%	11.7%	9.8%
<b>Middle East and North Africa</b>	9.3%	10.6%	12.3%
<b>Sub-Saharan Africa</b>	26.8%	31.3%	30.4%

Source: Compiled by authors





**Figure 45.** Immigrants entrepreneurs: opportunity vs. necessity. Colombia 2012



**Source:** Compiled by authors

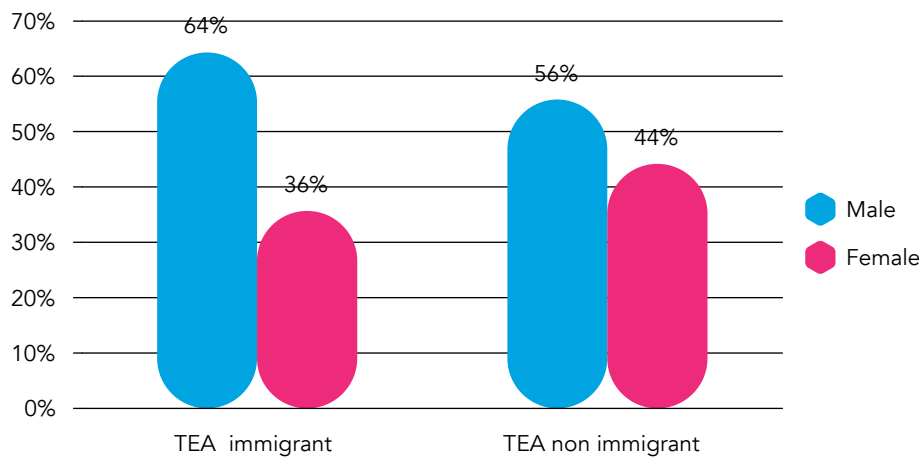
In terms of gender, difference in the proportion between men and women immigrants shows the same trend that in the rest of the population. Most of the immigrants (64%) and most of the non-immigrants are male (56%).

In terms of job creation, the study shows than first and second generation of immigrants entrepreneurs are more growth oriented than natives ones, in all three economic groups (Innovation, efficiency and factor driven).

In terms of innovation measured by the novelty of the products brought to the market, there are no significant differences between immigrants and the native entrepreneurs, neither in innovation driven or in factor driven economies, but there is a significant difference in efficiency driven toward the immigrants.

As mentioned before, the framework conditions had a very significant influence in the decision to become entrepreneurs and the development of the enterprise. GEM evalua-

**Figure 46.** Immigrants entrepreneurs by gender. Colombia 2012



**Source:** Compiled by authors

ted through the national expert survey several elements, and they are presented in table 31.

The table 31 shows that in Colombia, there is not a significant development in laws and regulations to promote and support immigrants that develop new entrepreneurial activity, that the limitations and restrictions are very similar to the ones natives have, than in terms of financing and support there are not significant differences with local people, and in general that there is not a policy oriented to attract foreigners to come to Colombia to establish new enterprises different from the ones for the native Colombians. It seems that the idea is that they should adapt and compete with Colombians at the same conditions.

Entrepreneurial policy for Colombia should evaluate the convenience of developing special incentives for immigrant entrepreneurs as has been done in other countries (Chile with its Startup-Chile could be a good case to study). In terms of facilitating from visa, to language and cultural training, to special tax incentives, etc, but always keeping similar facilities for the national and the Colombian living in foreign countries that would like to come back. The competition for entrepreneurial talents today globalized, and Colombia need to find that entrepreneurial talents wherever they may be.

**Table 31.** Entrepreneurship and immigration. NES Colombia 2012

In my country...	2012
Laws and regulations to promote and support entrepreneurial activity of migrants coming from developing countries are adequate.	2.32
Laws and regulations to promote and support entrepreneurial activity of migrants coming from developed countries are adequate.	2.55
Foreigners from developing countries experience a greater number of formal restrictions than natives, when they want to start-up a business.	2.79
Foreigners from developed countries experience a greater number of formal restrictions than natives, when they want to start-up a business.	2.93
Entrepreneurs who have migrated from developing countries have worse access to private sector finance than native entrepreneurs	3.16
Entrepreneurs who have migrated from developed countries have worse access to private sector finance than native entrepreneurs.	2.75
Entrepreneurs who have migrated from developing countries have worse access to start-up support programs than native entrepreneurs	2.90
Entrepreneurs who have migrated from developed countries have worse access to start-up support programs than native entrepreneurs	2.94
Migration and integration policy explicitly identifies the potential of entrepreneurial activity.	2.35

Source: Compiled by authors







# 10

## ENTREPRENEURIAL FRAMEWORK CONDITIONS

Since its inception, the GEM project has proposed that early stage entrepreneurial activity is influenced by a set of factors called: Entrepreneurship Framework Conditions (EFC). The EFC are “the necessary oxygen of resources, incentives, markets and support institutions to the growth of new companies” (Bosma et al. 2008). Also, the GEM conceptual model has established a clear relationship between the EFC, entrepreneurship dynamic and economic growth.

According to the GEM conceptual model, the EFC may be present at any stage of economic development, but can exert more influence when the basic requirements (primary education, health, infrastructure, etc.) and the efficiency enhancers (higher education, efficient market goods, proper functioning of the labor market, financial markets developed, etc.) are consolidated.

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

In 2012, Colombia surveyed 50 experts (entrepreneurs, policy makers, business and support services providers, Investors, financiers, bankers, educators, teachers, entrepreneurship researchers), 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.

However, in 2012, there were special areas included in NES: Entrepreneurship and youth, networking to do business, entrepreneurship and immigration, innovation, growth support, woman support, intellectual property legislation, motivation for entrepreneurship, skills to start up and perception of opportunities.

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

Figure 47 presents the average results for each one of the different areas:



- In the entrepreneurial framework conditions (EFC's), only two of them (Social and cultural norms and physical Infrastructure) got a score above 3.0, and all the other 7 show values between 2.34 and 2.93; which indicates significant limitations in the EFC's for the entrepreneurial activity in Colombia.
- In the other special areas, the score were in the range 2.45 to 3.46.

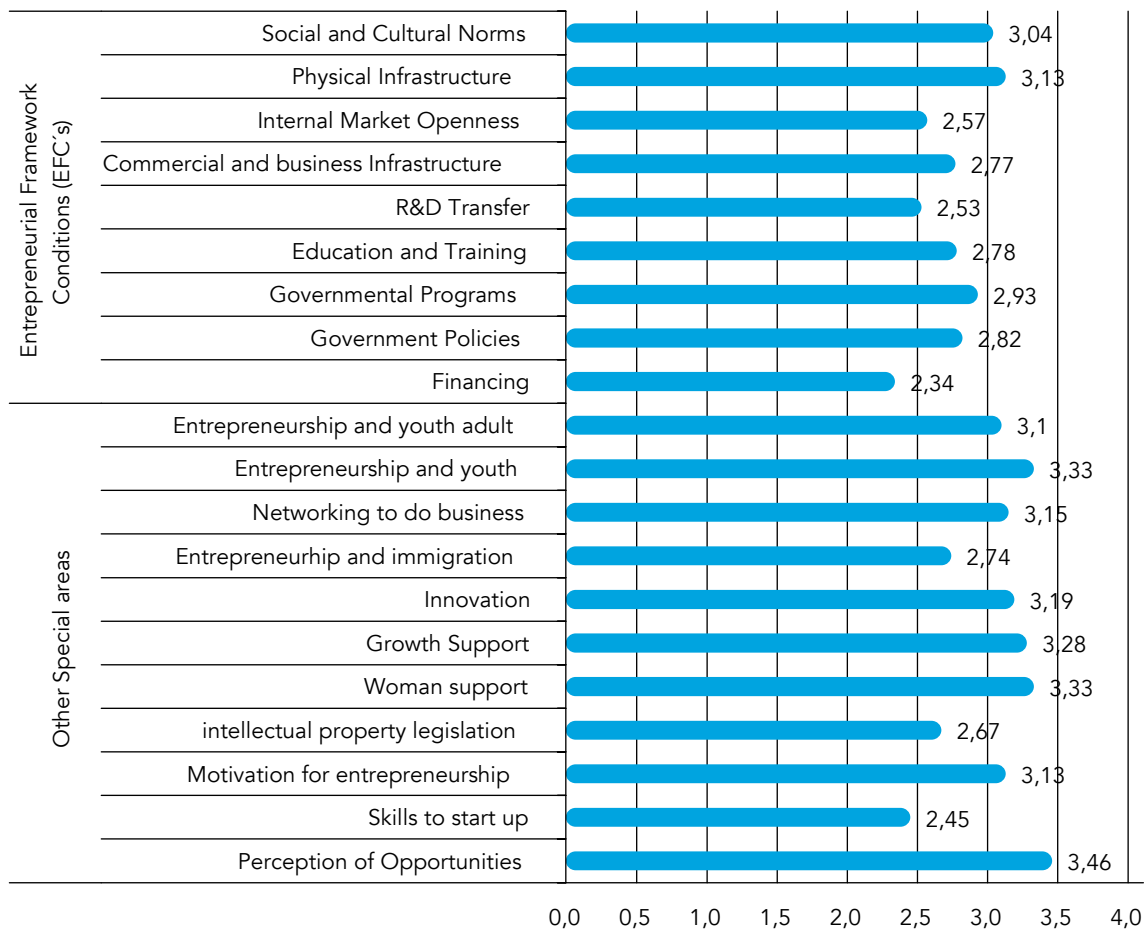
Even though through the document some of the NES results have been analyzed, it is important to consider in the very way, some of them to be able to generate some policy recommendations.

### 10.1 FINANCIAL SUPPORT

Undoubtedly, financial support facilities are very important for the entrepreneurial initiatives. Table 32 present the results obtained in 2009 and 2012, and even though there has been improvements in some areas, the scores in all the six statements is low and in some cases extremely low. The low development of the Colombian environment for funding new and growing firms may be the reason for the small size, for the low level of technology and the low innovation orientation of the companies.

It is clear that big improvements are required in this area such as the development of seed

Figure 47. Entrepreneurial framework conditions. NES Colombia 2012



Source: Compiled by authors

**Table 32.** Financial support. NES Colombia (2009-2012)

<b>In my country, there is sufficient...</b>	<b>2009</b>	<b>2012</b>
Equity funding available for new and growing firms	2.32	2.10
Debt funding available for new and growing firms	2.53	2.34
Government subsidies available for new and growing firms	2.34	2.84
Funding available from private individuals (other than founders) for new and growing firms	2.06	2.51
Venture capitalist funding available for new and growing firms )	1.94	2.18
Funding available through initial public offerings (IPOs) for new and growing firms	1.52	2.07

Source: Compiled by authors

capital funds, angel investor’s network, new debt funding with easier to fulfill requirements, government subsidies, access to non-reimbursable government funds, stimulus for savings oriented to investments in new business, support to IPO’s, development of venture capital firms, funds to develop technologies, among others.

above 3.0. The best results are for “support for new and growing firms is a high priority for policy at national government level” and the worst result is “new firms can get most of the required permits and licenses in about a week”.

The low scores in the sentences related to the taxes, permits, regulations, licensing and bureaucracy, in general, indicates the need to work stronger in these areas, not only in the policies at the national and local level, but in terms of the specific entities that apply the procedures.

## 10.2 GOVERNMENT POLICIES

Table 33 shows a significant improvement in terms of government policies from 2009 to 2012, but still only two of the condition gets

**Table 33.** Government policies. NES Colombia (2009-2012)

<b>In my country...</b>	<b>2009</b>	<b>2012</b>
Government policies (e g , public procurement) consistently favor new firms	1.94	2.77
The support for new and growing firms is a high priority for policy at the national government level	2.88	3.40
The support for new and growing firms is a high priority for policy at the local government level	2.47	3.06
New firms can get most of the required permits and licenses in about a week	2.19	2.43
The amount of taxes is NOT a burden for new and growing firms	1.82	2.49
Taxes and other government regulations are applied to new and growing firms in a predictable and consistent way	2.41	2.98
Coping with government bureaucracy, regulations, and licensing requirements it is not unduly difficult for new and growing firms.	2.38	2.63

Source: Compiled by authors



The complex paperwork, processes and varying regulations are an obstacle for new enterprises and may explain the many problems the entrepreneurial pipeline has. It may also explain why, with so many potential and intentional entrepreneurs, only a small fraction achieve a startup business (0-3 months) and even fewer maintain the business for up to 42 months or longer than 42 months.

### 10.3 GOVERNMENT PROGRAMS

When 2009 data is compared with 2012 data, in table 34 significant improvements can be identified in most of the subjects analyzed, but only two of them get above 3.0.

The biggest difficulty is that there is no single agency where entrepreneurs with new or growing firms can find the help they need from a government program. The idea of developing around the country, services similar to the Centro Alaya that works in Cali, with the government covering the cost of these may be one improvement to this problem

This idea is reinforced, in terms of the use of other non-governmental institutions to pro-

vide these services because the results about the coverage of the government program (2.82) and the efficiency of them (2.83) is not very good.

The small decrease in the national experts 'assessment of the effectiveness of support from Science Parks and Business Incubators (mean score of 2.9/5 in 2012 versus 3.0/5 in 2009) may indicate a need to review the models being applied in Colombia and their actual impact.

Two main points arise from the NES results about governmental programs:

1. The need to establish countrywide center for entrepreneurship development, similar to centers Alaya, financed by the government (at all level), as is done by the USA with SBC, and by the private sector with the support of the universities top provide services along the whole entrepreneurial process.
2. The need to review the operation of the science parks and business incubators, to increase not only their coverage, but specially their effectiveness and impact on supporting new and growing firms.

**Table 34.** Governmental programs. NES Colombia (2009-2012)

In my country...	2009	2012
<b>A wide range of government assistance for new and growing firms can be obtained through contact with a single agency</b>	2.17	2.59
<b>Science parks and business incubators provide effective support for new and growing firms</b>	3.00	2.90
<b>There are an adequate number of government programs for new and growing businesses</b>	2.72	3.23
<b>The people working for government agencies are competent and effective in supporting new and growing firms</b>	3.13	3.21
<b>Almost anyone who needs help from a government program for a new or growing business can find what they need</b>	2.55	2.82
<b>Government programs aimed at supporting new and growing firms are effective</b>	2.81	2.83

Source: Compiled by authors

### 10.4 EDUCATION AND TRAINING

As shown by table 35, significant improvement had been obtained from 2009 to 2012, but again only two categories are above 3.0.

The problems at the primary and secondary education are astonishing, and they show that the goals of the 1014 law have not been obtained. There is a significant lack of training in the development of entrepreneurial spirit and the entrepreneurial competences.

There is a need to identify Colombian experts in entrepreneurial education and convene them as an advisory team to the Minister of Education to help in the design of entrepreneurship-related curricula, pedagogic approaches, and academic material, as well as in the formation of a set of trainers who could expand the idea throughout the educational system. If real entrepreneurial education is not included in the curricula in the best possible way, the results that the 1014 law formulated will never be satisfied, and lots of frustration will be developed in the young person who wants to be an entrepreneur.

The national experts' assessment of the degree to which colleges and universities show

a small decrease in the mean score from 2009 to 2012, this suggests that, at these levels, the adequacy of entrepreneurial education is not improving.

The Ministry of Education should review of the status of entrepreneurship education in the whole educational system and provide new orientations, and assign new resources that enable the implementation of the Law 1014 in the country with the adjustments that the data indicates, as necessary, to produce more and better enterprises, more and better entrepreneurs, and more value generation.

### 10.5 R&D TRANSFER

In this essential element for spin off and for increasing the competitiveness of the enterprises, the results, as shown in table 36, are not good at all. Only one gets above 3.0

From the lack of capacity of the growing firms to buy/develop/adapt the latest technologies (2.1), to the lack of efficiently transfer of science, technology and knowledge from the university and research centers (2.5), to the lack of adequate subsidies (2.4) to the lack of support to engineers and scientist to

Table 35. Education and Training. NES Colombia (2009-2012)

In my country...	2009	2012
Teaching in primary and secondary education encourages creativity, self-sufficiency, and personal initiative	2.31	2.6
Teaching in primary and secondary education provides adequate instruction in market economic principles	1.81	2.3
Teaching in primary and secondary education provides adequate attention to entrepreneurship and new firm creation	1.7	2.3
Colleges and universities provide good and adequate preparation for starting up and growing new firms	3.0	2.9
The level of business and management education provide good and adequate preparation for starting up and growing new firms	3.29	3.4
The vocational, professional, and continuing education systems provide good and adequate preparation for starting up and growing new firms	3.1	3.1

Source: Compiled by authors





Table 36. R&amp;D transfer. NES Colombia (2009-2012)

In my country...	2009	2012
<b>New technology, science, and other knowledge are efficiently transferred from universities and public research centers to new and growing firms</b>	2.36	2.5
<b>New and growing firms have just as much access to new research and technology as large, established firms</b>	2.09	2.3
<b>New and growing firms can afford the latest technology</b>	1.76	2.1
<b>There are adequate government subsidies for new and growing firms to acquire new technology</b>	1.94	2.4
<b>The science and technology base efficiently supports the creation of world-class new technology-based ventures in at least one area</b>	3.00	3.3
<b>There is good support available for engineers and scientists to have their ideas commercialized through new and growing firms</b>	2.18	2.6

Source: Compiled by authors

commercialize their ideas (2.6), the R&D environment looks quite dark.

The Engineering and the Science university programs at the undergraduate and graduate level need to have significant entrepreneurial programs. Colciencias should stimulate research oriented to the understanding of entrepreneurship and the transformation of knowledge in enterprises that add value, create employment, generate taxes and produce wellbeing.

The Engineering and Science societies, the universities, Colciencias and the community in general should provide a significant recognition to the professionals who are able to develop engineering, technology and science based enterprises on an equal footing to the recognition assigned to conducting academic research and writing and publishing papers in peer reviewed journals; but the government has also to review their policy in term of the resources assigned for research and development, still one of the lowest in Latin America as a proportion of GDP. Something worrying over other countries is "while Colombia spends less than \$ 1,300 USD per year per researcher, Mexico is already investing

\$13,000 USD per researcher per year, not to mention the case of Chile, with \$ 40,000 USD" (Sistema de Información, Gobierno de la República de Colombia, 2011). The "Regalias Policy" should be revised not only to assign resources for traditional research but also for enterprise oriented results, such as through technology transfer and commercialization support.

Three main policy recommendations could be formulated about this subject:

1. Integrate entrepreneurship curricula across university programs, including engineering and science programs.
2. Place a higher value on the work of scientists and academicians to commercialize their research results through new and growing firms (e.g. spin-off ventures).
3. Increase the amount of government expenditure on R&D as well as on programs to encourage technology transfer from universities and public research centres to new and growing firms, and programs to support new and growing firms in the acquisition of new technology and commercialization of their own R&D activities.

### 10.6 COMMERCIAL AND BUSINESS INFRASTRUCTURE

In the five categories that this general framework conditions analyze, the results are again not good at all. Only in one category (existence of enough subcontractors, suppliers, and consultants to support new and growing firms) get above 3.0. There are improvements with respect to 2009.

But if the quantity of subcontractor, suppliers and consultant is acceptable, the matters related to the cost and to the qua-

lity of them are not well qualified: 2.39 and 2.76. The results in other services: legal and accounting (2.84) and banking services (2.72) are also quite low.

Commercial and professional infrastructure is essential for entrepreneurs to develop their business efficiently and establish competitive advantages. Thus, the public and the private sector should carefully study the best way to provide these services, at a level, that allows Colombian enterprises to compete at least under equivalent environment with all the foreign enterprises.

**Table 37.** Commercial and business infrastructure. NES Colombia (2009-2012)

In my country...	2009	2012
There are enough subcontractors, suppliers, and consultants to support new and growing firms	3.09	3.17
New and growing firms can afford the cost of using subcontractors, suppliers, and consultants	2.00	2.39
It is easy for new and growing firms to get good subcontractors, suppliers, and consultants	2.52	2.76
It is easy for new and growing firms to get good, professional legal and accounting services	2.58	2.84
It is easy for new and growing firms to get good banking services (checking accounts, foreign exchange transactions, letters of credit, and the like)	2.27	2.72

Source: Compiled by authors

### 10.7 INTERNAL MARKET OPENNESS

For GEM, internal market openness refer to the opportunity that the new and growing firms have in terms of introducing their products in the local, regional and national level. Table 38 indicates that according to the national experts, that is not the situation in Colombia because, in all the areas, the score is below 2.8. With respect to 2009, improvements have been reached, but they are still in the low level.

Government needs to develop and implement policies in a joint effort with the pri-

vate sector to improve the conditions on the internal market openness, especially when the effect of the free trade agreements and the revaluation policy has been favoring the foreign entrepreneurs and enterprises.

The difficulties in finding a real niche in the market may be one of the main causes of the number of nascent entrepreneur that are not able to get to the new entrepreneur stage. If the new Colombian companies cannot access the local market, there is not a significant

**Table 38.** Internal market openness. NES Colombia (2009-2012)

In my country...	2009	2012
The markets for consumer goods and services change dramatically from year to year	2.56	2.5
The markets for business-to-business goods and services change dramatically from year to year	2.44	2.5
In my country, new and growing firms can easily enter new markets	2.15	2.6
The new and growing firms can afford the cost of market entry	2.09	2.4
New and growing firms can enter markets without being unfairly blocked by established firms	2.33	2.8
The anti-trust legislation is effective and well enforced	2.77	2.6

Source: Compiled by authors

chance that they will be able to get a place in the international markets.

## 10.8 SOCIAL AND CULTURAL NORMS

The subject of social and cultural norms is one of the best evaluated in the NES process. In three out of five categories, the scores are about 3.0.

Table 39 shows improvements over the 2009 results, but low levels in the “encouragement for entrepreneurial risk taking (2.64)” and in “encouragement for creativity and Innovativeness (2.79)” show improvement need areas.

In the entrepreneurial pipeline analysis, it was shown that the adult population has a very

positive perception of entrepreneurship, but in the potential entrepreneurs, it was shown a high fear to failure, and here, in the NES, the experts reinforce it that there is 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.

The cultural norms of self-sufficiency, autonomy, personal initiative, risk-taking, creativity, and innovativeness, associated with an entrepreneurial culture, should be reinforced by the educational system (through entrepreneurial education) and the media in terms of providing recognition to entrepreneurs in all stages of the entrepreneurial

**Table 39.** Social and cultural norms. NES Colombia (2009-2012)

In my country...	2009	2012
The national culture is highly supportive of individual success achieved through own personal efforts	3.46	3.30
The national culture emphasizes self-sufficiency, autonomy, and personal initiative	3.12	3.22
The national culture encourages entrepreneurial risk-taking	2.64	2.64
The national culture encourages creativity and innovativeness	2.79	2.82
The national culture emphasizes the responsibility that the individual (rather than the collective) has in managing his or her own life	3.00	3.24

Source: Compiled by authors

pipeline in order to develop a stronger entrepreneurial culture.

### 10.9 PHYSICAL INFRASTRUCTURE

The physical infrastructure needed for entrepreneurship development, is the only framework condition that shows a significant decrease from 2009 to 2012, as shown by table 40, but in four out of five the categories the results are above average 3.0.

The support that the physical infrastructure provides to new and growing firms is the category with the lowest scores and the problems of good highways, transportation system, airport and in general, logistic limitation should be the ones affecting it.

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

**Table 40.** Physical infrastructure. NES Colombia (2009-2012)

In my country...	2009	2012
The physical infrastructure (roads, utilities, communications, waste disposal) provides good support for new and growing firms	2.76	2.18
It is not too expensive for a new or growing firm to get good access to communications (phone, Internet, etc )	3.71	3.10
A new or growing firm can get good access to communications (telephone, internet, etc ) in about a week	3.52	3.31
New and growing firms can afford the cost of basic utilities (gas, water, electricity, sewer)	3.33	3.27
New or growing firms can get good access to utilities (gas, water, electricity, sewer) in about a month	3.83	3.81

Source: Compiled by authors







# 11

## CONCLUSIONS

The 2012 GEM research in Colombia allow several important conclusions.

- The entrepreneurship framework conditions have improved, in relation to 2009, but still they are very limited to support entrepreneurship. Significant changes have to be done in the policies, programs and activities to improve: entrepreneurial education, financial schemes, research and development transfer, physical infrastructure, commercial and legal infrastructure, internal market openness.
- The entrepreneurial pipeline does not show significant change in Colombia from the 2011 to 2012 cycle. High values in socio-cultural perception about entrepreneurs, in potential and intentional entrepreneurs, followed by a significant reduction to nascent entrepreneurs (3 to 1) and then a significant reduction to new entrepreneurs (2 to 1), and a constant value going to established entrepreneurs is the trend
- Total early entrepreneurship activity (TEA) keeps the 20% value, 11<sup>th</sup> at the world level, 4<sup>th</sup> in Latin America, but the fact that in Colombia, the nascent entrepreneurs represents 14% and the new entrepreneur only 7%, is an indication about the limitations of the support systems in the initial period of the enterprises.
- Established business with only 7% is an alarming figure because is smaller than the data of previous years indicating that the number of enterprises passing the 0-42 months operating period is not significant enough to replace, with advantage the old business that for one or another reason are closing their operations.
- Innovation is still a concept that is not rooted inside the business culture. Very few Colombian companies are developing innovations in products-services-process-materials that will bring to the market new products, and/or will have foreign costumers, and/or will be based in new technologies. A real policy to develop an innovative culture is needed in Colombia.
- Even though the data shows a trend in the last three year of decreasing "necessity motivation", some of the other results:



- investment, growth potential, innovativeness, markets, etc. show the preponderance of very small business. Maybe there is a cultural bias toward opportunities motivation when the population is asked about both motivations.
- The disparity by gender is still significant in all the stages of the entrepreneurial pipeline. The men propensity is higher than the women propensity, and a detailed research should be designed to identify the reasons for the disparity and to develop programs and procedures that should be implemented to be able to solve the disparity.
  - The effect of immigrants in the Colombia entrepreneurial system is not a very significant variable: in one side the numbers of immigrants in the sample were very low, but also the TEA for immigrants was lower than the TEA for native's one.
  - Youth entrepreneurship is a very relevant subject. The groups 25-34 and 18-25 are the ones with two out of the three highest TEA rates. Given the number of young people in Colombia and their decision in the medium and long run (99% expect to be entrepreneurs), it is necessary to develop very specific programs in entrepreneurship for young people that should include the possibility of running their business in parallel with their academic training.
  - Again the positive relation between higher academic training and a higher propensity to be engaged in entrepreneurial activity indicates the urgency of including entrepreneurial education in the higher education systems, undergraduate and graduate degrees.





# 12

## RECOMMENDATIONS

**G**EM Colombia 2012 results, have described the situation of entrepreneurs and enterprises, identifying areas, factor, variables, with high scores and other with very low scored. Also, some disparities had been identified, and special research areas have been proposed.

In terms of policies two big subjects had arisen:

- How to improve the entrepreneurship support system to ensure that there are fewer leaks in the entrepreneurial pipeline and how to produce a growing number of new enterprises with the potential for sustainability and growth.
- How to ensure that nascent/new and established enterprises are more innovative, and growth oriented, especially in terms of job impact.

These two questions require specific policies and activities in several areas:

- Policy to enhance the culture of entrepreneurship has to be designed and implemented not only to improve the socio-cultural perception about entrepreneurship, and the percentage of adult population willing to become potential entrepreneurs, but also to improve the understanding of the enterprises goals and operation schemes of the Colombian employees.
- Policy to develop and implemented and entrepreneurial education program; in all the educational levels, oriented toward value creation as development strategy. The minister of education should integrate a commission of experts in entrepreneurial education to evaluate the state of it in the country and design the new policy and the procedure to implement it.
- A specific policy with specific support programs should be design for the youth to help them to get the entrepreneurial competences and to be able to carry on with a high probability of success their entrepreneurial initiatives.





- A research has to be done to identify the specific causes that produce the disparities along the entrepreneurial pipeline between Colombian male and female, and from that a policy for the development of women entrepreneur has to be formulated and implemented.
- Additional policies, programs and resources, have to be developed to strengthen the access to financial resources because still they are limited and cumbersome to obtain special financing schemes for young and females should be considered.
- Innovation, in the wide spectrum of possibilities, has to define as a basic policy for the country, as the tool that would provide in the medium and long run the competitiveness elements that new and existing enterprises require not only to survive, but specially to grow in terms of value and especially in jobs created. This policy should include subjects as innovation culture, innovation centers, supporting, financing and providing recognition to technology based enterprise, spin-off from research projects; support for R&D activities and their application to productive projects, support to technology transfer mechanism, development of entrepreneurial competences as: creativity, flexibility, wider perception, market orientation, inventive, in all the educational and entrepreneurial system, entrepreneurial education for engineer and scientist; research grants for the development of new enterprises, among others.
- A wider entrepreneurship support system has to be implemented all over the country, to wider the coverage to a bigger proportion of Colombia model as Centro Alaya in Cali, Cedezo in Medellin, Bogotá Emprende, and the adaptation of the SBDC's model promoted by the minister of commerce, industry and tourism, need to be financed and integrated to share methodologies and procedure had to identify the most effective ones for each stage of the entrepreneurial pipeline.
- The regulatory system should be revised to encourage higher levels of formalization by reducing the burden than the nascent/new and even established enterprises found along their development. Stimulus should be developed for the formalized enterprises that are able to grow.
- The limitations in internationalization require a special program that provides to the entrepreneurs the capacities and the willingness to go for international market when they are planning their new ventures and when they are managing their established ventures.
- The government should implement, maybe in a joint venture with different research group and with the entrepreneurial organization, research teams that will to study and measure different elements of entrepreneurship as tools to evaluate support systems and programs. The idea of an entrepreneurial observatory should be considered.



## REFERENCES

- Bosma, N., K. Jones, E. Autio & J. Levie (2008). Global Entrepreneurship Monitor, 2007 Executive Report. Wellesley, Mass., London, UK: Babson College and London Business School.
- Chigunta, F. (2002), Youth Entrepreneurship: Meeting the Key Policy Challenges, Wolfson College, Oxford University, Oxford.
- Confecámaras (2013). Formalización Empresarial. Recovered from: [www.confecamaras.org.co/cooperacion-y-competitividad/formalizacion-empresarial](http://www.confecamaras.org.co/cooperacion-y-competitividad/formalizacion-empresarial)
- Curtain, R (2000). "Concept paper: identifying the basis for a youth employment strategy aimed at transition and developing economies", United Nations Department of Economic and Social Affairs, Division for Social Policy and Development, New York. Recovered from: <http://www.un.org/esa/socdev/youthemployment/1-curtain.pdf>
- DANE (2013). Empleo Informal y Seguridad Social. Recovered from: [www.dane.gov.co/files/investigaciones/boletines/ech/ech\\_informalidad/re\\_ech\\_informalidad\\_may\\_jul2013.pdf](http://www.dane.gov.co/files/investigaciones/boletines/ech/ech_informalidad/re_ech_informalidad_may_jul2013.pdf)
- Ellis, K., & Williams, C. (2011). Maximizing impact of youth entrepreneurship support in different contexts. Recovered from web page of Overseas development institute: <http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/7728.pdf>
- INNpuls Colombia (2012), ¿Qué es iNNpuls? Recovered from: <http://www.innpulsacolombia.com/?lang=es&opc=2&sel=1>
- ILO (2013). Empleo juvenil en América Latina y el Caribe. Recovered from: <http://www.ilo.org/americas/temas/empleo-juvenil/lang-es/index.htm>
- ILO (2013). Executive Summary: Global employment trends for youth 2013. Recovered from: [http://www.ilo.org/wcmsp5/groups/public/—dgreports/—dcomm/documents/publication/wcms\\_212899.pdf](http://www.ilo.org/wcmsp5/groups/public/—dgreports/—dcomm/documents/publication/wcms_212899.pdf)



- Lewis, K., & Massey, C. (2003). Youth entrepreneurship and government policy. *International Council for Small Business 48th World Conference: Proceedings*. (pp. 1–20). International Council for Small Business 48th World Conference. Harrogate, UK.
- Lewis, K.; Massey, Cl. (2003): Youth entrepreneurship and government policy. New Zealand Centre for SME Research, Massey University. Pp 10.
- Presidencia de la República de Colombia (2011). Colombia debe triplicar esfuerzos en investigación y desarrollo. Recovered from: [wsp.presidencia.gov.co/Prensa/2011/Mayo/Paginas/20110510\\_05.aspx](http://wsp.presidencia.gov.co/Prensa/2011/Mayo/Paginas/20110510_05.aspx)
- Presidencia de la República: Programa Colombia Joven (2001). *Hacia una Política Pública de Juventud en Colombia. Herramientas para su construcción e implementación*. Bogotá. pp. 9–23.
- Quiroga, R., et al (2013). Global Entrepreneurship Monitor: Reporte Anual Colombia 2012. Universidad de los Andes, Bogotá, Colombia.
- Revista Dinero (2004). Inmigrantes: Profetas en esta tierra. Recovered from: <http://m.dinero.com/edicion-impresa/especial-comercial/articulo/inmigrantes-profetas-esta-tierra/24912>
- Roland Xavier, S., Kelley, D., Kew, J., Herington, M., and Vorderwülbecke, A. (2013). Global Entrepreneurship Monitor: 2012 Report. Recovered from the web site of GEM Consortium: <http://www.gem-consortium.org/docs/download/2645>
- Roland, X., et al (2013). Global Entrepreneurship Monitor: 2012 Report. Recovered from the web site of GEM Consortium: <http://www.gemconsortium.org/docs/download/2645>
- Schwab K., & Sala-i-Martin X., (2013). The Global Competitiveness Report. Recovered from web page of the World Economic Forum: [www3.weforum.org/docs/WEF\\_GlobalCompetitivenessReport\\_2013-14.pdf](http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf)
- United Nations (2013). United Nations Commission on Population and Development to Examine Migration Trends during Forty-Sixth Session, 22-26 April (num 1011). Recovered from: [www.un.org/News/Press/docs/2013/pop1011.doc.htm](http://www.un.org/News/Press/docs/2013/pop1011.doc.htm)
- Varela, R., & Soler, J (2013). The entrepreneurial pipeline applied to some Caribbean countries in 2012. GEM Caribbean Regional Meeting, St Michael, Barbados.

## ANNEX 1. GLOSSARY OF MAIN MEASURES AND TERMINOLOGY

Measure	Description
<b>Entrepreneurial Attitudes and Perceptions</b>	
<b>Perceived Opportunities</b>	Percentage of 18–64 age group who see good opportunities start a firm in the area where they live.
<b>Perceived Capabilities</b>	Percentage of 18–64 age group who believe to have the required skills and knowledge to start a business.
<b>Entrepreneurial Intention</b>	Percentage of 18–64 age group (individuals involved in any stage of entrepreneurial activity excluded) who intent to start a business within three years.
<b>Fear of Failure</b>	Percentage of 18–64 age group with positive perceived opportunities who indicate that fear of failure would prevent them from setting up a business.
<b>Entrepreneurship as Desirable Career Choice</b>	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.
<b>High-Status Successful Entrepreneurship</b>	Percentage of 18–64 age group who agree with the statement that, in their country, successful entrepreneurs receive high status.
<b>Media Attention for Entrepreneurship</b>	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.
<b>Entrepreneurial Activity</b>	
<b>Nascent Entrepreneurs</b>	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.
<b>New Entrepreneurs</b>	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.
<b>Total Early-Stage Entrepreneurial Activity (TEA)</b>	Percentage of 18–64 age group who are either a nascent entrepreneur or a new entrepreneur.
<b>Established Entrepreneurs</b>	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.
<b>Discontinuous Entrepreneurs</b>	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.
<b>Necessity-Driven Entrepreneurial Activity</b>	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
<b>Opportunity-Driven Entrepreneurial Activity</b>	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



Measure	Description
<b>Entrepreneurial Aspirations</b>	
<b>Job Expectation</b>	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).
<b>New Product-Market Oriented Early-Stage Entrepreneurial Activity</b>	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.
<b>International Orientation Entrepreneurial Activity</b>	Percentage of total early-stage entrepreneurs (as defined above) with more than 25% of customers coming from other countries.
<b>Entrepreneurial Framework Condition (EFC's)</b>	
<b>Financing</b>	The availability of financial resources, equity, and debt, for new and growing firms including grants and subsidies.
<b>Government policies</b>	The extent to which government policies reflected in taxes or regulations or the application of either are -neutral or encourage new and growing firms.
<b>Government programs</b>	The presence and quality of direct programs to assist new and growing firms at all levels of government (national, regional, municipal).
<b>Education and training</b>	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.
<b>R&amp;D transfer</b>	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.
<b>Commercial &amp; professional infrastructure</b>	The presence of commercial, accounting, and other legal services and institutions that allow or promote the emergence of new, small, or growing businesses
<b>Market openness</b>	The extents to which commercial arrangements undergo constant change and redeployment as new and growing firms compete and replace existing suppliers, subcontractors, and consultants.
<b>Physical &amp; services infrastructure</b>	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.
<b>Cultural and social norms</b>	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 2. NATIONAL TEAMS GEM CARIBBEAN, 2012**

<b>Team / Institution</b>	<b>National Team Members</b>	<b>Contact</b>
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### ANNEX 3. SAMPLE CHARACTERISTICS

<b>Name of the Study</b>	Global Entrepreneurship Monitor (GEM) 2012 –APS Methodology
<b>Technique used</b>	Telephonic interview using the CATI system (Computer Aided Telephone Interview)
<b>Field work date</b>	June – July 2012
<b>Profile of respondent</b>	Adult population between 18 and 64 years old living in Colombia
<b>Selection of respondent</b>	List of men and women that conform a household and random selection based in the number of people in the household and gender
<b>Sampling Universe</b>	Household with telephone: Telephonic penetration (strata 1-6): 87.9% (September 2008) Source: Encuesta General de Medios (EFM) 2010.
<b>Sample</b>	6471 surveys
<b>Sample by Gender</b>	Male: 3127; Female: 3344
<b>Response Rate</b>	Around 60% accepted respond the survey
<b>Number of Contacts</b>	Five (5) retries to contact the respondent selected

**Source:** Survey Report provided by Centro Nacional de Consultoria





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