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## Exploration of Cognitive and Procedural Competencies in Youth: A Quantitative Analysis

Diana Mireya-Cuéllar Sánchez<sup>1</sup>, Álex Dueñas-Peña<sup>2</sup>, Carlos Kennedy Veloza-Lancheros<sup>3</sup>

### **Abstract**

*This paper presents the results of an exploratory and descriptive quantitative study that addressed the cognitive and procedural competencies of young individuals in the field of entrepreneurship. The objective was to analyze these competencies in youth, identify their levels, relationships, and potential areas for improvement. A Likert scale survey was administered to 1,154 individuals aged 16 to 28 years. The results highlight the diversity of perspectives, showing positive attitudes toward entrepreneurship regardless of age and emphasizing the influence of personal interest on the acquisition of entrepreneurial knowledge. Overall, the youth exhibit a moderate level of competency. A close relationship is evident between both dimensions of competencies and the overall skill profile of youth in the region. This underscores the significance of these competencies within the skill set of youth in the region. Furthermore, areas for improvement are identified, particularly concerning the enhancement of procedural competencies.*

**Keywords:** Youth, entrepreneurship, procedural competencies, cognitive competencies.

### **Introduction**

The various changes and developments in countries are factors that impact how entrepreneurs expand and manage their knowledge, skills, and ways of doing things in order to address the requirements and challenges demanded by contemporary society (Cobo, 2021). Although in the field of economics, entrepreneurship is conceived as seizing a market opportunity (Lozada et al., 2021), the purpose of stimulating these skills in young individuals goes beyond teaching them to start a business. It relates to the knowledge and abilities they possess or develop to recognize opportunities and undertake projects that require continuous innovation, adaptation, learning, and action, while confronting adversity without feeling constrained by existing resources (Moreau & Mertens, 2013). Instead, from an early age, they should be capable of utilizing the tools that the environment offers to thrive in a highly competitive world, putting their interests and talents into practice.

Given the above, it is believed that young citizens aged between 14 and 28 will play a leading role in the productive aspect of society (Trucco and Ullmann, 2015), as it is believed that during youth, the first experiences occur to contribute to the economic development of the

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<sup>1</sup> Facultad de Administración y Economía, Universidad Colegio Mayor de Cundinamarca, Colombia; Email: [dmcuellar@unicolmayor.edu.co](mailto:dmcuellar@unicolmayor.edu.co).  
Orcid: <https://orcid.org/0000-0002-9500-1799>

<sup>2</sup> Facultad de Administración y Economía, Universidad Colegio Mayor de Cundinamarca, Colombia; Email: [aduenasp@unicolmayor.edu.co](mailto:aduenasp@unicolmayor.edu.co).  
Orcid: <https://orcid.org/0000-0002-2940-416X>

<sup>3</sup> Universidad Militar Nueva Granada. Facultad de Ciencias Económicas Campos, Colombia; Email: [carlos.veloza@unimilitar.edu.co](mailto:carlos.veloza@unimilitar.edu.co).  
Orcid: <https://orcid.org/0000-0002-1866-6906>

community (Ingellis, 2019). This involves growth with competitiveness, equal economic development, and strengthening of all sectors of the economy to reduce economic inequality and transform the region or the country into a hub of entrepreneurial innovation and competitiveness (Springer, 2011) through integration with the commercial and industrial fabric, thereby creating a territory of inspired and motivated entrepreneurs generating disruptive and scalable business ideas (UNAL, 2022).

In countries like Colombia, there is a declining trend in the knowledge, skills, and aptitudes needed to initiate or continue an entrepreneurial process (Varela, 2022). This situation is concerning because transforming opportunities into businesses contributes to the economic and productive growth of a country (Hernández et al., 2018) by promoting a conducive environment for the emergence of companies, startups, and ventures that contribute to innovation, job creation, value addition, as well as increased local and regional marketing, with the belief that change or adversity is an opportunity for improvement. In the words of Núñez-Canal (2017), there could be a positive relationship between entrepreneurial aptitude and productive progress.

Therefore, this study aims to assess the levels of cognitive and procedural abilities of young individuals in Sabana Occidente, Cundinamarca. The research and its results provide a panorama that contributes to making education and entrepreneurship the foundations of a proactive community, one that controls its own destiny and is less dependent on circumstances. To achieve this, it is necessary to recognize the region's capabilities and focus on strengthening and improving its training for the future. The study will provide government and educational institutions with information about the status of each dimension—cognitive and procedural—to work with the region's youth. This information can then be used to propose plans and improvement strategies that strengthen weaknesses, maintain strengths, and harness the entrepreneurial potential of young people.

Additionally, there is an invitation for the development and implementation of public policies that consolidate municipalities in terms of entrepreneurship education and curriculum updates and/or activities from educational institutions at various levels. In summary, the research is essential as it impacts governmental intentions regarding studies that support decision-making in curriculum strengthening, relevant professional training offerings, social projection, and regional public policies that guide actions toward what is proposed in their development plans in terms of entrepreneurship and competitiveness.

## **Theoretical Framework**

Entrepreneurship is a term that, on one hand, encompasses the actions that an individual, regardless of gender, can undertake to address real-life problems in their environment. On the other hand, it allows, through knowledge and opportunities, decision-making regarding the recognition and exploitation of an opportunity for individual and social benefit (Batista and Estupiñan, 2018). Thus, there are several concepts of entrepreneurship defined within academia due to its broad and polysemic nature (Simón, 2013). For example, the Royal Spanish Academy (2023) defines it as the action of undertaking or initiating something. Meanwhile, Sparano defines it as "a process that, over time, has been having a positive impact on the creation of companies, a phenomenon that contributes to job creation, improving efficiency in productivity, and ultimately achieving competitiveness in national and international markets" (2014, p. 96). In other words, it involves combining all efforts to turn an idea into a new

company that ultimately strengthens the labor market by leveraging opportunities to add value to a product or service, thereby promoting economic development.

From a different perspective, Paños (2017) points out that "entrepreneurship is not limited to the creation of companies and businesses" (p. 33). This concept has evolved and now includes and emphasizes the use of skills, creativity, persistence, among other characteristics, to transform any idea into something innovative. In other words, the least relevant aspect of entrepreneurship is the creation of a company because entrepreneurship does not necessarily mean creating a new business; it can also be reflected in existing organizations (Jones et al., 2014). Understanding contexts, processes, and procedures allows one to contribute and add value to the current state of affairs. It also involves seeing opportunities in what others have already created and offering solutions to their needs. This aligns with Pachón's (2020) assertion that entrepreneurship is a process of identifying opportunities that leads to actions to harness and benefit from them, thereby contributing to the development of any locality.

For other authors, entrepreneurship is a set of skills, attitudes, and behaviors that enable entrepreneurs to contribute to and transform their environment by leveraging the opportunities presented by difficulties (Gamero, 2020; Shane and Venkataraman, 2000). According to these concepts, initiating an idea, project, or company requires capabilities that integrate behavioral references (personality traits) and process characteristics (what one does) with knowledge and attitudes, all of which are necessary when taking action and pursuing a goal while maintaining a firm and persevering stance. Therefore, cognitive competencies play an essential role in the context of entrepreneurship, as they are fundamental prerequisites for carrying out mental tasks involving comprehension and reasoning (Mego and Saldaña, 2021). These competencies are not only crucial in the formal labor market but are also intrinsically linked to individuals' income levels and employability.

In the Latin American and Caribbean region, cognitive competencies play a decisive role in achieving high incomes and securing employment in the formal sector, especially in highly qualified occupations. Unzueta et al. (2011) emphasize the importance of paying special attention to cognitive activity related to the identification and recognition of opportunities. In fact, this process is considered the starting point in the entrepreneurial journey. However, it is relevant to note that the concept of opportunity in the entrepreneurial context has expanded. Opportunities are no longer limited solely to economic products or innovative ideas; they encompass a wider range, including services, inputs, markets, and production processes (Robayo, 2016). These opportunities are linked to the ability to generate various benefits through the implementation of an effective administrative management model (Malaver and Vargas, 2004). This approach not only contributes to an increase in innovative entrepreneurship but also strengthens the ability to turn ideas into tangible realities.

Entrepreneurs demonstrate their ability to identify opportunities that others overlook. The way they do this reflects their cognitive style, which can be intuitive or analytical (Mitchell et al., 2002). Their actions are shaped by a combination of perceptual, cognitive, and practical skills that influence their decision-making and management of various tasks. This set of characteristics and attitudes contributes to driving the innovative and proactive nature of the entrepreneur in the business context. Cognitive competencies not only drive professional development in the labor market but also play a crucial role in the entrepreneurial process (Rodríguez, 2015). These competencies enable individuals to identify and leverage opportunities in various domains, thereby facilitating the creation of innovative ventures and the development of solutions that have a positive impact on society and the economy as a whole.

On the other hand, modern entrepreneurship goes beyond the mere accumulation of theoretical knowledge. To succeed in entrepreneurial projects, a set of procedural competencies is required to effectively apply technical skills and carry out specific activities in different contexts. Technical or procedural skills constitute an essential element in entrepreneurship because they enable individuals to apply specialized tools, procedures, and methods in a particular discipline (Barragán et al., 2020). These skills are acquired not only through formal education but also through personal experience and practice. In this sense, skill lies in the ability to perform actions with the acquired knowledge, building new knowledge from this application (García, 2013).

Pellicer (2014) establishes a direct connection between entrepreneurship and procedural competencies. In this regard, entrepreneurship implies a positive disposition towards change, motivation, planning, perseverance, the ability to perform tasks, teamwork, innovation, creativity, and active problem-solving. These personal qualities are essential for achieving success in an entrepreneurial project, transcending the mere accumulation of knowledge about the sector or the entrepreneurial process (Sung and Duarte, 2015). The idea is emphasized that entrepreneurship is intrinsically linked to the ability to implement what has been learned, which is reflected in aspects such as charisma, perseverance, dedication, personal values, and a focus on finding solutions (Radrikan et al., 2012).

This competence of knowing how to do things is a central aspect of entrepreneurship and is linked to the ability to apply common strategies used by entrepreneurs, regardless of the sector in which they operate (Ovalles et al., 2018). This approach recognizes that entrepreneurship is based on concrete actions and the effective application of knowledge and skills in real-life situations. Procedural competencies are a key factor in the development and consolidation of entrepreneurial projects because they enable the transformation of ideas into concrete and successful actions (Ávila et al., 2018). In essence, procedural competencies occupy a crucial place in entrepreneurship. These skills focus not only on acquiring theoretical knowledge but also on the ability to apply this knowledge effectively and pragmatically in real-life situations (Vargas, 2010). From a positive disposition towards change to the ability to find solutions, these competencies empower entrepreneurs to successfully carry out their projects and turn their visions into tangible realities.

## **Methodology**

For this study, a quantitative methodology was chosen since this approach allows for the analysis of numerical data, which is essential for evaluating competencies objectively and precisely. This approach is characterized by validating coherence and objectivity in data collection and application, ensuring a high level of rigor in research (Hernández et al., 2014). Furthermore, the combination of detailed descriptions and statistical analyses facilitates the understanding of interactions and patterns presented in the collected data. Identifying significant relationships and trends enriches the analysis of entrepreneurial competencies, providing a comprehensive view of the aspects under study (Galeano, 2020).

The research was based on a sample consisting of 1,154 young residents in the Western Region of Cundinamarca. Additionally, a structured survey of 14 items was used, aiming to comprehensively cover cognitive and procedural competencies with 5 and 8 items, respectively. The survey was carefully designed based on the foundation obtained from a review of the literature and underwent a validation process that demonstrated high reliability in responses, as the Cronbach's Alpha coefficient yielded an overall value of 0.779. At the specific level, cognitive and procedural competencies had coefficients of 0.712 and 0.842, respectively.

The research, focusing on young individuals in the Western Region, north of Bogotá, with the objective of identifying implications for the development and support of young entrepreneurs in the region, involved a process consisting of the following stages:

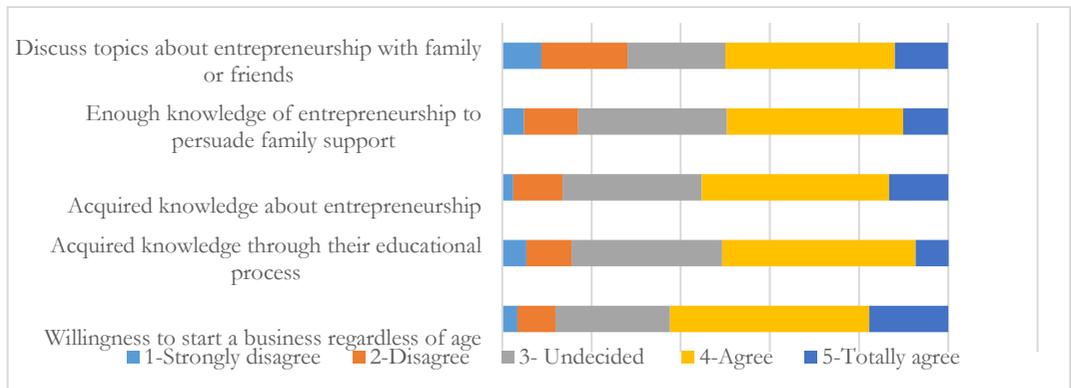
- Research questions were defined based on the concept and developed from a review of specialized literature. This process provided the necessary inputs to design the survey, which covered the two variables related to competencies: cognitive and procedural.
- Data collection was carried out using the designed instrument, which was based on a Likert scale. To evaluate competencies, both cognitive and procedural, five response alternatives were presented for each question. These alternatives ranged from "Strongly Disagree" to "Strongly Agree" for cognitive competencies. On the other hand, regarding procedural competencies, the options ranged from "Very Competent" to "No Competent."
- Data preparation, which involved correcting input errors and ensuring that the data were well-organized in the format used for this study, including data analysis software such as SPSS and Excel.
- Data exploration, where information is organized in tables and graphs as mathematical tools to facilitate the description and analysis of results.
- Interpretation of results based on analysis, evaluation, and reflection within the context defined in the general objective.
- Communication of findings through reports supported by graphics and tables.

## Results

The results of two aspects are presented: cognitive and procedural competencies in young individuals. These results stem from the survey administered to 1,154 young respondents.

### Cognitive Knowledge

The perception of young individuals regarding various aspects of entrepreneurship will be explored, such as their willingness to engage in entrepreneurship regardless of age, as well as their conversations about this topic with family and friends. Through statistics, we will present how young individuals assess their education, personal interest, and the influence they exert in their immediate environment. This will provide insight into how they connect with the field of entrepreneurship. The survey results, expressed in percentage terms and reflected in Figure 1, are used in the subsequent description and analysis.



**Figure 1:** Perspective on the Cognitive Knowledge of Young Individuals.

**Source:** Authors.

Regarding young individuals' perception of their willingness to start a business regardless of age, different perspectives were found. A 3.4% of young individuals have a very negative perception regarding their ability to start a business independently of their age. Similarly, 8.5% disagree with this idea, and a group of undecided respondents, equivalent to 25.7% of the 1,154 survey participants, is also present. On the other hand, 44.7% of young individuals report being in agreement, while 17.7% strongly agree with the idea that they can start a business regardless of their age. These two groups express a positive and convincing attitude that age is not a limiting factor for entrepreneurship.

Young individuals' perception of whether they have acquired knowledge through their educational process that gives them confidence to face the daily challenges of a business reveals several interesting aspects. Firstly, it is noteworthy that 50.8% of young individuals have a very positive perception regarding the idea of having gained useful knowledge from their educational process to confront daily business demands. This positive attitude is reflected in the 43.4% and 7.4% of respondents who agree and strongly agree, respectively. However, it is relevant to mention that 33.8% of young individuals maintain a neutral perception in this regard. On the other hand, the remaining percentages of the sample, accounting for 5.4% and 10.1%, respectively.

These statistics provide a comprehensive view of how young individuals assess the knowledge acquired in their educational process to cope with the daily dynamics of a business. It is highlighted that a significant proportion recognizes that their academic training has provided valuable knowledge to navigate the business environment.

When inquiring about young individuals' perception regarding whether they have acquired knowledge about entrepreneurship due to their personal interest in this subject, the following results were obtained: 2.5% of young individuals have a markedly negative perception of this issue, while 11.0% strongly disapprove. A considerable group, representing 31.2%, takes a position of neither agreeing nor disagreeing regarding whether they have acquired knowledge about entrepreneurship due to their personal interest.

Furthermore, it is noteworthy that 55.3% of young individuals fall into the category of agreeing that they have acquired knowledge about entrepreneurship thanks to their personal interest in the subject. This indicates that a significant proportion holds an extremely positive attitude and is convinced of the direct relationship between their personal interest and the acquisition of knowledge about entrepreneurship. Together, these figures underscore the considerable influence that personal interest exerts on expanding knowledge in this field among young individuals.

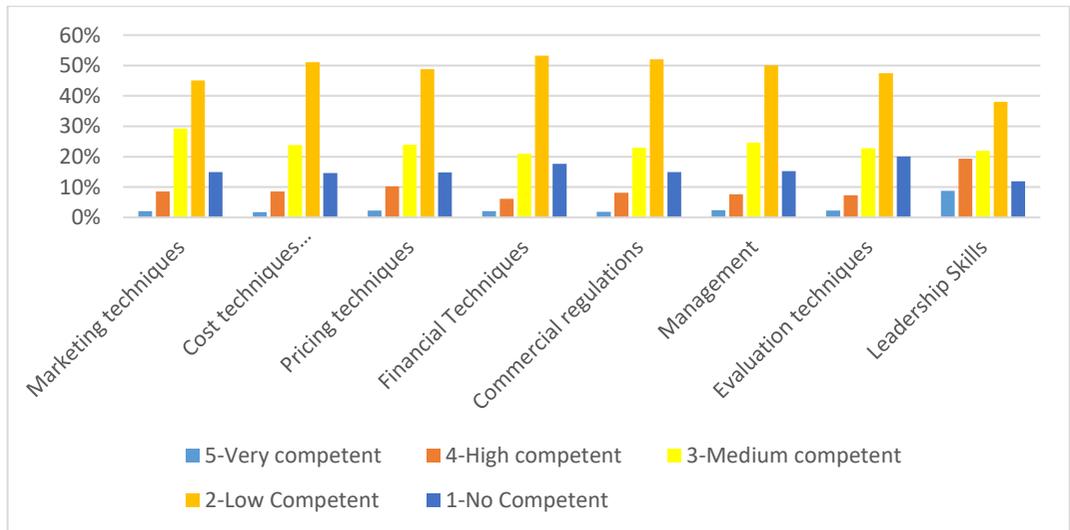
Regarding whether they believe their knowledge of how to start a business is sufficient to persuade their family to support an entrepreneurial venture, responses reflecting different perceptions were obtained: 4.9% and 12.1%, respectively, strongly disagree and agree with this statement. These values indicate that young individuals mostly have a negative perspective regarding the idea that their knowledge of how to start a business is sufficient to gain family support. Additionally, 33.4% of young individuals hold an ambivalent position in this regard, as they do not have a definitive opinion on the sufficiency of their knowledge in this context. This means they neither favor nor oppose the idea in question. In contrast, the majority of young individuals, comprising 10% and 49.5%, respectively, strongly agree and agree that their knowledge has the ability to influence their family in this decision. Thus, it is highlighted that a substantial proportion trusts that their knowledge can exert influence in this family determination.

Concerning young individuals' perception of whether they have discussed entrepreneurship with family or friends, it has been found that 8.8% and 19.3%, respectively, are in total disagreement or at least disagree with the idea of having had these conversations. Similarly, 21.9% of young individuals maintain a neutral perception, suggesting they have not had a clear experience in these types of dialogues. In contrast, 38% and 11.9%, respectively, agree and strongly agree to have talked about entrepreneurship with family or friends. These results demonstrate that a significant portion of the 1,154 respondents holds a highly positive attitude towards addressing entrepreneurship topics within their family and among friends.

### Procedural Knowledge

The analysis of procedural competencies for entrepreneurship in young individuals reveals significant variation in their perception of skills in various key areas. Competence has been assessed in several entrepreneurship spheres, such as knowledge of marketing techniques, cost and price management, financial analysis, regulatory compliance, and leadership capabilities. Throughout the study, a diverse distribution of perceptions among young individuals regarding their competence in these areas has been identified.

The following offers insight into how young individuals perceive their own skills in terms of entrepreneurship and leadership. Percentages ranging from null or low competence to high competence are observed across various domains. Based on the statistics provided in Figure 2, the perceptions of young individuals in each of these areas will be detailed, following the order of appearance from left to right. Both strengths and areas requiring improvement will be highlighted.



**Figure 2:** Perspective on the Procedural Competencies of Young Individuals.

**Source:** Autores.

En lo que respecta a nivel de competencia en términos de conocimientos de técnicas de mercadeo de productos o servicios se observó que un (14.9%) de los jóvenes tienen la percepción de carecer de competencias en términos de conocimientos de técnicas de mercadeo. Por otro lado, un (45.1%) percibe tener una competencia baja en esta área. Estos dos grupos evidencian la necesidad de fortalecer sus habilidades, ya que se consideran con poca o ninguna experiencia o conocimientos en este campo, respectivamente. De igual manera, se encontró

que un 29.3% de los jóvenes se ven a sí mismos con una competencia media en términos de conocimientos de técnicas de mercadeo. En contraste, un 8.6% y un 2.1% se consideran con una competencia alta y muy competente en técnicas de mercadeo, respectivamente. Estos resultados sugieren que un porcentaje significativo de jóvenes se sienten seguros y competentes en esta área. Así las cosas, se muestra una diversidad en las percepciones y resalta que la mayoría de los jóvenes se considera competentemente bajos en este campo.

En relación con su nivel de competencia en el manejo de técnicas para calcular costos de productos o servicios, se ha identificado que un pequeño porcentaje, aproximadamente el 1,8% de la muestra analizada, se siente confiado en sus habilidades y conocimientos destacados en esta área. Además, un 8,6% de los jóvenes se consideran altamente competentes en este dominio. Por otro lado, un 23,8% se autodefine con una competencia moderada en este ámbito. En contraste, un 51,1% y un 14,6% de los jóvenes se consideran con una competencia baja y nula, respectivamente, en términos de conocimiento de técnicas para calcular costos de productos o servicios. Estos hallazgos evidencian que la mayoría de los jóvenes, aproximadamente el 65,7%, perciben tener una competencia baja o nula en este campo.

En cuanto a los jóvenes entrevistados y su nivel de competencia en relación con la capacidad de aplicar técnicas para determinar los precios de los productos, se observa que un 2,3% de los jóvenes se considera altamente competente en términos de sus conocimientos en este ámbito. Por otro lado, un 10,2% se siente seguro acerca de sus habilidades y conocimientos en esta área. Asimismo, un 23,9% posee un nivel intermedio de habilidades y conocimientos en este campo. En contraposición, un 48,8% y un 14,8% de los jóvenes se encuentran en niveles de baja y ninguna competencia, respectivamente, en lo que respecta al conocimiento de técnicas para establecer precios. Estos resultados subrayan que la mayoría de los jóvenes presentan una percepción de competencia baja o nula en este dominio.

En cuanto a la percepción de los jóvenes sobre su nivel de competencia en técnicas para analizar las finanzas del negocio, se destaca que el 2,1% y el 6,1% muestran una actitud muy positiva y están convencidos de que poseen habilidades y conocimientos sobresalientes en este ámbito. Respectivamente, se consideran muy competentes y altamente competentes en términos de técnicas para analizar las finanzas del negocio. Un significativo 21,0% de los jóvenes se percibe con una competencia media en habilidades y conocimientos en este ámbito. Sin embargo, es la mayoría de los jóvenes quienes se auto reconocen con competencias que van desde bajas hasta ninguna competencia, marcando porcentajes de 53,2% y 17,7% respectivamente. Esto sugiere que este grupo se considera sin experiencia o conocimientos en este ámbito.

En relación con la percepción de los jóvenes acerca de su nivel de competencia en cuanto al conocimiento de las normas básicas que deben respetarse en el ejercicio comercial necesario para un negocio, se observa que un 1,9% de los jóvenes se considera muy competente en este aspecto. Además, un 8,1% se siente con alta competencia en términos de conocimiento de las normas básicas del ejercicio comercial. Por otro lado, un 23,0% percibe con una competencia media en este ámbito. En contraste, aquellos que se consideran con baja y ninguna competencia suman un total aproximado del 67%. Esto sugiere que este grupo se considera carente de experiencia o conocimientos en este dominio.

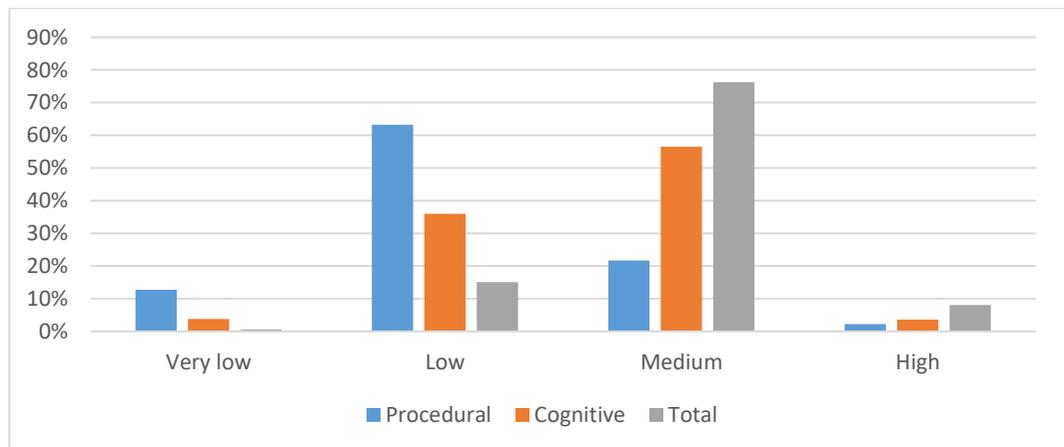
En relación con la percepción de los jóvenes acerca de sus competencias administrativas básicas para gestionar un negocio, se observa que en promedio un 10% se considera muy competente o altamente competente. Asimismo, un 24,7% se ubica en una competencia media. En cuanto a baja y ninguna competencia, estos grupos representan el 50,1% y el 15,2%, respectivamente.

En cuanto los resultados que buscan analizar la percepción de los jóvenes en relación con su nivel de competencia frente a las técnicas para saber cuándo están ganando o perdiendo en un negocio se dieron los siguientes datos: un pequeño porcentaje, equivalente al 2.3% se considera muy competente, el 7.3% con alta competencia, dejando claro que estos se sienten seguros de sus habilidades y conocimientos en este campo. Entre tanto alrededor del 22.8% con una competencia media y entre baja y ninguna competencia, respectivamente, el 47.5% y 20.1%, dejando entrever que este último grupo se considera sin experiencia o conocimientos en este ámbito.

Por otro lado, se obtuvo una visión de la percepción de los jóvenes en relación con su nivel de competencia en términos de habilidades para liderar e influir positivamente en el desarrollo de un negocio. En este sentido, se encontró que, en comparación con los aspectos previamente expuestos, las percepciones varían entre los jóvenes en cuanto a su competencia en dichas habilidades. Alrededor del 28,1% muestra una percepción de baja competencia o incluso nula en este ámbito. En contraposición, aproximadamente la mitad, equivalente al 49.9%, considera que posee una competencia alta o muy competente, mientras que un 21.9% se autocalifica con competencia media. De esta manera, la muestra conformada por 1.154 jóvenes ofrece una perspectiva acerca de cómo los jóvenes perciben sus habilidades para liderar e influir positivamente en el desarrollo de un negocio. Es importante notar que esta percepción mayormente puede estar influenciada por experiencias previas, formación y confianza en sus propias capacidades.

### Perspective on Cognitive, Procedural Level, and their Relationship in Youth

From the statistics in Figure 3, it can be observed that an overwhelming percentage of young individuals face challenges in the application of procedures related to entrepreneurship. In fact, 76.8% of the sample is at least at a low level of competence in this area. On the other hand, 21.7% of young individuals demonstrate an acceptable level of skills in this field, indicating that there is still room for improvement.



**Figure 3:** Level of Competence in Cognitive and Procedural Aspects of Youth.

**Source:** Authors.

Regarding cognitive competencies, 39.8% of young individuals are at least at a low level of competence, suggesting the need to enhance their thinking and comprehension skills in the context of entrepreneurship. On the other hand, 56.5% exhibit a medium level of cognitive skills, indicating a reasonable understanding and thinking ability in this domain. Only 3.6% possess high competence.

It is evident, as indicated by the metrics in Figure 3, that 79.2% of young individuals are generally at a medium level of competence. It is also clear that there is a balance between procedural and cognitive skills. However, it highlights the necessity to improve both procedural and cognitive competencies among young individuals in the context of entrepreneurship, as only 8.1% are at a high level of competence overall.

Furthermore, it was found that the Pearson chi-square value is 43.595 and 29.447, with 9 degrees of freedom each, and an asymptotic significance of 0.000 and 0.001, respectively. This indicates that there is a statistically significant relationship between cognitive competencies and procedural competencies, meaning they are not independent, and there is an association between them.

**Table 1:** Chi-square Tests and Association of Competencies.

	Value	df	Asymptotic Significance (Two-Tailed)
Chi-Square P-Value	43,595a	9	0,000
Likelihood Ratio	29,447	9	0,001
Linear-Linear Association	8,281	1	0,004

a. 2 cells (12.5%) have an expected count less than 5. The minimum expected count is 0.98.

**Source:** Authors.

Furthermore, the linear association with a value of 8.281 and one degree of freedom, along with a two-tailed asymptotic significance of 0.004, demonstrates a linear trend between both variables. This confirms their significant linear association. Consequently, it can be concluded that there is a statistically significant relationship between the two variables, suggesting that the values in one variable are somehow related to the values in the other variable.

**Table 2:** Correlations between Cognitive, Procedural Competencies, and Overall General.

		Procedural Competence	Cognitive Competence
Procedural Competence	Correlation of P.	1	,085**
	Sig. (two-tailed)		0,001
Cognitive Competence	Correlation of P.	,085**	1
	Sig. (two-tailed)	0,001	
Total	Correlation of P.	,672**	,487**
	Sig. (two-tailed)	0,000	0,000

**Source:** Authors.

The relationship between procedural and cognitive competencies is positive and statistically significant, considering that  $r = 0.085$  and  $p < 0.001$ . This indicates a weak but significant relationship between these two dimensions of competencies. Furthermore, it can be inferred that as procedural competencies increase, cognitive competencies also increase, and vice versa.

On the other hand, it's worth noting that there is a strong relationship between procedural competencies and the total set of competencies, as  $r = 0.672$  and  $p < 0.001$ . Similarly, the relationship between cognitive competencies and the overall total of competencies is strong and statistically significant, with  $r = 0.487$  and  $p < 0.001$ . Therefore, based on the study

conducted with a sample of 1154 young individuals, it can be concluded that both dimensions of competencies are closely related to the overall skill profile of young people in the region. This underscores the importance of both dimensions for the overall skill set of young people in the region.

## **Discussion**

The frame of reference allows us to conceptualize that entrepreneurship is not merely limited to the creation of new businesses but entails a wide range of skills, attitudes, and behaviors that enable individuals to transform their environment through the recognition and exploitation of opportunities. From decision-making to creativity and persistence, entrepreneurship is viewed as a multidimensional process encompassing innovation and the creation of value in diverse contexts.

The fundamental role of cognitive competencies in the context of entrepreneurship is acknowledged; they play an essential role in identifying and capitalizing on opportunities, as well as in decision-making and the effective management of tasks inherent to entrepreneurial endeavors. The ability of entrepreneurs to identify opportunities is often considered the starting point on the path of entrepreneurship. Furthermore, opportunities are not limited to economic products or innovative ideas but also encompass services, inputs, markets, and production processes, thereby expanding the notion of opportunity in the entrepreneurial domain.

It is emphasized how procedural competencies are essential in modern entrepreneurship. These technical skills enable entrepreneurs to apply specialized tools, procedures, and methods in specific disciplines. It is recognized that these skills are acquired both through formal education and practical experience gained in family and social settings. Moreover, entrepreneurship is not solely based on the accumulation of theoretical knowledge but on the capacity to apply this knowledge in real-life situations. The entrepreneurial process relies on the ability to transform ideas into concrete and successful actions.

The majority of young individuals face challenges in the application of procedures related to entrepreneurship. Specifically, 76.8% are at a low level in this area. Likewise, 39.8% of young people encounter difficulties concerning cognitive competencies. In contrast, only 21.7% exhibit an acceptable level of procedural skills, while 56.5% demonstrate a moderate competence. A mere 3.6% display a high level of competence in this area. These results clearly indicate room for improvement that could be achieved through relevant strategies.

Regarding the balance between competencies, data obtained from the sample of 1154 young people indicate that 79.2% are at a moderate level of competence, while only 8.1% reach a high level of competence overall. This underscores the need to enhance both dimensions.

It is important to note that both evaluated competencies revealed a statistically significant relationship between them. This emphasizes that they are not independent and are associated with each other. Furthermore, a linear trend between both variables is observed, confirming that one variable is related in some way to the other.

In conclusion, the results reflect the importance of addressing and improving procedural and cognitive competencies in young individuals in the context of entrepreneurship. Additionally, they underscore the need for teaching and training strategies that promote a balanced development of these skills.

## Conclusions

There is a diversity of perspectives among young individuals regarding key aspects of entrepreneurship. Concerning the willingness to undertake entrepreneurial endeavors regardless of age, it is observed that a significant percentage of young people possess a positive and convincing attitude, demonstrating that age is not a limiting factor for entrepreneurship. Furthermore, it is highlighted that the majority of young people positively value the knowledge acquired through their educational process to confront daily business challenges, emphasizing the importance of academic education in this context.

Regarding the influence of personal interest in the acquisition of knowledge about entrepreneurship, it is evident that a considerable proportion of young people recognize the direct relationship between their interest and the expansion of their knowledge in this field, underscoring the significant influence that personal interest exerts in this process.

Likewise, it is concluded that young individuals predominantly hold a negative perspective regarding the idea that their knowledge of how to undertake entrepreneurship is sufficient to persuade their family to support an entrepreneurial venture. However, a significant portion of them believes that their knowledge gives them the capacity to influence family decisions, demonstrating the relevance of their skills and knowledge in obtaining the support of close individuals.

In conversations about entrepreneurship with family and friends, a significant portion of young people display a positive attitude toward this idea, indicating that they are open and willing to address entrepreneurship topics in their closest social circle.

Concerning the procedural competencies related to youth entrepreneurship, it is observed that a notable percentage of them consider themselves competent in specific areas such as marketing techniques and cost knowledge. However, in other areas such as pricing techniques, financial analysis, and knowledge of commercial regulations, the majority of young people exhibit low competence or even a lack of experience. Notably, young individuals express confidence in their abilities to lead and influence the development of a business.

The aforementioned findings lead to the hypothesis that certain areas instill more confidence and security in young people, while in others, challenges and knowledge gaps are encountered. This underscores the importance of strengthening training and development in these specific areas, which could be addressed through the design of training and development programs. These programs could be implemented by educational institutions at large, with the aim of enhancing preparedness and boosting the confidence of young people in the entrepreneurial environment.

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