



Analyzing entrepreneurial competencies among business administration graduates in urban contexts of intermediate entrepreneurship

Análisis de las competencias emprendedoras en egresados de administración de empresas en contextos urbanos de emprendimiento intermedio

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Abstract

In the Latin American economy, entrepreneurship has been consolidated as a response to the high levels of unemployment, becoming an important option for income generation. This study aimed to analyze the entrepreneurial competencies of Business Administration graduates in urban contexts of intermediate entrepreneurship during the years 2020 and 2021, identifying their relationship with the challenges of the labor market and their impact on socioeconomic changes and business development. For this purpose, descriptive quantitative research was carried out, in which 32 surveys were applied to graduates, based on the categories proposed by Timmons and Spinelli (2007). The results revealed that 56.3% of the respondents had undertaken or were undertaking. Regarding entrepreneurial competencies, the graduates showed promising results in the components related to teamwork, identification of opportunities, and resource management. It was concluded that the graduates of the Business Administration program in urban contexts of intermediate entrepreneurship possess the necessary competencies to create and maintain their ventures and consider that both the methodologies taught by the teachers and the contents of the program's subjects were fundamental for the development of their entrepreneurial projects as professionals.

Keywords: management skills, business planning, entrepreneurship management, emerging economy, local economic development, higher education, social, environmental, and economic innovation.

Resumen

En la economía latinoamericana, el emprendimiento se ha consolidado como una respuesta frente a los altos niveles de desempleo, constituyéndose en una opción importante de generación de ingresos. El objetivo de este estudio fue analizar las competencias emprendedoras de los egresados de Administración de Empresas en contextos urbanos de emprendimiento intermedio durante los años 2020 y 2021, identificando su relación con los desafíos del mercado laboral y su impacto en los cambios socioeconómicos y desarrollo empresarial. Para ello, se llevó a cabo una investigación cuantitativa de tipo descriptivo, en la que se aplicaron 32 encuestas a egresados, basadas en las categorías propuestas por Timmons y Spinelli (2007). Los resultados revelaron que el 56,3% de los encuestados habían emprendido o estaban emprendiendo. En cuanto a las competencias emprendedoras, los egresados presentaron buenos resultados en los componentes relacionados con el trabajo en equipo, la identificación de oportunidades y la gestión de recursos. Se concluyó que los graduados del programa de Administración de Empresas en contextos urbanos de emprendimiento intermedio poseen las competencias necesarias para crear y mantener sus propios emprendimientos, y consideran que tanto las metodologías impartidas por los docentes como los contenidos de las asignaturas del programa fueron fundamentales para el desarrollo de sus proyectos empresariales como profesionales.

Palabras clave: Habilidades gerenciales; planificación empresarial; gestión del emprendimiento; economía emergente; desarrollo económico local; educación superior; innovación social, ambiental y económica.

INTRODUCTION

The importance of business creation has stimulated significant academic interest since Birch (1979) demonstrated that small enterprises generate more employment than large corporations. In many countries, entrepreneurship has become a central component of economic policy and a major contributor to national development. Promoting and supporting the creation of new businesses is, therefore, crucial, as they play a vital role in fostering socioeconomic growth. It is essential to identify how these ventures contribute to broader development goals and to continue monitoring their evolution to understand the variables that influence their growth. (International Labor Office, ILO, 2015).

In Colombia, 51.2% of total employment corresponds to individuals in self-employment, 10.5 percentage points above the Latin American average. Of these, only 37.3% contribute to social security, which implies that a substantial portion of the workforce is informally employed or operates outside traditional organizational structures (Consejo Privado de Competitividad, 2020). New enterprises enhance aggregate productivity through the reorganization of productive factors and by introducing goods and services that bring dynamism to supply chains. This stimulates competitiveness and drives diverse forms of innovation, ultimately contributing to economic expansion. (Economic Commission for Latin America and the Caribbean ECLAC, 2012).

Empirical evidence from countries belonging to the Organization for Economic Co-operation and Development (OECD/CAF/ECLAC, 2016) suggests a direct and positive correlation between the growth of new firms and overall economic growth. However, this relationship is shaped by factors such as a country's level of per capita income, with entrepreneurial activity tending to be higher in lower-income economies than wealthier nations. (Van Stel et al., 2005; Minniti, 2012)

According to the "Labor Outlook 2024" published by the International Labor Organization (2024), labor informality in Latin America and the Caribbean stood at 47.6% in 2024, reflecting a slight improvement from the 48% recorded in 2023. Although the regional unemployment rate declined to 6.1%, job quality remains a significant concern, as many workers remain engaged in precarious employment.

In mid-2024, Sincelejo registered the highest informality rate among the cities analyzed, reaching 68.6%, up slightly from 68.4% in the same period of 2023 (Departamento Administrativo Nacional de Estadística, DANE, 2024). This persistence highlights the challenges of reducing informal labor and its implications for quality of life and sustainable development.

Entrepreneurship in Colombia, therefore, plays a vital role in addressing these issues. Entrepreneurs, particularly those who innovate and disrupt established markets, serve as key agents of economic development (Schumpeter, 1942, as cited in Suárez et al., 2020; DANE, 2022). In this regard, strengthening the entrepreneurial ecosystem through coordinated efforts between government, the private sector, and

academia aligned with the Triple Helix model is essential for advancing sustainable and inclusive growth.

The Business Administration program, whose core mission is managing organizations to enhance business competitiveness, is expected to play a central role in promoting entrepreneurship within intermediate urban contexts such as Sincelejo. Despite this, evidence suggests limited growth in supporting and developing entrepreneurial initiatives, which constrains the emergence of new business models and limits improvements in local employment rates.

Given this reality, it becomes necessary to examine the entrepreneurial competencies of graduates from the Business Administration program in urban environments characterized by intermediate levels of entrepreneurship, focusing on the years 2020 and 2021. This analysis seeks to identify how these competencies relate to labor market challenges and influence socioeconomic change and business development, particularly considering the entrepreneurial skills and tools acquired during their academic training. These elements are especially relevant in light of the transformations brought about by the COVID-19 pandemic and other global events that have reshaped labor markets worldwide.

Therefore, it is important to understand the responses and strategies employed by Business Administration graduates as they confront labor market challenges. Applying entrepreneurial competencies and tools acquired during their studies emerges as a possible solution for developing and implementing business ideas. Notably, most of the study population is located in Sincelejo.

Assessing the impact of competencies and skills developed through higher education is critical in urban contexts characterized by intermediate entrepreneurship. Such competencies may directly influence graduates' ability to launch businesses, generate employment, and integrate unemployed individuals into the labor force, contributing both to labor market dynamism and the department's economic growth. Based on this rationale, the following research question is proposed: What entrepreneurial competencies are present in graduates of the Business Administration program in urban contexts of intermediate entrepreneurship?

This article is organized into several sections that seek to systematically explore the relationship between entrepreneurship and the competencies developed by graduates of the Business Administration program. First, a literature review presents key theoretical frameworks and perspectives on entrepreneurship and its implications for the labor market. This is followed by a description of the research methodology, which adopts a quantitative approach. The results section presents and analyzes the data collected through surveys conducted with graduates. The discussion then interprets these findings in terms of the theoretical framework. Finally, the article concludes with the main conclusions, implications, and recommendations derived from the research.

LITERATURE REVIEW

Based on the literature review concerning leading theorists and their contributions to entrepreneurship, particularly their relationship with labor market dynamics, this section draws on the work of the most frequently cited authors in academic research.

Entrepreneurship and economic development: A strategic relationship in emerging contexts

Entrepreneurship is fundamental to communities' economic and social development, as it fosters job creation, innovation, and business growth (Navarro et al., 2020). However, according to Holguín and Rodríguez (2020), entrepreneurs often face a range of risks (such as armed robbery, extortion, or threats from criminal groups) that may result in the loss of financial capital and a sense of failure. In response, they stress the importance of developing what they call a humanistic competence:

...develop a humanistic competence: resilience, which will help them to overcome any event such as these, one of them originates a cognitive and attitudinal change in their business lives, otherwise it is necessary to bring out proactive behavior as a means of overcoming to maintain unscathed the objectives of their self-realization as a microentrepreneur (...). (Holguín and Rodríguez, 2020, p.3)

Thus, fostering entrepreneurial competencies becomes crucial, as these represent the set of abilities, attitudes, and behaviors necessary for transforming ideas into viable ventures (Deza-Loyaga et al., 2021). In this regard, universities have assumed a growing role in equipping students with the knowledge and capacities contributing to regional and national development.

It is therefore essential to assess the levels of resilience and entrepreneurial skills in university students, especially considering that higher education institutions prioritize training individuals capable of responding to entrepreneurial challenges with adaptability. Entrepreneurship is increasingly viewed not only as a strategy to promote economic sustainability but also as an academically relevant phenomenon. It reinforces theoretical positions that argue that entrepreneurial competencies can be developed through exposure to dynamic environments. This aligns with institutional policies that foster research, entrepreneurship, and business innovation.

Entrepreneurship: From Historical Roots to Modern Innovation

The concept traces back to the 17th century with the emergence of classical economics. Cantillon (1755, as cited in Murphy, 2009; Murphy, 2018) described the entrepreneur as an individual who takes on risk in uncertain environments and

can make decisions in times of change. Later, in the 20th century, the neoclassical school emerged during the era of economic growth. Among its early critics, Kirzner (1973) emphasized entrepreneurship as a discovery process identifying profit opportunities. (Núñez & Núñez, 2016)

Economists such as Schumpeter (1943) and Hayek (1933), as cited in Suárez et al. (2020), were pioneers in identifying entrepreneurship as a key driver of national economic growth. Entrepreneurship, they argued, transforms the productive system through innovation, introducing new models, processes, and tools that redefine how organizations operate.

Another influential thinker, Drucker (1985, as cited in Hidalgo Proaño, 2014), emphasized the importance of grounding entrepreneurship in theory. He viewed entrepreneurial behavior as a strategic response to uncertainty. In this sense, entrepreneurship encompasses a series of processes—including opportunity identification, planning, execution, and growth—each requiring a distinct set of competencies to increase the likelihood of success.

One of the earliest modern definitions of the entrepreneur comes from Drucker (1985), who stated that an entrepreneur is someone who “...seeks change, responds to it, and exploits it as an opportunity...” (as cited in Rodríguez & Jiménez, 2005, p. 16). Innovation is the entrepreneur’s most specific tool, and it is the ability to turn a source into a resource that defines entrepreneurial success. Rodríguez and Jiménez (2005) argue that no consensus has been reached on whether entrepreneurs are born or made, nor on whether success is a function of individual agency or environmental conditions, as no theory has been definitively confirmed or disproven.

Although entrepreneurship has existed throughout history, its importance has grown significantly in recent decades due to the increasing need to address social and economic challenges. It is now recognized as an evolving and complex global phenomenon that requires individuals to assess their roles and capabilities in the entrepreneurial process.

Refining the Concept: Toward a Precise Definition

The Global Entrepreneurship Monitor (GEM, 2016) defines entrepreneurship as “any attempt at new business or business creation, such as self-employment, new business organization, or expansion of an existing business, by an individual, a group of people, or an established business” (p. 21). Entrepreneurship is not limited to starting a new enterprise; it also involves engaging in change and innovation that improve organizational, economic, and human resource outcomes.

Stevenson (1983, cited in Cuevas Oviedo, 2011) argued that entrepreneurship is fundamentally about identifying and acting on market opportunities. This process relies heavily on continuous observation and responsiveness to market needs. While resources are important, opportunity identification is the core driver of entrepreneurial action.

Entrepreneurial Competencies

Timmons' model of entrepreneurial competencies focuses on the essential traits and skills needed for entrepreneurial success. It highlights three core components: the team, the opportunity, and the resources required to act on that opportunity.

According to **Timmons (1989)**, successful entrepreneurs must possess leadership and management capabilities, be willing to take risks, and be able to make critical decisions. They must also have a clear market vision and be passionate about their projects.

The model emphasizes the entrepreneur's ability to recognize and capitalize on opportunities. Access to appropriate resources, such as funding and trained personnel, is equally important. As **Timmons (1989)** explained, "entrepreneurship is not just a matter of having a good idea, but of knowing how to turn it into a viable enterprise" (p. 28). His framework provides a valuable reference for identifying the knowledge and skills essential for transforming ideas into sustainable ventures. (see **Figure 1**)

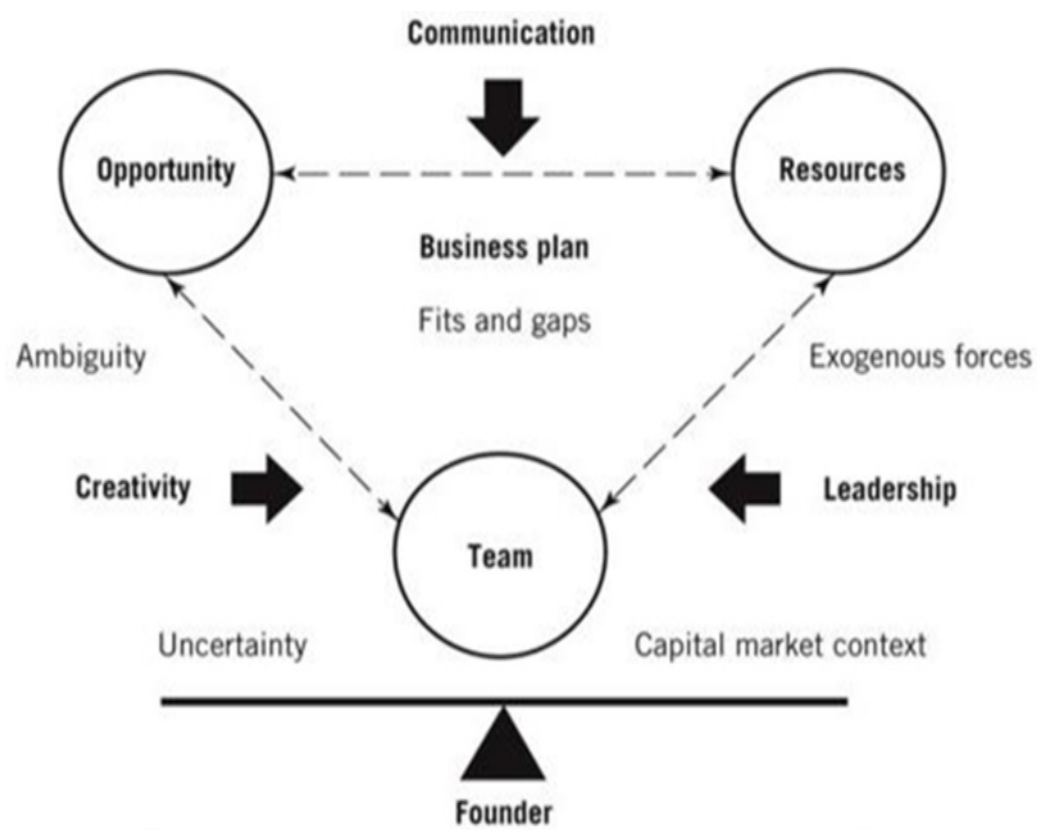


Figure 1. Timmons Model.

Source: **Timmons 1989**.

From this and other perspectives, it is evident that entrepreneurs must possess or develop a set of characteristics that contribute to the successful implementation of business initiatives through experience and education.

Araque (2009), an Ecuadorian economist and business management scholar, refers to the study of Personal Entrepreneurial Characteristics (PEC) by the German Technical Cooperation (GTZ). This study shows creativity and innovation are among the most critical entrepreneurial competencies. Entrepreneurs must cultivate strong self-confidence, enabling them to assume risk in uncertain environments requiring key decisions.

In addition, entrepreneurs must possess sharp observation and research skills to identify emerging opportunities in national and international markets. These competencies are particularly valuable in an increasingly competitive and complex global landscape.

Entrepreneurs also face structural and contextual challenges that can hinder business development. Therefore, they must maintain consistent and realistic objectives, allowing their ventures to mature. Learning from failure, adapting to adversity, and planning effectively are key abilities that help entrepreneurs avoid improvisation and respond proactively to unforeseen events.

These competencies and personality traits, such as punctuality, responsibility, leadership, and teamwork, are central to the GTZ framework. However, it is important to note that different types of entrepreneurs may exhibit varied profiles, values, and business goals, creating a diverse range of enterprises.

The Engine of Change: Why Entrepreneurship Matters More Than Ever

Entrepreneurship continues to gain importance in contemporary economic discourse. A cross-national study involving forty countries concluded that entrepreneurship thrives in markets where resources circulate freely. In this context, “market” is an active and engaged community. Entrepreneurship multiplies when successful entrepreneurs reinvest in new ventures and when individuals actively reflect on and promote entrepreneurial practices (**Cuevas Oviedo, 2011**).

Entrepreneurial initiatives may vary widely depending on contextual variables such as economic, social, cultural, political, and technological factors and the entrepreneur’s abilities. As **Aleman et al. (2013)** explain, entrepreneurship is closely tied to self-employment and personal fulfillment. For many young people and early-career professionals, entrepreneurship offers a viable path into the labor market. **Barba-Sánchez and Atienza-Sahuquillo (2012)** argue that entrepreneurial intent and behavior stem from an individual’s personality and their perceived capacity to build and manage a business venture.

METODOLOGY

This study adopted a non-experimental descriptive correlational quantitative approach, characterized by collecting measurable data and statistically analyzing the studied population. The primary advantage of this approach is its ability to

provide accurate, comparable data, which facilitates the interpretation of results in terms of relationships and patterns between variables.

The decision was made to collect primary data by designing and applying a comprehensive and structured survey instrument. This instrument was validated by entrepreneurship and business administration experts, ensuring the quality and relevance of the questions and the consistency of the instrument's construct. The validation process strengthened the reliability and validity of the study, ensuring that the results were accurate and based on a sound methodological foundation.

The survey focused on three key dimensions of entrepreneurial competencies, following the categories proposed by [Timmons \(1989\)](#), who classifies competencies into three components: team, opportunity, and resource. These dimensions were essential in assessing the entrepreneurial skills and competencies of program graduates:

- Entrepreneurial management: initiative, opportunity identification, value creation, risk-taking, resilience, etc.
- Management skills: leadership, communication, teamwork, negotiation, problem-solving, decision-making, etc.
- Business planning: business plan development, market analysis, financial management, marketing strategies, etc.

In addition to these three key dimensions of entrepreneurial competencies (team, opportunity, and resource), additional questions were included to assess other relevant dimensions, such as creativity, innovation, adaptability, and achievement orientation. Socioeconomic factors were also included to better understand the graduates' environment and assess the relevance of entrepreneurial competencies in the Business Administration program graduates.

It is important to note that this research adopts a descriptive approach, with the primary aim of analyzing the entrepreneurial competencies of Business Administration graduates in urban contexts of intermediate entrepreneurship between 2020 and 2021. The study identifies the relationship between these competencies and the challenges of the labor market, as well as their impact on socioeconomic changes and business development, without intervening in or manipulating variables. According to [Suárez \(2010\)](#), descriptive explanatory knowledge plays a crucial role in logical comparison, which is essential for formulating the appropriate questions to address the study's objectives.

The choice of this methodology is justified by its precision and representativeness. Using a quantitative approach and a representative sample, the collected data are accurate and generalizable. Moreover, the statistical analysis facilitates extracting objective results based on concrete data, which is essential for developing entrepreneurial competencies.

Population and Sample

The study's universe consisted of 121 graduates of the Business Administration program from 2020 to 2021. Due to challenges in accessing the entire population (such as the migration of many graduates to other cities or countries), a convenience sampling technique was applied. This non-probabilistic method allows for selecting participants who are accessible within a specific timeframe (Huaire Inacio, 2019).

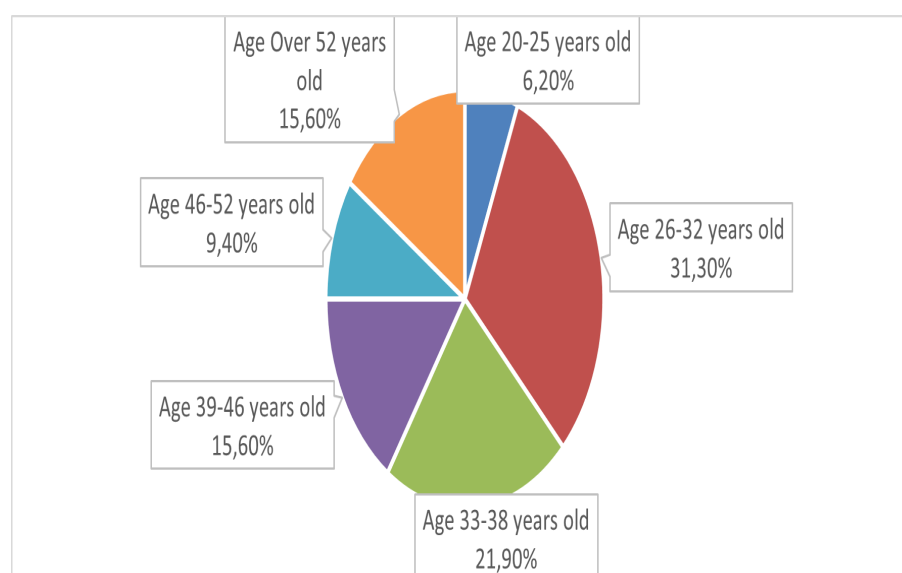
In this instance, a sample of 32 graduates was selected based on their availability and active participation in the local business environment, either through their micro-enterprises in the city of Sincelejo or through their employment in prominent organizations in the region. Graduates registered in their university's institutional monitoring systems were also contacted.

The use of convenience sampling was justified by the particular conditions of the target population and time and resource constraints. This strategy enabled an effective approach for analyzing entrepreneurial competencies in urban contexts of intermediate entrepreneurship, aligning with the study's objectives.

RESULTS

Sociodemographic

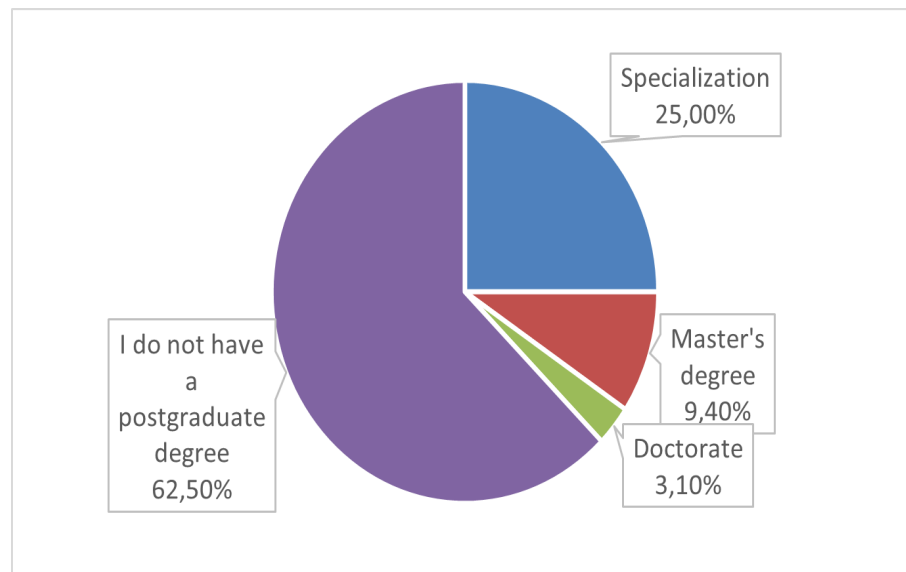
The results revealed that 56.3% of the respondents were either currently engaged in entrepreneurship or had undertaken entrepreneurial ventures at some point in their professional careers. Additionally, it was observed that the percentage of entrepreneurs was higher in the age group of 26 to 32 years, with 31.3% of individuals in this group identifying as entrepreneurs, compared to 21.9% in the 33 to 38 years age group. (see **Graph 1**)



Graph 1: Percentage of age range

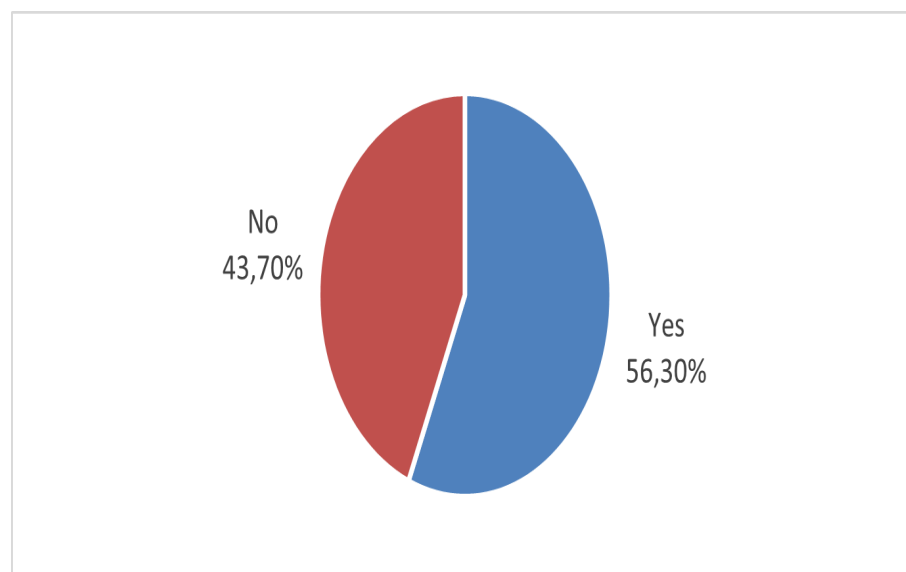
Source: Autor's elaboration

In terms of educational attainment, it was found that 62.5% of the graduates did not hold any postgraduate qualifications. (see **Graph 2**)



Graph 2: What type of postgraduate studies have you completed?
Source: Autor's elaboration

Regarding entrepreneurship, only 56.3% of the respondents owned a business. (see **Graph 3**)



Graph 3: Do you have any SME type enterprises?
Source: Autor's elaboration

The findings indicate that most of the businesses developed by the surveyed graduates correspond to microenterprises (83.3%), meaning businesses with up to 10 employees. This trend reflects a common characteristic in urban contexts of intermediate entrepreneurship, where access to financial, technological, and human resources is limited, thus impacting the scalability of businesses.

Then, 11.1% of the graduates have managed to establish small businesses, indicating a more advanced level of organization and growth within the local business ecosystem, although this still represents a small proportion. On the other hand, only 5.6% of the businesses fall into a higher category, approaching the size of medium-sized enterprises, which could be attributed to better management capabilities, stronger support networks, or differentiated strategies. (see [Table 1](#))

Table 1.

Size of your SME

Type of company	Range of employees	Percentage (%)
Microenterprise	From 1 to 10 employees	83,3
Small business	From 11 to 50 employees	11,1
Medium or large	More than 50 employees	5,6

Source: Autor's elaboration

This behavior suggests that although the graduates have an active entrepreneurial spirit, the structural barriers of the economic environment limit the establishment of larger businesses. In this sense, it is crucial to strengthen entrepreneurial competencies focused on growth, innovation, and sustainability and enhance institutional support during the post-graduation stages.

“Team” Component of the Timmons Model (1989)

The results show that graduates of the Business Administration program possess a high level of entrepreneurial capacity in this dimension (combining those who agree and strongly agree for the following analyses):

- Decision-making ability in a participatory manner: 92.3% of the respondents perceive themselves as capable of making decisions in collaboration with their teams. This skill strengthens collaborative leadership and reflects a horizontal management style consistent with innovative organizational models.
- Adaptability to change: 96% of respondents reported adapting easily to change, indicating a high level of entrepreneurial resilience. This competency is crucial in intermediate urban contexts, where markets tend to be more volatile and less structured.
- Risk-taking: 77% of the graduates indicated willingness to take on high-risk tasks. This willingness aligns with the entrepreneurial mindset, although the remaining 23% show a more conservative stance, which may be linked to factors such as financial insecurity or lack of institutional support.
- Participatory management of activities: 82.6% stated that they manage activities with the participation of their collaborators. This suggests that graduates exercise leadership and promote collaborative work environments, a trait increasingly valued in contemporary business management (see [Table 2](#)).

Table 2

“Team” Component of the Timmons Model (1989)

Dimension	Indicator	Percentage (%)
Do you make important decisions in a participatory way?	Strongly disagree Disagree	3,8
	Neither agree nor disagree. Agreed	0,0
	Totally agree Strongly disagree Disagree	3,9
	Neither agree nor disagree. Agreed	50,0
	Totally agree Strongly disagree Disagree	42,3
Do you think it adapts easily to changes?	Disagree	4,0
	Neither agree nor disagree. Agreed	0,0
	Totally agree Strongly disagree Disagree	0,0
	Neither agree nor disagree. Agreed	68,0
	Totally agree	28,0
Do you manage activities that involve participation in conjunction with your employees?	Strongly disagree Disagree	8,7
	Neither agree nor disagree. Agreed	0,0
	Totally agree Strongly disagree Disagree	8,7
	Neither agree nor disagree. Agreed	60,9
	Totally agree Strongly disagree Disagree	21,7
Do you have a tendency to take on high-risk jobs?	Disagree	3,5
	Neither agree nor disagree. Agreed	8,0
	Totally agree Strongly disagree Disagree	11,5
	Neither agree nor disagree. Agreed	46,2
	Totally agree	30,8

Source: Autor’s elaboration

Motivation, Communication, and Leadership

The following are some of the results (see [Table 3](#)):

- **Motivation and team management:** The results reveal that 95.5% of the graduates surveyed believe they can form productive, self-motivated, and self-managed work teams. This indicates a high level of inspirational leadership and the ability to foster autonomy in their collaborators. The complete absence of “totally disagree” responses further reinforces the generalized positive perception of this competency.
- **Communication:** Regarding communication, 91.3% (combining “agree” and “strongly agree”) of the graduates reported being able to transmit and receive information effectively in group contexts. This finding suggests that the majority possess strong interpersonal competencies essential for coordination and building trust within entrepreneurial teams. However, a small group (8.7%) expressed neutrality or disagreement, indicating a potential gap in training or practical experience in this area.
- **Leadership and planning:** Regarding leadership, 91.7% of the participants identified themselves as competent in assigning functions and leading their team members, highlighting a key skill for the strategic delegation of responsibilities.

Likewise, 82.6% indicated that they engage in rigorous planning to develop activities, demonstrating a structured task and project management approach.

Table 3

Motivation, Communication, and Leadership from Timmons' (1989) Model

Dimension	Indicator	Percentage (%)
Do you have skills and ease in assigning roles to the other team members?	Strongly disagree	4,2
	Disagree	0,0
	Neither agree nor disagree	4,1
	I agree	54,2
	Totally agree	37,5
Do you have the ability to transmit and receive information in working group meetings?	Strongly disagree	4,4
	Disagree	0,0
	Neither agree nor disagree	4,3
	I agree	56,5
	Totally agree	34,8
Do you plan rigorously for the development of an activity in your company?	Strongly disagree	4,4
	Disagree	0,0
	Neither agree nor disagree	13,0
	I agree	60,9
	Totally agree	21,7
Do you have the qualities to form a productive, self-motivated, self-managed work team?	Strongly disagree	0,0
	Disagree	4,5
	Neither agree nor disagree	0,0
	I agree	59,1
	Totally agree	36,4

Source: Autor's elaboration

“Opportunity” Component of the Timmons Model (1989)

Table 4 presents the results related to the “Opportunity” component of the Timmons (1989) model, as described below:

- **Management Skills and Entrepreneurial Capacity:** 97% of respondents reported having managerial skills that enable them to create new businesses or companies, indicating a strong self-perception of entrepreneurial potential. Only 4.3% of the participants expressed total disagreement with this statement, and no respondents selected neutral or intermediate options. This pattern reinforces the clarity and consistency in the graduates' self-assessment of their entrepreneurial competencies.
- **Strategic Thinking and Commitment to Continuous Improvement:** The data reveal that 95.6% of respondents feel prepared to implement short-, medium-, and long-term strategies in their businesses. The same percentage also stated they are ready to design and apply new actions to improve products or services. The consistency in these results suggests that the graduates possess an entrepreneurial

orientation and demonstrate a clear vision for sustainability and competitiveness through ongoing improvement efforts.

- **Innovation and Change Management:** When asked about implementing changes in business processes, 63.1% indicated that they had made improvements to enhance performance. While this represents a majority, it is noteworthy that 21.1% remained neutral, and 15.8% expressed disagreement or strong disagreement. These findings point to potential opportunities for reinforcing innovation practices and addressing barriers hindering change management in specific organizational settings.

- **Engagement with Business Incubators:** 84.6% of respondents recognized the importance of business incubators as platforms for achieving operational self-sufficiency. This suggests a positive attitude toward receiving structured guidance, participating in support networks, and acquiring skills that enhance the chances of entrepreneurial success. Such openness is particularly valuable in environments with low levels of entrepreneurial maturity, as it may contribute to reducing the failure rate of nascent ventures.

Table 4

Opportunity Component of the Timmons Model (1989)

Dimension	Indicator	Percentage (%)
Do you consider the business incubator important for operating in a self-sustainable way in a company?	Strongly disagree	3,9
	Disagree	0,0
	Neither agree nor disagree	11,5
	I agree	53,8
	Totally agree	30,8
Do you have managerial skills that will allow you to create new businesses or companies?	Strongly disagree	4,3
	Disagree	0,0
	Neither agree nor disagree	0,0
	I agree	43,5
	Totally agree	52,2
Are you ready to implement your company's short-term, medium-term, and long-term strategies?	Strongly disagree	4,4
	Disagree	0,0
	Neither agree nor disagree	0,0
	I agree	56,5
	Totally agree	39,1
Are you ready to make new guidelines or actions to improve a service or product?	Strongly disagree	4,4
	Dissagree	0,0
	Neither agree nor disagree	0,0
	I Agree	56,5
	Totally agree	39,1

	Strongly disagree	10,5
	Disagree	5,3
Has your business or company undergone any changes in processes to improve results?	Neither agree nor disagree	21,1
	I Agree	52,6
	Totally agree	10,5

Source: Autor's elaboration

“Resources” Component of the Timmons Model (1989)

Table 5 presents the findings corresponding to the “Resources” component of the Timmons (1989) model, summarized as follows:

- **Financial Capacity and Strategic Planning:** Eighty percent of respondents reported conducting financial projections to assess the profitability of their ventures. This finding reflects a mindset oriented towards economic sustainability and strategic foresight. Planning financially is crucial for decision-making under uncertainty, attracting external investment, and accessing funding opportunities.
- **Regarding personal resources,** 70.9% of graduates (combining “agree” and “totally agree” responses) indicated that they possess the financial means to initiate a business project. This suggests a foundational level of autonomy and investment capacity. However, 29.2% of respondents expressed hesitation or uncertainty, which may present a barrier to actualizing entrepreneurial ideas.
- **Strategic Alliances and Cooperation:** A total of 65.2% of graduates stated that they have participated in alliances or cooperation agreements with other entrepreneurs or organizations. This highlights a proactive approach to building collaborative networks that can enhance access to shared resources, knowledge, and market opportunities. Nevertheless, 34.8% of respondents remained neutral or expressed disagreement, indicating that there is still space to strengthen a culture of cooperation, particularly in entrepreneurial ecosystems where competition tends to outweigh collaboration.
- **Training and Professional Development in Entrepreneurship:** One of the most critical insights from the data relates to the low level of participation in entrepreneurship-related training activities. Only 25% of graduates reported attending such events in the past two years, while 62.5% stated they had not participated. An additional 12.5% attended events unrelated to entrepreneurship. This limited engagement in professional development reflects a significant gap in a context where entrepreneurial competencies must be continually updated, especially in areas such as innovation, digital transformation, business model adaptation, and sustainability.

Table 5

Resource component of Timmons' model (1989)

Dimension	Indicator	Percentage (%)
Do you make projections in your company that allow you to determine the profitability of your venture?	Yes	80,0
	No	20,0
Have you attended events or trainings related to entrepreneurship or business creation in the last 2 years?	Yes	25,0
	No	62,5
	If I have attended events, but it is not going to related to that activity	12,5
Would you have your own resources to start a business project?	Strongly disagree	0,0
	Disagree	12,5
	Neither agree nor disagree	16,7
	I Agree	41,7
	Totally agree	29,2
Do you participate in alliances or cooperation agreements with other companies?	Strongly disagree	0,0
	Disagree	17,4
	Neither agree nor disagree	17,4
	I Agree	39,1
	Totally agree	26,1

Source: Autor's elaboration

DISCUSSION OF RESULTS

This study sought to analyze the entrepreneurial competencies of Business Administration graduates in urban contexts of intermediate entrepreneurship during the years 2020 and 2021, examining their connection to labor market challenges and their impact on socioeconomic transformation and business development. For this purpose, **Timmons (1989)** model was employed, which posits that successful entrepreneurship emerges from the dynamic interaction of three elements: team, opportunity, and resources.

Analysis of the "Team" Component: Adaptive Leadership and Uncertainty Management

The "Team" component in **Timmons (1989)** model reflects the human foundation of entrepreneurship, the capacity to form, lead, and sustain effective work teams under conditions of uncertainty and limited resources. In intermediate urban entrepreneurship contexts, where support ecosystems are often weak and institutional responsiveness is low, the strength of the entrepreneurial team becomes a critical factor for business sustainability. (**Timmons 1989; Neck et al., 2021**)

The results indicate that the graduates surveyed have developed key competencies in participatory leadership, adaptability, and strategic decision-making. These findings align with [Frederick et al. \(2016\)](#), who emphasize that entrepreneurial leadership entails making decisions and mobilizing individuals around a shared vision, particularly in uncertain environments.

Nevertheless, some of the graduates continue to face challenges in risk-taking and actively involving collaborators in decision-making processes. This highlights the need to reinforce training in transformational leadership and uncertainty management skills essential for ventures' scalability and adaptability in low-institutional-capacity environments.

Moreover, dimensions such as team motivation, effective communication, and functional leadership emerge as fundamental for entrepreneurial success in intermediate urban settings. In fragile ecosystems, where institutional support is limited or absent, the team's strength may determine the business's survival or failure ([Baum et al., 1998](#)). While a strong base of leadership competencies is evident, further work is needed to build cohesive, resilient teams capable of innovation and strategic response to contextual challenges.

The entrepreneurial profile observed in this component is marked by organizational orientation, adaptability, and leadership capacity traits that contribute to local socioeconomic transformation. However, the results also are signal areas where the academic sector must intervene, particularly through pedagogical strategies that foster collaborative leadership and self-managed team dynamics.

Analysis of the “Opportunity” Component: Innovation and Strategic Thinking

The “Opportunity” component in Timmons' (1989) model refers to the entrepreneur's ability to identify, evaluate, and exploit business opportunities in dynamic environments. This competency is particularly significant in intermediate urban contexts, where markets may be limited yet underexplored, offering potential competitive advantages for entrepreneurs who can detect unmet needs.

Findings reveal that graduates demonstrate a strong orientation toward business creation, innovation, and strategic thinking. This combination of abilities, deemed fundamental by [Shane and Venkataraman \(2000\)](#) for discovering and exploiting entrepreneurial opportunities, positions graduates as high-potential entrepreneurs, particularly in regions where entrepreneurial ecosystems remain underdeveloped.

Nonetheless, some graduates display ambiguity regarding the actual implementation of process improvements and systematic engagement with innovation tools. This gap may reflect differences in business maturity levels or contextual constraints, such as limited technical support or access to resources, factors consistent with studies indicating that opportunity perception does not always translate into entrepreneurial action. ([Davidsson, 2015](#))

Moreover, graduates' recognition of incubators' role and participation in competitions and funding calls reflects growing awareness of available entrepreneurial support. However, this also underscores the importance of reinforcing linkages among universities, the productive sector, and public policy frameworks to expand access to such opportunities. Entrepreneurial education must evolve from purely motivational content toward strategic, context-based training that equips graduates with the tools necessary to convert ideas into sustainable ventures.

This component reveals a proactive and innovative profile among the graduates, with well-developed strategic thinking and entrepreneurial vision. However, converting these strengths into tangible outcomes requires more robust institutional frameworks, technical support systems, and a culture of continuous improvement tailored to the specific demands of intermediate urban entrepreneurship.

Analysis of the “Resources” Component: Planning, Networking, and Lifelong Learning

The “Resources” component in **Timmons (1989)** model refers to the entrepreneur's ability to access, mobilize, and manage the financial, human, intellectual, and social resources necessary for launching and sustaining a business. This component becomes especially critical in intermediate urban contexts, where structural limitations, access asymmetries, and low institutional density prevail (**Audretsch & Fritsch, 2002; Frederick Van Stel & Storey, 2002**).

The findings of this study show that graduates possess access to various resources and opportunities that support entrepreneurial development. The ability to mobilize personal funds, conduct financial projections, and partner with other entrepreneurs reflects a favorable foundation for entrepreneurial sustainability. In particular, 70% reported having initial financial resources to start a venture, and 80% stated they developed financial projections—skills essential for strategic and financial decision-making in the early stages of business development (**Timmons, 1989; Frederick et al., 2016**).

Additionally, 65% of respondents indicated having participated in alliances or cooperation agreements, suggesting the existence of active social networks. This finding echoes **Aldrich and Zimmer (1986)**, who emphasized the value of social capital in the feasibility and longevity of business ventures. However, the study also identifies a significant weakness: limited participation in ongoing training related to entrepreneurship. Only 25% of graduates have recently attended such programs. This lack of professional development constitutes a serious risk, as ventures may stagnate without continuous learning, particularly in fast-changing areas such as innovation, digital transformation, and sustainable business models (**Neck et al., 2021**).

It is also important to acknowledge that the benefits of resource access are not always immediate. Research by **Audretsch and Fritsch (2002)** and **Frederick Van**

Stel & Storey (2002) indicates that the macroeconomic effects of entrepreneurship, such as job creation and economic growth, may take five to ten years to materialize fully. These insights underscore the importance of long-term support mechanisms provided by public policy and university initiatives.

In this regard, the training received by Business Administration graduates offers valuable tools for entrepreneurial structuring. Their education includes key elements such as market segmentation, pricing, investment analysis, and marketing strategy design. In addition, their access to entrepreneurship-focused events, awards, and competitions helps lay the groundwork for sustainable business paths and income generation.

Such competencies are essential in addressing structural issues like youth unemployment, which remains a significant challenge in Colombia. As noted by the **Cámara de Comercio de Guayaquil and Universidad ECOTEC (2009)**, entrepreneurship not only benefits individuals but also promotes territorial development, innovation, social cohesion, and solidarity, which are essential components of robust entrepreneurial ecosystems.

Accordingly, universities' role is crucial in enhancing graduates' employability and positioning them as local development agents in intermediate urban entrepreneurship contexts. Therefore, it is recommended that institutions strengthen lifelong learning initiatives, promote partnerships with financial organizations, and consolidate support networks that accompany entrepreneurs throughout the entire business lifecycle.

CONCLUSIONS

The results indicate that graduates of the Business Administration program in urban contexts of intermediate entrepreneurship have developed significant entrepreneurial competencies. While these competencies demonstrate notable strengths, they also reveal areas that require further development to achieve a sustainable impact within their territories. The team component reflects strong capabilities in participatory leadership, project management, and change management, which are critical elements for driving innovation in environments with limited resources. However, the lack of shared responsibility in decision-making and the limited culture of collective learning highlights the need to foster more cohesive and resilient teams.

In terms of opportunities, graduates can identify market niches and create value propositions to address real-world problems. Their participation in institutional initiatives and competitions demonstrates a proactive entrepreneurial attitude, though the effective implementation of tangible improvements still appears to be constrained. This suggests that the transition from formulation to implementation requires greater technical and strategic support, particularly in contexts where the entrepreneurial ecosystem is still in the early stages of development.

Regarding the resource's component, the environment appears relatively favorable: graduates can access financing, support networks, and additional training. However, the limited participation in specialized training programs and the lack of systematization of acquired knowledge suggest an opportunity to strengthen institutional mechanisms for ongoing support. Previous research has shown that the impacts of entrepreneurship on employment and economic development are often delayed (Audretsch & Fritsch, 2002; Frederick Van Stel & Storey, 2002), emphasizing the need for a long-term perspective and policies that ensure sustainability beyond the project's initial phase.

In this context, universities play a strategic role in initial training and consolidating entrepreneurial trajectories through support, incubation, and professional development programs. Institutions must serve as intermediaries between academic knowledge, the productive environment, and public policies, fostering ecosystems that promote innovation, youth employability, and territorial development. This role is especially critical in cities with intermediate entrepreneurship, where graduates can become social and economic transformation agents if provided with the right environment.

This study, however, has important limitations. The analysis focused on a localized and self-reported sample, which may affect the objectivity of the findings. Additionally, the cross-sectional design precludes the ability to assess the evolution of competencies over time or to establish causal relationships. Therefore, future research could adopt longitudinal and comparative approaches that integrate multiple regions and explore in greater depth the relationships between university education, entrepreneurial performance, and the generation of social and economic impact. It would also be pertinent to examine the role of university-business-government alliances in strengthening local entrepreneurial ecosystems.

CRedit AUTHORSHIP CONTRIBUTION STATEMENT

Martínez Cárdenas: Conceptualization, methodology, research, writing - original draft, writing-revision and editing, visualization, supervision, project management. Alzate Clemente: Conceptualization, research, validation, formal analysis, Writing - Original draft, writing-revision, and editing. Hernández Meza: Conceptualization, research, data curation, writing - original draft, writing-revision, and editing.

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