



# Youth Employment and Entrepreneurial Intention of Colombian University Students

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**Abstract:** This article seeks to determine the Colombian bibliography on the impact of entrepreneurial intention in university students, whose context is youth self-employment, as a possible entrepreneurial strategy. The research is exploratory and descriptive in nature. The analysis is based on a review of the literature published over the last two decades and recorded in the Web of Science (WoS) and Scopus databases. The articles analyzed were selected based on inclusion criteria in high-impact journals with the highest number of citations. This review resulted in 45 articles, of which 13 were selected, specifically related to the entrepreneurial intention of university students in Colombia. The results of the analyzed articles, whose theoretical basis is the Theory of Planned Behavior (TPB), agree that entrepreneurial attitude is the most influential predictor, while subjective norms are less important for entrepreneurial intention. Similarly, entrepreneurship education is highlighted as a key element for enhancing emotional skills and self-efficacy, leading to favorable conditions for promoting youth entrepreneurship in the context of high unemployment among this population in the country.


**Keywords:** youth employment, entrepreneurial intention, theory of planned behavior, university students, entrepreneurial intention, educational ecosystems, Colombia.

**JEL Classification:** D01; E24; L2; L26.

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# *Empleo juvenil e intención empresarial de los universitarios colombianos*

## **Resumen**

Este artículo revisa la literatura sobre la incidencia de la intención emprendedora en los estudiantes universitarios en Colombia, cuyo contexto es el autoempleo juvenil, como posible estrategia del emprendimiento. La investigación es de carácter exploratorio y descriptivo. El análisis se basa en la revisión de la literatura publicada durante las últimas dos décadas, registrada en las bases de datos Web of Science (WoS) y Scopus. Los artículos analizados se seleccionaron con criterios de inclusión en revistas de alto impacto y mayor número de citaciones. De esta revisión resultaron 45 artículos y se seleccionaron 13, los cuales se refieren específicamente a la intención emprendedora de los estudiantes universitarios colombianos. Los hallazgos de los artículos analizados, en los que el fundamento teórico es la teoría del comportamiento planeado (TCP), coinciden en que la actitud emprendedora es el predictor más influyente, en cuanto las normas subjetivas tienen una importancia menor en la intención emprendedora. Así mismo, se destaca la educación en emprendimiento, elemento clave para potenciar las competencias emocionales y la autoeficacia, de las que se derivan condiciones favorables para fomentar el emprendimiento juvenil en un contexto con un nivel de desempleo elevado en este grupo poblacional del país. Este artículo contribuye a una mayor comprensión de la intención emprendedora de los estudiantes universitarios, a partir de los estudios publicados y su relación con el emprendimiento, como estrategia de crecimiento económico y desarrollo social en una economía emergente como la colombiana.

**Palabras clave:** empleo juvenil, intención emprendedora, teoría del comportamiento planeado, estudiantes universitarios, ecosistemas educativos, Colombia.

## INTRODUCTION

Academic interest in the determining factors of entrepreneurial intentions among higher education students is nascent in Latin America (Krauss-Delorme et al., 2018; Tarapuez-Chamorro et al., 2018b), despite the existence of some works oriented towards a comparative analysis (Céspedes Gil et al., 2021), as well as the positive perception of entrepreneurship (Rubio Hernández & Lisbona Bañuelos, 2023), given its contribution to innovation, economic growth, and employment (Laguía et al., 2017; Valencia-Arias et al., 2022). The countries where perhaps the greatest research advances have been recorded are Brazil, Mexico, Chile, and Argentina, among others. However, Colombia's research in this area remains limited.

An opposite situation is observed in Europe and Asia, continents where theoretical and empirical contributions related to the different manifestations of emotional intelligence have been remarkable in recent years.

According to Tormo-Carbó et al. (2024), entrepreneurship has expanded in Asian countries with greater intensity than in Europe, especially in Southern Europe, which they consider “unfavorable contexts”, and they classify Spain as a “relatively hostile” context, in contrast to Anglo-Saxon countries, which show a more favorable position.

Hence, the purpose of this work is to explore the advances achieved by Colombian and foreign researchers in the analysis of the entrepreneurial intention of students with higher education, in the context of university entrepreneurship, and, in this way, to be able to have a better understanding of one of the most relevant phenomena in the development of emerging economies (Anderson, 2023; Bigos & Michalik, 2020; Talukder et al., 2024).

At the same time, it is expected that this article will help to identify new lines of research and provide input to educational institutions and public policy makers to strengthen policies and incentives for young entrepreneurs.

## ENTREPRENEURSHIP IN THE CONTEXT OF YOUTH EMPLOYMENT IN COLOMBIA

There are trends in the Colombian labor market that do not favor young people (people between the ages of 15 and 28). Youth employment and unemployment rates are lower in the first case and higher in the second case than those observed in the country as a whole. Between 2010 and 2024, the average youth employment rate was 48.9%, while the unemployment rate stood at 16.8%, which contrasts with the record for the country as a whole: 59.7% and 9.7%, respectively. The most critical year was 2020, when the coronavirus pandemic broke out, with this decline more pronounced among young people than in the country as a whole (Table 1, Figure 1).

**Table 1.** Labor market indicators in Colombia

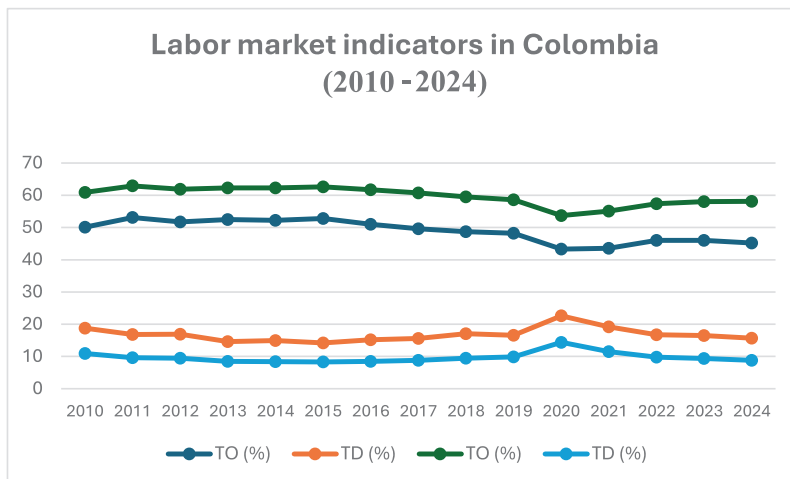
Year	Young People		Total Colombia	
	ER (%)	UR (%)	ER (%)	UR (%)
2010	50,1	18,8	60,9	10,9
2011	53,1	16,8	62,9	9,6
2012	51,7	16,9	61,9	9,5
2013	52,5	14,6	62,3	8,5
2014	52,2	14,9	62,3	8,4
2015	52,8	14,2	62,6	8,3
2016	51	15,2	61,7	8,5
2017	49,6	15,6	60,7	8,8
2018	48,7	17,1	59,5	9,5
2019	48,2	16,6	58,6	9,9
2020	43,3	22,6	53,7	14,4
2021	43,6	19,2	55,1	11,5
2022	46	16,7	57,4	9,8
2023	46	16,5	58	9,4
2024*	45,2	15,7	58,1	8,8

ER: Employment rate. UR: Unemployment rate.

\* Data for 2024 correspond to September-November.

**Source:** DANE (2024), October-December of each year.

**Figure 1.** Labor market indicators in Colombia (2010-2024)



**Source:** DANE (2024)

During the reference period, the occupational position of self-employed workers, a manifestation of the entrepreneurial spirit (Lihua, 2022), and self-employment, has maintained an important weight within the segment of 11 million young people, which represents a third of this (33.2%), distant by only three percentage points from the total average (36.5%), which shows the relevance of self-employment as a job option among young Colombians.

However, in 2020, due to the stagnation of the economy, which was caused by the severe effects of the Coronavirus pandemic, the proportion of self-employed workers in the country increased. This phenomenon may be attributed to the adaptation of employed individuals to the challenging conditions of the labor market (see Table 2 and Figure 2). The augmentation of the occupational category of young self-employed workers has the potential to mitigate the escalating trend of young people who are neither enrolled

in school nor employed in Colombia (exceeding 2 million), which, on average, constituted 22.7% of the population between the ages of 15 and 28.

**Table 2.** Evolution of young self-employed workers and the total in Colombia

Year	Self-employed workers (%)	Total Colombia (%)	Young people neither in employment nor in education or training (%)
2010	33,8	38,5	22,9
2011	33,6	38,9	22,2
2012	32,5	36,4	22,2
2013	32,1	36,7	21
2014	31,3	36,9	21
2015	32,1	35,7	20,4
2016	33,2	35,9	20,9
2017	32,8	34,9	22,1
2018	36	36,1	23
2019	34,1	36,1	23,7
2020	31,1	38,8	27,8
2021	38	38,1	25,9
2022	33	34,4	23,3
2023	32,6	34,7	23,6
2024	32	35	21,3

\* Data for 2024 correspond to September-November.

**Source:** DANE (2024), October-December of each year.

**Figure 2.** Self-employed workers. Colombia (2010-2024).

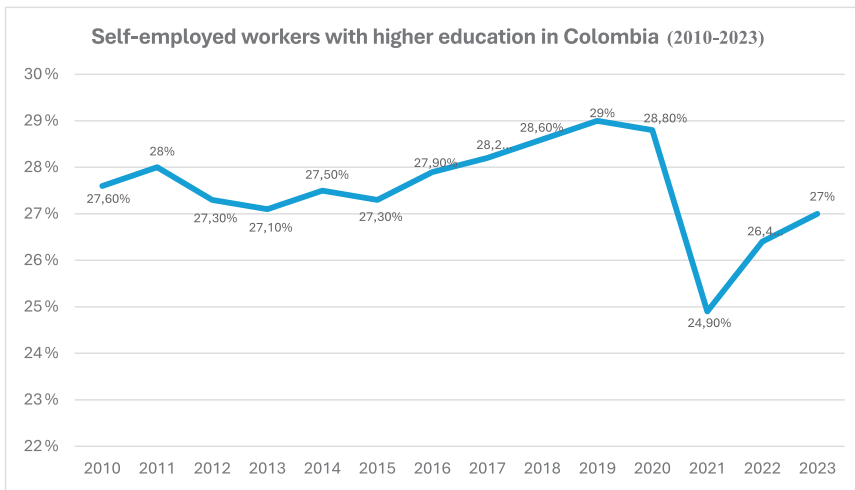


**Source:** DANE (2024).

As stated, a significant vector of entrepreneurship and entrepreneurial intention is represented by young people who have received a higher education and who are employed as self-employed workers. In the Colombian context, this phenomenon has exhibited a moderate yet sustained growth trajectory over the past two decades, representing an average of 27.5% of the young population (see Figure 3). However, a curious decline was observed during the post-pandemic economic recovery

period, despite a 10.8% rebound in the gross domestic product (GDP) (Banco de la República, 2025). However, the transformation of entrepreneurial attitude and intention into business behavior among young university students involves risks (Chien-Chi et al., 2020). In Colombia, according to the Confecámaras association (2023), only 33.5% of the companies created in 2017 survived in 2022. In contrast, in the OECD, this indicator exceeds 40%.

**Figure 3.** Self-employed workers with higher education in Colombia (2010-2023).



Source: DANE (2024).

## LITERATURE REVIEW

This article is predicated on the theory of planned behavior (TPB), which, according to Ajzen (1991), posits that the entrepreneurial intention of students in disparate university ecosystems is differentially influenced by attitude, self-efficacy (perceived behavioral con-

trol) and subjective norms (Anderson, 2023; Chin et al., 2024; Talukder et al., 2024; López Sánchez et al., 2024). It is important to note that self-efficacy is the primary predictor of entrepreneurial intention, which is reinforced by the enhancement of emotional competencies. This assertion is supported by

researchers such as Bigos Michalik (2020) and Huezco-Ponce (2021), who consider cognitive and emotional factors. Conversely, Chien-Chi et al. (2020) emphasize the environmental conditions that influence the behavior of entrepreneurial individuals who initiate a business venture.

Entrepreneurial intention precedes entrepreneurial behavior (Fayolle et al., 2006) and is a voluntary, conscious and deliberate action, latent or potential, of individuals to create a company or business (Ajzen & Fishbein, 2005; Krueger & Kickul, 2006).

Thus, behind the entrepreneurial action is the entrepreneurial intention (Krueger, 2007), which seeks to evaluate and exploit existing opportunities, which translates into a favorable attitude to undertake a business initiative (Álvarez & Barney, 2007).

Among the various approaches to the analysis of entrepreneurial intentions that emerged in the 1980s and 1990s (Fernández-Pérez et al., 2019), special mention can be made of the Theory of Planned Behavior (TPB) proposed by Ajzen (1991), perceived as a variant of the Theory of Reasoned Action (TRA) formulated by Fishbein and Ajzen (1975), which incorporates each individual's perception of their ability to influence the outcome of their actions through control at will.

Fishbein and Ajzen (2011) established a link between cognitive factors, including attitude and subjective norm, and control over perceived behavior or self-efficacy. These factors contribute significantly to intention and the intended entrepreneurial behavior. The realization and success of entrepreneurial intentions depend on environmental perceptions and self-perceptions, as well as the recognition of emotional competencies (Boyatzis, 2008) and the uncertain conditions under which individuals operate (Baron, 2008). Subjective norms, self-efficacy, and entrepreneurial attitude have been shown to reinforce each other to produce entrepreneurial intention (Fini et al., 2012). These factors have been identified as good predictors, though with different levels of influence and explanatory power on the latter.

The entrepreneurial intention construct has been the subject of analysis by various authors, who have understood it as a powerful indicator of entrepreneurial potential (Akbari et al., 2024; Nayak et al., 2024).

In contemporary literature, recent writings focus on the TCP and the three main predictors of entrepreneurial intention: attitude, subjective norms and entrepreneurial self-efficacy. Schmutzler *et al.* (2019) review the main contributions from the different theoretical perspectives on understanding the interaction of these variables, as noted by Liñán and Fayolle (2015).

In the last decade, an array of contextual factors —beyond cognitive perceptions— have come to the fore in Latin America and Colombia. These include social, psychosocial, parental, cultural, institutional, and environmental factors, which have been the focus of research by Henley et al. (2017), Laguía et al. (2017), Martins and Pérez (2020), and Fleck et al. (2021), Romero-Colmenares and Reyes-Rodríguez (2022), Olarewaju et al. (2023), Leiva et al. (2021), Barrera-Verdugo et al. (2024), González-Tamayo et al. (2024), Tormo-Carbó et al. (2025), and Afshar et al. (2025), among others.

Now, one of the key elements of entrepreneurial intention is entrepreneurship education (Tormo-Carbó et al., 2024), which strengthens self-efficacy, which, in turn, acts as a moderating variable in the relationship between emotional competencies and entrepreneurial intention (Chien-Chi et al., 2020).

On the other hand, Lihua (2022) emphasizes the relevance of youth entrepreneurship in university classrooms as a strategy for economic growth and social development in emerging economies, especially in the case of self-employment. However, there is a notable gap between the intention to start a business or enterprise and the possibility of taking advantage of an opportunity to carry out such activities (entrepreneurial behavior), which, according to these authors, goes beyond the theoretical framework of the TPB.

Tingting et al. (2022) conducted a bibliometric study covering the period 2000-2020 to establish international trends on entrepreneurial intention. The study identified 454 articles registered on the Web of Science Core Collection that were associated with entrepreneurial intention among university students. This measure identifies two central aspects: hotspots and trends in international research on entrepreneurial intention.

The focus of research is on topics such as TPB (widely accepted theoretical foundation), entrepreneurship education as a basic predictor of entrepreneurial intention, in addition to mediating variables, quantitative research methods, among others.

The search for this study yielded 685 records, of which 470 were identified through an exhaustive review and 454 were ultimately included, exclusively concerning university students. Moreover, it was ascertained that approximately 41% of the articles (184) are predicated on the TPB approach, wherein the antecedents of entrepreneurial intention, action, and performance are situated. The findings of this research demonstrate that the three predictor variables account for 59% of the variance in entrepreneurial intention, which is significantly higher than the 30-45% range reported in previous studies.



## METHODOLOGY

The present research is of an exploratory and descriptive nature. Therefore, a systematic review of the literature about entrepreneurial intention in Colombia was conducted. The analysis period was from 2012 to 2024, and the Web of Science and Scopus databases were used. Keywords such as “entrepreneurial intention, Colombia, TPB, and university students” were used in the data search. In order to select the articles written on this topic, inclusion and exclusion criteria were applied. The quality of the articles was identified according to the quartile in Web of Science, Science and Scopus (Table 3).

Furthermore, the most relevant data from the selected articles were obtained and, through their analysis, patterns and trends were identified, among which the explanatory factors of entrepreneurial intention (subjective norms, entrepreneurial attitude and self-efficacy) stand out.

To determine the relevance of the articles within the analysis carried out, those investigations with the highest number of citations ( $\geq 10$ ) were prioritized, taking as a reference the quartile of the respective journals (Table 4).

## RESULTS

In Table 3, which covers information from the period 2011-2024 obtained

from the two databases consulted, it can be observed that, according to WoS, academic production, after an inertial trend from the beginning of the decade until 2017, recovered in 2018, reached its peak in 2022 and declined in the last two years.

According to Scopus, the increase in research on entrepreneurial intentions coincides with the WoS, with 2018 being a boom year for scientific productivity, two years with similar levels in 2020 and 2023, and a decline in 2024.

The most notable periods of article production were in the case of WoS, 2022-2023, with 22.2%, while in the case of Scopus, 2018-2023, corresponding to 68.8% of the published studies (Figure 4).

On the other hand, the journals of greatest academic relevance are *International Journal of Entrepreneurial Behavior & Research* and *International Journal of Management Education*, followed by *Journal of Entrepreneurship in Emerging Economies*, ranked in Q1 and Q2, respectively. The publishers with the highest visibility are Emerald Publishing and Elsevier, an indicator of authors' preferences when submitting their research.

**Table 3. Articles on entrepreneurial intention of university students in Colombia**

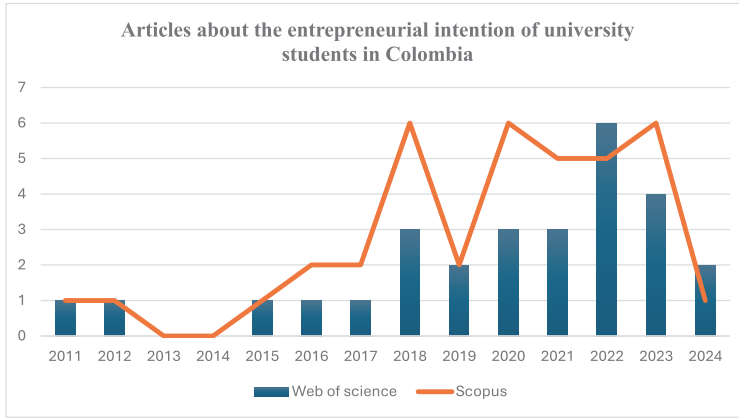
Year	Article	Authors	Journal	Publisher	Q.WoS	Citations	Q-SCOPUS	Citations	
1	2011	Entrepreneurial intentions of students at ICESI university	Villegas, R. V., Martínez-Romero, A. C., Peña-Guevara, A. T.	Estudios Gerenciales	Universidad Icesi, Colombia	Q3	1	Q4	1
2	2012	Factores que inciden en las intenciones emprendedoras de los estudiantes	Valencia-Arias, A., Cadavid, L., Rios-Echeverri, D. C., Awad, G.	Revista Venezolana de Gerencia	Universidad del Zulia, Venezuela	n/a	n/a	Q3	18
3	2013	Política de emprendimiento en Colombia	Tarquez-Chamorro, E. Osorio-Ceballos, H. Botero-Villa, J.	Estudios Gerenciales	Universidad Icesi, Colombia	Q3	12	Q4	6
4	2015	Intención emprendedora en estudiantes universitarios: integración de factores cognitivos y socio-personales	Durán-Aponte, E. Y Arias-Gómez, D.	Revista Colombiana de Ciencias Sociales	Universidad Católica Luis Amigó, Colombia	Q4	15	n/a	n/a
5	2015	Una mirada a las empresas de los estudiantes egresados: el caso de la Universidad EAN	Bernal, L. D. P., Cusi, M. L. A.	Estudios Gerenciales	Universidad Icesi, Colombia	Q3	0	Q4	1
6	2016	Intención emprendedora en estudiantes universitarios: Un estudio bibliométrico	Valencia-Arias, A., Montoya-Restrepo, L., Montoya-Restrepo, A. M.	Intangible le Capital	OmniaScience	Q4	12	Q3	45
7	2016	Gender and social legitimacy of entrepreneurship: Contribution to entrepreneurial intention in university students from Chile and Colombia	Soria, K., Honores, G., Gutiérrez, J. Henley, A., Contreras, F., Espinosa, J. C., Barbosa, D.	Journal of Technology Management and Innovation	Universidad Alberto Hurtado, Chile	n/a	n/a	Q4	21
8	2017	Entrepreneurial intentions of Colombian business students planned behaviour, leadership skills and social capital	Lagüa, A., Moriano, J. A., Molero, F., Gámez, J. A., Echavarría, L. F., Marín, M. L. U., Pérez, F. O. M.	International Journal of Entrepreneurial Behavior & Research	Emerald Publishing	Q1	62	Q1	69
9	2017	Validation of the entrepreneurial intention questionnaire in a sample of university students from Colombia	Soria-Barreto, K., Honores-Marín, G., Gutiérrez-Zepeda, P., & Gutiérrez-Rodríguez, J.	Universitas Psychologica	Pontificia Universidad Javeriana, Colombia	Q4	16	Q4	22
10	2017	Prior Exposure and Educational Environment towards Entrepreneurial Intention		Journal of Technology Management and Innovation	Universidad Alberto Hurtado, Chile	n/a	n/a	Q4	38
11	2018	Self-confidence and fear of failure among university students and their relationship with entrepreneurial orientation: Evidence from Colombia	Martins, J., Monsalve, J. P., Martínez, A. V.	Academia Revista Latinoamericana de Administración	Emerald Publishing	Q3	31	Q2	43
12	2018	Characterization of entrepreneurial intention in university students as from systemic entrepreneurship intention model: a case study	Torres-Yelaquez, J. A., Valencia-Arias, A., Bermúdez-Hernandez, J. B., Diez-Echavarría, L. F.	Cuadernos de Gestión	Universidad del País Vasco	Q3	14	Q2	22
13	2018	Aspectos sociodemográficos y familiares e intención empresarial en estudiantes de maestría en administración en Colombia	Tarayco-Chamorro, E., Aristizábal-Tamayo, J. M., & Monard-Blandón, C.	Estudios Gerenciales	Universidad Icesi, Colombia	Q3	2	Q3	4
14	2018	Factores que inciden en la intención emprendedora del estudiantado universitario: Un análisis cualitativo	Echeverri-Sánchez, L., Valencia-Arias, A., Benjumea-Arias, M., Toro, A. B.-D.	Revista Electrónica Educare	Universidad Nacional, Costa Rica	n/a	n/a	Q3	19
15	2018	Aspectos socioeconómicos e intención emprendedora en estudiantes universitarios del Quindío (Colombia)	Tarapuez, E., García, M. D., Castellano, N.	Innovar	Universidad Nacional de Colombia	n/a	n/a	Q3	17
16	2018	Mapeo del campo de conocimiento en intenciones emprendedoras mediante el análisis de redes sociales de conocimiento Montoya-Restrepo, I., Valencia-Arias, A., Montoya-Restrepo, A.		Ingeniare	Universidad de Tarapacá, Chile	n/a	n/a	Q4	17
17	2019	Extension of the systemic entrepreneurship intention model in university students	Diez-Echavarría, L., Arias, A. V., Bermúdez-Hernández, J., Pérez, F. O., Marín, M. L. U., Velásquez, J. A. T.	Serbian Journal of Management	Universidad de Belgrado, Serbia	Q4	4	Q3	5
18	2020	Testing mediating effects of individual entrepreneurial orientation on the relation between close environmental factors and entrepreneurial intention	Martins, J., Pérez, J. P.	International Journal of Entrepreneurial Behaviour and Research	Emerald Publishing	Q1	59	Q1	70
19	2020	Parental role models and entrepreneurial intentions in Colombia: Does gender play a moderating role?	Moreno-Gómez, J., Gómez-Araujo, E., Castillo-De Andries, R.	Journal of Entrepreneurship in Emerging Economies	Emerald Publishing	Q2	30	Q1	37
20	2020	Determinants of Entrepreneurial Intention among Engineering Students Based on Structural Equation Modeling	Arango-Botero, D., Arias, M. L. B., (...), Valencia-Arias, A.	Pertanika Journal of Social Sciences & Humanities	Universidad Putra Malaysia	Q3	8	Q3	7

21	2020	Attitude and Entrepreneurial Intention in Business Administration and Public Accounting Students	Gálves-Albaracín, É. J., Guañá-Aguitar, R. A., Ravina- Ripoll, R.	Universidad & Empresa	Universidad del Rosario, Colombia	Q4	4	n/a
22	2020	Entrepreneurial intentions among engineering students: Applying a theory of planned behavior perspective	Valencia-Arias, A., Restrepo, L. A. M.	Periodica Polytechnica Social and Management Sciences	Universidad de Tecnología y Economía, Budapest	n/a	Q3	12
23	2020	Tool for measuring the influence of the field of knowledge on entrepreneurial intention among university students	Díaz-Echavarría, L., Valencia-Arias, A., Bermúdez-Hernández, J.	Periodica Polytechnica Social and Management Sciences	Universidad de Tecnología y Economía, Budapest	n/a	Q3	7
24	2021	Cultural traits of entrepreneurship education: a cross-national study	Fleck, E., Kakouris, A., Winkel, D.	Journal of Entrepreneurship in Emerging Economies	Emerald Publishing	Q2	11	Q1 16
25	2021	An exploratory attitude and belief analysis of ecotourists' destination image assessments and COVID-19, educación en emprendimiento e intenciones de emprender: Factores decisivos en intenciones de emprender: Factores contextuales que influyen en la intención emprendedora de estudiantes universitarios venezolanos y colombianos	Harrill, R., Zúñiga-Collazos, A., Castillo-Palacio, M., Garcés, J. M., Omaña, S. D., Borja, W. S.	Sustainability (Switzerland)	MDPI	Q2	1	Q2 1
27	2021	Entrepreneurial intention in vocational technical schools in emerging economies: a case study of Barranquilla, Colombia	Romero, J., Gutiérrez-Silva, J. M., Hernández-Fernández, L., & Portillo-Molina, R. A.	Revista de Ciencias Sociales	Universidad del Zulia, Venezuela	n/a	Q3	17
28	2021	Sustainable entrepreneurial intentions: exploration of a model based on the theory of planned behaviour among university students in north-east Colombia	Ovallos-Gazabon, D., Puello- Pereira, N., Parra-Negrete, K., Martínez-Cueto, K.	Revista de Ciencias Sociales	Universidad del Zulia, Venezuela	n/a	Q3	6
29	2022	Developing orientation to achieve entrepreneurial intention: a pretest-posttest analysis of entrepreneurship education programs	Romero-Colmenares, L. M., Reyes-Rodríguez, J. F.	Communications in Computer and Information Science	Springer Nature	n/a	Q4	2
30	2022	Promoting entrepreneurship based on university students' perceptions of entrepreneurial attitude, university environment, entrepreneurial culture and entrepreneurial training	Martins, I., Pérez, J.P., Novoa, S.	International Journal of Management Education	Elsevier	Q1	46	Q1 58
31	2022	Entrepreneurial intentions of university students in Colombia: exploration based on the theory of planned behavior	Valencia-Arias, A., Arango- Botero, D., Sánchez-Torres, J. A.	International Journal of Management Education	Elsevier	Q1	28	Q1 22
32	2022	Factors that influence the entrepreneurial intention of psychology students of the virtual modality	Rueda Barríos, G.E., Rodríguez, J.F.R., Plaza, A.V., Veléz Zapato, C.P., Zúñiga, M.E.G.	Higher Education, Skills and Work-based Learning	Emerald Publishing	Q2	22	Q2 37
33	2022	Overconfidence, fear of failure, risk-taking and entrepreneurial intention: The behavior of undergraduate students	Valencia-Arias, A., Rodríguez-Correa, P.A., Gárdenas-Ruiz, J.A., Gómez-Molina, S.	Journal of Education for Business	Taylor & Francis	Q2	21	Q2 25
34	2022	Analysis of entrepreneurship profiles in young university students	Villanueva, E., Martins, I.	Retos	Universidad Politécnica Salesiana, Ecuador	Q3	12	Q3 11
35	2022	Intención emprendedora de estudiantes universitarios de modalidad virtual	Arango-Botero, D., Valencia-Arias, J. (-), Giraldo, L. F.	Tec Empresarial	Instituto Tecnológico de Costa Rica	Q3	3	Q4 4
36	2022	Student entrepreneurial intentions in emerging economies: institutional influences and individual motivations	Valencia-Arias, A., Gómez-Molina, S., Rodríguez-Correa, P., Benjumea-Arias, M.	Revista virtual Universidad Católica del Norte	Fundación Universitaria Católica del Norte, Colombia	Q3	3	n/a
37	2023	Serious games in entrepreneurship education: a learner satisfaction and theory of planned behaviour approaches	Olawaju, A. D., González, Tamayo, L. A., Maheshwari, G., Ortiz-Riaga, M.C.	Formación Universitaria Tecnológica, Chile	Centro de Información Tecnológica, Chile	n/a	Q3	4
38	2023	Entrepreneurial intention among Colombian university students: A theory of planned behavior analysis in Colombia	Martins, I., Pérez, J. P., Osorio, D., Mesa, J.	Journal of Small Business and Enterprise Development	Emerald Publishing	Q2	15	Q1 17
39	2023	The venture creation process and entrepreneurial intention in emerging economies – a system dynamic's approach	Blanco-Mesa, F., Niño-Amézquita, D., Gutiérrez-Ayala, J.	The Journal of Entrepreneurship	Sage Publishing	Q3	3	Q3 3
40	2023	Intention of green entrepreneurship among university students in Colombia	Parra, J. F., Valencia-Arias, A., Bermúdez-Hernández, J.	Cuadernos de gestión	Emerald Publishing	Q3	3	Q2 4
41	2023	Identity on Entrepreneurial Self-Efficacy - Entrepreneurial Intention Relationship	Robayo-Acuña, P. V., Martínez-Toro, G.-M., Álvarez-Risco, A., Del-Ágüla-Accentales, S., Rojas-Osorio, M.	Journal of Entrepreneurship in Emerging Economies	Emerald Publishing	Q2	1	Q1 0
42	2023	The influence of Emotional Competencies on the Entrepreneurship Intentions of University Students in Colombia	González-Canoas, M. L., Osorio-Tinoco, F., Segura, J.-L., Krauss-DeIorme, C., Pereira-Laverde, F.	Environmental Footprints and Eco-Design of Products and Processes	Springer International Publishing	n/a	Q4	9
43	2024	Entrepreneurship education and sustainability for the configuration of sustainable entrepreneurial intentions: in university students	López-Sánchez, L.M., Salcedo Plazas, L.A., Rodríguez-Ariza, L.	Journal of Technology Management & Innovation	Universidad Alberto Hurtado, Chile	n/a	Q4	0
44	2024	Intención emprendedora en estudiantes universitarios en Colombia: un estudio bibliométrico	Martínez, GC and Pelaez-Higuera, J	Sustainability (Switzerland)	MDPI	Q2	0	Q2 0
45	2024		Pérez, L., Suárez-Gómez, D; Hernández-Moreno, L. & Blanco-Mesa, F.	Telos	Universidad Rafael Bellosillo Chacín, Venezuela	Q3	0	n/a
				Revista Inquietud Empresarial	Universidad Pedagógica y Tecnológica de Colombia	Q4	0	n/a

n/a: not available.

Source: Own elaboration based on searches in Web of Science and Scopus.

**Figure 4.** Articles about the entrepreneurial intention of university students in Colombia.

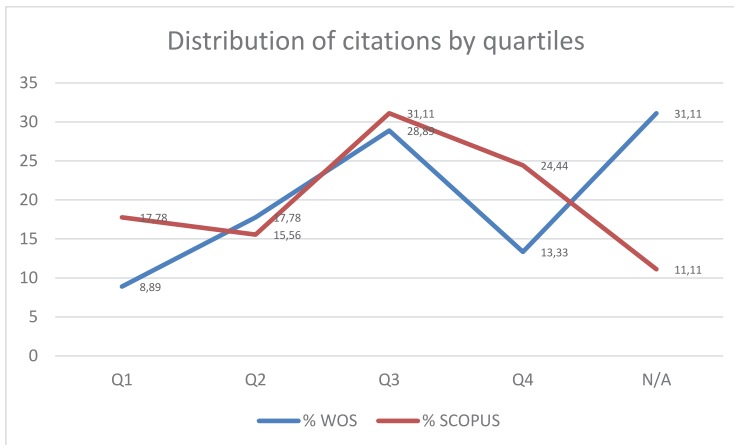


**Source:** own elaboration.

As regards the authors of the most cited articles, Henley stands out *et al.*, Martins and Pérez, Moreno *et al.*, and Romero and Reyes, who together represent 92.1% of the citations according to WoS, and a smaller proportion in

Scopus records (75.7%). In addition, other authors stand out, such as Valencia-Arias *et al.*, who report fewer citations, perhaps due to the recent publication of the studies (2022).

**Figure 5.** Distribution of citations by quartiles.



**Source:** Own elaboration based on searches in Web of Science and Scopus.

As illustrated in Figure 5, during the analysis period, the concentration, according to quartiles, of the articles obtained in the two consulted databases is different; while in WoS 8.9% of the articles are ranked in the Q1 quartile, in Scopus this indicator is twice as high. This discrepancy may be attributed to the coverage of the journals, the periodicity of the platforms' updates, and the research area.

A different situation is observed with the Q2 quartile, which shows a very similar situation in the two databases (17.8% and 15.6%, respectively). It is worth highlighting the high weight of the Q3 quartile in the consulted databases: 28.9% in WoS and 31.1% in Scopus. The Q4 quartile reveals a visible difference, distancing itself by about 10 points (13.3% and 24.4%). At the same time, the record of articles not yet referenced in these information systems is striking, which represent a third of this set of articles, perhaps due to their limited dissemination.

As previously mentioned, a notable academic interest has emerged in Colombia over the last two decades concerning the exploration of the explanatory factors of entrepreneurship and, consequently, of entrepreneurial intention among higher education students. This research is primarily framed within the TPB, a psychological model that aims to understand the relationship between psychological factors and behavior. This approach facilitates the validation

of the influence of each predictor of entrepreneurial intention, in addition to the incorporation of other factors. It also allows for the consideration of specific contexts, such as the entrepreneurial ecosystem in Colombia, which plays a crucial role in understanding the nuances of entrepreneurial behavior within the country.

Most of the selected articles, published during the period 2017-2024, used a quantitative methodology and a Likert-type scale to measure the impact of the independent variables (the TPB constructs) on the dependent variable (entrepreneurial intention).

The extant studies identified the effects of the dimensions of the TPB model and validated their relationship, positive or negative, direct or indirect, on entrepreneurial intention. They also extracted recommendations to reformulate and improve the strategies currently carried out by educational institutions as a natural setting for entrepreneurship. Furthermore, the study recommended the formulation of public promotion policies that could fortify the environment and conditions in which the actors responsible for the entrepreneurial ecosystem, both public and private, operate. This recommendation is particularly salient within the context of a developing economy such as Colombia's, where entrepreneurship has emerged as a viable strategy to mitigate youth unemployment.

For Romero and Reyes (2022), the research carried out in Colombia on entrepreneurship has had a visible bias: socioeconomic (Tarapuez et al., 2018a), parental role (Moreno-Gómez et al., 2020), personal skills, perceived benefits and limitations (Rueda Barrios et al., 2022). Similarly, with regard to sustainable entrepreneurship, studies have focused on education in sustainable

entrepreneurship (Campos et al., 2021; Ciruela-Lorenzo et al., 2020).

The selected articles are the studies with the highest scholarly impact (citations greater than 10) and scholarly quality (quartile) during the period 2017-2023, specifically in WoS. The selection is presented in Table 4.

**Table 4.** Most relevant articles on entrepreneurial intention of university students in Colombia (citation > 10)

No.	Year	Article	Authors	Journal	Publisher	Q_ WoS	Citation
1	2017	Entrepreneurial intentions of Colombian business students planned behaviour, leadership skills and social capital	Henley, A, Contreras, F., Espinosa, J. C., Barbosa, D.	International Journal of Entrepreneurial Behavior & Research	Emerald Publishing	Q1	62
2	2017	Validation of the entrepreneurial intention questionnaire in a sample of university students from Colombia	Laguía, A., Moriano, J. A., Molero, F., Gámez, J. A., Echavarría, L. F., Marín, M. L. U., Pérez, F. O. M.	Universitas Psychologica	Pontificia Universidad Javeriana, Colombia	Q4	16
3	2018	Self-confidence and fear of failure among university students and their relationship with entrepreneurial orientation: Evidence from Colombia	Martins, I., Monsalve, J. P. P., Martínez, A. V.	Academia Revista Latinoamericana de Administración	Emerald Publishing	Q3	31
4	2018	Characterization of entrepreneurial intention in university students as from systemic entrepreneurship intention model: a case study	Torres-Velásquez, J. A., Valencia-Arias, A., Bermúdez- Hernández, J. B., Díez-Echavarría, L. F.	Cuadernos de Gestion	Universidad del Pais Vasco	Q3	14
5	2019	Parental role models and entrepreneurial intentions in Colombia: Does gender play a moderating role?	Moreno-Gómez, J., Gómez- Araujo, E., Castillo-De Andreis, R.	Journal of Entrepreneurship in Emerging Economies	Emerald Publishing	Q2	30
6	2020	Testing mediating effects of individual entrepreneurial orientation on the relation between close environmental factors and entrepreneurial intention	Martins, I., Pérez, J. P.	International Journal of Entrepreneurial Behaviour and Research	Emerald Publishing	Q1	59
7	2022	Factors that influence the entrepreneurial intention of psychology students of the virtual modality	Valencia-Arias, A., Rodríguez-Correa, P.A., Cárdenas-Ruiz, J.A., Gómez-Molina, S.	Retos	Universidad Politécnica Salesiana, Ecuador	Q3	12
8	2021	Cultural traits of entrepreneurship education: a cross-national study	Fleck, E., Kakouris, A., Winkel, D.	Journal of Entrepreneurship in Emerging Economies	Emerald Publishing	Q2	11
9	2022	Sustainable entrepreneurial intentions: exploration of a model based on the theory of planned behaviour among university students in north-east Colombia	Romero-Colmenares, L. M. & Reyes-Rodríguez, J. F.	International Journal of Management Education	Elsevier	Q1	46
10	2022	Developing orientation to achieve entrepreneurial intention: a pretest-post-test analysis of entrepreneurship education programs	Martins, I., Pérez, J.P., Nova, S.	International Journal of Management Education	Elsevier	Q1	28

Continuation Table 4

11	2022	Promoting entrepreneurship based on university students' perceptions of entrepreneurial attitude, university environment, entrepreneurial culture and entrepreneurial training	Valencia-Arias, A., Arango- Botero, D., Sánchez-Torres, J. A.	Higher Education, Skills and Work-based Learning	Emerald Publishing	Q2	22
12	2022	Entrepreneurial intentions of university students in Colombia: exploration based on the theory of planned behavior	Rueda Barrios, G.E., Rodríguez, J.F.R., Plaza, A.V., Vélez Zapata, C.P., Zuluaga, M.E.G.	Journal of Education for Business	Taylor & Francis	Q2	21
13	2023	Student entrepreneurial intentions in emerging economies: institutional influences and individual motivations	Olarewaju, A. D., González, Tamayo, L. A., Maheshwari, G., Ortiz-Riaga, M. C.	Journal of Small Business and Enterprise Development	Emerald Publishing	Q2	15

**Source:** Own elaboration based on searches in Web of Science and Scopus.

The most cited authors within the sample of the 13 articles selected for the specific analysis object of the present study (given that they exceed 30 references in WoS) are, in order: Henley *et al.*, Martins *et al.*, Romero and Reyes, and Moreno *et al.*, which represent 62.1% of the citations (367). On the other hand, the quartiles with the highest weighting are Q1 and Q2, with a contribution of 30.8% and 38.5%, respectively, which indicates the academic level of the selected studies. The Q3 quartile contributes 23.1%.

Considering the academic impact of research, the predominant publishers are Emerald and Elsevier, where 69.2% of the articles were published.

### CONTRIBUTIONS OF RESEARCH ON ENTREPRENEURIAL INTENTION

When pointing out in the articles that are the subject of this investigation, Henley *et al.* (2017), in their article *Entrepreneurial Intentions of Colombian Business Students: Planned*

*Behaviour, Leadership Skills and Social Capital*, using the TPB model, analyzed the influence of social cognitive theory (leadership skills) and social capital, as external factors, in addition to traditional constructs such as entrepreneurial attitude, self-efficacy and subjective norms, on the entrepreneurial intentions of business students at a private university in Bogotá (Colombia).

The theoretical approach adopted is that of the TPB, proposed by Ajzen, due to its explanatory scope and the possibility of involving external factors, apart from the three known dimensions, which are presented here as perceived desirability (attitude towards entrepreneurship), perceived feasibility (self-efficacy) and social norms.

The information was collected in 2012 and 2013 from a survey of 322 students out of a total of 1,768 students enrolled in the business program. 55.6% of the students surveyed were female and the average age was 19.8 years.

The research concluded that both perceived desirability and feasibility are relevant factors, with the latter being a determining factor. In addition, it was found that leadership skills, as an indicator of social capital, significantly and positively influence the entrepreneurial intention of the students in the study. Similarly, considering that social norms and the perception of self-efficacy are key components of entrepreneurial intention, it is inferred that it is convenient to foster leadership skills to promote entrepreneurship among university students in Colombia, particularly those belonging to the most vulnerable sectors.

On the other hand, the article “Validation of the Entrepreneurial Intention Questionnaire in a Sample of University Students from Colombia,” written by Laguía *et al.* (2017), focused their analysis on validating the Entrepreneurial Intention Questionnaire (CIE), initially proposed in Spain by Rueda *et al.* (2015), as an instrument to corroborate the influence of psychosocial factors on the intention to undertake in a context of increasing growth of university entrepreneurship, as is the case in Colombia.

The theoretical model employed in this study is the TPB, which involves the performance of its three fundamental components as pivotal predictors of entrepreneurial intention. The sample consists of 316 university students enrolled in courses such as

Business Administration, Accounting, Engineering, and Medicine, with women constituting 63.6% and men 36.4% of the sample. The age range of the participants is from 18 to 43 years.

The information was collected using the Entrepreneurial Intention Questionnaire (CIE), which is considered a valid and reliable instrument, and the components were measured using seven-point Likert-type scales. The authors conclude that the three components have a positive relationship with entrepreneurial intention. Entrepreneurial attitude is the strongest predictor, accompanied, to a lesser extent, by self-efficacy and subjective norms, which is why it is suggested that entrepreneurship education be promoted.

Similarly, Torres *et al.* (2018), in the article entitled “Characterization of Entrepreneurial Intention in University Students as from Systemic Entrepreneurship Intention Model: A Case Study,” seek to identify the factors that shape the entrepreneurial intention of students from three educational institutions in Medellín (Colombia).

The study has a quantitative methodological design, and the information collected was obtained through a self-administered questionnaire that was applied to 1,290 students, which finally validated the responses of 879 students from three higher education institutions: Minuto de Dios University Corporation (UNIMINUTO), ITM



Campus Fraternity, and University of Medellín. The sample included students who were in the first five semesters of their studies, which included administration, social sciences and humanities, and other academic fields.

The results of the study revealed that factors such as perceived feasibility and attitudes towards entrepreneurship, perceived convenience and risk tolerance influence the perception of the personal and professional advantages of being an entrepreneur, which allows for an improvement in individual social status. The analysis identified three clusters of students with an attitude and motivation towards entrepreneurship and, therefore, willing to activate their entrepreneurial intention: “entrepreneurs” (positive attitude and high motivation), “neutrals” (intermediate or undecided attitude) and “non-entrepreneurs” (apathy or disinterest). In the background, the participation of educational institutions stands out as agents that promote entrepreneurship, which define and implement innovative promotion strategies that are linked to public policies that facilitate favorable environments for entrepreneurial ecosystems.

Likewise, the article “Self-confidence and Fear of Failure among University Students and their Relationship with Entrepreneurial Orientation: Evidence from Colombia,” whose authors Martins et al. (2018) seek to determine the effect of two personality traits (self-confidence and fear of failure) as predictors

of entrepreneurial orientation among university students enrolled in entrepreneurial education courses.

The quantitative research was obtained from an anonymous survey administered to 688 students from EAFIT University in Medellín. This number was reduced to 656 after those who did not respond correctly were excluded from the analysis. The dimensions of entrepreneurial orientation (risk taking, innovation, and proactivity) were measured using seven-point Likert scales, as were self-confidence and fear of failure.

The study found that self-confidence has a positive and significant relationship with the three dimensions of entrepreneurial orientation, in contrast to the negative effect of fear of failure on these dimensions, which acts as an inhibiting factor within the personality characteristics of university students.

It is important to acknowledge the contributions of Tarapuez-Chamorro et al. (2019), who, despite not being among the most frequently cited authors, have made significant contributions by incorporating numerous references in their work. These researchers embarked on a quest to identify the pivotal factors that influence the entrepreneurial intention of students enrolled in the Master’s in Administration postgraduate program. In alignment with extant studies, the present study employs the TPB, encompassing socioeconomic variables and business facilitation resources, as

delineated in *Doing Business*. These variables are subsequently categorized into high, medium, and low tiers.

The information used came from a survey applied to 485 students from 36 Master's in Administration programs in Colombia, offered by higher education institutions, located in the 14 most important capital cities of the country: Bogotá, Medellín, Bucaramanga, Cartagena, Cali, Barranquilla, Manizales, Armenia, Pereira, Tunja, Pasto, Cúcuta, Popayán, Florencia.

The authors of this article found the impact of nine factors on entrepreneurial intention: three associated with social norms, two related to attitudes, two to behavioral control, and two to socioeconomic aspects. The information collected corresponds to 2016.

The present study's authors posit that the highest entrepreneurial intention is associated with the combination of social norms, attitude, and self-efficacy. This descriptive study highlights Colombia as one of the countries with the best conditions to promote entrepreneurship among university youth.

In their article, "Parental Role Models and Entrepreneurial Intentions in Colombia: Does Gender Play a Moderating Role?", Moreno-Gómez et al. (2020) analyze the impact of entrepreneurial parents (parental models) on the entrepreneurial intention of

Colombian university students. They also seek to determine, based on the premise of sociocultural differences and existing structural opportunity gaps, their influence in the entrepreneurship framework of a developing country like Colombia. The researchers' conclusions suggest that parental models can demonstrate cases of entrepreneurship that vary according to gender and the social norms that condition them.

The study is based on the TPB, which serves as a basis for explaining how contextual and individual factors, linked to parental models, contribute to the emergence of entrepreneurial intentions with a gender focus.

The data set used in this study was derived from the Global University Entrepreneurship Spirit Students' Survey (GUESSS) of 2016. The sample for Colombia comprised students from 10 higher education institutions, with a total sample size of 3,703 students. This allowed establishing relationships between parental models and gender (independent variables) and entrepreneurial intention (dependent variable) of the population under study.

The study concluded that men have a greater entrepreneurial intention (45.2%), far from women (32.5%). The authors attribute these differences to factors such as fewer opportunities for women, low self-confidence, and the existence of sociocultural barriers to the

skills and roles that Colombian women can play. Perhaps the most important finding of this study is the assertion that parental models are a key factor in entrepreneurial intention, whose impact is conditioned by the gender of the university student, with a greater bias towards women who face sociocultural barriers that limit their participation in the entrepreneurial ecosystem.

In this direction, Martins and Pérez (2020) in their study “Testing Mediating Effects of Individual Entrepreneurial Orientation on the Relation between Close Environmental Factors and Entrepreneurial Intention” analyze the influence of the close environment (exogenous factors) on individual entrepreneurial orientation (intrinsic factors), and this, in turn, on the entrepreneur’s decision, assessing, especially within the contextual factors, the weight of the stigma of failure in the entrepreneurial intention of university students.

The theoretical framework used by the authors of this article is a combination of the entrepreneurial event model and the TPB, and includes the construct of individual entrepreneurial orientation, which encompasses three dimensions: innovation, proactivity and risk taking.

The information, collected between 2017 and 2018, was obtained by applying a survey to 1,155 students (51% men and 49% women, aged between 18 and 22) from a private university in Medellín,

through a structured questionnaire with questions on a 7-point Likert scale. The model adopted is a structural equation model, which allowed identifying the direct and indirect influence between the variables included.

The study found that the immediate environment exerts a positive and significant influence on entrepreneurial intention, while the stigma of entrepreneurial failure is negatively valued. In addition, there is a positive relationship between individual entrepreneurial orientation and entrepreneurial intention, with the latter acting as a key mediator, reinforcing the positive effects and neutralizing the negative effects. Thus, students with a high entrepreneurial orientation are more resilient to adverse reactions from their environment and are more tolerant and willing to undertake.

It is worth highlighting the article by Fleck *et al.* (2021), entitled “Cultural Traits of Entrepreneurship Education: A Cross-National Study,” in which the authors examine the influence that factors such as gender, culture and context of analysis have on entrepreneurial intention, mediated by entrepreneurial education of young university students. The object of analysis of this article focuses on the need for greater knowledge and understanding of the relationship and the effect of social and cultural factors on entrepreneurial intention, preceded by entrepreneurship education.

To achieve this goal, the study uses a quantitative methodology. The information was obtained from a sample of students from eight countries (Brazil, Colombia, Germany, Lithuania, Malaysia, Mexico, Spain and the United States). The population included 5,033 responses from different undergraduate academic programs and cultural contexts in order to establish important contrasts and define national patterns of entrepreneurial intention. The young Colombians surveyed represented 10.2% of the population.

Fleck et al. (2021) conclude their article by underscoring the significance of national culture in shaping entrepreneurship education and, consequently, entrepreneurial intention. This underlines the necessity of taking specific cultural contexts into account. Furthermore, the authors allude to the differences in gender and academic disciplines that are present in entrepreneurial intention. This raises the need for pedagogical approaches that adopt practices and policies in line with these cultural realities.

Rueda *et al.* (2022) published the article “Entrepreneurial Intentions of University Students in Colombia: Exploration Based on the Theory of Planned Behavior”, which examines the gap between entrepreneurial intention and the decision to undertake among young university students.

The research adopted the TPB approach and sought to validate, in the Colombian case, the influence of the three dimensions that encompass this model in the formation of entrepreneurial intention, in addition to the advantages and limitations present in entrepreneurship, as well as individual characteristics, taking into account the mediating role of personal perceptions and contextual factors, in a country where entrepreneurship has become a viable strategy to counteract unemployment in the youth population.

The approach used in this study is quantitative and was supported by the application of an online questionnaire, in which the basic variables of the TPB and the additional ones were measured on a five-point Likert scale. The selected sample was 4214 students who were studying different courses at a private university, such as Engineering, Social Sciences and Humanities, Economics, Business Administration, Law and Political Sciences. 54% of the respondents were women, while 45.7% were men, and 0.3% identified with another gender.

The results of this study confirmed the relevance of the TPB, highlighting the greater influence of attitudes toward entrepreneurship and self-efficacy as determinants of students’ intention to become entrepreneurs, in contrast to a lesser effect of subjective norms; suggesting the incidence of perceptions of economic independence, personal

satisfaction and contribution to social development, in addition to social pressures and challenges that must be overcome to undertake entrepreneurship in the university context. On the other hand, gender differences were found in relation to entrepreneurial attitudes, since women, compared to men, show less perceived control over behavior, which may be related to the cultural and social barriers that women face in becoming entrepreneurs.

It is imperative to underscore the salient contribution of Romero-Colmenares and Reyes-Rodríguez (2022) in their article, "Sustainable Entrepreneurial Intentions: Exploration of a Model Based on the Theory of Planned Behavior among University Students in Northeast Colombia." This article undertakes a pioneering exploration of the multifaceted factors that influence university students' entrepreneurial intentions from the vantage point of sustainability.

The research is based on the extended TPB model and includes, in addition to the three known factors, variables associated with personal values such as altruism and educational factors such as education for sustainable entrepreneurship.

The information was obtained in 2019 from 314 online surveys administered to university students studying Entrepreneurship and Social Responsibility in Bucaramanga. The

variables included were measured using a five-point Likert scale. The results show that the main determinants of entrepreneurial intention are attitude towards entrepreneurship, perceived behavioral control and subjective norms. Altruism and education in sustainable entrepreneurship also positively influence entrepreneurial attitudes. In this sense, women show more favorable behavior than men, but greater barriers in the perception of self-efficacy.

In another study, Martins et al. (2022) examined the impact of education on individual entrepreneurial orientation and its relationship with entrepreneurial intention. Their study, entitled "Developing Orientation to Achieve Entrepreneurial Intention: A Pretest-Post-test Analysis of Entrepreneurship Education Programs," analyzed these factors through the three dimensions proposed by the TPB.

The authors explain the results of the article by Martins et al. (2018) on the influence of individual characteristics related to individual entrepreneurial orientation on the intention to start a business, with the mediation of entrepreneurship education. The data presented here were collected through an online questionnaire conducted between 2018 and 2019, which included 1,723 surveys distributed to university students from two higher education institutions, with 66.7% of respondents from Colombia and 33.3% from Ecuador. The main focus of the survey was on the topic

of entrepreneurial education. The demographic composition of the study included 52.9% of female respondents, with an age range of 18 to 24 years. The measurement of the variables used a seven-point Likert scale.

The findings of this study demonstrate that entrepreneurship education exerts a positive and significant influence on the three dimensions of individual entrepreneurial orientation (innovation, proactivity, and willingness to take risks). Furthermore, the results indicate a direct and positive relationship between individual entrepreneurial orientation and the three dimensions of the TPB. However, the effect was found to be negative in Colombia and non-significant in Ecuador with respect to the relationship between subjective norms and entrepreneurial intention. It is noteworthy that entrepreneurial intention is not directly derived from individual entrepreneurial orientation; rather, it is influenced by cognitive and social factors, including attitudes, subjective norms, and self-efficacy.

From another perspective, Valencia-Arias *et al.* (2022a) examine in the article “Promoting Entrepreneurship Based on University Students’ Perceptions of Entrepreneurial Attitude, University Environment, Entrepreneurial Culture and Entrepreneurial Training” the articulation between the variables entrepreneurial culture, university environment and entrepreneurial training

and, consequently, their impact on the entrepreneurial intention of Colombian university students.

The study was based on the TPB, which is extended by the inclusion of factors such as entrepreneurial culture, entrepreneurial training and the university environment, showing how these decisively influence entrepreneurial intention. It is a quantitative research and uses the structural equation method. The data was extracted from the GUESSS (Global University of Technology) report. Entrepreneurial Spirit Students’ Survey (Survey), on a sample of 3,005 students from ten Colombian universities, public and private, located in various cities of the country.

The findings of the study by Valencia-Arias *et al.* (2022a) reveal that entrepreneurial culture is positively related to the university environment and entrepreneurial attitude. At the same time, the university environment influences entrepreneurial training, which positively affects entrepreneurial attitude. There is no doubt that entrepreneurial culture is key to entrepreneurial intention, through the favorable attitude of university students towards entrepreneurship. The university environment does not directly affect entrepreneurial intention, but theoretical courses combined with active pedagogies such as experiential learning do, which incorporate modalities that develop entrepreneurial skills and are currently

taught in higher education institutions, to bring academia closer to the needs of the labor market.

In a similar vein, Valencia-Arias et al. (2022b) examined the factors that influence the entrepreneurial intention of psychology students in the virtual modality in their article, “Factors that Influence the Entrepreneurial Intention of Psychology Students of the Virtual Modality.” This analysis represents a novel approach, given that much of the extant research on entrepreneurial intention refers to face-to-face courses.

The authors underscore the significance of entrepreneurship as a potential approach for the labor integration of young university students and emphasize the merits of considering the individual and contextual characteristics of young entrepreneurs who are trained in higher education institutions.

The method used is quantitative; the empirical analysis was based on a sample of 178 students of different semesters and ages, enrolled in the Psychology program at the Catholic University Foundation of the North, in Medellín (Colombia).

Factor analysis revealed a significant relationship between attitude, perceived behavioral control, entrepreneurial behavior, and current behavioral control with respect to the entrepreneurial intention of young university students. Furthermore, the factor with the

greatest explanatory weight was determined to be entrepreneurial attitude, suggesting that a positive perception encourages the intention to create businesses or companies, an issue that is framed within the TPB. Furthermore, the findings suggest that subjective norms do not exert a substantial influence on entrepreneurial intention, thereby reflecting the limited impact of the immediate environment on young entrepreneurs’ motivation to engage in entrepreneurial activities.

It is important to highlight the importance that this study attributes to the contribution of higher education to the promotion of entrepreneurship through the inclusion of academic programs that strengthen this strategy of youth empowerment, and even more so in the conditions of distance education.

Finally, Olarewaju *et al.* (2023) published the study “Student Entrepreneurial Intentions in Emerging Economies: Institutional Influences and Individual Motivations”, which included institutional factors, such as technological infrastructure and educational promotion, both at the micro and macro levels, to analyze their influence on the perception and desire to start businesses of university students from emerging economies, from the TPB approach.

The sample used included 757 students from three Latin American and Caribbean countries (Colombia, Dominican Republic, and Mexico) and

India. 27.7% of the respondents from the four countries were Colombian students. Key variables such as attitudes, subjective norms, and self-efficacy were measured through structured surveys, and Structural Equation Modeling (SEM) was used to determine the relationships between these variables and to validate the hypotheses raised.

The findings confirmed that, despite the importance of information and communication technologies (ICT) and educational structures, these do not have a direct effect on entrepreneurial intention; however, entrepreneurial attitude and self-efficacy operate as key mediators between institutional factors and entrepreneurial intention. Furthermore, it was found that subjective norms do not directly influence entrepreneurial intention. This would indicate the convenience of promoting positive attitudes and a high perception of control in students' ability to start businesses in contexts of weak institutional conditions.

Finally, this study suggests the adoption of practices and policies aimed at improving ICT infrastructure and educational support to promote entrepreneurship among university students.

In studies on entrepreneurship and entrepreneurial intentions, it is essential to refer to the Global University reports Entrepreneurial Spirit Students' Survey:

Colombia Report (GUESSS), published since 2016, which have become a prestigious academic source of information and analysis due to its methodology, the range of topics included and the breadth of coverage of higher education institutions. The most recent report published for Colombia (Martins et al., 2024), corresponding to 2023/2024, shows that its coverage includes 57 countries and 226,000 students, of which 13,000 participants are Colombian.

It is necessary to emphasize the words contained in the prologue of this document:

It is very important for the university to go beyond traditional approaches to teaching and research and become an institution that integrates technology transfer, innovation and active collaboration with industry and society. This type of institution focuses on economic and social development, promoting the new concept of the entrepreneurial university.<sup>1</sup> (Martins et al., 2024, p. 5)

## CONCLUSIONS

The employment rate of young Colombians is lower than the national average; in the period 2010-2024 the average rate was 48.9% compared to 59.7%. Young self-employed workers represent a third of the 11 million young Colombians, which reflects the great potential for youth self-employment and, consequently, the intention to start

<sup>1</sup> Free translation by the author of this article.



a business in this segment of the population, particularly among those with a university education.

This study is based on a review of the literature included in the two most important databases (WoS and Scopus) during the period 2011-2024 and whose central object of analysis was the entrepreneurial intention in Colombia. After a careful screening of articles, based on inclusion and exclusion criteria, 45 articles were found, from which 13 articles were derived, taking into account impact factors (citations) and academic quality (quartiles).

It is observed, according to WoS, that after an inertial trajectory, the inflection point of academic production on entrepreneurial intention of Colombian university students occurs in 2018, reaches its peak in 2022 and decreases in the last two years. Scopus agrees with WoS in highlighting scientific productivity in 2018 and finding that 2020 and 2023 register similar levels but decline in 2024. It is worth mentioning that, in the case of WoS, the most prolific period of academic production was 2022-2023, while in the case of Scopus it was 2018-2023.

Among the journals where the most cited articles were published are *International Journal of Entrepreneurial Behavior & Research* and *International Journal of Management Education* (Q1), together

with *Journal of Entrepreneurship in Emerging Economies* (Q2), whose publishers are Emerald Publishing (United Kingdom) and Elsevier (Netherlands).

The authors who obtained greater visibility in the two databases are Henley *et al.*, Martins and Pérez, Moreno *et al.*, and Romero and Reyes, who represent 92.1% (WoS) and 75.7% (Scopus); which shows a tendency towards concentration in a certain number of researchers.

The segment with the greatest weight in the positioning of the articles is the Q3 quartile, which exceeds the Q1 and Q2 quartiles in both databases, while the Q4 quartile shows a notable gap, like that existing in relation to the Q1 quartile, which can be explained by the breadth of each of these information systems. The range of unreferenced articles represents one third of the selected sample, perhaps related to the limited scope of many studies.

On the other hand, the most cited authors of the final selected sample (13 articles with citations greater than 30), which cover the period 2017-2024, are: Henley *et al.*, Martins *et al.*, Romero and Reyes, and Moreno *et al.*, which represent around 62% of the total citations reported in WoS. The predominant quartiles in the consulted journals are Q1 and Q2, which contribute 69.3% of the records in this important database, reflecting the academic quality of these investigations, which were published in

Emerald and Elsevier, two publishing platforms of outstanding recognition in the academic world.

Most of the published studies whose theoretical approach is the theory of planned behavior (Ajzen, 1991), were based on a quantitative methodology and Likert-type scales.

The sample of the population under analysis ranges from 120 to 500 surveyed students, belonging to public universities (National University of Colombia, University of Valle, Industrial University of Santander and Francisco de Paula Santander University) and private universities (Los Andes University, EAFIT, Del Rosario University, Xavierian Pontifical University), whose orientation differs in that the entrepreneurial initiatives of the former focus on practical activities and business leadership, while in the latter these are aimed towards social and sustainable entrepreneurship.

The studies have a wide geographic scope, since the student population surveyed is in the cities of greatest socioeconomic importance, such as Bogotá, Medellín, Cali, Bucaramanga, Barranquilla and Cúcuta.

The analysis carried out in these studies, based on different contexts, seeks to determine the causal relationships between the different predictors and the entrepreneurial intention in the case of

Colombian university students, as well as to propose some recommendations to both educational institutions and public policy makers, on the promotion of a favorable environment that encourages entrepreneurial intentions and, more generally, entrepreneurship as a source of self-employment and income for young university students (López et al., 2024).

The findings of the aforementioned studies underscore the significance and differentiated impact of entrepreneurial attitude, self-efficacy, and subjective norms on the intention to undertake among university students in Colombia. This assertion is corroborated by the works of Henley et al. (2017), Laguía et al. (2017), Romero and Reyes (2022), Rueda et al. (2022), and Valencia-Arias et al. (2022), among others, concur that the entrepreneurial attitude is the most salient predictor, while acknowledging the pivotal role of self-efficacy and, to a lesser extent, the influence exerted by subjective norms on the intention to become an entrepreneur. The importance of the entrepreneurial attitude is attributed to its close association with opportunities perceived by young people, who regard self-employment as a viable alternative to address youth unemployment, particularly in university settings. In such environments, entrepreneurship education serves as a valuable source to stimulate the entrepreneurial spirit.

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