# Analysing Romanian Students' Orientations Towards Entrepreneurship: A Survey Study in Sibiu

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Keywords	ABSTRACT
Entrepreneurial attitude Entrepreneurial intention Students University	This study aims to identify the factors that explain students' attitudes towards entrepreneurship and their intentions to pursue entrepreneurship. The study used a quantitative methodology and collected data from 204 students through a questionnaire survey. The research hypotheses derive from established theoretical models, such as experiential learning theory, planned behaviour theory, social learning theory, and push-pull theory applied to entrepreneurship. The results show that career aspirations, exposure to entrepreneurial models, and the number of people students know as entrepreneurs play a significant role in explaining entrepreneurial attitudes and intentions. Other variables, such as academic performance, residential environment, and gender, also explain students' entrepreneurial intentions.

## Introduction

The complexity of the entrepreneurial process has brought together the cognitive and behavioural sciences to develop a multilateral view of entrepreneurship. In contrast to economic studies that focus on the impact of entrepreneurship on the economic environment's development, research in

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the social and human sciences has focused on identifying entrepreneurial personality traits and discovering the reasons behind the decision to become an entrepreneur. These sciences have focused on studying and understanding the social environment from which entrepreneurs come.

Howard and Boudreaux (2024) identified the following seven dimensions when discussing personality traits specific to entrepreneurs: innovation, risk-taking, achievement orientation, locus of control, proactivity, self-efficacy, and autonomy orientation. The authors point out that these personality traits can vary depending on the context and stage of the entrepreneurial process. Independence in the entrepreneurial act is a defining characteristic of the entrepreneur. Tolerance of uncertainty is also a characteristic of the entrepreneur, defined by the ambiguity and unpredictability of the actions taken in starting a business (Shane, Locke, and Collins 2003). Entrepreneurial motivation involves an individual's strong desire to achieve personal and professional goals and to gain and exercise control and power (Gartner 1990). Drucker (1993) adds that the range of entrepreneurial motivations extends beyond the basic need for financial stability to higher needs, such as social recognition.

This study aims to identify the factors that help to explain students' entrepreneurial attitudes and intentions. It examines the relationship between students' perceptions of their entrepreneurial skills, students' exposure to entrepreneurial role models, the number of people they know as entrepreneurs, students' perceptions of labour market integration opportunities, students' career aspirations, their involvement in learning activities, and their entrepreneurial attitudes and intentions.

The motivation for this topic stems from the appreciation of the link between entrepreneurship education and the development of entrepreneurial skills, professional and entrepreneurial values (Kayed, Al-Madadha, and Abualbasal 2022), preferences for choosing entrepreneurship as a desirable career option (Rusu 2015), and entrepreneurial intentions (Hattab 2014). Although the attitudes of Romanians aged 18-64 towards entrepreneurship are favourable and increasing (the percentage of Romanians who consider entrepreneurs to have a high social status increased by 9.49%, from 75.07% in 2015 to 84.56 in 2022), entrepreneurial intentions are low and decreasing (from 29.01% in 2015 to 6.38% in 2022) (Global Entrepreneurship Monitor 2015; 2022).

### **Entrepreneurial activity**

Pintea (2007) defines entrepreneurial activity as creating a new organisation or renewing processes within an existing company to foster more innovation. Rusu (2015) characterises entrepreneurship with a high degree of nebulosity. However, the literature identifies specific characteristics of the entrepreneurial process, such as long-term vision, creativity, continuous transformation, innovation, and the ability to take calculated risks and identify opportunities in uncertain and chaotic contexts (Kuratko 2011, 9). In this sense, the entrepreneur becomes the critical figure in entrepreneurial activity, described by the capitalist current as a "destructive creator" who abolishes existing social models and reconfigures a new social order (Schumpeter 2013).

The contemporary perspective of entrepreneurship emphasises the creation of social value, the search for workable solutions, and finding resources to tackle critical societal challenges within the global economy. Contemporary entrepreneurship not only satisfies human needs by producing goods and services but also extends its scope to contribute to ensuring and improving the quality of life of individuals, the socio-political stability of society, employment, and the integration of different social groups into the labour market through the creation of new jobs, the promotion of social inclusion, and the development of public policies to encourage business creation (Avila-Angulo 2021). Entrepreneurship is also interested in increasing the well-being of individuals (Schumpeter 2013), reducing youth unemployment, and equipping individuals with skills and abilities specific to society based on information and knowledge (Sajdrova 2015).

#### Entrepreneurial attitude and intention

Entrepreneurial attitudes stem from beliefs, emotions, and internalised feelings within an individual. These factors shape whether one has a positive or negative perception of the value, credibility, and benefits associated with entrepreneurial endeavours (Abun *et al.* 2018, 103). The decision to become an entrepreneur is favourable when individuals believe that entrepreneurship is the best option for their career. When deciding to become an entrepreneur, individuals consider their preferences for certain aspects of entrepreneurial activity, the alternatives available, and the extent to which they are attracted to these alternatives (Praag and Ophem 1995, 515).

Entrepreneurial intention refers to a person's cognitive and emotional inclination towards undertaking specific activities and behaviours related to initiating and managing a business. This concept is fundamental in anticipating and understanding an individual's future entrepreneurial behaviour influenced by diverse contextual, socioeconomic, and psychological factors (Barba-Sánchez, Mitre-Aranda, and Brío-González 2022).

The most crucial document for entrepreneurial activity and success is the business plan. This document describes how the enterprise operates, highlighting its objectives, goals, strengths, and financial resources and how they can contribute to overcoming risks and developing opportunities (Rujoiu *et al.* 2010, 23). A business plan is a systematic and structured documentation of business ideas to guide and shape the future development of enterprises (Testa and Frascheri 2015). The business plan is essential to the entrepreneurial process and provides a strategic framework for initiating, maintaining, and evaluating the actions and strategies required to achieve objectives (Frese 2000). Santos and Silva (2012) claim that the business plan serves as a resource and risk management tool, and Delmar and Shane (2003) state that the business plan contributes to the speed and accuracy of decisions, the analysis of business feasibility, and to the improvement of internal and external communication. There are also critical voices in the literature (Gruber 2007) that question the relevance of a business plan in a business environment characterised by uncertainty and increased volatility. In this context, Sarasvathy (2001) outlines two approaches to business planning. The first approach emphasises strategic planning and anticipating the actions necessary to achieve set goals. Entrepreneurs can anticipate and manage future events through careful planning and analysis. This perspective sees the business plan as a comprehensive and forward-looking tool. This perspective applies to the effective management of the business. By contrast, the second approach introduces the concept of adaptability into the planning process, emphasising the value of flexibility in the face of changes in the business environment. Entrepreneurs adopting this perspective do not follow a rigid plan. They are also open to experimentation and adaptation. They adapt according to their encounters.

# Endogenous and exogenous factors explaining entrepreneurial attitudes and intentions

The literature identifies two categories of factors that influence the formation of entrepreneurial attitudes and intentions of individuals: exogenous and endogenous (Rusu 2015). Olatunji (2015) lists social, cultural, political, and economic environments as factors considered exogenous to the formation of entrepreneurship. Thus, entrepreneurship becomes a complex activity intertwined with the dynamics of the processes in these environments. Also included in this category are cultural norms oriented towards innovation or conformity (Grace and Smith 2016), the existing educational curriculum (Reyez-Cruz, Sanchez-Trujillo, and Ramirez 2019), the degree of political stability that emphasises or reduces risk and uncertainty in entrepreneurial practice, policies implemented to promote entrepreneurship and access to finance (Sendra-Pons, Comeig, and Mas-Tur 2022).

In the category of endogenous factors, Maireva and Magomana (2021) identify the professional values of individuals, previous exposure to

entrepreneurial behaviour, the existence of professional and educational experience, the set of managerial, technical, and entrepreneurial skills internalised and developed, and the level of education of individuals.

#### **Entrepreneurial skills**

According to the literature, skills are constructs characterised by multidimensionality and dynamism. Lazear (2005) states that these constructs show their multidimensionality through four broad dimensions, including the cognitive dimension, which refers to knowledge and learning. Dynamism allows for learning, emphasising the importance of entrepreneurial education (Solek-Borowska and Chudy-Laskowska 2018).

Belief and conviction in entrepreneurial skills and knowledge increase students' interest and desire to start their businesses (Krueger 2017). Liñán's (2008) study concludes that entrepreneurial skills determine students' attitudes towards entrepreneurship. Creativity, leadership, effective communication, ease of making interpersonal contact, and the ability to solve conflicts creatively are fundamental factors in explaining and stimulating entrepreneurial intention. Equally important are the spirit of innovation and the ability to solve problems and make quick and rational decisions. The author believes that students with entrepreneurial skills are more likely to feel confident about starting a business and, therefore, choose and prefer selfemployment to employment.

The competencies and skills necessary for entrepreneurial endeavours prove invaluable in fostering creative ideas and strategies; analysing and exploiting the market and the economic, social, political, and demographic environment; recognising and identifying viable entrepreneurial opportunities; developing services and tangible goods that meet market needs; and analysing competition. The success and sustainability of entrepreneurial ventures hinge on robust skills and competencies (Mitchelmore and Rowley 2013). Entrepreneurship education proves beneficial for developing and enhancing entrepreneurial skills through interactive sessions with entrepreneurs, exposure to the environment outside educational institutions, and practical activities proposed within the discipline. Students exposed to entrepreneurship education in pre-university and university settings have a more positive self-assessment of their entrepreneurial skills than those not exposed to entrepreneurship education. Improving students' skills can positively impact their entrepreneurial attitudes and intentions, which are known to be strong predictors of entrepreneurial behaviour (Liñán 2008).

#### **Exposure to entrepreneurial models**

Exposure to entrepreneurial models refers to an individual's direct involvement in entrepreneurial activities and cohabitation with entrepreneurial individuals in primary and secondary groups (Zapkau *et al.* 2015). Exposure to entrepreneurial behaviours helps individuals build theoretical and practical knowledge about the entrepreneurial domain by participating in entrepreneurial activities or observing the entrepreneurial activities of a role model such as a parent (Zapkau, Schwens, and Kabst 2015).

Sun, Shi, and Zhang (2023) capture the importance of students' exposure to entrepreneurial behaviour as measured by their participation in entrepreneurial activities such as entrepreneurship clubs, entrepreneurship conferences, or entrepreneurial projects. In this sense, students form entrepreneurial attitudes, intentions, and behaviours through the secondary socialisation process. Antoncic *et al.* (2007) also show that, through education and training, potential entrepreneurs acquire new knowledge and skills in management and entrepreneurship.

Students' participation in entrepreneurship education courses, their involvement in entrepreneurial activities, and their previous exposure to entrepreneurial behaviour influence the formation of an entrepreneurial mindset through increased tolerance of ambiguity, willingness to take entrepreneurial risks and achievement orientation. Engaging in entrepreneurial activities significantly boosts students' interest in starting their own business. More specifically, it influences entrepreneurial intentions, according to the cross-sectional research conducted by Sun, Shi and Zhang (2023).

According to Fayolle and Gailly's (2015) experiment, students enrolled in entrepreneurship education courses are more inclined to develop a positive perspective on entrepreneurship and express their intentions to pursue it.

An entrepreneurial role model from the primary group (e.g. parents or other family members) or an entrepreneurial role model from the secondary group (friends, colleagues, or various acquaintances) can also expose individuals to entrepreneurial behaviour by studying their entrepreneurial behaviour (Zapkau, Schwens, and Kabst 2017).

According to Li, Wang, and Chi (2022), students with higher social capital have more access to entrepreneurial information and resources due to their extensive social connections. This increased access enhances students' belief in their ability to succeed in entrepreneurship and boosts their desire and interest to start a business. The family environment plays a crucial role in shaping an individual's character and values, subsequently affecting their career choices (Kuratko 2011).

The nuclear family transfers knowledge and experience to the child. Nuclear families can expose children to entrepreneurship by directly involving them or transferring social and economic capital to support businesses. During primary socialisation, children are more likely to adopt the behaviours and values exhibited by their parents (Mungai and Velamuri 2011).

Pablo-Lerchundi, Morales-Alonso, and Vargas-Pérez (2017) show in their study that parents' occupation influences children's career choices, with results indicating that students whose parents have a personal business are more likely to intend to start their own business. The argument supporting this result is that these students develop more positive attitudes towards entrepreneurship, feel more supported by their parents, and have more skills and characteristics needed in entrepreneurial practice compared to students whose parents do not have an entrepreneurial status.

### Students' career aspirations

Araya-Pizarro (2021) highlights the impact of students' career aspirations on their entrepreneurial intentions. According to the research, students who aspire to professional activities described by autonomy in work, freedom to make their own decisions in the work process, opportunity to be innovative, desire to influence others, and high income are more open and expansive in starting their own business. Rodríguez and Prieto-Pinto (2009) assess the professional values related to entrepreneurship in the study, where respondents present a set of professional expectations related to entrepreneurial activity: they expect it to be beneficial to society, to offer autonomy in the execution of tasks, to provide job security and financial stability, to ensure work-life balance, to involve complex tasks and regular interactions with new people, and to offer opportunities for career advancement.

In Romanian society, students perceive accessing employment opportunities to be challenging. Meanwhile, students often have higher professional expectations, preferences, and aspirations than the current labour market can fulfil. In this context, entrepreneurship becomes a desirable career alternative as it can satisfy students' high expectations and aspirations through the opportunities offered (Gavriluță 2020).

# Participation in practical learning activities

Yi (2018) suggests that internships effectively train students' skills, provide practical expertise, foster an entrepreneurial attitude, and boost confidence in professional abilities. The quality of the internship, perceived as an opportunity for professional training and an understanding of professional work, develops a favourable attitude towards entrepreneurship. In this sense, students perceive entrepreneurial activity as a desirable and feasible practice that is easy to create. Kolb (2014) states that individuals internalise behavioural patterns through active participation or observation without participation.

Furthermore, engaging students in hands-on activities improves their academic performance, fosters their entrepreneurial intentions, and hones their entrepreneurial skills such as creativity, financial management, tolerance of ambiguity, and organisation (Colombelli *et al.* 2022).

#### Relevant theories of entrepreneurial orientation

According to the Theory of Planned Behaviour, entrepreneurial intentions and behaviours are influenced by three key factors: the individual's attitude towards entrepreneurship, social norms, and the individual's perception of control over the behaviour (Ajzen 1991). Attitude is an individual's subjective evaluation of entrepreneurship. Social norms refer to how individuals perceive what is desirable for entrepreneurship. Behavioural control perceptions refer to the extent to which the individual feels capable of becoming an entrepreneur (Bagozzi, Baumgartner, and Yi 1992). Entrepreneurship research has shown an interest in explaining students' entrepreneurial intentions about the Theory of Planned Behaviour. A positive attitude towards entrepreneurship can increase the likelihood of an individual developing an entrepreneurial career and taking entrepreneurial risks (Valdéz 2021). Family, friends, or colleagues contribute to understanding the social norms surrounding entrepreneurship and the intention to start a business (Kuratko 2011). Liu et al. (2019) demonstrate that perceived selfefficacy, specifically an individual's confidence in the skills and abilities needed to start a business, is associated with both entrepreneurial orientations.

Experiential learning theory, developed by Kolb (2014), emphasises the continuous cycle of learning, starting with direct experience, reflection,

formation of abstract concepts, and testing in action. The literature captures the importance of students' exposure to entrepreneurial behaviour in the formation of entrepreneurial attitudes, intentions, and behaviours through their involvement in entrepreneurial activities, where students interact with entrepreneurs, develop their entrepreneurial skills and knowledge, and learn through direct experience and exposure (Sun, Shi, and Zhang 2023) or hands-on learning activities (Colombelli *et al.* 2022).

The social learning theory proposed by Bandura and Walters (1977) focuses on behavioural modelling and self-efficacy. The main idea behind this theory is that potential entrepreneurs can learn by observing successful role models.

The theory of push and pull factors applied to entrepreneurship considers how certain factors prevent or encourage business creation. While push factors compel the creation of a business due to unsatisfactory experiences experienced by individuals, pull factors stimulate the desire to create a business by satisfying the needs for personal development, social recognition, independence, autonomy, and financial stability (Olatunji 2015). Thus, regarding pull factors, the literature identifies several career aspirations that satisfy students' higher needs (Maslow 1943). First, they aspire to professional activities that offer flexibility and autonomy in work, allow for employee responsibility and have complex tasks (Iacovou, Shirland, and Thompson 2004), provide opportunities for career advancement (Lim and Soon 2006), but also stable income, job security and adequate conditions (Selvakumar *et al.* 2015), or prefer professional activities with defined goals and long-term vision (Demel, Mariel, and Meyerhoff 2019).

#### Methodology, data collection and indicators

According to the planned behaviour theory, push-pull theory, social learning theory, and experiential learning theory, we expect that self-efficacy, exposure to entrepreneurial models, number of people known to the students as entrepreneurs, career aspirations, involvement in practical learning activities,

and perception of opportunities for integration into the labour market will significantly influence entrepreneurial attitudes and intentions. Therefore, this study aimed to test the following hypotheses:

(H1) The higher the students' exposure to entrepreneurial models, the higher the number of people known to the students as entrepreneurs, the higher the professional aspirations, the higher the involvement in practical learning activities, the higher the perception of the possessed entrepreneurial skills, and the more negative the perception of opportunities for integration into the labour market, the higher the willingness to assume an attitude favourable to entrepreneurship.

(H2) The likelihood of having entrepreneurial intention increases with the degree of exposure to entrepreneurial models, the expansion of the knowledge network with entrepreneurial status, the increase in professional aspirations, the involvement in practical learning activities, the positive perception of the possessed entrepreneurial skills and the negative perception of the opportunities for integration into the labour market.

The data collection method used in this study is a questionnaire survey. Data were collected using the CAWI technique. Data were collected for 14 days, between 24.04.2023 and 08.05.2023. The questionnaire was self-administered to the participants.

The sample consists of 204 students enrolled in the academic year 2022-2023, in the last year of study (III, IV, V or VI) at the Bachelor's level at "Lucian Blaga" University in Sibiu. The sampling strategy is non-probabilistic and purposive.

The data were analysed using SPSS version 26. Factor analysis, multiple regression, and logistic regression were used to analyse the data and test the hypotheses.

The dependent variable in Model I is "entrepreneurial attitude", measured by the question "Do you agree or disagree with the following statement? I am much more likely to start my own business than to work for an employer", based on the following item: "students are much more likely to start their own business than to work for an employer". A 5-point Likert

scale was used to measure this indicator, where 1 means that students strongly disagree with the statement and 5 means that they strongly agree.

The dependent variable in Model II is "entrepreneurial intention" and it is measured by the indicator "students have a business plan" using a dichotomous scale (1=they have a business plan; 2=they do not have a business plan). The responses were binary recoded (1=they have a business plan; 0=they do not have a business plan). Despite the complexity and dynamism of entrepreneurial activity, characterised by rapid change, innovation, and risk-taking (Kuratko 2011, 9), our research identifies the business plan as a crucial indicator of entrepreneurial intention. The existence of a business plan is the first step in starting a business and a tool that reflects the entrepreneur's ability to anticipate potential risks and strategies for managing them, but also to evaluate the development opportunities associated with their initiative. Furthermore, Olatunji (2015) states that changes in political, social, economic, and cultural environments are related to the proper functioning of the business and often require adjustments to the plan. The existence of a business plan is an indicator of entrepreneurial intention because it provides a clear framework for the direction and objectives of the business. A business plan is an entrepreneurial intention indicator, serving as a negotiating tool to facilitate access to finance and reassure potential business partners (Frese 2000; Delmar and Shane 2003; Santos and Silva 2012; Testa and Frascheri 2015).

The independent variable, "perception of entrepreneurial skills possessed", is measured by the following indicators: "students adapt quickly to new situations", "students make quick and rational decisions", "students work efficiently in uncertain conditions", "students take calculated risks", "students work efficiently in conditions of freedom of action". A 5-point Likert scale was used to measure these indicators, where 1 means that the students agree with the statements to a minimal extent and 5 means that they agree to a considerable extent. A factor score (KMO=0.76; the explained variance is 53%) measures the perception of entrepreneurial skills.

The independent variable "exposure to entrepreneurial models" is measured by the indicators "students participated in entrepreneurship training courses", "students participated in entrepreneurial projects to start a business" and "students participated in conferences on entrepreneurship". These indicators are measured on a dichotomous scale (1=have participated in activities; 2=have not participated in activities). The responses to the analyses were binary recoded (1=participating in activities; 0=not participating in activities). After the factor analysis, the KMO coefficient=0.64, indicating that the fit is moderate. In this case, the explained variance is 59%.

The independent variable, "the number of people students know as entrepreneurs", is measured by the indicators "students have an entrepreneur family member", "students have an entrepreneur friend", "students have a fellow entrepreneur", and "students have a teacher entrepreneur". The index is summative and varies between 0 and 4, where 0 means they do not know any entrepreneurs and 4 means they know 4 people with entrepreneur status

The independent variable, "perception of opportunities for integration into the labour market", is measured by the indicators "the labour market offers students professional activities in which they have the opportunity to choose their working hours", "the labour market offers students professional activities in which they have the opportunity to work from home", "the labour market offers students professional activities in which they have access to professional training courses" and "the labour market offers students professional activities in which they have the opportunity to advance in their positions". Students expressed their perceptions of the ease or difficulty of finding opportunities in existing professional activities on the labour market. A 5-point Likert scale was used to measure the indicators, where 1 means it is straightforward for students to find several opportunities to integrate into the labour market, and 5 means challenging. The perceptions of opportunities for integration into the labour market are measured using a factor score (KMO=0.73; explained variance being 60%).

The independent variable "students' professional aspirations" is measured by the indicators "students want a professional job where they lead a team", "students want a professional job where they take the initiative in difficult situations", "students want a professional job where they can put their professional ideas into practice" and "students want a professional job where they can create their own professional rules". A 5-point Likert scale is used, where 1 means that students very little want a professional activity that offers opportunities specific to high aspirations and 5 means to a considerable extent. After the factor analysis, the KMO coefficient=0.75, indicating that the fit is significant. The explained variance is 62%.

Finally, the independent variable "participation in practical learning activities" is measured by "students performed an internship", using a dichotomous scale (1=they performed an internship; 2=they did not perform an internship). The responses were binary recoded (1=they did an internship; 0=they did not do an internship).

#### Results

More than half of the study participants are female (67.6%). Additionally, 40.5% of the participants are enrolled in STEM fields (science, technology, engineering, and mathematics). As for the distribution of students based on their current academic year, it is notable that the majority (64.8%) are enrolled in their third year (see Table 1).

Gender	%	Field of study	%	Year of study	%
Female	67.6	STEM	40.5	III	64.8
Male	32.4	Non-STEM	59.5	IV	29.9
				V	1.5
				VI	3.9
Total	100	Total	100	Total	100

**Table 1**: Descriptive statistics regarding the investigated subjects

Table 2 illustrates that 16.7% of students strongly agree with the statement "I am much more willing to start my own business than to work for an employer", while 28.4% of students agree with the same statement. Concerning entrepreneurial intention, 26.5% of students have a business plan.

Students are much more likely to	start their	Students may or may not have a h	ousiness
own business than to work for an	employer	plan	
	%		%
Strongly disagree	4.4	They have a business plan	26.5
Disagree	16.2	They do not have a business plan	73.5
Neither agree nor disagree	34.3		
Agree	28.4		
Strongly agree	16.7		
Total	100	Total	100

Table 2: Descriptive statistics on students' entrepreneurial attitude and intention

Table 3 presents the results of two models of analysis. The first model presents the results of multiple regression that explain students' entrepreneurial attitudes. All tolerance values exceed 0.7, and the VIFs are below 2, suggesting that collinearity issues are absent in this model. Among the independent variables utilised, the number of people students know as entrepreneurs (Sig.=0.001), exposure to entrepreneurial models (Sig.=0.038), and career aspirations (Sig.=0.000) significantly contribute to explaining entrepreneurial attitudes. Notably, all three relationships exhibit a positive association, with the most influential factor being the number of entrepreneurs known to the students ( $\beta$ =0.213). This implies that students with high career aspirations, who are exposed to entrepreneurial models and know more entrepreneurs are significantly more inclined towards favourable attitudes regarding entrepreneurship.

Additionally, an interesting predictor pertains to the student's field of study. The data suggest that students in STEM fields have a stronger

inclination towards entrepreneurship. However, this association lacks statistical significance (Sig.=0.31).

The second model presents the results of the logistic regression explaining entrepreneurial intention. The findings indicate that six of the independent variables used in the model are significant in explaining entrepreneurial intention. As in the previous model, the number of entrepreneurs that students know (Sig.=0.003), career aspirations (Sig.=000) and exposure to entrepreneurial models (Sig.=000) significantly contribute to explaining entrepreneurial intention. All three relationships show a positive correlation, indicating that students who know more entrepreneurs, have high career aspirations, and are exposed to entrepreneurial models are more inclined to have a business plan.

Sociodemographic variables are among the next three factors that help to explain entrepreneurial intention. First, the results indicate that participants from urban environments are more inclined to develop a business plan (Sig.=0.049). Entrepreneurs tend to thrive in urban environments due to the abundance of resources and opportunities available. The urban environment offers more support systems for entrepreneurs with easier access to infrastructure, support services, networking and mentoring opportunities than rural environments.

The data indicate that female participants were more inclined to have created a business plan than their male counterparts. Although there was no statistically significant correlation between participants' gender and their perceived chances of integration into the labour market, female students may face various challenges when trying to integrate into the labour market. These challenges may include discrimination and stereotypes regarding their abilities or opportunities in certain fields. In this case, changing attitudes and social norms related to gender roles may explain these aspects. Developing a business plan is a step towards professional independence and can boost women's confidence in their abilities. Modern societies have developed perceptions of gender roles in professional life. Society encourages women to pursue careers in various fields, including entrepreneurship. This can lead to the development of business plans, as women feel they have the necessary social and political support.

Entrepreneurial intention is significantly influenced by academic performance as a sociodemographic variable. This relationship is negative, meaning students with lower academic performance are more likely to develop business plans. The explanation could be that students with lower academic performance are active in the labour market and experience a conflict regarding the roles of students and employees. According to a t-test (Sig.=0.05), among the participants in the study, the academic performance of students with work experience is 0.2 hundredths higher than that of students without work experience. However, the relationship is at the limit of statistical significance. Another explanation could be that students with lower academic performance need assistance integrating into the labour market. According to a bivariate correlation between academic performance and chances of integration into the labour market, there is a proportional relationship. Thus, students with lower academic performance have a less favourable perception of their chances of integration into the labour market, but the relationship is not statistically significant (Sig.=0.65). Gavriluță (2020) also explains this result. According to this result, the students perceive the employment opportunities and the opportunities offered by the jobs as difficult to access in Romanian society. A final explanation for the negative relationship between academic performance and entrepreneurial intention lies in the competitiveness and instability of the labour market, but also in the reluctance of employers to hire students with low academic performance, regardless of their specific skills.

An interesting finding is the negative, insignificant relationship between the field of study and entrepreneurial intention. In this sense, students enrolled in STEM are less likely to develop a business plan. Students' entrepreneurial attitudes and intentions vary significantly depending on the academic field. Non-economic students prefer technical courses, while students in economics receive an "entrepreneurial education" through business, marketing, and management courses.

		Model I (multiple regression) Attitude			Model II (logistic regression) Intention		
		В	β	Sig.	В	Wald	Exp(B)
	(Constant)	2,864		,000	2,469	,635	11,807
H1	Entrepreneurial skills	-,066	-,056	,443	,299	,937	1,349
H2	Exposure to entrepreneurial models	,180*	,138	,038	1,955***	28,673	7,061
H3	Number of known entrepreneurs	,187***	,213	,002	,688**	8,769	1,990
H4	Opportunities offered by the labour market	-,107	-,089	,167	,166	,391	1,181
H5	Career aspirations	,450***	,086	,000,	1,425***	12,434	4,156
H6	Internship (1=they did an internship)	-,078	-,149	,601	,686	1,828	1,986
	Academic performance	-,015	-,012	,855	-,857***	5,556	,424
	Professional experience (1=they have professional experience)	,166	,075	,264	-,186	,120	,831
	Provenance (1=urban)	,073	,033	,601	1,021*	3,883	2,776
	STEM field (1=STEM)	,165	,073	,310	-,269	,214	,764
	Gender (1=female)	,157	,068	,321	1,368*	4,359	3,929
		Adj R: 25.5% N=204			Cox & Snell R Square 0.429 Nagelkerke R Square 0.626 Omnibus test $\chi^{2}=114.316$ ; df=11; p=0.000 Hosmer and Lemeshow Test $\chi^{2}=9.092$ ; df=8; p=0.335 N=204		

#### **Table 3**: Multiple regression and logistic regression model

a) \*\*\*p<0.001, \*\*p<0.01, \*p<0.05, \*p<0.1.

b) The dependent variable in the first model is the entrepreneurial attitude.

c) The dependent variable in the second model is entrepreneurial intention.

#### Discussion and conclusion

This study aims to identify the factors that explain students' entrepreneurial attitudes and intentions. According to the results of the multiple regression

and logistic regression, it was found that several factors contribute to understanding these aspects.

One factor that contributes to explaining entrepreneurial attitudes and intentions is the number of entrepreneurs known to the student. This relationship is consistent with research by Mungai and Velamuri (2011), who argue that entrepreneurial role models, such as entrepreneurial parents, can transmit entrepreneurial knowledge and experience across generations. Their theoretical underpinnings are based on experiential learning theory (Kolb 2014) and social learning theory (Bandura and Walters 1997), which argue that people learn by observing the behaviour of others in their social environment.

Career aspirations also have a significant impact on explaining entrepreneurial attitudes and intentions. The result is consistent with the idea put forward by Gavriluță (2020) that entrepreneurship becomes a desirable career alternative for students with high labour market expectations and high professional aspirations. High professional aspirations can be considered a pull factor for entrepreneurship, as this field can satisfy the need for personal development, social recognition, independence, autonomy, and financial stability (Olatunji 2015).

In addition, the analysis shows that exposure to entrepreneurial models is a key factor in understanding the adoption of this type of entrepreneurial mindset and intention. Exposing students to entrepreneurial models and involving them in entrepreneurial activities, such as entrepreneurship clubs, conferences or projects shape their entrepreneurial intentions and attitudes.

Sociodemographic variables play a significant role in understanding entrepreneurial intention. They provide crucial insights into individual and contextual characteristics that influence entrepreneurial orientation. The study's analysis revealed that certain categories of students are more likely to develop business plans than others, depending on certain demographic characteristics. This research suggests that urban students are more inclined to have a business plan. One explanation for this correlation is the development of the entrepreneurial ecosystem in urban environments. In addition, although entrepreneurship is traditionally viewed as a maledominated field, the results show that women are more inclined towards entrepreneurship. As a result, they may be more willing to take risks and pursue their entrepreneurial vision. It has also been observed that students with lower academic performance are more inclined to explore entrepreneurship. One possible explanation for their preference for certain careers is their desire for independence and the potential for personal and professional growth.

The study's limitations are evident due to several issues, such as the small sample size and the method of subject selection. The findings cannot be generalised to a larger student population due to the small sample size. In addition, the sample was not representative of the student population as a whole but rather of a specific group of final-year students. However, it is important to note that our results are limited to final-year students because of the purposive approach to subject selection. Therefore, these findings cannot be extrapolated to other categories or education levels. Although this approach was chosen to focus on a particular group of interests, it is essential to recognise its implications for the applicability and generalisability of our research.

In interpreting the study's results, the factor related to the number of entrepreneurs known by the students becomes the most significant in explaining the willingness to adopt a favourable attitude towards entrepreneurship when the impact of the other variables is controlled. Exposure to entrepreneurial models is the most influential factor in explaining the likelihood of having an entrepreneurial intention.

#### References

Abun, Damianus, Sylvia Lalaine, Grace Foronda, Frederick Agoot, Maria Luisita, V. Belandres, and Theogenia Magallane. 2018. "Measuring entrepreneurial attitude and entrepreneurial intention of ABM grade XII, Senior High School Students of Divine Word Colleges in Region I, Philippines". International Journal of Applied Research 4(4): 100-114.

- Ajzen, Icek. 1991. "The theory of planned behavior". Organizational Behavior and Human Decision Processes 50(2): 179-211.
- Antoncic, Bostjan, Barbara Hvalic Erzetic, Otmar Zorn and Robert Hisrich. 2007. "Entrepreneurship education: Non-linearity in the satisfaction – continuation relationship". *Management* 2: 101–119.
- Araya-Pizarro, Sebastián. 2021. "Intención emprendedora y preferencias laborales de estudiantes de negocios". *Revista de Investigación*, *Desarrollo e Innovación* 11(3): 519-532.
- Avila-Angulo, Elizabeth. 2021. "La evolución del concepto emprendimiento y su relación con la innovación y el conocimiento". *Revista Investigación y Negocios* 14(23): 32-48.
- Bagozzi, Richard, Hans Baumgartner and Youjae Yi. 1992. "State versus action orientation and the theory of reasoned action: An application to coupon usage". *Journal of Consumer Research* 18(4): 505-518.
- Bandura, Albert and Richard Walters. 1977. *Social learning theory*. New Jersey: Editura Prentice Hall.
- Barba-Sánchez, Virginia, Maria Mitre-Aranda and Jesús Del Brío-González. 2022. "The Entrepreneurship education: the effects of challenge-based learning on the entrepreneurial mindset of university students entrepreneurial intention of university students: An environmental perspective". *European Research on Management and Business Economics* 28(2).
- Colombelli, Alessandra, Shiva Loccisano, Andrea Panelli, Orazio Antonio Maria Pennisi and Francesco Serraino. 2022. "Entrepreneurship education: the effects of challenge-based learning on the entrepreneurial mindset of university students". *Administrative Sciences* 12(1).
- Delmar, Frédéric and Scott Shane. 2003. "Does business planning facilitate the development of new ventures?". *Strategic Management Journal* 24(12): 1165-1185.
- Demel, Simona, Petr Mariel and Jürgen Meyerhoff. 2019. "Job preferences of business and economics students". *International Journal of Manpower* 40(3): 473-499.
- Drucker, Peter. [1985] 1993. *Inovația și sistemul antreprenorial: Practică și principii*. București: Editura Enciclopedică.
- Fayolle, Alain and Benoit Gailly. 2015. "The impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence". *Journal of Small Business Management* 53(1): 75-93.
- Frese, Michael. 2000. Success and failure of microbusiness owners in Africa: A psychological approach. New York: Bloomsbury Publishing.

- Gartner, William. 1990. "What are we talking about when we talk about entrepreneurship?". *Journal of Business Venturing* 5(1): 15-28.
- Gavriluță, Nicu. 2020. "The Labor Market, Employability and Entrepreneurship in the Romanian Public Sector". *Transylvanian Review of Administrative Sciences* 16(61): 46-69.
- Global Entrepreneurship Monitor. 2015. "Global Entrepreneurship Monitor Global 2015 Report". Accessed on 13.06.2023. Available at: https://www.gemconsortium.org/.
- Global Entrepreneurship Monitor. 2022. "Global Entrepreneurship Monitor Global 2022 Report". Accessed on 13.06.2023. Available at: https://www.gemconsortium.org/.
- Grace, John and Peter Smith. 2016. "The importance of culture in entrepreneurship". *Contemporary Issues in Rural Australia* 4: 1-7.
- Gruber, Marc. 2007. "Uncovering the value of planning in new venture creation: A process and contingency perspective". *Journal of Business Venturing* 22(6): 782-807.
- Hattab, Hala. 2014. "Impact of entrepreneurship education on entrepreneurial intentions of university students in Egypt". *Journal of Entrepreneurship* 23(10): 1-18.
- Howard, Matt and Melanie Boudreaux. 2024. "A systematic literature review and meta-analysis of entrepreneurial personality". *Entrepreneurship Research Journal* 14(1): 283-312.
- Iacovou, Charalambos, Larry Shirland and Ronald Thompson. 2004. "Job selection preferences of business students". *Journal of Applied Business Research* 20(1): 87-98.
- Kayed, Hiba, Amro Al-Madadha and Abdelraheem Abualbasal. 2022. "The effect of entrepreneurial education and culture on entrepreneurial intention". *Organizacija* 55(1): 18-34.
- Kolb, David. 2014. *Experiential learning: Experience as the source of learning and development*. Londra: Editura Pearson Education.
- Krueger, Norris. 2017. "Entrepreneurial intentions are dead: Long live entrepreneurial intentions". În *Revisiting the entrepreneurial mind: Inside the black box*. Cham: Editura Springer.
- Kuratko, Donald. 2011. "Entrepreneurship theory, process and practice in the 21st century". *International Journal of Entrepreneurship and Small Business* 13(1): 8-17.
- Lazear, Edward. 2005. "Entrepreneurship". Journal of Labor Economics 23(4): 649-680.

- Li, Yan, Ruo Xiang Wang and Chun Yang Chi. 2022. "Who is more likely to start a business? Analysis of the factors influencing undergraduates' entrepreneurial intentions". *Frontiers in Psychology* 13.
- Lim, Hock-Eam and Jan Soon. 2006. "Job selection criteria and job sector preference of economics student: An ordered logit model analysis". *International Journal of Business and Society* 7(1): 53-69.
- Liñán, Francisco. 2008. "Skill and value perceptions: how do they affect entrepreneurial intentions?". *International Entrepreneurship and Management Journal* 4: 257-272.
- Liu, Xianyue, Chunpei Lin, Zhao Guanxi and Zhao Dali. 2019. "Research on the effects of entrepreneurial education and entrepreneurial selfefficacy on college students' entrepreneurial intention". *Frontiers in Psychology* 10.
- Maireva, Chrispen and Nzwirashe Rejoyce Magomana. 2021. "The influence of endogenous factors on entrepreneurial success among youths". *East African Journal of Education and Social Sciences* 2(2): 179-189.
- Maslow, Abraham. 1943. "A theory of human motivation". *Psychological Review* 50: 370-396.
- Mitchelmore, Siwan and Jennifer Rowley. 2013. "Entrepreneurial competencies of women entrepreneurs pursuing business growth". *Journal of Small Business and Enterprise Development* 20(1): 125-142.
- Mungai, Edward and Ramakrishna Velamuri. 2011. "Parental entrepreneurial role model influence on male offspring: Is it always positive and when does it occur?". *Entrepreneurship Theory and Practice* 35(2): 337-357.
- Olatunji, Abdulganiy. 2015. "Socio-cultural factors influencing entrepreneurial behavior". În *Sociology: Current and African perspectives*, ed. Femi Asamu and Babatunde Ekundayo. Ilorin: Integrity Publications.
- Pablo-Lerchundi, Iciar, Gustavo Morales-Alonso and Ana Maria Vargas-Pérez. 2017. "Does family matter? A study of parents' influence on the entrepreneurial intention of technical degrees students in Spain". *Journal of Business Research* 12(3): 110-119.
- Pintea, Ovidiu Sebastian. 2007. *Elemente de psihologie antreprenorială: Repere teoretico-experimentale*. Cluj-Napoca: Editura Asociației de Științe Politice din România.
- Praag, Mirjam Van and Hans Van Ophem. 1995. "Determinants of willingness and opportunity to start as an entrepreneur". *Kyklos* 48(4): 513-540.
- Reyez-Cruz, Juan Luis, Magda Gabriela Sanchez-Trujillo and Raul Ramirez. 2019. "Influencia de la formación universitaria en las actitudes emprendedoras". *Revista CEA* 5(10): 117-133.

- Rodríguez, Carlos Alberto and Frank Prieto-Pinto. 2009. "La sensibilidad al emprendimiento en los estudiantes universitarios: Estudio comparativo Colombia-Francia". *Innovar* 19(1): 73-89.
- Rujoiu, Marian, Dan Lambescu, Bogdan Talmaciu and Daniel Dragnea. 2010. *Ghidul antreprenorului*. București: Editura Vidia.
- Rusu, Ramona Carmen. 2015. "Perfecționarea educației antreprenoriale din România prin folosirea metodelor nonformale în ciclul inferior al liceului". Doctoral thesis. Babeș Bolyai Universitatea.
- Sajdrova, Michaela. 2015. Raport referitor la promovarea antreprenoriatului în rândul tinerilor prin educație și formare. Comisia pentru cultură și educație a Parlamentului European.
- Santos, Emanoel Alves and Carlos Eduardo Silva. 2012. "Os modelos de plano de negócios e sua relevância para sustentabilidade das micro e pequenas empresas". *Revista Brasileira de Administração Científica* 3(1): 37-62.
- Sarasvathy, Saras. 2001. "Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency". *Academy of Management Review* 26(2): 243-263.
- Schumpeter, Joseph. [1950] 2013. *Capitalism, socialism and democracy*. Londra: Editura Routledge.
- Selvakumar, Venesha, Muhamad Khalil Omar, Azzarina Zakaria, Shakerin Ismail and Jeanie Sim Ley Sin. 2015. "Job selection preferences of accounting students in Malaysian private universities". *Procedia Economics and Finance* 31: 91-100.
- Sendra-Pons, Pau, Irene Comeig and Alicia Mas-Tur. 2022. "Institutional factors affecting entrepreneurship". *European Research on Management and Business Economics* 28(3).
- Shane, Scott, Edwin Locke and Christopher Collins. 2003. "Entrepreneurial motivation". *Human Resource Management Review* 13(2): 257-279.
- Solek-Borowska, Celina and Katarzyna Chudy-Laskowska. 2018. "Assessing entrepreneurial attitudes and skills of students". *Modern Management Review* 23(4): 185-203.
- Sun, Junhua, Jingyi Shi and Junfeng Zhang. 2023. "From entrepreneurship education to entrepreneurial intention: Mindset, motivation, and prior exposure". *Frontiers in Psychology* 14(5): 15-35.
- Testa, Stefania and Silvana Frascheri. 2015. "Learning by failing: What we can learn from un-successful entrepreneurship education". *International Journal of Management Education* 13(1): 11-22.

- Valdéz, Sergio Ortiz. 2021. Formación emprendedora universitaria: Más allá de los mitos. Emprendimiento con sentido de propósito. Monterrey: Editorial Digital del Tecnológico.
- Yi, Gaofeng. 2018. "Impact of internship quality on entrepreneurial intentions among graduating engineering students of research universities in China". International Entrepreneurship and Management Journal 14(4): 1071-1087.
- Zapkau, Florian, Christian Schwens and Rüdiger Kabst. 2017. "The role of prior entrepreneurial exposure in the entrepreneurial process: A review and future research implications". *Journal of Small Business Management* 55(1): 56-86.
- Zapkau, Florian, Holger Steinmetz, Christian Schwens and Rüdiger Kabst. 2015. "Disentangling the effect of prior entrepreneurial exposure on entrepreneurial intention". *Journal of Business Research* 68(3): 639-653.