

Nurturing Tomorrow's Entrepreneurs: The Impact of University Support Spaces and Mentorship on Student Entrepreneurial Mindsets

صناعة رواد أعمال الغد: أثر فضاءات الدعم الجامعي والمرافقة في تشكيل العقلية الريادية لدى الطلبة

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Abstract

In Algeria, university-based support and mentoring spaces—such as entrepreneurship development centers and business incubators—play a major role in embedding an entrepreneurial culture within higher education. This shift responds to the saturation of public-sector jobs and rising graduate unemployment, positioning universities as key drivers of innovation and initiative. This study assesses the effectiveness of these spaces in fostering an entrepreneurial mindset, strengthening personality traits (self-confidence, perseverance, creativity), and increasing students' intention to launch businesses.

Using a quantitative approach (questionnaire survey of university students), three hypotheses were tested. Results show a statistically significant positive impact across all dimensions. Practical activities, personalized mentoring, and inspirational interactions prove more effective than awareness programs alone. These findings highlight the importance of an entrepreneurial university ecosystem in promoting self-employment, job creation, and economic diversification.

Keywords: University Support Spaces, Business Incubators, Entrepreneurial Spirit.

JEL Classification: A23, L26, I23.

ملخص

تلعب فضاءات الدعم والمرافقة الجامعية — مثل مراكز تطوير المقاولاتية وحاضنات الأعمال — في الجزائر دورًا محوريًا في ترسيخ الثقافة الريادية داخل التعليم العالي. ويأتي هذا التوجه استجابةً لتشبع وظائف القطاع العام وارتفاع معدلات بطالة الخريجين، مما يضع الجامعات في موقع فاعل رئيسي لتعزيز الابتكار

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وروح المبادرة. تهدف هذه الدراسة إلى تقييم فعالية هذه الفضاءات في تنمية العقلية الريادية، وتعزيز السمات الشخصية (الثقة بالنفس، المثابرة، الإبداع)، وزيادة نية الطلبة لإطلاق مشاريعهم الخاصة. وباستخدام منهج كمي (استبيان موجّه لطلبة جامعيين)، تم اختبار ثلاث فرضيات. وأظهرت النتائج وجود تأثير إيجابي دال إحصائيًا عبر جميع الأبعاد، حيث تبيّن أن الأنشطة التطبيقية، والمرافقة الفردية، والتفاعلات التحفيزية أكثر فاعلية من برامج التوعية النظرية وحدها. وتبرز هذه النتائج أهمية المنظومة الجامعية الريادية في دعم العمل الحر، وخلق فرص العمل، وتعزيز التنوع الاقتصادي.

كلمات مفتاحية: فضاءات الدعم الجامعي، حاضنات الأعمال، روح الريادية.

تصنيف JEL: I23, L26, A23

Introduction

Support and mentoring spaces within Algerian universities—such as Entrepreneurship Development Centers (CDEs), business incubators, and centers for technology and innovation support—represent today one of the primary institutional mechanisms aimed at embedding an entrepreneurial culture within the Algerian higher education system. Since the establishment of the first entrepreneurship center in 2007 at the University of Constantine 1, these spaces have witnessed remarkable growth as part of broader efforts to enhance the university's openness to its economic and social environment, strengthen linkages with national support institutions, and encourage students to embrace a culture of initiative and creativity.

This policy orientation is embedded in a context of profound economic and social transformations, in which investment in human capital constitutes a central pillar of development strategies. The growing emphasis on skills and competencies has driven structural reforms in higher education, based on the conviction that the university is no longer solely a locus of knowledge production, but a key actor in generating economic dynamism rooted in innovation and entrepreneurial initiative. In this perspective, higher education is increasingly viewed as a lever for economic growth through the development of students' entrepreneurial capabilities and the activation of initiative-support mechanisms within the university environment.

However, unlike the emblematic models of leading American universities such as MIT or Stanford—which rely on mature entrepreneurial ecosystems, abundant private funding, a strong risk-taking culture, and close ties to venture capital—entrepreneurial support spaces in Algeria are developing within a distinctly different context characterized by several specificities. On the one hand, they operate within a highly state-driven regulatory and institutional framework, with heavy reliance on public support mechanisms (notably ANSEJ, ANDI, and CNAC). On the other hand, they must contend with cultural dimensions specific to the Algerian and broader Maghreb context: a historical preference for stable public-sector employment, a relatively higher aversion to entrepreneurial risk, and a prevailing conception of success often associated with job security rather than economic autonomy. These “Entrepreneurship Houses” and university incubators thus constitute a localized adaptation of international models,

designed to address public-sector saturation and high graduate unemployment while taking into account Algeria's specific structural and socio-cultural constraints.

Consequently, despite the saturation of the public sector and the scarcity of employment opportunities, policymakers have elevated student entrepreneurship development to a strategic priority for facilitating the economic integration of young graduates through the creation of their own enterprises. In this context, entrepreneurship centers and university incubators serve as essential bridges between the academic world and the economic sector. They foster collaboration among universities, businesses, and public authorities; support research, development, and innovation; enhance competitiveness; and contribute to the diversification of the national economy.

Despite the quantitative expansion of these entrepreneurship support structures and programs within universities, their actual effectiveness remains contingent upon their capacity to influence students' attitudes and behaviors, to develop entrepreneurial personality traits, and to strengthen students' self-confidence in their ability to launch a business venture. Improving the infrastructure of these spaces, strengthening their organizational capabilities, and investing in human resources through specialized training and mentoring programs remain essential conditions for enhancing their efficiency and maximizing their impact.

Accordingly, the central research problem of this study is formulated as follows:

To what extent are university-based support structures and programs in Algerian universities effective in fostering an entrepreneurial spirit and strengthening students' intentions to establish their own business ventures?

Hypotheses

- **H1:** University support spaces exert a statistically significant effect on entrepreneurial start-up engagement.

- **H2:** University support and mentoring spaces exert a statistically significant effect on entrepreneurial personality traits.

- **H3:** University support and mentoring spaces exert a statistically significant effect on entrepreneurial spirit.

1. Theoretical Framework and Literature Review

This section provides the conceptual framing of the research question, examines the nature of entrepreneurship education and entrepreneurial spirit, analyzes university-based entrepreneurship support mechanisms in the Algerian context, and explores the role of the university environment in shaping students' entrepreneurial intentions.

1.1 Conceptual Framing of the Research Question

The research question addressing the effectiveness of university support structures and programs in fostering entrepreneurial spirit and strengthening students' entrepreneurial intentions is situated at the intersection of a multidisciplinary field that integrates economics, sociology, education sciences, and business administration. Specifically, it lies at the convergence of four major domains:

- Academic entrepreneurship, which highlights the university's evolving role as a knowledge-producing actor and a catalyst for innovation-driven ventures;
- Entrepreneurship education, regarded as a pedagogical approach for developing entrepreneurial competencies and practical skills;
- Entrepreneurial human capital development, which focuses on building cognitive and behavioral capacities to identify and exploit economic opportunities; and
- Public policies supporting youth entrepreneurship, aimed at reducing unemployment and facilitating the economic integration of graduates.

While these domains have been extensively studied internationally, their integration remains underexplored in the Algerian context. Most existing Algerian studies have focused either on the macroeconomic dimensions of youth entrepreneurship or on descriptive accounts of institutional structures, with limited empirical attention paid to the actual effectiveness of university-based support mechanisms in shaping students' entrepreneurial attitudes, traits, and

intentions. This study seeks to address this gap by empirically examining the contribution of Algerian university support spaces within an integrated theoretical framework.

This conceptual framework draws upon leading theoretical models of entrepreneurial behavior, including:

- **Human Capital Theory** (Becker, 1964), which posits that investment in education enhances productivity and entrepreneurial capabilities;
- **Theory of Planned Behavior** (Ajzen, 1991), which explains entrepreneurial intention through attitudes, subjective norms, and perceived behavioral control;
- **Entrepreneurial Event Model** (Shapero, 1982), linking entrepreneurial intention to perceived desirability and perceived feasibility; and
- University entrepreneurial ecosystem models, which conceptualize the university as an integrated system combining education, research, institutional support, and external partnerships.

1.2 The Nature of Entrepreneurship Education and Entrepreneurial Spirit

1.2.1 Entrepreneurship Education : Concept, Role, and Evolution

Entrepreneurship education constitutes a fundamental pillar for fostering initiative and innovation among students. It equips them with the knowledge, skills, and mindset required to create and manage ventures, with particular emphasis on creative thinking, problem-solving, and decision-making under uncertainty. Beyond the transmission of theoretical knowledge, it cultivates practical capabilities that respond to economic transformations in which traditional public-sector employment can no longer absorb the growing number of graduates.

The academic teaching of entrepreneurship began in 1947 when Myles Mace offered the first course on "Management of New Enterprises" at Harvard Business School in response to post-World War II economic challenges (Katz). Interest waned during the 1950s and 1960s amid the dominance of large corporations, but experienced a strong resurgence in the 1970s with the rise of small businesses and technological innovation.

Since then, entrepreneurship education has expanded globally and become a core component of curricula across disciplines. Leading universities have developed comprehensive ecosystems that combine academic training with incubation and industry partnerships, such as the Martin Trust Center at MIT, the Stanford Technology Ventures Program (STVP), and the University of Cambridge's entrepreneurship initiatives. This model has progressively spread to developing and Arab countries as a response to graduate unemployment, as illustrated by initiatives such as the AUC Venture Lab at the American University in Cairo, the Entrepreneurship Institute at King Abdulaziz University, and the Innovation Center at Zayed University (OCDE, 2023).

1.2.2 The Concept of Entrepreneurial Spirit

Entrepreneurial spirit refers to the capacity to identify opportunities, mobilize resources, and transform ideas into viable business ventures. It goes beyond a merely favorable attitude toward entrepreneurship, which reflects positive perceptions rather than proactive engagement (Léger-Jarniou, 2008); (Salami, 2012). Entrepreneurial spirit encompasses initiative, decision-making ability, adaptability to change, and opportunity recognition. It represents a broader mindset conducive to innovation and proactive problem-solving, extending well beyond the act of business creation itself.

Its core components include:

- **Personal dimensions:** creativity, self-confidence, perseverance, and the ability to plan and make decisions under uncertainty;
- **Environmental dimensions:** the influence of the social environment (family and role models), support institutions, the university, and incubators (Kouraiiche, 2018).

Developing these dimensions aims to strengthen students' autonomy, sense of responsibility, problem-solving skills, and capacity to design realistic business plans, thereby contributing to the creation of innovative ventures and the reduction of graduate unemployment.

1.3 University-Based Entrepreneurship Support Mechanisms in the Algerian Context

Entrepreneurship Development Centers (commonly referred to as “Entrepreneurship Houses”) and university incubators constitute key institutional mechanisms designed to bridge the gap between universities and the economic environment. The first such center in Algeria was established in 2007 at the University of Constantine 1 in partnership with Université Pierre Mendès France. The model was subsequently extended to all Algerian universities beginning in 2014.

These centers seek to disseminate an entrepreneurial culture, organize training sessions and workshops, support the development of business ideas, and facilitate connections with national support agencies such as the National Agency for the Support and Development of Entrepreneurship (formerly ANSEJ). Their number has grown to 107 centers, which have trained millions of students and contributed to increasing graduate participation in entrepreneurial projects from 8% to 40% between 2008 and 2023.

University incubators, for their part, provide essential infrastructure, advisory services, technical support, and linkages with potential investors to help transform innovative ideas into marketable products and viable enterprises. As of 2025, Algeria counts 124 university incubators, positioning the country among the leading Arab nations in this field, with thousands of innovative projects and patent registrations reported ((APS), 2024).

1.4 The Role of the University Environment in Shaping Entrepreneurial Intention

In a context marked by public-sector saturation and persistently high graduate unemployment, entrepreneurship has emerged as a strategic pathway for the economic and professional integration of university students. The University-Based Entrepreneurial Ecosystem (UBEE)—encompassing entrepreneurship education, Entrepreneurship Development Centers, university incubators, and awareness-raising and training programs—plays a pivotal role in shaping students’ entrepreneurial intentions.

This ecosystem strengthens three core elements drawn from established theoretical frameworks:

- Attitudes toward entrepreneurial behavior, through education that raises awareness of opportunities and enhances the perceived value of entrepreneurial action;
- Perceived self-efficacy, by providing practical skills, institutional support, and confidence-building experiences via incubation and mentoring;
- Perceived feasibility and desirability, as conceptualized in Shapero's model, by transforming promising ideas into implementable projects within a supportive university environment.

Recent studies suggest that the effectiveness of such ecosystems should be assessed not only by the mere existence of institutional structures but by their capacity to convert cognitive intentions into concrete entrepreneurial actions (Guerrero, 2021); (Subhadrammal, 2023). In the Algerian context, this role is further reinforced by increasing reliance on national support mechanisms and the expansion of university-based programs. Evaluating the performance of this ecosystem is therefore essential to understand its real contribution to fostering entrepreneurial spirit and encouraging students to shift from being job seekers to becoming opportunity creators.

2. Field Study

This section presents the methodology, statistical analysis, and findings.

2.1 Methodology

The study relied on data collection through a random sample of 59 students from the Faculty of Economic Sciences at University of Bouira. Questionnaires were distributed with the assistance of master's students, and validated and reliable measurement scales were used to ensure data quality.

The sample included students from the Faculty of Economic, Commercial, and Management Sciences, distributed across:

- Third-year undergraduate (Licence) students;
- Second-year Master's students.

In the following specializations: Monetary and Banking Economics, Quantitative Economics, and Business Administration, in addition to doctoral students specializing in Quantative Economics and Forecasting and Analysis, during the 2023–2024 academic year.

To ensure the reliability of the measurement instrument, the internal consistency of questionnaire items was tested using Cronbach's Alpha.

Cronbach's Alpha is one of the most widely used reliability indicators in scientific research. It measures the internal consistency of questionnaire items, i.e., the extent to which the instrument yields consistent results when administered under similar conditions. Its values are interpreted according to thresholds indicating the degree of reliability and statistical consistency of the instrument.

Table 1. Cronbach's Alpha Reliability Coefficients.

Dimension	Cronbach's Alpha	Result
University education and training	0.895	Reliable
Entrepreneurial spirit	0.844	Reliable
Entrepreneurial personality traits	0.868	Reliable
Entrepreneurial start-up engagement	0.777	Reliable
Overall questionnaire	0.910	Highly reliable

Source: Prepared by the author based on SPSS v25 output.

We observe from Table (01) that Cronbach's alpha coefficients for the questionnaire's sub-dimensions ranged between 0.777 and 0.895, while the overall reliability coefficient reached 0.910. These values indicate high levels of internal consistency, clearly exceeding the minimum acceptable threshold of 0.70 commonly adopted in social and educational research. Moreover, most coefficients fall within the good to excellent reliability range according to established methodological standards.

Accordingly, the high overall Cronbach's alpha value (0.910) confirms the strong internal reliability of the research instrument, enhancing its credibility and its capacity to measure the targeted variables with precision and consistency. Therefore, the questionnaire can be confidently used for data collection and analysis, enabling more robust hypothesis testing and strengthening the validity of conclusions as well as the generalizability of the study's findings.

The data were statistically analyzed using the Statistical Package for the Social Sciences (SPSS), employing several statistical techniques, including frequencies and percentages, Pearson correlation coefficient, arithmetic mean, standard deviation, and coefficient of determination (R^2).

The questionnaire items were designed using a five-point Likert scale, allowing respondents to express their level of agreement or disagreement with each statement, thereby reflecting their attitudes and perceptions across five graduated response levels.

Table 2. Agreement Level Ranges (Likert Scale).

Mean Range	Likert Scale	Agreement Level	Interpretation
1.00 – 1.80	1 to 1.80	Strongly disagree	Very low
1.81 – 2.60	1.81 to 2.60	Disagree	Low
2.61 – 3.40	2.61 to 3.40	Neutral	Moderate
3.41 – 4.20	3.41 to 4.20	Agree	High
4.21 – 5.00	4.21 to 5.00	Strongly agree	Very high

Source: Prepared by the author.

2.2 Statistical Analysis

Table (3) Table 3 indicates that the sample distribution reflects balance in some personal variables and concentration in others, consistent with patterns commonly observed in entrepreneurship and higher education research.

Gender representation is nearly equal, with 50.8% males and 49.2% females, ensuring balanced comparison and reducing gender bias in examining entrepreneurial attitudes. Most respondents (81.4%) are aged 20–31, reflecting the typical university population and aligning with research showing that younger individuals are generally more open to innovation and entrepreneurial initiatives.

Regarding academic level, Master's students form the majority (55.9%), followed by third-year undergraduates (33.9%) and doctoral students (10.2%), indicating a focus on students at advanced stages of academic maturity, where awareness of entrepreneurship as a career path is stronger.

Finally, 81.4% of respondents are not engaged in professional work during their studies, while 18.6% combine study and employment. Prior research suggests that both academic focus and early work experience can shape entrepreneurial competencies and orientations (Rae, 1997); (Fayolle & Gailly, 2015).

Table 3. Distribution of the Sample by Personal Variables.

Variable	Category	Frequency	Percentage
Gender	Male	30	50.8%
	Female	29	49.2%
Age	20–31	48	81.4%
	32+	11	18.6%
Academic level	Undergraduate (Licence)	20	33.9%
	Master's	33	55.9%
	Doctorate	6	10.2%
Employment status	Yes	11	18.6%
	No	48	81.4%

Source: Prepared by the author based on SPSS v25 output.

2.3 Results

2.3.1 Analysis of Responses to Dimension (02): Entrepreneurial Spirit

Table 4 indicates a **high level of entrepreneurial spirit** among respondents, with an overall mean of 3.91 (SD = 0.572), falling within the high range of the five-point Likert scale. The low standard deviation suggests strong consistency in responses and enhances the reliability of the results.

At the item level, all statements scored high to very high. The highest score was recorded for optimism, enthusiasm, and willingness to sacrifice when undertaking new tasks (M = 4.25; SD = 0.57), highlighting core entrepreneurial traits emphasized in the literature (McClelland, 1961); (Hisrich, Peters, & Shepherd, 2019). Other items also scored highly, including love of challenges and calculated risk-taking (4.08), creativity and search for innovative ideas (4.07), and the ability to identify and exploit opportunities while valuing achievement (4.19).

These findings align with prior research showing strong entrepreneurial spirit among university students. Studies emphasize creativity and readiness for calculated risk-taking (Lüthje & Franke, 2003), optimism and determination (Souitaris, Zerbinati, & Al-Laham, 2007), and high levels of optimism and creativity among Arab university youth despite constraints (Al-Mamary, et al., 2020); (Mahfoud & Bouazza, 2022).

The low variability across items ($SD \approx 0.57\text{--}0.62$) indicates homogeneity in responses, suggesting that optimism, creativity, challenge orientation, and opportunity recognition are shared traits among respondents. Overall, the results reveal a strong predisposition toward entrepreneurial engagement, which can be translated into real ventures if supported by an enabling university environment and effective entrepreneurship education (Rideout & Gray, 2013); (Nabi, Holden, & Walmsley, 2010).

Table 4. Analysis of Responses Related to Entrepreneurial Spirit.

No.	Statement	Mean	SD	Evaluation
1	Optimism, enthusiasm, and willingness to sacrifice for goals	4.25	0.57	Very high
2	Love of challenges and calculated risk-taking	4.08	0.624	High
3	Creativity and search for innovative ideas	4.07	0.612	High
4	Ability to identify and exploit opportunities	4.19	0.601	High
Entrepreneurial Spirit (overall)		3.91	0.572	High

Source: Prepared by the author based on SPSS v25 output.

2.3.2 Analysis of Responses to Dimension (03): Entrepreneurial Personality Traits

Table 5 shows a **high level of entrepreneurial personality traits**, with an overall mean of 3.99 ($SD = 0.631$), indicating strong response consistency and reliability. All items scored at a high level (3.85–4.03).

The highest mean concerned the **ability to assume responsibility and confront risks** (4.03), highlighting awareness of responsibility and calculated risk-taking as key entrepreneurial traits. This was followed by **goal clarity and achievement orientation** (3.98) and **opportunity recognition** (3.92), both reflecting strong entrepreneurial awareness. The **ability to make**

decisions under difficult conditions recorded the lowest mean (3.85) but remained high, suggesting solid confidence despite some variability in experience.

These findings align with prior research showing that risk-taking propensity, decision-making confidence, and achievement orientation are positively linked to entrepreneurial intentions (Zhao, Seibert, & Hills, 2005), while responsibility, opportunity recognition, and goal clarity predict entrepreneurial performance and venture success (Rauch & Frese, 2007). Similar patterns have been observed among Arab university students, where such traits are strengthened by economic challenges and the appeal of private enterprise (Mahfoud & Bouazza, 2022); (Al-Mamary, et al., 2020).

The relatively low variability (SD = 0.731–0.847) indicates consistent perceptions among respondents, suggesting these traits form a coherent image of the ideal entrepreneur and possibly part of students’ self-identity. Overall, the results reveal strong personal foundations for entrepreneurial engagement, which can be transformed into viable ventures when supported by entrepreneurship education and mentoring environments (Zhao, Seibert, & Hills, 2005); (Rauch & Frese, 2007); (Nabi, Holden, & Walmsley, 2010).

Table 5. Results of the Analysis of Respondents’ Answers to Items Related to the Entrepreneur’s Personal Characteristics.

No.	Statement	Mean	Std. Deviation	Evaluation
1	I have the ability to assume responsibility and face risks at work	4.03	0.765	High
2	I can make decisions under the most difficult circumstances	3.85	0.847	High
3	I have the ability to identify and seize opportunities	3.92	0.816	High
4	I always have clear and specific goals that I strive to achieve	3.98	0.731	High
Entrepreneur’s personal characteristics	3.99	0.63056	High	

Source: Prepared by the researcher based on SPSS v25 outputs.

2.3.3 Presentation and Analysis of Respondents' Answers to Axis (03): University Support and Mentoring Spaces

Table 6 reveals a generally positive overall evaluation of university support and mentoring spaces, with a mean score of 3.61 (SD = 0.896). This indicates that students hold a relatively favorable view of these structures, although individual experiences show noticeable variation.

At the item level, respondents demonstrated good awareness of the existing support structures, such as Entrepreneurship Development Centers and university incubators ($M = 3.72$). However, the perceived effectiveness of these spaces received a lower rating ($M = 3.41$), suggesting that students recognize their existence but remain only moderately satisfied with their actual performance. Most notably, the direct impact of awareness-raising activities on the development of entrepreneurial spirit recorded the lowest mean score ($M = 3.32$). This moderate evaluation highlights a clear gap between the quantitative expansion of support structures and their qualitative influence on students' entrepreneurial mindsets.

This limited impact of awareness activities, despite the significant proliferation of entrepreneurship centers and incubators across Algerian universities, can be attributed to several factors. First, many programs appear to remain predominantly theoretical or informational in nature, focusing on general sensitization rather than hands-on, experiential learning. Second, communication mechanisms between these structures and the student body often suffer from insufficient targeting and follow-up, resulting in low student engagement beyond initial exposure. Third, the scarcity of personalized mentoring, practical incubation opportunities, and real connections with the private sector and investors further weakens the transformative effect of these initiatives. These observations align with international findings showing that mere awareness-raising campaigns tend to produce only modest effects on entrepreneurial spirit and intention, whereas programs emphasizing practical training, inspirational role models, and individualized support yield significantly stronger outcomes (Souitaris et al., 2007; Rideout & Gray, 2013).

Similar patterns have been documented in Arab contexts, where high levels of awareness coexist with moderate perceived effectiveness due to resource constraints, weak coordination with external stakeholders, and a lack of sustained mentoring (Mahfoud & Bouazza, 2022); (Al-

Mamary, et al., 2020)). In the Algerian case, the relatively high variability in responses (SD ranging from 1.17 to 1.30) further reflects important differences in the quality and depth of students' actual exposure to these support spaces.

Overall, while students demonstrate solid awareness and a generally positive perception of university entrepreneurship support structures, their direct contribution to fostering a strong entrepreneurial spirit remains moderate. These findings underscore the urgent need to move beyond quantitative proliferation toward qualitative enhancement—particularly by prioritizing experiential learning, personalized mentoring, improved communication strategies, and stronger partnerships with the economic ecosystem. Such improvements are essential to bridge the gap between institutional presence and genuine impact on students' entrepreneurial development.

Table 6. Results of the Analysis of Respondents' Answers to Items Related to University Support and Mentoring Spaces.

No.	Statement	Mean	Std. Deviation	Evaluation
1	I am aware of the existence of university support and mentoring spaces (Entrepreneurship Development Center – Business Incubator – Technology & Innovation Support Center)	3.72	1.172	High
2	Support and mentoring spaces operate effectively at the university level	3.41	1.301	High
3	Awareness activities organized by university support spaces have developed my entrepreneurial spirit	3.32	1.292	Moderate
University support & mentoring spaces	3.6102	0.89572	High	

Source: Prepared by the researcher based on SPSS v25 outputs.

2.3.4 Presentation and Analysis of Respondents' Answers to Axis (04): Starting an Entrepreneurial Project

Table 7 indicates a **high level of intention to start an entrepreneurial project**, with an overall mean of 3.95 (SD = 0.813), reflecting good consistency in responses despite individual differences.

The strongest motivations relate to **work independence** (M = 4.29) and **improving family living standards and income** (M = 4.24), both rated very high, confirming that personal and economic aspirations are primary drivers of entrepreneurial engagement among students (Carsrud & Brännback, 2011; Shane et al., 2003). Students also show a positive inclination to consider entrepreneurship as an alternative to traditional employment if job opportunities are unavailable (M = 3.86).

In contrast, the **economic climate as a motivating factor** received the lowest evaluation (M = 3.41), suggesting limited confidence in the business environment and awareness of challenges such as financing constraints and bureaucracy.

These findings align with research in developing and Arab contexts showing that personal motivations—especially independence and financial improvement—often outweigh environmental factors in shaping entrepreneurial intentions (Mahfoud & Bouazza, 2022). While students display strong entrepreneurial aspirations, environmental constraints can reduce confidence in implementation (Al-Mamary, et al., 2020). Entrepreneurial intentions tend to be strongest when internal motivation and self-efficacy are high, even in less supportive environments (Souitaris, Zerbinati, & Al-Laham, 2007).

The higher variability in some items (SD $\approx$ 1.18–1.32) suggests differences in socio-economic background, personal circumstances, and awareness of opportunities. Overall, respondents demonstrate strong willingness to engage in entrepreneurship, but the perceived limitations of the economic environment highlight the need for stronger institutional support and practical training to translate intentions into viable ventures.

Table 7. Results of the Analysis of Respondents' Answers to Items Related to Starting an Entrepreneurial Project.

No.	Statement	Mean	Std. Deviation	Evaluation
1	If you do not have a job, would you consider starting your own business after graduation instead of seeking public or private employment?	3.86	1.181	High
2	The economic climate and surrounding factors encourage you to start a private project	3.41	1.315	High
3	I want to start my own business to improve my family's living standards and earn more income and wealth	4.24	0.795	Very High
4	I want to start my own business to achieve independence in work	4.29	0.811	Very High
Starting an entrepreneurial project	3.9492	0.81312	High	

Source: Prepared by the researcher based on SPSS v25 outputs.

2.4 Hypothesis Testing Results

Research hypotheses were tested using Simple Linear Regression models for hypotheses one through five, while the Independent Samples t-test was used for the sixth hypothesis, using SPSS version 25. A significance level of $\alpha = 0.05$ was adopted; the null hypothesis is rejected when $\text{Sig.} \leq 0.05$.

2.4.1 First Hypothesis: The Effect of University Support and Mentoring Spaces on Starting an Entrepreneurial Project

Null hypothesis (Ho): University support spaces have no statistically significant effect on starting an entrepreneurial project.

Alternative hypothesis (H1): University support spaces have a statistically significant effect on starting an entrepreneurial project.

Regression Results (Table 8)

The correlation coefficient $r = 0.635$, indicating a moderate to strong positive relationship between the two variables.

The coefficient of determination $R^2 = 0.403$, meaning that university support and mentoring spaces explain 40.3% of the variance in entrepreneurial start-up intention, reflecting a moderate explanatory power.

The F value = 38.544 with Sig. = 0.000, indicating high overall model significance.

The partial regression coefficient $B_1 = 0.577$, with $t = 6.208$ and Sig. = 0.000, showing strong partial significance of the independent variable.

Test Decision

The null hypothesis (H_0) was rejected and the alternative hypothesis (H_1) accepted, confirming a strong positive and statistically significant effect of university support and mentoring spaces on entrepreneurial start-up intention. This indicates that improving the quality and effectiveness of these spaces is associated with a higher level of students' willingness to launch their own ventures.

Table 8. Results of simple regression analysis for the first hypothesis.

Overall significance (ANOVA)		Explanatory power		Partial significance (regression coefficients)	B	t	Sig.
F value	Sig.	r	R^2	Model coefficients			
38.544	0.000	0.635	0.403	Constant	1.868	5.409	0.000
				University support & mentoring spaces	0.577	6.208	0.000

Source: Prepared by the researcher based on SPSS v25 outputs.

2.4.2. Second Hypothesis: Effect of University Support and Mentoring Spaces on
Entrepreneurs' Personal Traits

H₀: No statistically significant effect exists.

H₁: A statistically significant effect exists.

Regression Results (Table 9)

$r = 0.44$, indicating a moderate positive relationship.

$R^2 = 0.193$, meaning these spaces explain only 19.3% of the variance in entrepreneurs' personal traits, reflecting weak explanatory power.

$F = 13.658$, $Sig. = 0.000$, indicating high overall model significance.

$B_1 = 0.310$, $t = 3.696$, $Sig. = 0.000$, indicating strong partial significance.

Test Decision

H_0 was rejected and H_1 accepted, confirming a positive and statistically significant effect of university support and mentoring spaces on entrepreneurs' personal traits, although the explanatory power remains relatively weak.

Table 9. Simple regression results for the second hypothesis.

F	Sig.	R	R ²	Coefficients	B	t	Sig.
13.658	0.000	0.44	0.193	Constant	2.878	9.245	0.000
				University support & mentoring spaces	0.310	3.696	0.000

Source: Prepared by the researcher based on SPSS v25 outputs.

2.4.3 Third Hypothesis: Effect of University Support and Mentoring Spaces on the
Entrepreneurial Spirit

H₀: No statistically significant effect exists.

H₁: A statistically significant effect exists.

Regression Results (Table 10)

$r = 0.418$, indicating a moderate positive relationship.

$R^2 = 0.175$, meaning these spaces explain only 17.5% of the variance in entrepreneurial spirit, reflecting weak explanatory power.

$F = 12.098$, $Sig. = 0.001$, indicating high overall model significance.

$B_1 = 0.267$, $t = 3.478$, $Sig. = 0.001$, indicating partial significance.

Test Decision

H_0 was rejected and H_1 accepted, confirming a positive and statistically significant effect of university support and mentoring spaces on the entrepreneurial spirit, although the explanatory power remains relatively weak.

Table 10. Simple regression results for the third hypothesis.

F	Sig.	R	R ²	Coefficients	B	t	Sig.
12.098	0.001	0.418	0.175	Constant	2.951	10.340	0.000
				University support & mentoring spaces	0.267	3.478	0.001

Source: Prepared by the researcher based on SPSS v25 outputs.

These results indicate that such spaces contribute moderately to strengthening entrepreneurial intentions and traits.

Conclusion

The findings reveal a positive and statistically significant impact of university support and mentoring spaces — including entrepreneurship development centers and business incubators — on strengthening the entrepreneurial spirit, enhancing entrepreneurial personality traits (such as self-confidence, perseverance, and creativity), and increasing students' intention to launch entrepreneurial ventures.

However, the moderate explanatory power (R^2 values) observed for entrepreneurial personality traits and entrepreneurial spirit suggests that other factors beyond university support

play a substantial role. These may include family background, prior professional experience, role models, and broader external economic conditions.

These findings align with international literature emphasizing the effectiveness of university programs that combine learning, inspiration, and practical resources in strengthening entrepreneurial intentions and transforming them into actual behavior.

In the Algerian context, the limited effectiveness of certain awareness programs underscores the urgent need to improve communication mechanisms with students, expand experiential and applied programs, and strengthen strategic partnerships with the private sector, investors, and national support agencies (such as ANADE). The results also highlight the importance of shifting from mere intention-building toward continuous, individualized support to facilitate the transformation of entrepreneurial intentions into sustainable ventures, especially given the economic challenges and public-sector employment saturation.

The study confirms the crucial role of the entrepreneurial university environment in developing entrepreneurial competencies, strengthening the capacity to take calculated risks, and preparing a generation capable of initiative and innovation — thereby contributing to a sustainable knowledge-based economy and narrowing the gap between higher education outcomes and national economic development needs.

Limitations of the Study

Despite the insights offered by this research, several limitations must be acknowledged. Primarily, the relatively modest sample size represents a major constraint. This study was conducted as an exploratory pilot study within the Algerian higher education context, where empirical research on the effectiveness of university Entrepreneurship Houses and incubators remains scarce. The sample was intentionally limited to students with direct and sustained engagement with these support structures in order to ensure data relevance and quality. While this approach enabled a focused examination of the phenomenon, it restricts the generalizability of the results to the wider student population across Algerian universities. We therefore urge caution in interpreting the findings and call for larger-scale studies to validate and extend them.

Additional limitations include the cross-sectional design of the study and the use of self-reported data, which may be subject to social desirability bias. Future research should adopt longitudinal designs and incorporate objective measures of entrepreneurial behavior.

Recommendations

To enhance the effectiveness of university entrepreneurship support spaces and address the moderate explanatory power observed in the model, the study recommends the following measures:

- Strengthen genuine incubation programs by focusing on personalized mentoring, early-stage financial support, and direct connections to markets and investors.
- Integrate entrepreneurship more deeply into university curricula through mandatory or elective applied courses, particularly in non-technical disciplines.
- Develop long-term monitoring and follow-up systems for incubated projects, including systematic evaluation of their economic and social impact.
- Strengthen multi-stakeholder partnerships between universities, the private sector, and public institutions (such as ANADE) to provide additional resources and real market opportunities.
- Expand future research designs by conducting multiple regression analyses that incorporate relevant control variables, such as students' prior professional experience, family entrepreneurial background (role models), socio-economic status, and other external economic factors. This would allow for a more nuanced understanding of the respective contributions of university support structures relative to individual and environmental determinants of entrepreneurial spirit and personality traits.

Through the implementation of these measures, entrepreneurial culture within Algerian universities can evolve from primarily theoretical awareness toward genuine practical implementation. This shift would better support graduate self-employment, job creation, and the sustainable economic development of the country.

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