A Student Start-Up: Challenges and Opportunities for Algerian Universities

Asoc. Prof. Mokrane Nait Bahloul, PhD.
University of Oran 2 Mohamed Ben Ahmed, Algeria, Laboratory for Research on Euro-Mediterranean Economies LAREEM-CRECORH, B.P 1015 El M'naouer 31000 Oran, Algeria, E-mail: nait.bahloul@gmail.com, ORCID: 0009-0009-3642-0393

Khouloud Abderrahmane, PhD.
University of Oran 2 Mohamed Ben Ahmed, Algeria, Laboratory for Research on Euro-Mediterranean Economies LAREEM-CRECORH, B.P 1015 El M'naouer 31000 Oran, Algeria, E-mail: khouloud7@yahoo.fr, ORCID: 0009-0002-2084-510x

Abstract

This study explores the support mechanisms available to student entrepreneurs in Algeria, with a particular focus on Ministerial Decision 1275, which aims to facilitate the creation and development of student startup projects. A descriptive and analytical approach was adopted to evaluate the impact of these measures on student engagement and their potential contribution to economic development. The study draws on preliminary data collected from registration platforms and project assessments across various Algerian universities. The results show a significant increase in student interest in entrepreneurship, with over 9,000 innovative projects registered nationwide. Students, organized into interdisciplinary teams, demonstrated enhanced capacity to develop viable projects, supported by specialized training in digital marketing, artificial intelligence, and project management. These findings suggest that Algerian universities play a crucial role in fostering entrepreneurial spirit among students, promoting their integration into the labor market while contributing to national economic growth. The study offers practical insights for policymakers and university administrators seeking to strengthen innovation and economic development through student entrepreneurship.

Keywords: Accompaniment; Innovation; Start-up; Student; University

JEL classification: O31, L26, M13, I23

1. Introduction

In Algeria, Ministerial Decree No. 1275 has expanded the role of universities beyond their traditional mandate of education and training by formally engaging them in the support of student start-up projects. This initiative seeks to harness the universities' capacity not only to educate but also to foster entrepreneurial innovation, thus establishing them as key drivers of economic development through partnerships with business entities and economic stakeholders.

The decree is a critical step toward embedding entrepreneurship within the academic fabric, aiming to cultivate a culture where students are encouraged to explore entrepreneurial ventures alongside or even instead of traditional employment paths. This reflects a broader national recognition of the importance of human capital development and the potential for student innovation to contribute to economic growth and job creation.

The central research question of this study is: What specific mechanisms have been implemented to support student start-ups within Algerian universities? This question addresses the need to better understand the tools, resources, and structures that have been developed to facilitate student entrepreneurship. Furthermore, the study explores the broader role of universities in this evolving context, focusing on their ability to raise student awareness of entrepreneurial opportunities and provide essential support throughout the start-up process.

By investigating these mechanisms, this research aims to contribute to a growing body of knowledge on how higher education institutions can play a pivotal role in fostering entrepreneurship and driving innovation at a national level.

2. Literature Review

2.1 The concept of start-up

Start-ups can be defined as new companies offering innovative products, services, or processes that are significant in the markets. They are particularly important as they can generate economic development incentives (Fritsch & Aamoucke, 2017). Startups aim to achieve several objectives, including aligning with the state's economic policy strategies, creating jobs, promoting individual and collective entrepreneurship, and reviving abandoned economic activities such as traditional industries (Belgoum & Benessalah, 2023). They also serve as a link within the economic fabric through the various relationships they establish with other surrounding companies, particularly by relying on technology in a way that meets customer needs in terms of both quantity and quality. From a legal perspective, the (Executive Decree No. 20-254, 2020) sets the following criteria for a startup:

- The age of the company should not exceed eight (8) years.
- The business model of the company must be based on innovative products, services, business models, or any innovative idea.
- The annual turnover should not exceed the amount determined by the national committee.
- At least 50% of the company's capital must be owned by individuals, approved investment funds, or other companies that have obtained the "Startup" label.
- The company's growth potential must be sufficiently high.

- The number of employees should not exceed 250 workers. To obtain the "Startup" label, applicants must submit a request and documents related to the company's activities through the online portal. The response time should not exceed 30 days from the date of the application submission. The label is granted for four years, renewable once. In case of rejection, the applicant can submit the missing documents through the portal. We observe that the Algerian experience is currently inspired by successful international experiences in this field, such as the Italian experience, where the legislator has set criteria like the company's founding date, which should not exceed five years, research and development expenditures, employment skills, and intellectual property to identify innovative companies. Companies meeting these conditions can register for free through a dedicated portal to simplify administrative procedures, which have deterred many young people from considering entrepreneurship. This initiative is accompanied by several entities, including the Ministry of Economic Development, the Ministry of Commerce, universities, and incubators (Dribine, 2022).

2.2 The University as a Source of Start-ups

Entrepreneurship is a particularly attractive field for individuals who are still in the process of determining their career paths, especially young people, including university students. It allows them to participate in the labor market while maintaining their independence (Zarefard & Eui Cho, 2018). As such, the concepts of entrepreneurial universities and academic entrepreneurs have become strategic dimensions for decision-makers in higher education policy. In many countries, government policies aim to increase the organization of entrepreneurial activities and support the commercial assimilation of technology generated by universities (Meyer, 2006).

Given the high productivity of startups, they require greater entrepreneurial competencies than traditional companies. This underscores the significant role of the university in finding effective ways to train project holders in a complex environment involving multiple parties with diverse competencies. This explains the variety of objectives in teaching entrepreneurship across different university faculties (Wang, Khanna, & Abrahamsson, 2016).In this regard, some experts have noted that startups created by university graduates have a significant impact on job creation, concluding that universities should foster an entrepreneurial spirit among students. This means equipping them with knowledge and skills in entrepreneurship, as entrepreneurship education is a guiding process for building an entrepreneurial mindset and promoting activities and behaviors that raise students' awareness and intentions to establish their own projects as a career option (Trivedi, 2016).

As a source of training professionals in various fields that accompany economic development and contribute to innovation (Laboudi, 2021), the university is the primary institution responsible for developing startups. This is done through higher education programs that take into account the needs of the labor market and the economy in general, as well as by supporting economic and social partners through agreements aimed at enhancing student participation in their environment. In a study involving 375 Malaysian students, it was proven that students' readiness, goals, and cognitive behavior

positively influence entrepreneurial intentions and startup projects (Al Mamun and al., 2017)

Some have attributed this situation to the rapid technological transformation that the economy has undergone in recent years (Kyurova, 2022) and the increasing integration of technology into various business activities, which has manifested in the level of innovation in the production of goods and services (Atanasova, 2022). Therefore, the entrepreneurial training adopted by the university aims to support the student's career path to ensure the success of start-up projects and to develop the student's creativity (Belgoum, 2020).In this context, Ministerial Decree 1275, dated September 27, 2022, was issued to outline the procedures for preparing a graduation project to obtain a university degree – a start-up – aimed at addressing the shortcomings identified in this field, which suffers from several challenges, including (Bouchaour, 2018):

- Weak human resources, lack of adequate training, and insufficient background on entrepreneurship in Algeria, which faces many difficulties and challenges, especially regarding the lack of creative and innovative ideas.
- Insufficient funding and lack of venture capital for investment.
- Bureaucratic procedures and outdated legislation.
- Low productivity and non-compliance with international standards, making Algerian products unable to penetrate major markets due to weak competitiveness.
- Insufficient government spending on scientific research and the disconnect between universities and research centers from the real world.
- Technological backwardness and failure to keep pace with developments in the global business environment (e.g., electronic payment, e-commerce).

3. Methodology

The study adopted a descriptive and analytical approach to examine the fundamental concepts associated with start-ups and evaluate the support mechanisms in place to assist project holders within Algerian universities. Two main considerations were highlighted to guide this analysis:

1. The role of awareness: The first consideration suggests that the university plays a key role in raising students' awareness of the importance of start-ups within their professional development.
2. Support for project holders: The second consideration emphasizes that the university, as a training institution, actively supports students with start-up projects through appropriate training programs.

To explore these considerations, the study relies on a rigorous analysis of student support mechanisms, focusing on key aspects such as team formation, business plan development, and access to financing platforms. Participating students are encouraged

to work in interdisciplinary teams, thereby maximizing diverse skills to ensure the success of their projects. Additionally, the legal aspects related to obtaining the "start-up" label are considered in the analysis.

The university plays a central role by collaborating with economic and social partners to provide resources and funding opportunities, while offering students educational tools designed to enhance their creativity and entrepreneurial spirit.

The student start-up project support process is structured into several key stages, aimed at ensuring the success of these initiatives. This process begins with raising awareness among students, which involves opening registration platforms and organizing information days. Students are then encouraged to form interdisciplinary teams, leveraging the diversity of skills. The training program includes specialized modules on entrepreneurial idea generation, business plan drafting, as well as practical training in digital marketing and artificial intelligence.

Finally, a final evaluation is conducted by a committee composed of internal and external experts to validate the viability and robustness of the projects before moving on to the funding and implementation phases. This methodological framework allows for an in-depth analysis of the various components of university support and identifies the factors contributing to the success of start-up projects within the Algerian context. The steps are described in the following diagram:

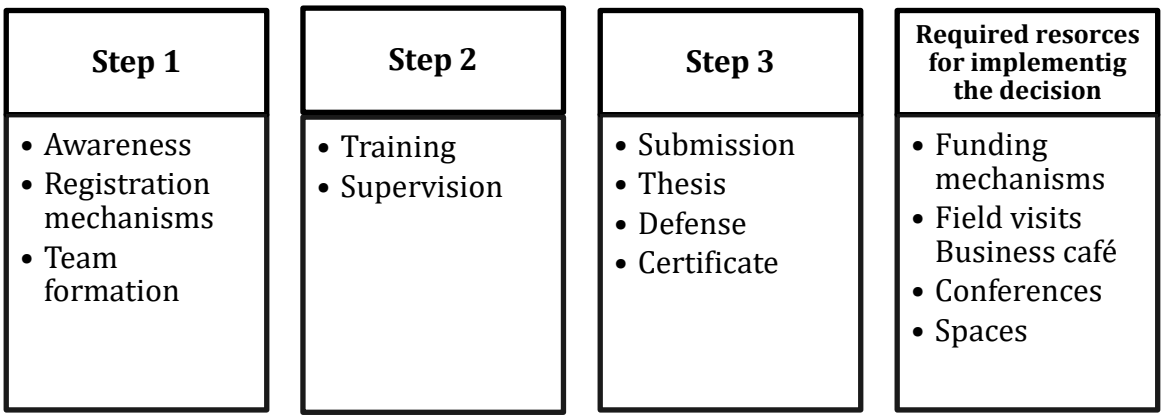

Figure 1: Mechanisms for Implementing Decree 1275
Source: National Committee for Innovation Monitoring, 2022

3.1 The first step

Awareness includes launching a platform for enrolling in the Graduation Project for a Start-up Certificate/Patent Certificate, organizing information days, and receiving interested students by the head of the department.

Students involved can form teams of two (02) to six (06) students from different specialties, which facilitate the completion of the project, as each student specializes in a particular aspect. For example, an economics student might collaborate with a computer science student to propose an electronic platform for the project...

The ownership of the patent is shared between the student team members and the supervising professors, while the university is considered the moral owner of the patent as it is registered in its name. The university president may waive the commercial rights of the patent in favor of the inventors.

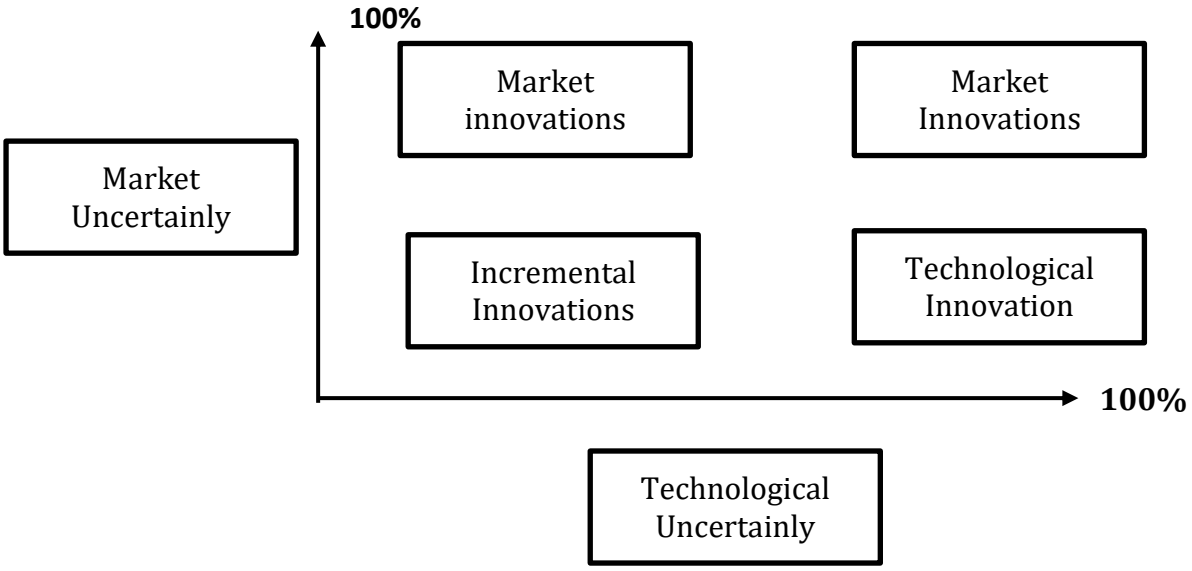

Figure 2: Nature of innovations

Source: National Committee for Innovation Monitoring, 2022

Innovation encompasses several aspects, including introducing or developing new technologies in the production of goods and services, improving or proposing new products, and targeting new customers...

3.2 The second step

Since the students with projects are enrolled in various specialties, the training program considers the technical and administrative aspects of the project through a general methodology covering the following fields:

- A specialized training course titled "Generating Entrepreneurial Ideas."
- A training course on communication and negotiation skills, including a workshop on how to register graduation topics (innovative ideas) in the nine categories of the business plan.
- Preparation of the initial technical and economic sheet for the start-up project.
- A course in digital marketing.
- A course in Artificial Intelligence, Level One.
- A training course on how to register the project on the START-UP.DZ platform to obtain the "Label."

- A training course on how to establish a start-up (legal procedures and management) conducted by trainers specialized in taxation, business law, and commercial law.

- A training course on how to protect and register intellectual and industrial property rights.

3.3 The third step

After completing the thesis, it is presented before a committee consisting of the supervision team, a professor specializing in business planning, a professor who reviews the main idea, and an external expert from outside the university. The evaluation focuses on innovation aspects, the clarity of the idea, the validity of the business model, and the achievement of the prototype.

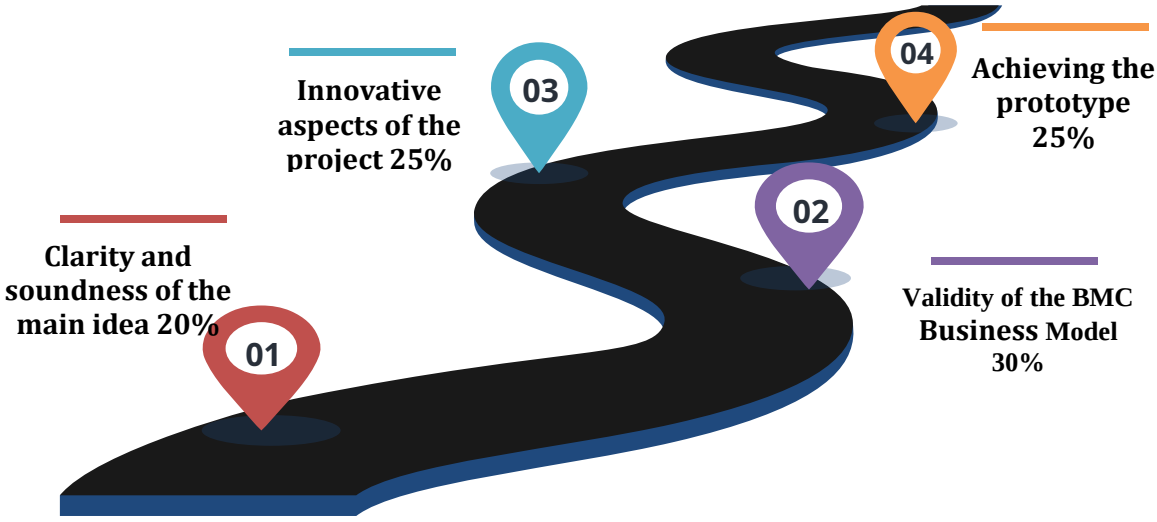

Figure 3: Evaluation Criteria
Source: National Committee for Innovation Monitoring, 2022

The implementation of the project involves the participation of several parties to ensure funding, as outlined by the National Committee for Innovation Monitoring and Business Incubators (2022):

- Activating the agreement signed between the Ministry of Higher Education and Scientific Research and the Ministry of Knowledge Economy, Start-ups, and Micro-Enterprises, to encourage funding bodies (such as the Start-up Financing Fund ASF and the National Agency for the Promotion and Development of Entrepreneurship ANADE, etc.) to prioritize student projects.

- Facilitating the procedures for obtaining financial support, particularly for students involved in the Graduation Project for a Start-up Certificate to obtain the "Innovative Project Label" and the "Start-up Label."

- The business accelerator (Algerian Venture, DGRSDT, and ANVREDET) and the funding bodies are responsible for training professors in supporting the procedures for obtaining financial support (Start-up Financing Fund ASF).

- Directing projects that do not meet the required level of innovation to the National Agency for the Promotion and Development of Entrepreneurship (ANADE) and opening up all available funding mechanisms to finance student projects involved in the Graduation Project for a Start-up Certificate.

The evaluation phase requires monitoring the implementation of projects. As a first step, we observe significant student engagement, with 9,000 projects registered nationwide as of December 22, 2022, led by the University of Algiers 3 with 890 projects, followed by the University of M'sila with 612 projects, and the University of Sidi Bel Abbes with 570 projects.

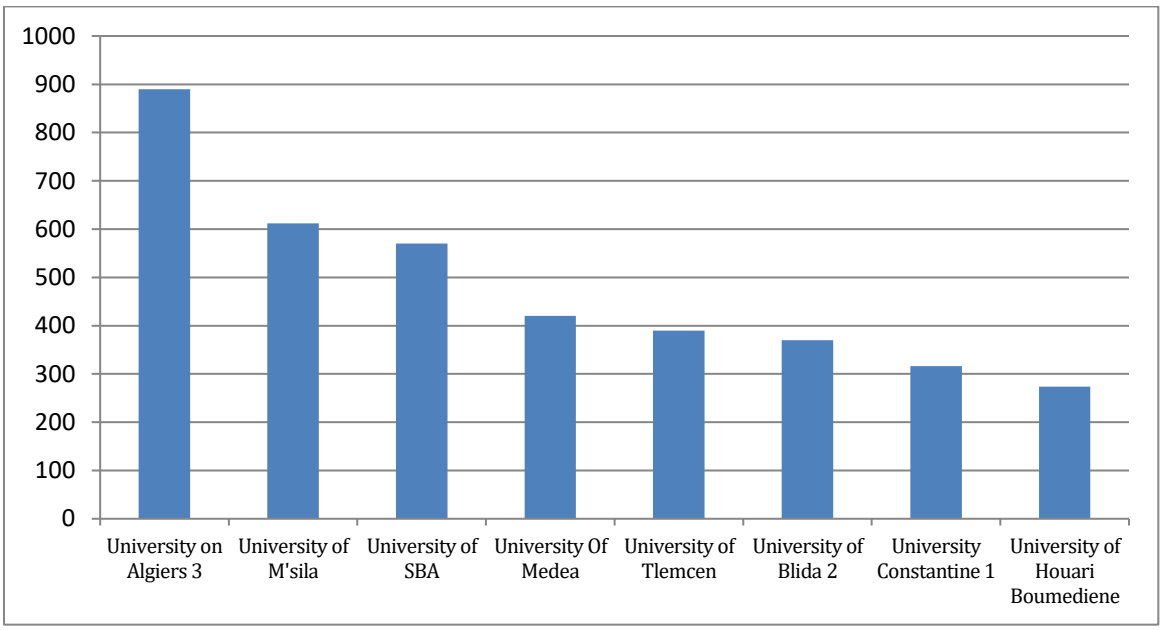

Figure 4: Number of Start-up Projects as of December 22, 2022
Source: National Committee for Innovation Monitoring, 2022

4. Conclusion and Discussion

The results of this study highlight the crucial role that Algerian universities play in supporting start-up project holders, going beyond their traditional function as training centers. Indeed, the university now guides students toward market opportunities, turning them into key players in economic development through direct supervision, entrepreneurial training programs, and by facilitating access to financial resources through partnerships with economic and social stakeholders (Almeida, 2021).

Algerian universities have adopted a new approach aimed at supporting students with start-up projects. This approach is based on the implementation of mechanisms that facilitate project realization. Over 9,000 innovative projects have been registered nationwide, reflecting the growing interest of students in entrepreneurship and their

ability to manage businesses while adapting to market developments (Al Mamun and al., 2017).

The awareness process implemented by the universities played a key role in mobilizing students (Nait bahloul & Kansab, 2024). The establishment of registration platforms and the organization of information days helped attract a large number of young project holders, increasing their awareness of the importance of start-ups in their professional paths (Trivedi, 2016). This process encouraged active student participation, underscoring the university's role in fostering entrepreneurial awareness.

The interdisciplinary team-based training proved effective in project development. Bringing together students from different disciplines allowed for the combination of diverse skills, enhancing the capacity of teams to create viable and innovative projects (Wang, Khanna & Abrahamsson, 2016). This demonstrates the added value of interdisciplinary competencies in tackling the complex challenges of entrepreneurship.

The training program, which included specialized modules in digital marketing and artificial intelligence, significantly strengthened the students' skills. These modules, focused on emerging technologies, are essential in equipping future entrepreneurs with the tools necessary for market competitiveness (Atanasova, 2022). The relevance of practical training in these areas emphasizes the university's role in preparing students for the demands of the digital market.

However, some limitations were observed, particularly regarding access to funding. Despite the partnerships established with financial institutions, several students encountered bureaucratic obstacles that slowed the process of obtaining necessary funds (Belgoum & Benessalah, 2023). It is therefore recommended to improve administrative procedures and strengthen communication between the various stakeholders to optimize financial support for students.

In conclusion, this study demonstrates that Algerian universities play a central role in promoting student entrepreneurship and the development of start-ups. However, improvements are needed to optimize funding mechanisms and further develop training programs tailored to market needs (Meyer, 2006). These students, who become entrepreneurs, represent a key driver of economic growth in Algeria for the years to come.

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