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FOSTERING ENTREPRENEURIAL SPIRIT AMONG ALGERIAN STUDENTS: ANALYSIS OF THE RESULTS OF MINISTERIAL DECISION 1275 AT ANNABA UNIVERSITY

Abstract: To connect universities with their economic and social environment and enhance wealth creation, the Algerian Ministry of Higher Education has implemented new measures to foster entrepreneurship among students. These measures include establishing university interfaces to support student projects and issuing Ministerial Decision 1275, which transforms graduation theses into practical, innovative projects. This study examines the efforts of Algerian universities in entrepreneurship and the impact of Ministerial Decision 1275 at Badji Mokhtar University in Annaba. Data from the 2022/2023 academic year indicates that this decision has stimulated students' entrepreneurial spirit, showcasing their potential to turn ideas into start-ups. However, the main challenge remains the adaptability of the external ecosystem, including investors and funding structures, to this new entrepreneurial dynamic.

Keywords: entrepreneurial spirit; Ministerial Decision 1275; university interfaces; Annaba University.

Introduction

Interest in entrepreneurship has significantly increased both internationally and nationally in recent years, with business ventures becoming a solution for many job seekers and a tool for economic diversification and expansion of industrial and service sectors.

In Algeria, most university graduates rely primarily on the state to secure a job that guarantees a decent living. However, these opportunities have gradually diminished in recent years due to several reasons, most notably: the saturation of the public and economic sectors, the state's policy of rationalizing public expenditure and reducing the management budget, and the desire to promote entrepreneurial thinking among individuals and students in particular. To align with this trend, the Scientific Research and Higher Education Ministry has taken several bold and significant steps to foster an entrepreneurial spirit within the Algerian university environment and to encourage students to pursue an entrepreneurial path instead of a traditional employment path. These measures include the establishment and activation of university interfaces such as business incubators, entrepreneurship development centers, technology and innovation support centers, university-business linkage offices, and artificial intelligence hubs. These interfaces support students in implementing their projects and provide guarantees to reduce the

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risks associated with the entrepreneurial world. Universities have also intensified awareness programs and encouraged forums and seminars focused on entrepreneurship and the creation of start-ups and small enterprises.

Ministerial Decision 1275 is a new legal framework launched by the Algerian Ministry of Higher Education and Scientific Research aimed primarily at enhancing the university's role in raising students' entrepreneurial spirit and mental capabilities to enter the world of entrepreneurship and realize their ideas. This decision allows graduating students to transform their final year theses into start-up project ideas, patents, or even small enterprises through a comprehensive support program culminating in the end-of-year presentation of their projects before multidisciplinary committees to guide them and increase their chances of success.

Annaba University, like other universities across the country, has adopted this decision and sought to implement it by providing all necessary material and human resources to achieve satisfactory results that reflect a genuine desire to shift university thinking towards the world of academic entrepreneurship.

Despite the Algerian university's efforts over many years to foster an entrepreneurial spirit among students and faculty, the results achieved on the ground have not fully reflected these efforts. However, with the emergence and adoption of Decision 1275 in the student training process and linking the university to its economic and social environment, and making it a prominent element in wealth creation, innovation, and entrepreneurship indicators at the university have gradually begun to improve from the first season of implementing this decision.

Review of Previous Studies

Numerous studies have addressed methods to enhance the entrepreneurial spirit among university students in Algeria, aiming to find ways to encourage them to enter the world of entrepreneurship. Many studies in this field have focused on the role of university support structures, particularly business incubators and entrepreneurship centers, as they are the oldest structures established to support entrepreneurship in universities. In this context, M. Belakhdar's study¹ highlighted The Entrepreneurship House's function by increasing the awareness of the significance of self-employment among university students and assisting them in turning their ideas into successful entrepreneurial projects. The study also demonstrated the effective role of the Entrepreneurship House in establishing an appropriate network with available support and funding structures. Similarly, the efforts of the Entrepreneurship House at Laghouat University in southern Algeria to spread the entrepreneurial spirit among university students and enhance their entrepreneurial mentality were highlighted by both W. Chaib and D. Djilani².

Nevertheless, it has been noted that these initiatives fall short since there isn't a complete institutional strategy that prioritizes entrepreneurship. In the same field, the study by M. Benabes and E. Zedouri³ reinforced the importance of this university structure by compiling the activities carried out by the Entrepreneurship Houses across various Algerian universities from February to July 2019. The study concluded, after categorizing these activities by type and content, that they are insufficient compared to the large number of students. Furthermore, the quality of the programs offered in these centers is considered average to poor due to the diversity of specializations.

Other studies have focused on the role of university business incubators as another university facility to enhance students' entrepreneurial spirit. For instance, through a study by K. Bekache and A.

¹ **Belakhdar, M.** The role of entrepreneurial house in Algeria to develop the entrepreneurial culture and raise the spirit of initiative. *Management and Development for Research and Studies*, vol. 11(1), 2022, pp. 745–764

² **Chaib, W., and D. Djilani.** The entrepreneurship house's efforts in activating innovation in students: case study: University of Laghouat (2015–2018). *Journal of Elmaqrizi for Economic and Financial Studies*, vol. 7(2), 2023, pp. 394–415.

³ **Chaib, W., and D. Djilani.** The entrepreneurship house's efforts in activating innovation in students: case study: University of Laghouat (2015–2018). *Journal of Elmaqrizi for Economic and Financial Studies*, vol. 7(2), 2023, pp. 394–415.

Berrezig⁴ on a sample of 124 students at the Higher School of Commerce in Kolea, University of Algiers, it was found that students acknowledge that their university's business incubator provides them with personal support, resources, advice, and access to networks and funding opportunities from the initial design and development of their ideas to project implementation. This was also corroborated by the study of L. Ben zerga and H. Lidani⁵, which used a questionnaire distributed to 169 master's students at Medea University in central Algeria. The study concluded that students' entrepreneurial character is a result of the university's interest in promoting entrepreneurship through the establishment of the Entrepreneurship House and the facilities provided by the incubator to realize students' ideas.

Some studies, although few, have addressed the content of Ministerial Decision 1275 and its role in motivating students to create their own projects. Using data from the electronic registration form for students with innovative projects at the University of Oran and employing the quantitative method, the study by W. Badache⁶ concluded that the rate of student adoption of the strategy of Ministerial Decision 1275 is high despite the lack of entrepreneurial culture among university students of various specializations. This was in agreement with the study by N. Slatenia and K. Amraoui⁷, which confirmed that Ministerial Decision 1275 serves as a framework for the creation of university start-ups and is considered an important step towards developing university business incubators, providing a framework for cooperation and support between the government, universities, and the private sector towards the growth of start-ups.

Another group of researchers focused on another approach of the Algerian university to fostering the entrepreneurial spirit in the university environment, namely entrepreneurial education. This approach is not exclusive to Algeria; the importance of the role of teaching in encouraging entrepreneurial attitudes and behaviors is now widely recognized. Hence, most national and international studies have demonstrated that entrepreneurship education helps in the growth of students' entrepreneurial spirit. This was confirmed by the study of N. Barek et al⁸, which highlighted this role in activating the entrepreneurial orientation of students at Oum El Bouaghi University in eastern Algeria through the learning programs offered by the university. However, a group of Algerian researchers attempted to delve deeper into the content of the entrepreneurial education programs offered and their suitability to the actual requirements of the entrepreneurial world. For instance, the study by S. Djebbar and A. Nadji⁹, conducted on a sample of 109 students at Sidi Bel Abbes University in western Algeria, concluded that there is no relationship between the entrepreneurial education provided through the university's curriculum and students' entrepreneurial spirit. According to the study, it is necessary to activate other bodies to cover this deficiency in entrepreneurial education, a view supported by the study of A. Cherfaoui et al¹⁰, which, through interviews with students at the University of Oran, confirmed a contradiction between the traditional func-

⁴ **Bekache, K., A. Berrezig.** The role of the university incubator in promoting the entrepreneurial spirit among students: the case of the Higher School of Commerce at the University Center of Kolea in Tipaza. *Manager Review*, vol. 11(1), 2024, pp. 161–203.

⁵ **Benzerga, L., H. Laidani.** A survey research of the reality of the entrepreneurial spirit from the point of view of master's students specializing in business administration: case study: Medea University. *Forum for Economic Studies and Research Journal*, vol. 6(1), pp. 553–567.

⁶ **Badache, W.** The reality of implementing startups in favor of university students according to the ministerial decree 1275: field study of the Faculty of Social Sciences, University of Oran, Mohamed Ben Ahmed. *Algerian Review of Economics and Management*, vol. 17(2), 2023, pp. 87–102

⁷ **Slatenia, N., and K. Amraoui.** University business incubators in Algeria: promoting startups through ministerial instruction No. 1275. *Journal of Law and Political Science, Khenchla University*, vol. 11(1), 2024, pp. 437–452.

⁸ **Barek, N. et al.** The learning organisation is a mechanism for promoting the entrepreneurial orientation of students in Algeria, *Economic Researcher Review*, Vol 9 (2), 2021, pp. 137–149.

⁹ **Djebbar, S., and A. Nadji.** Education entrepreneurship as a tool to build and develop entrepreneurial attitudes: standard study for Sidi Belabes University students. *Algerian Review of Economics and Management*, vol. 14(1), 2020, pp. 5–33.

¹⁰ **Cherfaoui, A. et al.** The pivotal role of higher education in fostering entrepreneurial spirit among the youth: case study Oran University. *Journal of Social Protection Research*, vol. 5(1), 2024, pp. 68–80.

tion of the university and its entrepreneurial goals. The study recommended adapting academic training through vocational training.

In the same vein, a similar conclusion was reached by a foreign study conducted on students from 17 European countries, namely the study by K. Merle et al¹¹, which aimed to identify the impact of the content of university entrepreneurship education on students' entrepreneurial spirit. This study highlighted that what is offered in entrepreneurship courses, lectures, and seminars is not necessarily what students need to stimulate their entrepreneurial spirit. Instead, students expect increased networking and coaching opportunities.

Theoretical Framework

Concept of Entrepreneurial Spirit

There are numerous definitions of entrepreneurial spirit, and this term often overlaps with other concepts in the entrepreneurial world. Entrepreneurial spirit can be defined as a set of qualities and ambitions within an individual that provide the desire to establish a business and the ability to manage it correctly¹². Some believe that a person with an entrepreneurial spirit has the will to try new things or do things differently, aligning with their ability to adapt to change by presenting ideas and acting with openness and flexibility¹³. The spirit of entrepreneurship is reflected in its content, which highlights the ability for personal growth, the potential for change with an open mind, learning new skills, and information as a result of moving into the practical sector, overcoming the barrier of dread of change, and developing adaptability in handling advancement¹⁴.

Based on the previous definitions, it can be said that the entrepreneurial spirit is linked to the presence of two essential factors in an individual:

- Desire for Change: This is a psychological drive that motivates an individual to explore their environment and attempt to improve it.

- Ability to Open Up to the Outside World: Qualifications and skills are considered the entrepreneur's weapon for change, and it is impossible to embark on entrepreneurial work without them.

- There is a significant connection between the term entrepreneurial spirit and entrepreneurial mindset, which can be defined as: a perception to create new ideas, look for and test opportunities and risks, and start and run a business¹⁵.

From the researcher's perspective, an individual's mindset stimulates their initiative by excelling in selecting opportunities and accurately assessing risks. Another term that intersects with entrepreneurial spirit is entrepreneurial behavior, which can be defined as a collection of behaviors that an individual demonstrates, enabling them to enhance and innovate upon existing concepts in order to effectively market a product or service in a competitive market¹⁶. Unlike the entrepreneurial spirit, which expresses only the desire to realize new ideas, entrepreneurial behavior it expresses putting good ideas into action¹⁷.

Concept of Ministerial Decision 1275: Start-Up Certificate/Patent

To cultivate an entrepreneurial mindset in students and motivate them to develop their own ideas own businesses and transform their ideas into pioneering projects, the Algerian Ministry of Higher Education and Scientific Research issued a ministerial decision dated September 27, 2022. This decision outlines the procedures for preparing a graduation project to obtain a university certificate for a start-up from higher education institution students.

¹¹ Merle, K. et al. Entrepreneurship education at university level and students' entrepreneurial intentions. *Procedia - Social and Behavioral Sciences*, vol. 110, 2014, pp. 658–668.

¹² Benzerga, L., H. Laidani. Op.cit, p. 556.

¹³ Djebar, S., A. Nadji. Op.cit, p. 13.

¹⁴ Belakhdar, M. Op.cit, p. 751.

¹⁵ Belakhdar, M. Op.cit, p. 751.

¹⁶ Simon, S. Understanding entrepreneurial behavior and why it is important [online] [Accessed: 25 July 2024]. Available at: <https://masteringentrepreneurship.blog.jbs.cam.ac.uk/>

¹⁷ Ying, W. et al. Role of entrepreneurial behavior in achieving sustainable digital economy. *Frontiers in Public Health*, vol. 10, article no. 829289, 2022, p. 1.

This decision aims to transform students' graduation theses at the bachelor's and master's levels from the traditional academic format into innovative projects. The objective is to produce a new generation of students with an entrepreneurial mindset who are willing and able to engage in creative entrepreneurship, creating wealth-generating start-ups and job opportunities. Through their projects, students seek technical, digital, or technological solutions for existing companies or independent enterprises¹⁸.

Students enrolled under Decision 1275 receive diverse training programs to acquire entrepreneurial and technical skills. These programs are offered as workshops in business planning, business model development, digital marketing, management, finance, and accounting. Students can form a team of one to six members from different disciplines and faculties, benefiting from comprehensive support from their university's business incubator, from the project's inception to the establishment of their enterprise. After benefiting from the training programs, students must present their project at the end of the academic season. This project includes a detailed technical sheet outlining the project's requirements, stages of establishing the start-up or small enterprise, or a patent file, and a Business Model Canvas (BMC). This file is presented before a specialized committee consisting of a specialized research professor, the supervising professor, a representative from the university's business incubator or entrepreneurship development center, and one or more representatives from the economic or social partner.

Concept of University Interfaces

This concept emerged in Algeria at the end of September 2022 following the issuance of Ministerial Decision 1275. Prior to this date, there was no clear concept of university interfaces in previous studies on university entrepreneurship. In general, the functions of a university interface do not differ significantly from those of the support and accompaniment structures. The term "interface" refers to the university's image both locally and internationally, particularly since the ministry's focus has shifted to improving the international ranking of Algerian universities. This ranking now considers the number of start-ups and small enterprises established as a crucial criterion. Therefore, university interfaces can be defined as university structures dedicated to supporting students with project ideas and helping them transform these ideas into start-ups or small enterprises. These interfaces provide a range of non-financial services, including training workshops, counseling, workspace, networking with the economic environment and investors, and providing the necessary resources and testing to complete the project's prototype.

Methodology

This research paper employs a descriptive-analytical approach to highlight the various measures taken by the Algerian Ministry of Scientific Research and Higher Education to foster an entrepreneurial spirit within the Algerian university environment. To achieve this, the study focuses on the results of Ministerial Decision 1275 at Badji Mokhtar University of Annaba, abbreviated as Annaba University in this study. Located in eastern Algeria, Annaba University is one of the oldest and most prestigious universities in the country, with over 45,000 students enrolled in various disciplines.

The outputs of Decision 1275 at the studied university were analyzed for the 2022/2023 academic year, as it was the first academic year in which this decision was implemented. To obtain the necessary information for this study, the digital platform www.startup.dz was utilized by accessing the database of Annaba University through the business incubator's account. Additionally, information was sourced from the university's Entrepreneurship Development Center and the Technology and Innovation Support Center.

View and Analyze

New Procedures for Fostering Entrepreneurial Spirit within Algerian Universities

In recent years, Algerian universities have consistently sought methods to encourage students to enter the world of entrepreneurship. A significant focus has been placed on entrepreneurial education to ensure that students and graduates from universities and institutes can manage their own projects. This is achieved through a curriculum that aligns with developing their abilities and competencies. In this

¹⁸ **Official Bulletin of Algerian Higher Education and Scientific Research**, third trimester, decree no. 1275, dated 27 September 2022, p. 926.

context, interest in teaching entrepreneurship as a subject in Algerian universities began with the introduction of the LMD system (License, Master, Doctorate). Initially, this subject was offered in a limited number of disciplines related to business administration and entrepreneurship. With the increasing global emphasis on directing students and youth towards an entrepreneurial path, the university followed this trend. Consequently, teaching this subject became essential and mandatory in the first year of the Master's program across all disciplines starting in 2016, according to a specific program set by the ministry. However, it was observed that the characteristics of entrepreneurial education in Algeria at that time did not meet the required standards necessary to effectively motivate students and develop their entrepreneurial spirit. This was due to two primary reasons: first, the content of the programs remained limited to some general and superficial concepts in the field of entrepreneurship; and second, the traditional teaching methods, which relied on lectures, seminars, and conferences, without focusing on workshops and practical skills training. This situation remained unchanged until the introduction of Decision 1275 at the end of 2022, which marked a significant shift in the field of entrepreneurial education in Algeria. To achieve the objectives of this decision, the Ministry of Higher Education implemented new procedures and mechanisms to accompany its application, including:

Establishment of the National Coordinating Committee for Innovation and University Entrepreneurship

This committee is an advisory and coordinating body for the Ministry of Higher Education aimed at fostering entrepreneurship within the university environment. The goals of this committee include¹⁹:

- Providing an appropriate environment for university students with innovative projects to transform them into patents, start-ups, or micro-enterprises.
- Supervising the linkage between university interfaces of higher education institutions and the economic and social environment.
- Approving trainers and training programs in entrepreneurship within higher education institutions.
- Creating connections between various public support mechanisms to encourage students and researchers to enter the world of entrepreneurship.

Creation of the Innovation Platform

This platform aims to assist students in completing their Minimum Viable Product (MVP) for their projects. The platform includes twenty-five equipment and support platforms and a group of research centers. Through this platform, students can submit requests to benefit from the services of research centers and scientific laboratories to provide the necessary equipment, tools, and tests.

Establishment of University Interfaces

Before the issuance of Decision 1275, the only active interface promoting entrepreneurial spirit within the Algerian university environment was the Entrepreneurship House. It provided only awareness programs that did not meet students' practical expectations. However, with the implementation of Decision 1275 starting from the 2022/2023 academic year, old interfaces were restructured and new ones were created, supporting almost all higher education institutions. This restructuring is illustrated in the following table:

Table 1. *Number of University Interfaces at the National Level*

University Interfaces	Number
University business incubator	118
Entrepreneurship Development Center	107
Technology Support and Innovation Center	91

¹⁹ **Decree no. 36**, dated 01 March 2023. It includes establishing a national coordinating committee to follow up on innovation and university entrepreneurship, pp. 2–3.

Liaison office between the university and institutions	88
House of Artificial Intelligence	55
Fabrication laboratories	63
Consulting, research and development office	79

Source: A. Mir, president of the national coordinating committee to follow up on innovation and university entrepreneurship, statements during the National Universities Symposium held on July 27, 2024.

University Business Incubator: Although the decision to include the university business incubator among the common interests of Algerian universities has been in place since 2012, the role of this interface was only activated following the issuance of Decision 1275. This decision provided significant dynamism in supporting, welcoming, accommodating, and accompanying start-ups²⁰. The role of this interface became particularly prominent in assisting students, enabling them to discuss their graduation theses and obtain a Start-up Certificate/Patent, as well as assisting them in obtaining the “Innovative Project Label.” This label is granted by a multidisciplinary national committee and serves as a quality certificate proving that the student’s project contains a high degree of innovation and has high growth potential, allowing it to evolve into a start-up. This support has resulted in a large number of thesis discussions nationwide within the framework of Decision 1275, with a considerable number of them obtaining the “Innovative Project Label.” This is illustrated in the following table:

Table 2. *Number of Discussions and “Innovative Project Label” Awards under Ministerial Decision 1275 until July 20, 2024, at the National Level*

Region	East	West	center	Global
Number of Discussions	1708	2106	1275	5089
Number of «Innovative Project Label» Awards	54	72	80	206

Source: A. Mir, president of the national coordinating committee to follow up on innovation and university entrepreneurship, statements during the National Universities Symposium held on July 27, 2024.

Based on the previous table, it is observed that universities in western Algeria experienced the highest number of discussions. This is due to the presence of several major universities in this region, which house a large number of students. However, in terms of the quality of the discussed projects, it is noted that students from central universities present truly innovative projects capable of transforming into startups. This is evident from the higher number of projects awarded the “Innovative Project Label.”

Entrepreneurship Development Center: These centers were established on July 13, 2023, within a national forum jointly held by the Ministry of Higher Education and Scientific Research and the Ministry of Knowledge Economy and Startups and Micro-enterprises. This center was incorporated into the common interests of Algerian universities in November 2023. It is concerned with receiving and supporting students, graduates of higher education and scientific research institutions, and project holders to enable them to realize their ideas and establish their micro-enterprises²¹. It offers comprehensive training to develop entrepreneurial skills, particularly in entrepreneurship fundamentals, strategic planning, resource management, and the stages of establishing an enterprise. Thus, through these roles assigned to

²⁰ **Zounia, Rial.** The entrepreneurial accompaniment and its role in supporting emerging projects: case study of National Fund for Credit Guarantee (FGAR). *International Journal of Economic Performance*, vol. 6 (1), 2023, p. 245.

²¹ **The Algerian Official Journal** issued on December 24, 2023, no. 75, including Executive Decree no. 23-410 of November 20, 2023, supplementing Executive Decree no. 12-293 of July 21, 2012, establishing the missions, organization, and operation of the scientific and technological research services commons, p. 4.

the Entrepreneurship Development Centers, it is observed that the activities of these centers go beyond the awareness activities previously carried out by the Entrepreneurship House to other activities that complete the triad (awareness, training, and support).

Technology and Innovation Support Center: Its goal is to assist in the search for technological information, protect industrial property and patents, monitor competitors, and activate technological vigilance. This center has contributed to encouraging students to protect their ideas and file patent applications at the Algerian National Institute of Industrial Property. The following table shows the number of patent applications filed by students at the national level during the 2022/2023 academic year up to July 20, 2024.

Table 3. *Number of patent applications filed under Ministerial Decision 1275 up to July 20, 2024, at the national level.*

Region	East	West	center	Global
Number of patent applications filed	507	246	135	888

Source: *A. Mir, president of the national coordinating committee to follow up on innovation and university entrepreneurship, statements during the National Universities Symposium held on July 27, 2024.*

It is observed that universities in the east are leading in patent application submissions. It is noteworthy that students from universities across the country previously lacked the courage to submit patent applications at all levels, resulting in near-zero submissions before the issuance of Decision 1275.

University-Enterprise Liaison Office: This office works to strengthen the relationship between the university and economic and social partners to support student interaction with the business environment.

Artificial Intelligence House: This entity focuses on integrating artificial intelligence into the research of professors and the innovative student projects.

Manufacturing Laboratories: These types of laboratories did not exist before Decision 1275. They are equipped with a variety of tools different from those in traditional research laboratories, such as 3D printers, electronic devices related to the Internet of Things, and AI-powered computing stations. However, a significant challenge facing these labs in Algeria is connecting them to the international Fab Lab network to benefit from mutual exchange in human and material resources and joint international programs.

Consulting, Research, and Development Office Interface: Established in December 2023, this interface acts as a subsidiary institution aimed at identifying various issues faced by economic and social operators and proposing suitable solutions. Through this interface, the overseeing ministry aims to introduce professors and students to the world of entrepreneurship and develop their entrepreneurial spirit by finding ways to valorize applied research, scientific studies, patents, and various high-value research products, thus transforming into what is called an entrepreneurial university.

Results of Implementing Ministerial Decision 1275 at the University of Annaba

Ministerial Decision 1275 was implemented at the University of Annaba starting from the 2022/2023 academic year. Students interested in creating innovative and micro projects were invited to engage in this initiative. After an awareness campaign covering all university faculties, organized by university interfaces at the beginning of the academic year, students gradually became motivated to register their ideas on the designated electronic platform. The University of Annaba saw the registration of more than 600 project ideas under Decision 1275. After evaluation by a specialized committee, over 400 project ideas were deemed feasible.

Students with accepted projects benefited from training sessions in the form of workshops on business model, design thinking, and patent application processes. These efforts enabled the University

of Annaba, like other universities nationwide, to achieve remarkable results in the implementation of this decision. The university attained advanced positions in the innovation and entrepreneurship index at both the regional and national levels. The following table illustrates this:

Table 4. *Ranking of the University of Annaba according to the innovation and entrepreneurship index compared to universities in the eastern region*

Rank	According to the number of discussed projects	According to the number of «Innovative Project Label» obtained	According to the number of patent applications filed
1	Tebessa university	Annaba university	Eloued university
2	Annaba university	Tebessa university	Tebessa university
3	Ouarghla university	Setif 1 university	Annaba university

Source: A. Mir, president of the national coordinating committee to follow up on innovation and university entrepreneurship, statements during the National Universities Symposium held on July 27, 2024.

Based on the previous table, it is observed that the University of Annaba ranked first in the number of “Innovative Project Labels” obtained during the 2022/2023 academic year, with a total of 09 projects capable of transforming into startups, most of which were from the Faculty of Technology. The university also ranked second in terms of the number of thesis discussions and third in the number of patent applications filed. Below is an overview of the number and type of projects discussed during the 2022/2023 academic year, as well as the number and specialization of patent applications filed:

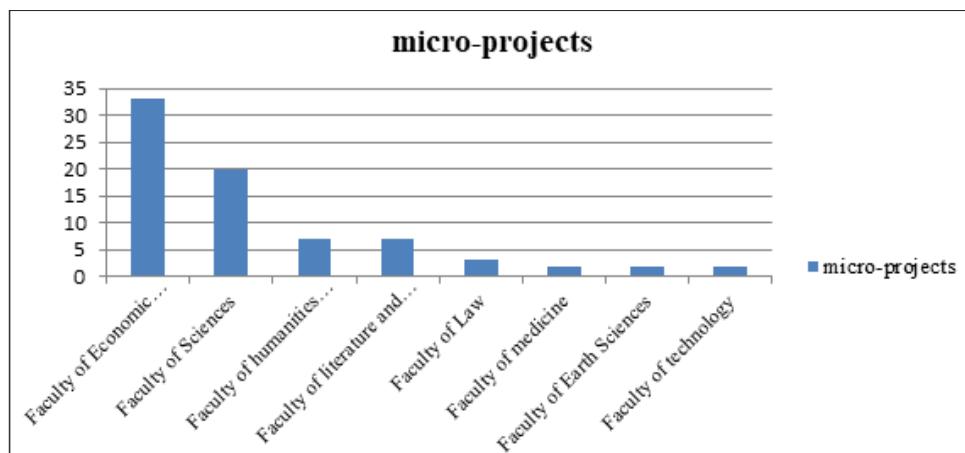
Table 5. *Number of projects discussed during the 2022/2023 academic year at the University of Annaba under Decision 1275 by faculty*

Faculty	Number of projects discussed
Faculty of Economic Sciences	74
Faculty of Sciences	47
Faculty of technology	43
Faculty of Earth Sciences	16
Faculty of literature and languages	14
Faculty of medicine	11
Faculty of humanities and social sciences	10
Faculty of Law	5
Global	220

Source: by author based on information from the university business incubator.

Based on the above table, it is observed that all faculties of the University of Annaba have engaged in Decision 1275 to establish startups and micro-enterprises, including some students from the Faculty of Humanities and the Faculty of Law. It is also noted that the Faculties of Economic Sciences and Technology saw the highest student engagement in establishing their enterprises.

Considering the type of projects discussed by the students, a significant number of them were classified as micro-projects with relatively low levels of innovation. This type of project saw higher participation from students of the Faculty of Economic Sciences and the Faculty of Sciences and received support from the university's Entrepreneurship Development Center. Meanwhile, students from the Faculty of Technology were more involved in innovative projects that could become startups in the future, which is natural given that the nature of their training significantly determines the type of project in which they engage. Figure Number one illustrates this.



Source: by author based on information from the Entrepreneurship Development Center of the University of Annaba.

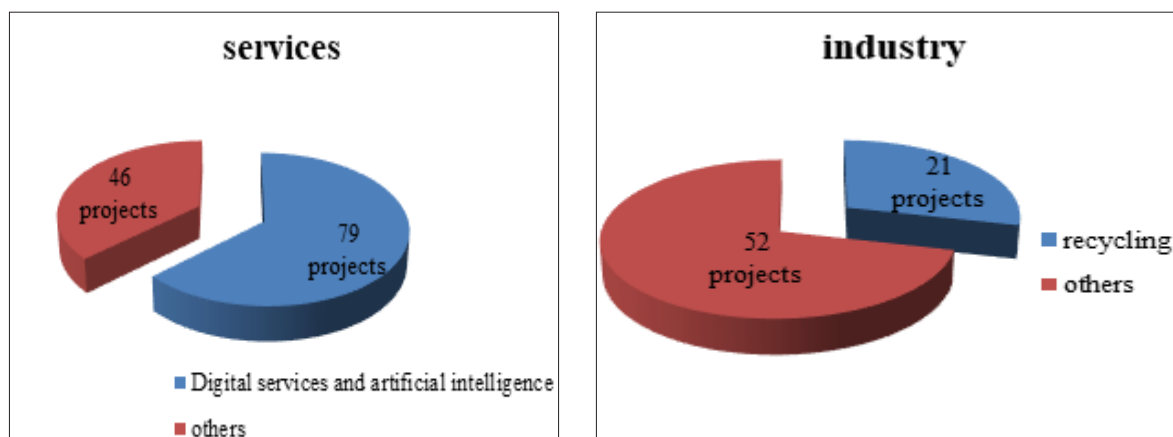
Figure 1. Number of micro-projects discussed during the 2022/2023 academic year at the University of Annaba under Decision 1275 by faculty

The entrepreneurial orientation of students and the type of projects that garnered more interest can be understood by classifying these projects according to economic sectors, as shown in Table No. (7) and Figure No. (2) below:

Table 7. Entrepreneurial orientation of students at the University of Annaba during the 2022/2023 academic year by economic sectors

Sector	Industry	Agriculture	Services	Other	total
Number of projects	73	7	125	15	220

Source: by author based on information from the university business incubator.



Source: by author based on information from the business incubator account of the University of Annaba on the platform www.startup.dz.

Figure 2. Types of industrial and service projects undertaken by students at the University of Annaba under Decision 1275

It is observed from the results of Table 7 and Figure 2 that most of the project holders at the University of Annaba gravitated towards service projects, primarily digital services and electronic platforms that provide services in the tourism sector, distribution, and e-commerce. In the industrial sector, most projects were micro-projects, mainly focusing on recycling, waste valorization, and some other projects in the food industry sector. It is also noted that the orientation of students at the University of Annaba towards agricultural sector projects was very low, with only 7 projects, which is natural given the specificity of the Annaba province, known for being a touristic and industrial province par excellence, rather than an agricultural one.

Ministerial Decision 1275 has opened a wide avenue for students to showcase their entrepreneurial abilities and creativity through presenting innovative and micro-projects, as well as projects that are classified under patents. This explains the submission of 34 patent applications during the 2022/2023 academic year to the Algerian National Institute of Industrial Property by students alone. It is worth noting that the registration fees for these applications are covered by the university as an incentive for students to submit these applications. The following table illustrates the distribution of patent applications filed by faculty:

Table 8. Number of patent applications filed by students during the 2022/2023 academic year

Faculty	Number of filed patents
Faculty of technology	13
Faculty of Sciences	10
Other faculties	11

Source: by author based on information from the University Technology Support and Innovation Center.

It is observed from the previous table that most of the patent applications filed for the previous academic year were from the Faculties of Technology and Sciences. This is natural given the nature of the specializations studied in these faculties. The students demonstrated a high level of creativity and innovation, as well as significant technological proficiency, which was not apparent before the implementation of Ministerial Decision 1275. There were numerous projects related to robotics, drones, and remote-control devices, for which students presented prototypes during the discussions.

Conclusion

By presenting the various new measures adopted by the Algerian Ministry of Higher Education to instill an entrepreneurial spirit among university students and steer them towards an entrepreneurial path, as well as showcasing the mechanisms for implementing Ministerial Decision 1275 and its various outcomes at the University of Annaba, the following conclusions can be drawn:

- There are positive indications from the Algerian university through its brief experience in the world of entrepreneurship in transforming students from those who expect public sector jobs provided by the state into students who generate jobs by creating their own projects.

- Decision 1275 represents a qualitative leap in the transformation of the Algerian university into what is termed an entrepreneurial university, by integrating all university actors, including students, professors, and even staff, into the field of entrepreneurship. At the beginning of each academic year, the focus of professors and especially students is on finding a technical solution to an economic or social problem in their environment to transform it into a feasible project and benefit from the available university support.

- The University of Annaba is considered one of the leading universities at the national level in implementing Ministerial Decision 1275, which has significantly motivated students and instilled an entrepreneurial spirit in them. The results recorded during the 2022/2023 academic year are clear evidence of this. The university, over all previous years since its establishment in 1975, had not achieved such results in the field of entrepreneurship as it did in one year of implementing Decision 1275.

- The success of the University of Annaba in implementing Decision 1275 and its remarkable outcomes in its first year has motivated many students from subsequent cohorts to join this endeavor. During the 2023/2024 academic year, the university registered more than 340 projects, discussions of which began in July 2024 and will continue until the end of December 2024.

In conclusion, it can be said that the biggest challenge facing the Algerian university's orientation towards entrepreneurship is how financing agencies and investors will keep pace with this dynamic to achieve the actual realization of these projects. Additionally, the external entrepreneurial environment must adapt to the investment requirements of the start-ups and micro-enterprises that students wish to establish, to genuinely diversify the Algerian economic.

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