

University Business Incubators as a Modern Mechanism to Support Start-ups: A Case Study of the University Incubator at Echahid Cheikh Larbi Tebessi University-Tebessa

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Abstract :

This paper aims to explore the role of university business incubators in supporting and developing start-ups, employing a descriptive method alongside analytical procedures. It defines the concepts of both business incubators and start-ups.

The study relies on projection by examining the activities of Tebessa University's business incubator and analyzing them to understand the reality of implementing decision 1275, aimed at fostering entrepreneurial spirit among university students and encouraging them to realize their innovative ideas through a start-up project as their graduation thesis. The study concludes that university business incubators contribute significantly to the development and support of start-up ideas among university students.

Keywords: Business Incubators; Start-Ups; Creativity; Innovation.

Jel Classification Codes : L26 ; O31; M13.

المخلص: هدفت هذه الورقة البحثية إلى التعرف على الدور الذي تلعبه حاضنات الأعمال الجامعية في دعم وتنمية المؤسسات الناشئة، حيث تم استخدام المنهج الوصفي مع الإجراء التحليلي وتم التعرف على مفهوم كل من حاضنات الأعمال والمؤسسات الناشئة، كما تم الاعتماد على الاسقاط من خلال التعرف على نشاطات حاضنة الأعمال لجامعة تبسة وتحليلها لمعرفة واقع تطبيق القرار 1275 الذي يهدف لتنمية الروح المقاولاتية لدى طلبة الجامعة وتشجيعهم على تجسيد أفكارهم الابتكارية من خلال مشروع مذكرة تخرج مؤسسة ناشئة، وخلصت هذه الدراسة إلى أن حاضنات الأعمال الجامعية تساهم في تنمية ودعم أفكار المؤسسات الناشئة لدى طلبة الجامعة.

الكلمات المفتاحية: حاضنات الأعمال، المؤسسات الناشئة، الابداع، الابتكار.

تصنيف JEL : M13، O31 ، L26

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1. Introduction:

Recently, there has been increased interest in start-ups, both in developed and developing countries, due to their significant and effective role in enhancing economic and social levels. With the substantial technological and technological advancements, the world is witnessing, new business models based on innovation have emerged, and traditional concepts of business organizations and institutions have changed.

Business incubators are seen globally as one of the most important mechanisms for the development and enhancement of entrepreneurship and start-ups. Business incubators have proven to provide a nurturing ground for ideas and projects. The concept of business incubators became popular during the 1960s, thanks to their role in supporting small enterprises that require guidance and adoption of ideas, leading to their realization in practice.

The concept of business incubators and start-ups is a modern idea in the Algerian business environment, where recent years have seen a significant shift towards the creation and adoption of this type of mechanism. This aims to establish a solid foundation for the success and development of such enterprises, through which the state seeks to diversify the economic fabric, reduce unemployment rates especially among university graduates, and foster an entrepreneurial spirit among them.

From the above discussion, the following problem arises:

- **To what extent do university business incubators contribute to supporting start-ups? And what is the reality of this in the business incubator at the University of Tebessa?**
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1.1 Importance of the Study

The necessity initially calls for understanding the scientific importance and the practical benefit of conducting this study, which stems from both developed and developing countries' awareness of the role and importance of business incubators and startups in economic dynamism. This study's importance also emerges from the significance of startups as they are currently a hot topic, especially since their concept is associated with innovation and the ability to create value.

In the context of Algeria's search for alternatives to its economy, which relies on fluctuating oil revenues, and the state's realization of the importance of this sector and the need for a strong and comprehensive push from another aspect.

1.2 Objectives of the Study

Through this research paper, we aim to achieve a number of objectives, the most important of which are:

- Disseminating the basic and innovative concepts of business incubators and startups.
- Identifying the role that university business incubators play in supporting startups and nurturing university students' ideas.
- Examining the role of the state and the higher education sector in supporting and encouraging startups and analyzing the reality of university business incubators' activities.

1.3 Study Hypotheses:

- _ The business incubator of the University of Echahid Cheikh Larbi Tebessi is one of the supportive means for the ideas and projects of its students.
- _ The university business incubator of the University of Echahid Cheikh Larbi Tebessi is working to implement the new orientation of the state and the Ministry of Higher Education, which aims to succeed in the project of a graduation thesis for a start-up and qualifying the student for employment.

1.4 Structure of the Study

This research has been divided into the following themes:

- _ The theoretical framework for business incubators and startups.
- _ A case study of the university incubator at Echahid Cheikh Larbi Tebessi University-Tebessa.

2. The Theoretical Framework for Business Incubators and Startups

The Theoretical Framework for Business Incubators

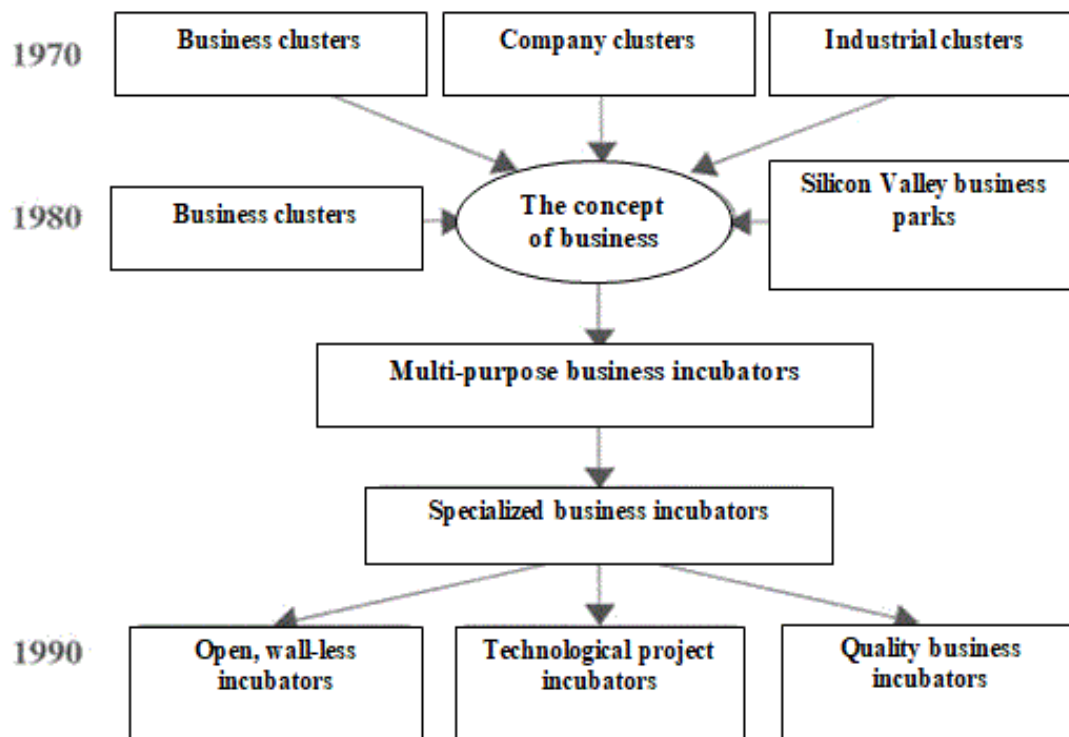
2.1 The Emergence of Business Incubators:

The beginnings of business incubators trace back to 1959 in New York, USA, where the first instance, known as the Batavia Industrial Center, emerged. When a family transformed their company's ceased operation headquarters into a business center, leasing its units to individuals wishing to establish a project while providing advice and consultations to them. This idea was a great success, especially since the building was located in a business area close to several banks, marketing +areas, and restaurants.

This idea later evolved into what is known as an incubator. Since that year, thousands of small and medium-sized enterprises have been established in this incubator, which still operates under the same old name. This concept was followed by many countries around the world, especially the European Union countries that benefited from this experience and established the first business incubator in Europe in 1986.

As for the Arab world, Egypt was the first Arab country to establish a technology incubator affiliated with the Ministry of Industry in 1998. (Ben Chaib, 2019, p 55)

Figure (01): History of business incubators



Source: El-Shabrawi Ibrahim, (2005). "Business Incubators: Field Concepts and Global Experiences," Publications of the Islamic Organization for Education, Science and Culture (ISESCO), Rabat, Morocco, p. 73.7

2.2 Definition of Business Incubators:

There have been several definitions given for business incubators, among them are: The National Association of America defined business incubators as: "Organizations aimed at assisting innovative startups and new entrepreneurs, providing them with the necessary means and support, expertise, locations, financial support to overcome the burdens and stages of launching and establishment, as well as conducting marketing operations and distributing the products of these institutions." (Amara, 2019, p 114)

ESCWA defined business incubators as: "An integrated package of services, facilities, and support and consulting mechanisms provided for a specific period of time, thus being an established institution with its legal entity, its experience, and its relationships for entrepreneurs who wish to establish their small enterprises, with the aim of reducing burdens and decreasing the costs of the startup phase for their projects." (Al-Hanawi, 2001, p 27).

The Algerian legislator has adopted the French definition and included the concept of incubators in nurseries, defining them according to Executive Decree No. 03-78 dated February 25, 2003, which contains the basic law of enterprise nurseries as "public institutions with an industrial and commercial character that enjoy legal personality and financial independence."

2.3 Classifications of Business Incubators:

Business incubators are classified as follows:

Table 1: The Multiple Classifications of Incubators

Number	Title	Objective		
First: By Objective				
1	Primary	Attracting foreign capital		
2	Regional	Investing human energies or a specific segment of society		
3	Industrial	Exchange facilities and focus on technical support and knowledge		
4	Sector-Specific	Serving a specialized sector such as software and engineering industries		
5	Technological	Serving advanced designs for unconventional new products with advanced devices		
6	Research	Developing academic research and ideas		
7	Virtual	Serving various sectors using the information network		
8	Internet	Assisting startups in the field of the internet and software		
Number	Title	Technology Level	Entity	Examples
Second: By Nature of the Field				
1	General or Mixed Project Incubators	Simple technology in providing services or light manufacturing	Projects of knowledge and information. Craft industries	-Cambridge Incubator - Camp six Idea lab & Companies
2	Economic Development Incubators (Specialized)	Diverse technology related to the state	Employment projects Restructuring industry projects	-Macanese
3	Technology Incubators	Advanced technology	Research centers Universities Information centers	-Anderson Consulting - The Elevator Com. -Internet Capital Group
Third: By the Provided Services				
1	Project	Comprehensive services (infrastructure, communication technologies, human		

	Incubator	resources, capital).
2	Business Accelerators	Accelerating the process of starting or operating any new business project (consulting services, obtaining financing, launching the project as quickly as possible).
3	Business Entrances	Establishing networks of contractors and consultants in addition to investors.
4	Business Networks	Investing in an early stage of work and taking preliminary measures that match the overall strategy, then building cooperatives distributed among its members to provide real support for the value of investments.

Source: Prepared by researchers based on: Gonzalez, Marisela & Lucea, Rafael, (2001), *The Evolution of Business Incubation, Working Paper, March.*

2.4 Importance of Business Incubators: The importance of business incubators primarily manifests in the following (El-Sherif, 2012, p 18, 19):

- Providing financial advice and feasibility studies for startups.
- Connecting innovative startups with productive sectors and endorsing market requirements.
- Assisting startups in facing administrative, financial, technical, and marketing difficulties that typically encounter during the establishment phase.
- Creating job opportunities for those aspiring to be true entrepreneurs, especially university graduates.
- Preparing a new generation of business owners, supporting them, and assisting them in establishing serious, profitable ventures, which contributes to production development, job creation, and economic.

2.5 Stages of Business Incubators' Support for Startups:

The support of startups by business incubators goes through three stages, explained as follows:

A- Pre-incubation Stage:

This foundational stage aims to build the project on a solid base to ensure its continuity and growth. The innovator's limited ability to access necessary information sources and lack of managerial experience make the support of an incubator especially crucial concerning:

- Preparing comprehensive feasibility studies that enable the discovery of strengths and weaknesses of the project.
- Offering managerial consultations that help in designing an organizational structure that fits the nature of the enterprise and its strategies.

- Developing a comprehensive and integrated business plan to determine core activities and prevent their temporal conflicts. The business plan acts as a roadmap, guiding the innovator step by step on how to transform an idea into a profitable service or product.

B- Incubation Stage:

During the incubation period, which typically ranges from two to six months, business incubators provide a comprehensive package of diversified services that match the incubated enterprise's needs and future aspirations.

C- Post-incubation Stage:

The period after graduating from the incubator is characterized by the enterprise's efforts to prepare and positively fortify itself against new economic challenges and adapt to the market economy by reevaluating its policies, management, and overall situation. From this perspective, the intervention of the incubator is essential to help these enterprises improve their performance according to contemporary perspectives to enhance their cohesion, expansion, and sustainability.

Recent studies have highlighted the importance of continued support from the incubator for graduated enterprises to help them enter the competitive field by encouraging them to join the incubator's forum for greater benefit from forum activities and information exchange with other members, continuing to benefit from product promotion by allocating special free booths in national and international exhibitions, networking operations and programs (Samer Ali, 2005, p 22), and from training courses organized by the incubator.

3. The Concept of Startups:

3.1 Definition of Startup:

A "Startup" is a term used to identify newly established enterprises, born from a creative entrepreneurial idea, with significant prospects for rapid growth and prosperity. (Bourenen, 2020, p 134)

One of the more popular definitions of startups is: "A startup is a new enterprise, usually small in its early stage of operations, seeking to achieve a sustainable, scalable, and profitable business model, possessing the potential for high growth rates." (Research Team of "Impact MENA", 2019)

As defined by the French dictionary "Larousse": "Young innovative companies, especially in the field of modern technologies." (<https://www.larousse.fr/dictionnaires/francais/start-up/74493>, 2022)

Entrepreneur Steve Blank defined it as: "A temporary organization in search of a business model that allows for profitable growth on a repeatable and scalable basis. It is testing different economic models and gradually discovering and adapting to its environment. That is, a startup must work to ensure the success of its project quickly and have an immediate impact on the market it wishes to operate in." (Bouaouina, n.d, p 536)

The Algerian legislator considers a startup to be any enterprise subject to Algerian law and meets the following criteria (Article 11 of the Executive Decree No. 20-254 dated 15/09/2020): (Executive Decree No. 20-254, 2020)

- The age of the enterprise must not exceed (8) years;
- The enterprise's business model must rely on products, services, a business model, or any innovative idea;

- The annual turnover must not exceed the amount determined by the National Committee;
- At least 50% of the capital must be owned by natural persons or investment funds accredited by other institutions awarded the "startup" label;
- The enterprise must have sufficient growth potential;
- The number of workers must not exceed 250.

From the above, a startup can be defined as a newly established and fast-growing enterprise, often likened to a "gazelle", typically in the field of technology and modern techniques, and is usually sold or acquired by large institutions in its field of work.

3.2 Features of Startups:

Startups are characterized by several features, the most important of which are: (blog.hotmart n.d., 2022)

- **Newly established enterprises:** Many make the mistake of classifying small enterprises as startups.
- **Startups are characterized as young, beneficial enterprises with two options:** either to evolve and become successful enterprises or to fail and shut down.
- **Enterprises with opportunities for gradual and increasing growth:** A defining feature of the "Startups" is their potential for rapid growth and generating revenue much faster than the costs required for operation.

In other words, a startup is an enterprise that has the potential to rapidly scale its business operations, meaning increasing production and sales without a corresponding increase in costs. As a result, its profit margin grows remarkably. This does not mean that startups necessarily have lower profits because they are small. On the contrary, they are companies capable of generating very significant profits.

- **Technology-oriented companies that primarily rely on it:** Startups are characterized as businesses based on innovative ideas and meet market needs in a smart and modern way. Startup founders rely on technology for growth and advancement and seek funding through online platforms and by winning support from business incubators.
- **Enterprises requiring low costs:** The concept of a startup encompasses enterprises that require very small costs compared to the profits they generate. These profits usually come quickly and somewhat unexpectedly. Examples of startups include companies like Amazon, Apple, Google, Oued kniss, etc.

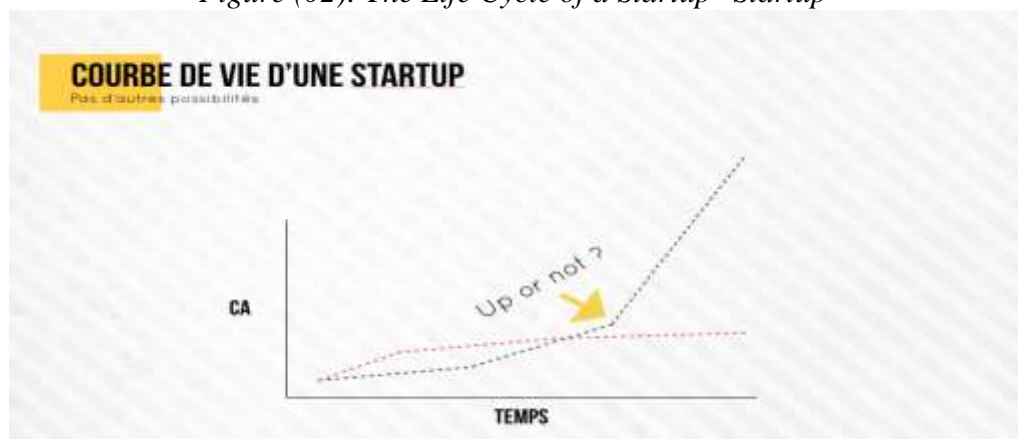
3.3 Objectives of Startups:

Like other, especially small, enterprises, startups aim to diversify the economic fabric, particularly in the field of enterprises reliant on modern technologies. They also aim to create jobs and achieve the goals of general competition in the market. This objective is fundamental due to the creation of such enterprises, which are more effective in developing countries, given that these enterprises do not require significant financial or material resources to establish.

3.4 The Difference Between a Startup and a Traditional Enterprise:

Being a startup is a temporary status, either because the business model was not successful, and therefore the startup fails or disappears, or because it succeeded and was absorbed or transformed into a nearly classic or traditional enterprise. The transition from a startup to a large company marks the moment when "upper growth" is decided, as illustrated by the following figure:

Figure (02): The Life Cycle of a Startup "Startup"



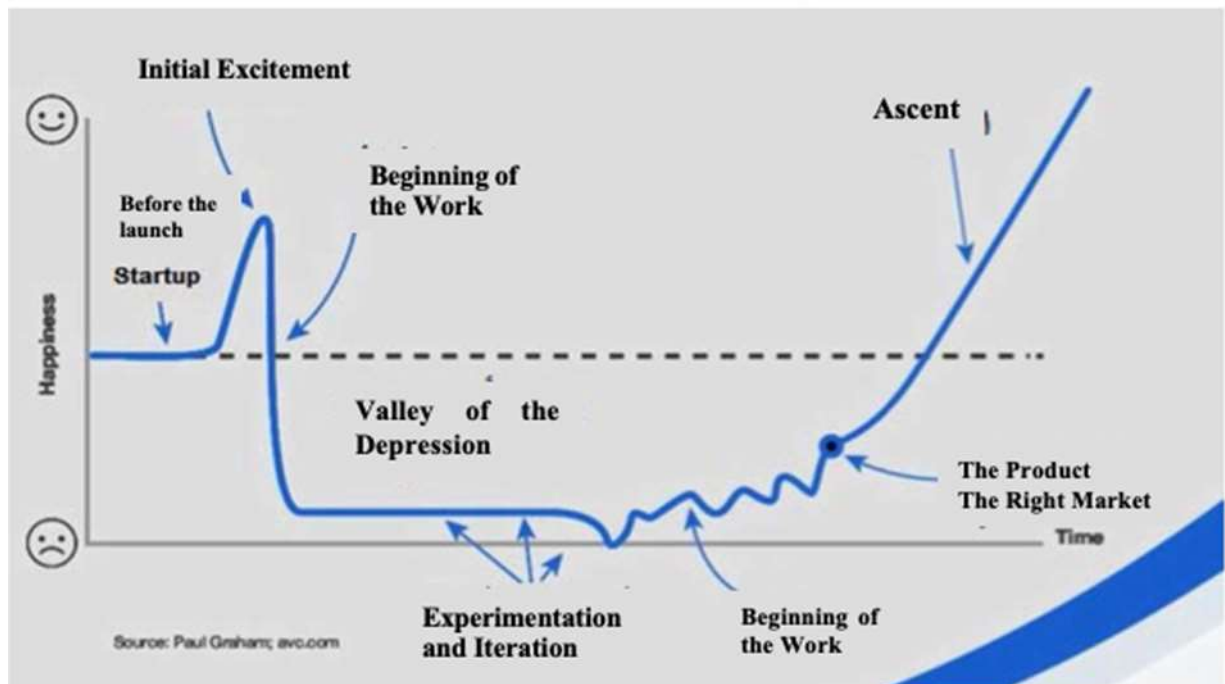
Source: The website: <https://wydden.com/dis-cest-quoi-une-start-up/>, accessed on: 30/11/2022, 15:00.

Figure (02) illustrates the life cycle of a startup, showing that the enterprise faces many challenges. A startup has the potential to evolve and be acquired by another large enterprise. It can also fail and disappear due to an unclear business model. The curve highlights the time factor and the business number factor as the two most important factors that influence the future and growth of the startup.

3.5 Startup Life Cycle:

Startups often stumble and experience significant fluctuations before finding their way to success. This can be illustrated as follows:

Figure (03): The Startup Curve



Source: Graham, P. (2017). Startup happiness curve. Consulted on 30/11/2022, from <http://t.co/PIFDc1MCUB> - Good graphic.

From Figure (03), we deduce that startups go through six stages (Boualchaour, 2018, p 421):

- **First Stage:** Begins before the startup launches, involving the proposition of a new idea prototype, its study, market analysis, and understanding the behavior, tastes, and preferences of the target consumer.
- **Second Stage:** The launch phase where the first generation of the product or service is released. Entrepreneurs seek financial backers for their idea and often turn to Friends, Family, Fools (FFF) due to the high risk involved. At this stage, the product requires promotion, pricing is high, and media publicity begins.
- **Third Stage:** An early stage of takeoff and growth where the product reaches its peak, and there is high enthusiasm. The offer spreads, and the activity might expand beyond its initial creators, leading to negative pressure as the number of competitors increases, potentially leading to failure or other obstacles that could cause a setback.
- **Fourth Stage:** Known as sliding into the trough, despite continued funding, the project regresses and exits the market.
- **Fifth Stage:** Climbing the slope stage where the entrepreneur continues to make adjustments to the product, launches improved versions, and the startup begins to recover. The second generation of the product is launched, its pricing adjusted, and marketed more broadly.

- **Sixth Stage:** The high-growth phase where the product is fully developed, exits the experimental phase, is launched in the appropriate market, and the company experiences continuous growth. The curve ascends, yielding substantial profits.

4. Case Study of the University Incubator at Echahid Cheikh Larbi Tebessi University-Tebessa.

4.1 The Nature of University Business Incubators:

Before addressing university business incubators, it is essential to discuss the Entrepreneurship Development Center, with reference to the Entrepreneurship Development Center at the University of Echahid Cheikh Larbi Tebessi in Tebessa.

4.1.1 Concept of the Entrepreneurship Development Center

A. Origins of the Entrepreneurship Development Center with reference to the Entrepreneurship Development Center at Tebessa University:

The idea of establishing the Entrepreneurship House (now the Entrepreneurship Development Center) in Algeria originated after the concept's success at the University of Grenoble in France during the academic year 2002/2003, supported by the French Ministry of Higher Education and Research. Subsequently, the experience was transferred to several countries, including Canada, Brazil, and Algeria, where the first Algerian experience was the establishment of the Entrepreneurship House at the University of Constantine, a pioneering initiative. The concept was then generalized to other national universities in 2013.

The Entrepreneurship House for Tebessa University was established in 2013 in partnership with the former National Agency for Youth Support and Employment (ANSEJ), now the National Agency for Entrepreneurship Support and Development (ANADE), following the agreement signed with the university. A committee was formed to manage the Entrepreneurship House, consisting of two members from the university and two from the National Agency for Youth Support and Employment (ANSEJ), plus a member from the Directorate of Employment, led by a university professor.

B. Mission of the Entrepreneurship Development Center for the Algerian University:

The mission of the Entrepreneurship Development Center for the Algerian University includes:

- _ Raising awareness and promoting openness to the business world and fostering entrepreneurship through organizing seminars and meetings;
- _ Assisting youth in succeeding with their projects through the university to facilitate their tasks and in dealing with experienced economic partners;
- _ Acting as a link between graduates and the institution that will finance them;
- _ Providing an open space for students to meet with entrepreneurship support institutions in Algeria;
- _ Training and developing specific skills in project management and business creation;
- _ Supporting and advising creative projects and students.

C. Tasks of the Entrepreneurship Development Center:

The importance of the Entrepreneurship Development Center lies in bringing entrepreneurial thinking closer to university students and shifting their aspirations from job seeking to creating their own projects and providing employment for others. It expands the university's role from being a source of cadre for society to an active contributor to national economic development through the creation of aware and successful entrepreneurs.

Economically, micro, small, and medium-sized enterprises play a crucial role in boosting the economy, especially if they are successful. One of the key factors for the success of these enterprises is having an aware and successful entrepreneur, which is what the Entrepreneurship Development Center aims to achieve by instilling and formalizing entrepreneurial thinking in university students. Additionally, the Entrepreneurship House contributes to strengthening the relationship between the university and the economic environment.

D. Field Results of the Entrepreneurship House at Tebessa University:

Although the number of projects registered at the National Agency for Entrepreneurship Support and Development by university students is considerable, the number of students who registered through the Entrepreneurship Development Centre of Tebessa University is very limited, as shown in the following table:

Table 2: Total Number of Students Registered at the National Agency for Entrepreneurship Support and Development (from the establishment of the Entrepreneurship House until 31/12/2021)

Number	Activity	File Status
1	Telecommunications Agency	Confirmed on 24/11/2019
2	Telecommunications Agency	Funded on 28/03/2018
3	Installation of Central Electrical and Phone Networks	Confirmed on 24/04/2017
4	Industrial Processing of Paper and Manufacturing of Various Paper Materials	In the process of funding

Source: Data provided by the National Agency for Entrepreneurship Support and Development, Tebessa Agency.

The table above shows that despite the Entrepreneurship Development Centres' continuous efforts to bring entrepreneurial thinking closer to students, their projects are not registered through the Entrepreneurship Development Centre.

According to officials from the Entrepreneurship House at the University of Echahid Cheikh Larbi Tebessi, this may be due to the university students' lack of conviction in the idea of establishing a private enterprise in their early graduation years, as they primarily seek employment and then consider creating a personal project. This explains the number of projects registered with the agency by university graduates, independent of the Entrepreneurship Development Centre.

4. Concept of University Business Incubators:

4.1 Introduction to University Business Incubators:

A university business incubator is an institution affiliated with the higher education and scientific research sector, considered an integral part of the common services of the Ministry of Higher Education and Scientific Research.

It is administratively a structure under the General Directorate for Scientific Research and Technological Development (DGRSDT), with its management and equipment entrusted to the National Agency for the Valorization of Research Results and Technological Development (ANVREDET). The organizational structure of the incubator consists of several levels.

The incubator assists and supports the creation of businesses. Its primary mission is to help students and researchers with innovative and technological projects capable of leveraging modern technological techniques to present projects and startups with creative ideas that can be transformed into productive, service, or industrial projects. It also focuses on individuals with inventive ideas that contribute to solving technical problems in various fields such as industry, agriculture, commerce, information and communication technologies, renewable energies, and artificial intelligence.

4.2 Mechanisms for Obtaining a University Degree Start-up Project Thesis:

Decision 1275, dated September 27, 2022, outlined how to prepare a graduation thesis project to obtain a university degree start-up certificate for students of higher education institutions, as follows: (Decision No. 1275, September 27, 2022).

- _ Article 2 of the aforementioned decision states that the goal of the university degree start-up graduation thesis project is to create a generation of entrepreneurial students with the ability and desire to move towards innovative business and create creative wealth and employment-generating start-ups. These are profitable endeavours based on the pillars of innovation and technology, aimed at finding a technical, technological, or digital solution for existing or independent enterprises.
- _ The graduation thesis for obtaining a university degree start-up includes a set of training programs in business plan preparation, along with training courses and field workshops on business modelling, e-marketing, management, finance, and accounting.
- _ Students from various disciplines and faculties, including bachelor's, master's, and doctoral levels, can prepare a graduation thesis project to obtain a university degree start-up certificate. Any final-year student with a viable idea that can evolve into a start-up can be supported by their university's business incubator.
- _ The project team consists of the number of students involved in the project and their specializations, with various options ranging from a small group of two to six students from different disciplines and faculties.
- _ After presenting and discussing graduation projects before a scientific committee and experts specialized in their fields, including the supervisor, a member from the business incubator or entrepreneurship house, and a representative from economic and social partners, students at least obtain an end-of-study university certificate and a start-up diploma. The aim is to obtain at least one innovative project label, with the university business incubators' administration overseeing the projects that received the innovative project label for immediate transformation into a labelled start-up by the National Committee for Label Granting.

- Outstanding projects are registered in a national competition for the best start-ups, with winning projects valued with financial support from the Ministry of Higher Education and Scientific Research and interested economic and social partners.

According to Decision No. 307, dated March 21, 2023, amending and supplementing Decision No. 171, dated February 9, 2023, which defines the procedures for registration and re-registration in training programs to obtain bachelor's and master's degrees: (Decision No. 307, March 21, 2023).

- At the level of higher education institutions, a mechanism is established that leads to obtaining a university degree start-up certificate or to filing a patent application "university degree patent certificate" in accordance with the provisions of Decision No. 1275, dated September 27, 2022.
- The thesis or end-of-study project cannot be discussed until approved by the supervisor(s), and the committee is composed of a supervisor and two researcher professors from the university institution. It can also include a representative from the economic and social sector attending the discussion with an advisory voice.
- Article 80 stipulates for students concerned with discussing their graduation theses according to the provisions of Ministerial Decision No. 1275, dated September 27, 2022.

The grade is awarded based on obtaining an innovative project label or a start-up label. The discussion committee awards the mentioned grade according to the grading scale:

- Clarity and correctness of the main idea: 20% of the final grade.
- Innovative aspects of the project: 25% of the final grade.
- Correctness of the Business Model Canvas (BMC): 30% of the final grade.
- Achievement of the prototype: 25% of the final grade. The discussion grade is not considered in the compensation between semesters of the same year.

4.3 Steps for Registering on the Start-up Platform to Obtain an Innovative Project Label

To register on the start-up platform, the following steps should be followed:

- **Registration in the Incubator:** Bachelor's, Master's, and Ph.D. students who wish to register an innovative project within the framework of graduation projects associated with Decision 1275 for a university degree start-up certificate, or a patent certificate, should register in the university incubator according to the form provided and signed by the incubator director.
- **Idea Protection:** By registering at the Algerian National Institute of Industrial Property (INAPI) or the National Office of Copyrights and Neighbouring Rights (ONDA) through the Centre for Technological Support and Innovation (CATI), the university will cover the intellectual and industrial property expenses for students and researchers.
- **Prototype Development:** The university is responsible for enabling students engaged in a start-up certificate project to materialize prototypes through its budget, or by utilizing the Innovation Platform when needed or the Andrade agency.

- **Request for Domiciliation Certificate from the Incubator:** Students must attach a domiciliation or incubation certificate for the innovative project, issued by the business incubator and signed by them, when applying for the innovative project label. This certificate should be included in the detailed project presentation and innovation-related aspects as an annex in the file.
- **Booking an Appointment for Auditing the Business Model Canvas (BMC):** As part of the training days for students involved in the Decision 1275 project.
- **Registration on startup.dz Platform:** This platform is under the Ministry of Knowledge Economy, Start-ups, and Micro Enterprises to obtain the innovative project label, protect the innovative project, acquire the start-up label, and obtain funding from the Algerian Fund for Start-ups.

4.4 Activities and Training Programs of the University Business Incubator at Tebessa University and Its Role in Supporting Graduation Projects

4.4.1 Activities and Training Programs of the University Business Incubator at Tebessa University

The business incubator at the University of Tebessa has witnessed significant activity since its launch, reflected in the number of recorded activities and the high interest from students with innovative project ideas. Some student ideas for startups have been awarded the Startup Badge, in addition to several graduation projects being developed under Decision 1275. The following table shows the activities of the University of Tebessa's business incubator from its start to the present day:

Table3: Activities of the University Business Incubator at the University of Tebessa

Date	Activity
23 November 2022	Awareness day on: Startups and mechanisms for implementing Decision 1275 dated 22 September 2022, which includes the project for a Startup Certificate/Patent Certificate.
21 November 2022	Registration of innovative projects in the business incubator: Informing Master's degree students interested in registering an innovative project as part of their graduation projects related to Decision 1275, which includes the Startup Certificate/Patent Certificate project.
30 November 2022	Organization of a sensitization and training meeting on graduation theses under Decision 1275, which includes a graduation certificate for a startup project, at the Faculty of Sciences and Technology and the Institute of Mines.
04 December 2022	Visit by a delegation from the General Inspectorate of the Ministry of Higher Education and Scientific Research, to monitor progress in implementing the provisions of Decision No. 1275 dated 27 September 2022, which defines the procedures for preparing a graduation project to obtain a university certificate - Startup, and also to train professors in English.
15 December 2022	The university's business incubator organized the first meeting for innovative students to defend their ideas before the scientific committee, where about 23 startup ideas were presented.

21-22 December 2022	The university's business incubator organized the second meeting for innovative students to defend their ideas before the scientific committee, where about 54 startup ideas were presented.
28 December 2022	The university's business incubator organized the third meeting for innovative students to defend their ideas before the scientific committee, where about 28 startup ideas were presented.
11 January 2023	The university's business incubator organized the fourth meeting for innovative students to defend their ideas before the scientific committee, where about 17 startup ideas were presented.
09 February 2023	Organization of a study day on the mechanism for a graduation thesis to obtain a university certificate - Startup / Patent, targeting all actors under Ministerial Decision 1275 for a graduation project startup - patent, including professors, supervisors, registered students, pedagogical officials, and representatives of scientific clubs.
05-06 March 2023	Organization of a training session on intellectual property and ways to support technology and enhance innovation in the academic environment, in partnership with INAPI and the National Coordination Committee for following up on decision 1275, with contributions from the Entrepreneurship House and the university's business incubator.
16 March 2023	Organization of a training workshop for training trainers at the premises of the university business incubator.
19-21 March 2023	Training workshops for students enrolled in the decision 1275 project, led by specialized professors, benefiting 249 university students with training on Business Model Canvas (BMC) and Design Thinking (DT).
24 March 2023	Informing students and stakeholders about the "Startup Soiree" training program via Zoom, organized by the National Coordination Committee for monitoring innovation and university entrepreneurship, aimed at students enrolled in decision 1275, business incubator managers, and university interface managers.
06 April 2023	The business incubator of the University of Tebessa obtained the "Business Incubator Label" ("Label Incubator").
26 April 2023	Organization of a training day for professors from the Faculty of Economic, Commercial, and Management Sciences on the Business Model Canvas (BMC).
25 April-02 May 2023	Training days for students enrolled in decision 1275 on how to obtain an innovative project label through the electronic portal, including programming and designing smartphone applications, machine learning, Deep Learning Tools, and applications.
01-07 May 2023	Review program for the Business Model Canvas (BMC) for students enrolled in decision 1275, led by the university business incubator team, specialized professors, and student supervisors.

Source: Prepared by researchers based on information provided by the incubator, and the official page of the incubator on the website: <https://www.facebook.com/StartupTebessa>, accessed on 10 May 2023, at 21:15.

Table 3 represents the activities of the University of Tebessa's business incubator. It is noticeable that these activities aimed to educate students and develop their innovative ideas, allowing them to successfully implement these ideas into reality, especially for students at final levels such as Master's degree and third-year Bachelor's students. The incubator also hosted a training session for professors from the Faculty of Economic, Commercial, and Management Sciences on the "Business Model Canvas (BMC)," updating their knowledge to better supervise students involved in Decision 1275.

Approximately 249 students involved in Decision 1275 benefited from training workshops on how to prepare a Business Model Canvas (BMC) and Design Thinking. Over 122 students presented their startup project ideas and had them accepted by the incubator's committee, reflecting more than 17 activities since the incubator began. This showcases the new direction of the higher education sector and its significant interest in teaching student's entrepreneurial skills and fostering an entrepreneurial culture among university students.

4.4.2 Graduation Projects under Decision 1275

The university business incubator at the University of Echahid Cheikh Larbi Tebessi in Tebessa has registered the accepted graduation projects under Decision 1275 for both Bachelor's and Master's degrees across several faculties and institutes, as outlined in the following table:

Table 4: Distribution of Graduation Projects under Decision 1275 by Faculties and Institutes

Number	Faculty or Institute	Bachelor's Projects	Master's Projects	Total Projects
1	Faculty of Exact Sciences, Natural Sciences, and Life Sciences	09	32	41
2	Faculty of Sciences and Technology	13	18	31
3	Institute of Mines	0	14	14
4	Faculty of Economic, Commercial Sciences and Management	05	06	11
5	Faculty of Humanities and Social Sciences	06	01	07
6	Faculty of Law and Political Sciences	0	02	02
	Total	33	73	106

Source: Prepared by researchers based on documents provided by the director of the university incubator at the University of Echahid Cheikh Larbi Tebessi, Tebessa.

Table 4 represents the distribution of graduation projects under Decision 1275 from the faculties and institutes of the University of Echahid Cheikh Larbi Tebessi, Tebessa, totalling 106 projects split between the Master's and Bachelor's levels with 73 and 33 projects, respectively. The Faculty of Exact Sciences, Natural Sciences, and Life Sciences had the highest number of projects with 41, followed by the Faculty of Sciences and Technology with 31 projects, and then the remaining institutes and faculties.

Table 5: Student ideas that received the "Innovative Project Label"

Date	Activity
21 November 2022	A Master's student from the Mathematics and Computer Science department received the "Innovative Project Label".
23 April 2023	Two Master's students from the Faculty of Humanities and Social Sciences received the "Innovative Project Label".

Source: Prepared by researchers based on information provided by the incubator and the official page of the incubator on the website: <https://www.facebook.com/StartupTebessa>, accessed on 11 May 2023, at 20:35.

Table 5 represents the start-up ideas at Tebessa University that have obtained the "Innovative Project Label." This step marks the beginning of achieving success for the various ideas incubated at the university's business incubator. It reflects the extent of the students' orientation towards embodying their innovative and entrepreneurial ideas, especially under Decision 1275, which will open opportunities for students in the field of entrepreneurship.

This will allow the realization of successful start-ups on the ground. Furthermore, this step will be the foundational block for the success of student ideas awaiting the presentation of their theses under Decision 1275, facilitating the registration of many in start-ups that will obtain the "Start-up Label."

5. Conclusion:

This study has shown that business incubators are crucial mechanisms that contribute to adopting and nurturing university students' ideas. They play a significant role in training and guiding students with innovative entrepreneurial ideas aimed at realizing startups capable of future growth. University business incubators are one of the key pillars of the training and entrepreneurial education process. They attract, nurture, guide student ideas, and bring them to implementation and actual market entry. Furthermore, the support before, during, and after the implementation is crucial in assisting startups towards success.

6. Hypothesis Testing:

Through our study, we aim to test the validity of the following hypotheses:

- **Hypothesis 1:** The business incubator at the University of Echahid Cheikh Larbi Tebessi is one of the supportive means for the ideas and projects of its students.

- **Hypothesis 2:** The university business incubator at the University Echahid Cheikh Larbi Tebessi works to implement the new policy of the state and the Ministry of Higher Education aimed at the success of a graduation thesis project for a start-up and qualifying students for employment.

7.Results and Recommendations:

This study has yielded a set of key results, including:

- ✓ University business incubators are recognized as one of the mechanisms emphasized by the state to support and develop startups by attracting students with innovative ideas and projects to materialize their innovative ideas.
- ✓ University business incubators are implementing the new direction set by the state and the Ministry of Higher Education, which aims at the success of the startup thesis project and the qualification of students for employment.
- ✓ Startups represent a modern trend that contributes to fostering an entrepreneurial generation that will contribute to creating a fertile business environment, supporting economic diversification.
- ✓ There is an entrepreneurial trend among university students, attributed to the high unemployment rates among university graduates.
- ✓ University students possess creative and innovative ideas that allow them to succeed in materializing startups in the future.

Based on the findings, the following recommendations can be proposed:

- ✓ Continuation of the state's and Ministry of Education's new direction by providing more incentives and facilitations for university students interested in materializing their ideas through startups.
- ✓ Coordination with private and technological incubators to benefit from their experience in the field.
- ✓ Encouraging university students to venture into entrepreneurship and establish startups through training courses and workshops.
- ✓ Providing pre-establishment, during-establishment, and post-establishment support for university students with innovative ideas to ensure the success of their startups.

In conclusion, the results obtained from this pioneering experience at the university are highly encouraging.

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