

Business Incubators as Catalysts for Startup Development in Algeria



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Zouaouia Imene GAOUAL^{1*}, Soumia SALAA²

¹ Sustainable Development in Highland and Desert Areas, University of Djillali Liabes Sidi Bel Abbes (Algeria),
Zouaouia.gaoual@univ-sba.dz

² Sustainable Development in Highland and Desert Areas, University Centre of Nour Bachir El Bayadh (Algeria),
s.salaa@cu-elbayadh.dz

Abstract

This study examines the role of business incubators in fostering innovation and entrepreneurship in Algeria. By examining the impact of incubators on startup creation, growth, and survival, the research seeks to understand their contribution to the Algerian economy. The study employed a descriptive research design with a case study approach to analyze the Algerian context. Key findings reveal that business incubators offer essential support services, including access to finance, mentorship, and networking opportunities. However, challenges such as limited funding and infrastructure hinder their effectiveness. To maximize the impact of incubators, the study recommends investing in incubator management training and fostering strong partnerships with other stakeholders.

Keywords

Business Incubators ;
Startups;
Entrepreneurship ;
Innovation ;
Algeria.

الكلمات المفتاحية

حاضنات أعمال؛
شركات ناشئة؛
ريادة أعمال؛
ابتكار؛
الجزائر.

حاضنات الأعمال كمحفزات لتطوير الشركات الناشئة في الجزائر

ملخص

تهدف هذه الدراسة إلى تقييم الدور المحوري لحاضنات الأعمال في تحفيز روح الابتكار وريادة الأعمال في الجزائر. ومن خلال تحليل أثر هذه الحاضنات على تأسيس الشركات الناشئة وتطورها واستمراريتها، تسعى الدراسة إلى فهم إسهاماتها الفاعلة في دفع عجلة التنمية الاقتصادية للبلاد. وقد تم اتباع منهجية بحثية وصفية مدعومة بدراسة حالة لتعميق فهم السياق الجزائري. تشير النتائج الرئيسية إلى أن حاضنات الأعمال تقدم مجموعة واسعة من الخدمات الداعمة، بما في ذلك التمويل والإرشاد وبناء العلاقات الشبكية، إلا أن تحديات مثل نقص التمويل وقصور البنية التحتية تحد من كفاءتها. ولذلك، توصي الدراسة بضرورة الاستثمار في تطوير قدرات العاملين في الحاضنات وتعزيز التعاون مع مختلف الجهات المعنية لتعظيم أثرها الإيجابي.

* Corresponding author. E-mail: s.salaa@cu-elbayadh.dz

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I- Introduction :

Recent decades have witnessed a paradigm shift in the global economic landscape, characterized by the ascendance of entrepreneurship and innovation. Emerging economies, including Algeria, have increasingly recognized the pivotal role of startups in driving economic growth and development. While Algeria possesses substantial entrepreneurial potential, its startup ecosystem faces significant challenges. Business incubators, as strategic interventions, have emerged to support nascent ventures by providing essential resources, mentorship, and networking opportunities.

The Algerian government has made concerted efforts to cultivate a conducive entrepreneurial environment through the implementation of various policy initiatives. Despite these endeavors, the efficacy of business incubators in stimulating innovation and creativity among Algerian startups remains understudied. This research aims to fill this knowledge gap by examining the critical role of incubators in fostering entrepreneurship and economic growth within the Algerian context.

Research Problematic:

In the context of the emerging Algerian economic landscape, characterized by a growing interest in startups and business incubators, this study seeks to evaluate the actual impact of Algerian business incubators on fostering innovation and creativity among startups.

Consequently, the following research problem was formulated :

What is the pivotal role of Algerian business incubators in supporting and encouraging innovation and creativity among startups?

To further explore the core research problem, the following research questions are posited :

- What specific support services offered by incubators have the greatest impact on startup success?
- What is the impact of incubator-supported startups on job creation ?
- What are the main challenges faced by Algerian business incubators in supporting startups?

Hypotheses:

The present study seeks to verify the following hypotheses :

- The financial resources, mentorship, and networking opportunities through business incubators is positively correlate with the probability of startup success within the Algerian entrepreneurial ecosystem.
- Incubator programs serve as catalysts for cultivating entrepreneurial competencies among startup founders.
- Business incubators serve as catalysts for knowledge transfer by fostering collaborative partnerships between startups and academic and research institutions.

Research Objectives:

Based on the research problem, the following objectives are established:

- To assess the current state of business incubators in Algeria, including their number, distribution, and support services offered.
- To examine the impact of business incubators on the creation, growth, and survival of startups in Algeria.
- To identify the specific support services provided by Algerian business incubators that contribute most significantly to fostering innovation and creativity among startups.
- To evaluate the extent to which Algerian business incubators facilitate access to funding, markets, and networks for startups.
- To explore the challenges faced by Algerian business incubators in supporting startups and to identify potential solutions.
- To provide recommendations for enhancing the effectiveness of business incubators in promoting innovation and entrepreneurship in Algeria.

Research methodology:

This research adopts a descriptive research design to comprehensively explore the multifaceted nature of business incubators and startups. The study aims to elucidate the core concepts, roles, and contributions of these entities to innovation and economic growth. To delve deeper into the specific context of Algeria, a case study approach is employed, incorporating statistical analysis to illuminate the realities of business incubators within the Algerian entrepreneurial ecosystem.

I.1. Previous Studies

Business incubators have emerged as critical components of entrepreneurial ecosystems, providing essential support to startups in their formative stages. A comprehensive understanding of their role, impact, and underlying factors is crucial for optimizing their effectiveness. This literature review delves into existing research on business incubators, examining their impact on startup performance, the key determinants of their success, and the diverse models they adopt. By synthesizing findings from various studies, this review aims to identify knowledge gaps and inform future research on business incubators.

I.1.1. Impact of Business Incubators on Startup Performance:

- **NAWAWI et al. (2021)** : "The Impact of Technology Business Incubator on Startup Success among Business Incubator Members" ; This study explores the impact of Technology Business Incubators (TBIs) on startup success among member companies of the LPiK ITB Bandung incubator. Employing a verificative approach through an explanatory survey method, the research investigates a sample of 88 business owners. Data collection utilized questionnaires, with analysis conducted via a simple regression technique. The findings indicate a moderate correlation between TBI involvement and startup success within the LPiK ITB Bandung incubator. This suggests that the quality of the TBI environment positively influences the success of member startups.
- **AWONUGA et al. (2024)** : "Business incubators and their impact on startup success: A review in the USA" ; This study investigates how business incubators influence startup success in the United States. It examines how incubators provide financial support, mentorship, collaborative workspaces, and networking opportunities. The analysis highlights the importance of these factors for fostering innovation, knowledge sharing, and ultimately, startup success. The study emphasizes the growing importance of understanding the role of incubators in the evolving U.S. entrepreneurial landscape.

I.1.2. Factors Influencing Business Incubator Effectiveness:

- **KIBAI (2018)** : "KEY SUCCESS FACTORS FOR BUSINESS INCUBATION PROCESS IN KENYA" ; This study in Kenya examined how business incubators can better support entrepreneurs. The research identified four key success factors for incubators: selecting the right startups, creating a supportive environment, providing access to networks, and offering financial backing. The study also found that well-run incubators have clear goals and a qualified staff.
- **ADRIANSYAH et al. (2024)** : "Key Factors for University Business Incubator Implementation (UBI) " ; Literature Review A literature review of 15 scholarly articles identified key factors for successful University Business Incubators (UBIs). These factors focus on three areas: UBI development (structure, services, performance measurement), strong organization (management, capital, facilities), and services offered (tailored to tenants, including training and business support). The academic community plays a vital role in UBI success through expertise and network connections.

I.1.3. Different Business Incubator Models:

- **HAYATI et al. (2016)** : "ORGANIZATIONAL SPONSORSHIP: BUSINESS INCUBATOR MODEL AND CONCEPTUAL DEFINITION REFINEMENT" ; This research aims to solidify the concept of business incubators by addressing two key issues: a lack of a strong theoretical foundation and an inconsistent and diverse definition. The study integrates various theories, such as transaction cost economics and the resource-based view, to create a robust theoretical grounding for understanding business incubators. Additionally, it identifies seven key roles of business incubators: efficiency, selection, resource provision, innovation support, networking, strategic guidance, and adaptation. These roles contribute to a more comprehensive definition applicable to all incubator types, with variations only in the emphasis placed on each role.

- **Law et al. (2022):** "Business incubation models and place: the case of a French academic incubator" ; This study explores the concept of "place" within business incubation programs. While digitalization allows for more remote work, the physical location and overall environment (material and symbolic aspects) of an incubator program still plays a significant role in its success. The study highlights the importance of managers in creating an attractive and distinctive incubator space, potentially leveraging the reputation of nearby locations. Overall, successful business incubators are constructed spaces that consider both physical and symbolic elements.

I.1.4. Business Incubators And Their Role In Enhancing Startups:

- **BYSTRITSKAYA et al. (2018) :** "Business incubator as a support measure for start-ups in Russia and Sweden: Comparative analysis ;This paper compares and contrasts the role of business incubators in supporting startups in Russia and Sweden. The authors find that business incubators play a similar role in both countries, but that there are some key differences in the way that they are operated. For example, business incubators in Russia are more likely to be funded by the government, while business incubators in Sweden are more likely to be funded by private sector organizations.
- **MOISESCU et al. (2024) :** "Business incubators and their impact on startup success: A review in the USA" ; This paper reviews the literature on the impact of business incubators on startup success. The authors find that incubators can have a positive impact on startup survival rates, growth rates, and innovation rates. However, they also note that the impact of incubators is not always consistent and that there is a need for more research to understand the factors that moderate the effectiveness of incubators .

Based on the studies presented, most research focuses on business incubators in developed economies. There is a need for more studies examining the effectiveness of business incubators in developing economies. Research has proven the important role of business incubators in promoting the success of entrepreneurship and entrepreneurship. However, more research is needed to better understand the factors that influence incubator effectiveness and their role in supporting startup enterprises.

I. 2. The Conceptual Framework for Business Incubators

Business incubators have emerged as essential components of entrepreneurial ecosystems. To effectively understand and optimize incubator operations, a robust conceptual framework is necessary. This section aims to provide a comprehensive conceptual framework for business incubators, exploring the key components, relationships, and processes involved in their functioning.

I.2.1. Definitions:

Business incubation is typically understood as a collaborative process aimed at stimulating entrepreneurial endeavors through mentorship, support, and seed capital investment. Its purpose is to facilitate the growth and development of new products or services. The term "business incubator" encompasses a broad spectrum of organizations that provide comprehensive support to entrepreneurs, guiding them from the conceptualization phase to the establishment of a viable venture. (Naveed, Cai, Qalati, Khan, & Siddiqui, 2020, p. 02)

Business incubators are distinct legal entities that offer a comprehensive suite of services and resources to nascent entrepreneurs seeking to establish small enterprises. By providing essential support and infrastructure, incubators aim to mitigate the challenges associated with early-stage venture development. These organizations can be classified as public, private, or hybrid entities. (Selatnia & Amraoui, 2024, p. 439)

Business incubation is generally conceptualized as a synergistic endeavor designed to stimulate entrepreneurial activity and provide initial financial resources for the development of novel products or services. The term "business incubator" encompasses a diverse range of organizations that support entrepreneurs in transforming innovative concepts into viable enterprises.

I.2.2. Business Incubators Types:

A diverse typology of business incubators exists, each distinguished by its specific objectives. In accordance with the classification framework established by the U.S. National Association of Business Incubators, the following incubator types are examined: (Shokeir & Alsukaity, 2019, p. 194)

- **International Business Incubators:** are designed to attract foreign capital and facilitate the transfer of advanced technologies.

- **Regional incubator:** are designed to foster economic development within specific geographic boundaries. Additionally, they often target marginalized groups or particular segments of the population, such as women, for entrepreneurial support.
- **Technological incubator:** Technological incubators cultivate early-stage enterprises focused on developing innovative, non-traditional products. These organizations provide access to advanced machinery and equipment to facilitate product development and commercialization.
- **Industrial incubators :** are typically situated within established industrial zones.
- **Sector-specific incubators :** are dedicated to fostering innovation and growth within a particular industry or field, such as software development.
- **Incubators of public non-technological projects:** Incubators dedicated to public, non-technological sectors concentrate on fostering enterprises within agribusiness, light manufacturing, and artisanal industries.

I.2.3. The importance of business incubators:

The primary function of a business incubator is to foster the growth of innovative, early-stage enterprises by providing comprehensive support services throughout their foundational and expansion phases. Additionally, incubators contribute to economic development by cultivating entrepreneurial talent and risk-taking behavior among investors. As **(Benachenhou & Kara mostefa, 2022, p. 92)** highlight, incubators serve as hubs of innovation and development, stimulating economic growth, nurturing nascent ventures through comprehensive support, and driving economic expansion through robust returns.

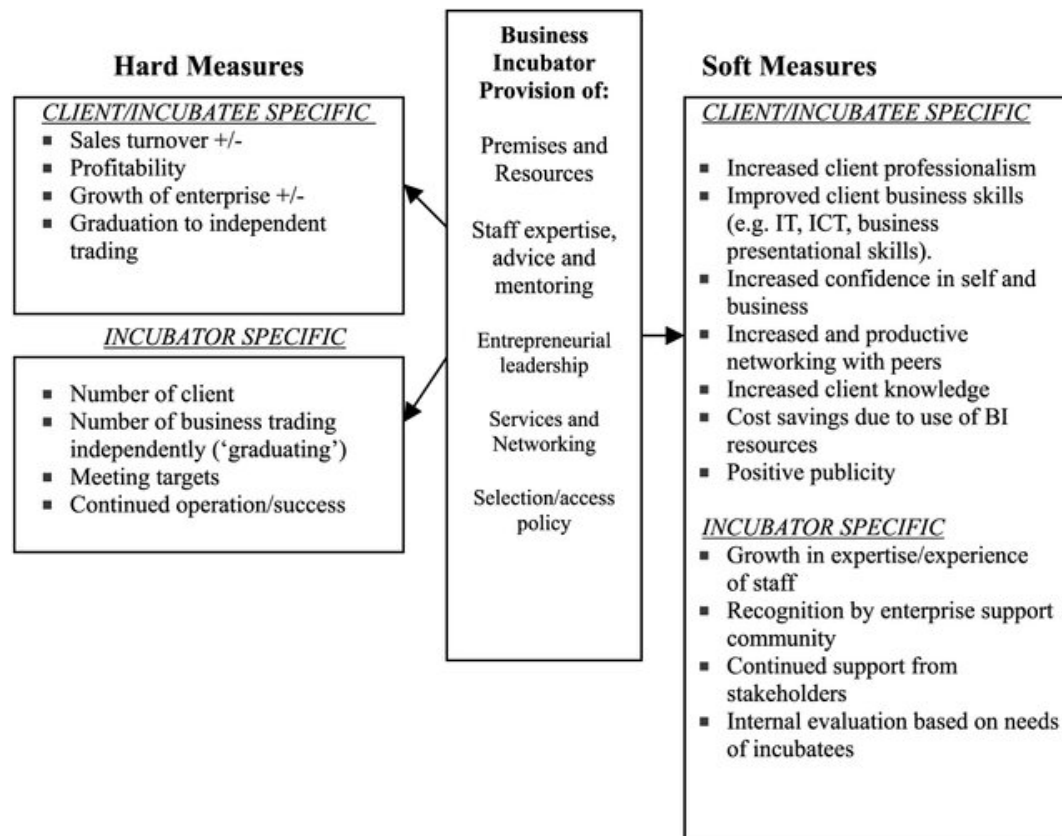
It accurately highlights the following key points:

- **Core function:** Business incubators primarily serve as nurturing environments for early-stage, innovative enterprises.
- **Support services:** They offer a comprehensive range of support services to guide these businesses through their initial phases of development and growth.
- **Economic impact:** Incubators play a crucial role in stimulating economic growth by fostering entrepreneurial talent and encouraging risk-taking behaviors.
- **Innovation hub:** They function as centers of innovation and development, contributing to overall economic expansion.

I.2.4. The performance measures of business practice within business incubators

Evaluating the performance of business incubators is essential to understanding their effectiveness in supporting startups and contributing to the overall development of the entrepreneurial ecosystem. The following figure presents a conceptual framework that outlines performance metrics for business practices within business incubators.

FIGURE 01 : A conceptual framework identifying the performance measures of business practice within business incubators



Source : (Voisey & Gornall, 2006, p. 465)

The presented framework offers a conceptual model for evaluating the performance of business incubators. It categorizes performance metrics into two primary domains: hard and soft measures.

Hard measures, being quantitative and readily quantifiable, include traditional metrics such as sales turnover, profitability, enterprise growth, client independence, and goal attainment. Conversely, soft measures, while qualitative, are essential for a holistic evaluation. These encompass enhancements in client professionalism, business acumen, and self-efficacy, along with the cultivation of entrepreneurial leadership and knowledge acquisition. Additionally, cost reductions through incubator resource utilization, positive media exposure, staff expertise development, and recognition within the entrepreneurial support ecosystem are considered critical soft measures.

The framework emphasizes a balanced perspective by advocating for the inclusion of both client-centric and incubator-centric metrics. This approach ensures a comprehensive assessment of incubator performance by considering the needs and outcomes of both incubated businesses and the incubator itself. In conclusion, this framework provides a valuable tool for incubators to systematically evaluate their impact and make informed decisions to optimize their services.

1.3. The Role of Business Incubators in Fostering Startups

Business incubators have emerged as critical components of entrepreneurial ecosystems, providing essential support to startups during their formative stages. To effectively understand, evaluate, and optimize the operations of business incubators, a robust conceptual framework is imperative. This research delves into the development of a comprehensive conceptual framework that outlines the key elements, relationships, and processes involved in business incubation.

1.3.1. The Startup Phenomenon: Definition, Characteristics, and Growth Lifecycle

The emergence of startups as a driving force in global economies has captured the attention of researchers, policymakers, and entrepreneurs alike. These nascent ventures, characterized by innovation, scalability, and high-growth potential, have disrupted industries and created new markets. However, a comprehensive understanding of the startup phenomenon, including its precise definition, key characteristics, and evolutionary stages, remains essential for fostering a supportive ecosystem. This research delves into the core elements of startups, aiming to provide a foundational knowledge base for further exploration of their impact and dynamics. By examining the startup lifecycle

and identifying key attributes, this study contributes to a more nuanced understanding of these entrepreneurial endeavors.

I.3.1.1. Definition of startups :

The term "**startup**" emerged in the post - World War II era in conjunction with the development of venture capital. Etymologically, it comprises " **start** ", signifying commencement, and " **up** ", conveying rapid ascent. While general dictionaries define it as a nascent project, contemporary usage, particularly in French as defined by la rousse, specifically denotes innovative, early-stage enterprises within the high-technology industry. (Haouam, 2022, p. 328)

A startup is a nascent organization established to develop and introduce novel products or services within a highly uncertain environment. Unlike established corporations, startups are inherently temporary entities focused on identifying and refining scalable business models. In the contemporary landscape, startups serve as catalysts for change, offering innovative solutions to a wide range of challenges. (Boutebina & Allouit, 2022, p. 182)

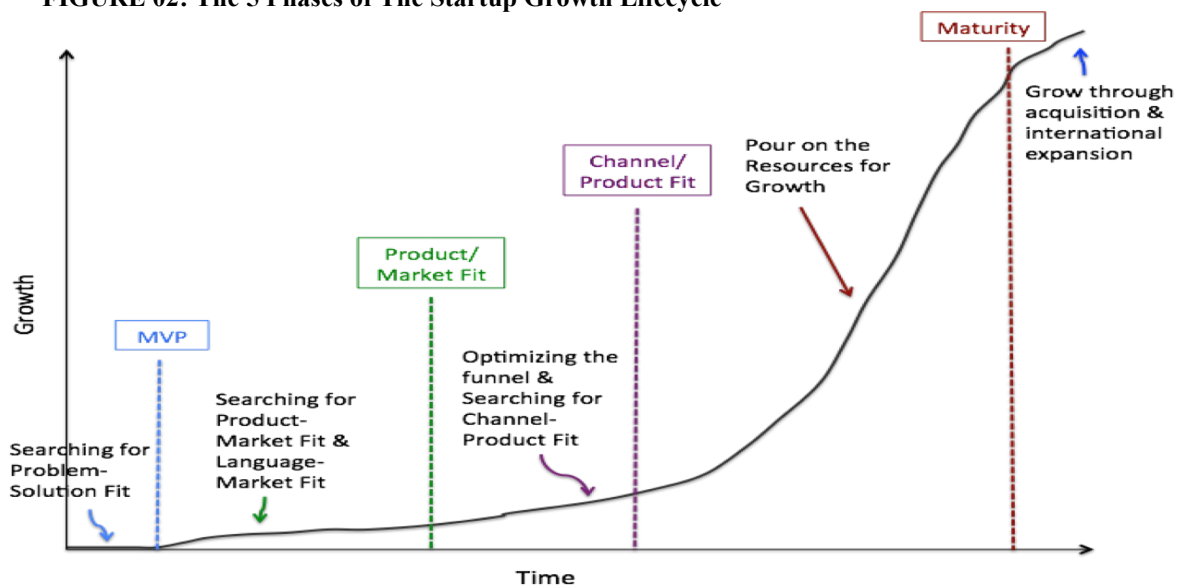
A startup entity is a newly formed organization dedicated to the development and commercialization of innovative products or services within a highly uncertain market. Unlike established corporations, startups possess a transient nature, prioritizing the discovery and refinement of sustainable business models. In contemporary economic landscapes, startups emerge as catalysts for transformative change, providing novel solutions to complex problems across various domains.

I.3.1.2. Characteristics of startups :

The following attributes distinguish startups from traditional companies: (Badreddine, 2023, p. 209)

- **Temporary:** Startups are inherently transitory entities, not intended to maintain their foundational structure indefinitely.
- **Seeking for a business model:** A fundamental objective of startup ventures is the identification and delivery of novel value propositions to customers through the creation of unprecedented products or services. A critical challenge for startups is the identification and development of a suitable business model.
- **Replicable:** A startup seeks to establish a replicable business model. This entails developing a framework that, once proven profitable and operationally efficient, can be successfully implemented on a larger scale or by other entities.
- **Progressive (for an exponential growth):** Startups often exhibit a progressive growth model characterized by increasing profitability with a growing customer base. The acquisition of the initial customer typically incurs higher costs than subsequent customers, a phenomenon known as customer acquisition cost (CAC). This scalability, coupled with the model's replicability, has been a primary driver of rapid growth in startups compared to more traditional business models.

FIGURE 02: The 5 Phases of The Startup Growth Lifecycle



Source : (Bass, 2016)

The preceding figure outlines the five pivotal stages in the evolution of a startup. Initially, the focus is on identifying a significant problem and developing a viable solution through rigorous market research and iterative prototyping. This stage, known as "Searching for Problem-Solution Fit," is crucial for establishing a strong foundation for the venture.

Subsequently, the development of a Minimum Viable Product (MVP) commences. This phase involves constructing a basic product with core functionalities and releasing it to a select customer base for feedback. By iteratively refining the product based on user insights, entrepreneurs can enhance its value proposition.

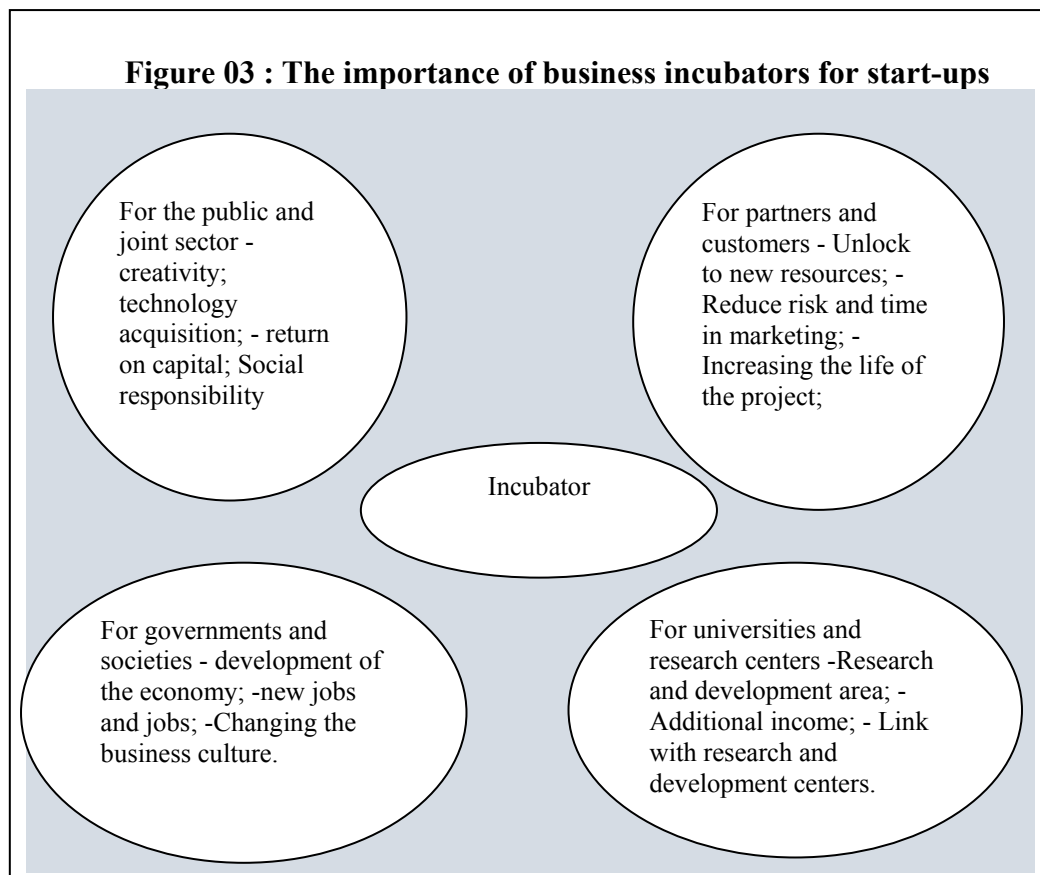
Achieving "Product/Market Fit" is the subsequent milestone, where the product aligns effectively with the needs of a specific market segment. This stage necessitates a deep understanding of customer behavior and preferences, enabling tailored product offerings and marketing strategies.

The fourth stage, "Channel/Product Fit," emphasizes the identification and optimization of the most effective channels for acquiring customers. By experimenting with various marketing avenues and analyzing their performance, startups can maximize customer acquisition and retention.

Finally, the "Maturity" stage signifies the scaling of the business and the establishment of sustainable growth. This phase involves strategic investments in infrastructure, talent acquisition, and market expansion to solidify the company's position.

I.3.2. The role of business incubators in fostering startups

Startups have emerged as a pivotal force in driving economic growth and innovation. To navigate the complexities of the entrepreneurial journey, these nascent ventures often require specialized support and resources. Business incubators have emerged as critical components of entrepreneurial ecosystems, providing a nurturing environment for startups to thrive .



Source : (Fetni & Barhoum, 2022, p. 26)

The figure underscores the instrumental role of business incubators in cultivating nascent enterprises and stimulating innovation. It effectively demonstrates that incubators function as catalysts for both innovation and economic growth, benefiting a diverse array of stakeholders. By providing comprehensive support, including financial resources, mentorship, and networking opportunities, incubators empower startups to surmount challenges, expand operations, and contribute positively to the overall economic and social landscape. This multifaceted impact is evidenced by the incubator's capacity to benefit startups, governments, societies, partners, customers, and academic institutions alike.

I.3.2.1. Empowering Startups from Seed to Scale

A business incubator is an organization dedicated to fostering the development of nascent enterprises by providing a supportive ecosystem. Typically, incubators implement structured programs designed to accelerate the growth of early-stage startups within a one to two-year timeframe. (Boutebina & Allouit, 2022, p. 185)

Business incubators function as conduits to a diversified spectrum of funding sources, providing startups with a strategic advantage in traversing the intricate landscape of financial support. The following represent key funding avenues facilitated by incubators: (Awonuga, Mhlongo, Olatoye, Ibeh, Elufioye, & Asuzu, 2024, p. 1420)

Business incubators frequently provide startups with essential seed capital to transition nascent ideas into tangible products or services. This initial financial infusion empowers entrepreneurs to develop prototypes, conduct market analysis, and lay the groundwork for product or service development. Many incubators cultivate strategic partnerships with venture capital firms, facilitating access to substantial investment opportunities for startups. These networks provide platforms for startups to present their business concepts, demonstrate progress, and secure larger-scale funding to propel growth and scalability. Additionally, incubators often serve as intermediaries between startups and angel investors, who contribute capital in exchange for equity and offer invaluable mentorship and industry expertise. Government-sponsored funding programs, such as SBIR and STTR, are frequently channeled through incubators, providing startups with non-dilutive financing for research and development endeavors. Moreover, incubators affiliated with corporations can facilitate funding through strategic partnerships, resulting in direct investments, joint ventures, or collaborative arrangements that offer startups both financial resources and industry-specific knowledge. The diverse funding ecosystem cultivated by incubators significantly enhances startups' capacity to secure the requisite resources for sustained growth.

I.3.2.2. The Role of Business Incubators in Startup Success

Numerous studies have highlighted the positive correlation between business incubators and startup success. Research has shown that incubators provide crucial resources, mentorship, and networking opportunities, enhancing the chances of startup survival and growth. Incubators offer benefits such as:

- **Access to Funding:** Incubators often provide access to seed funding, angel investors, and venture capitalists, crucial for startups in their early stages. Research by (Assenova, 2020) emphasizes the importance of this financial support, particularly for ventures in their early stages when securing funding can be challenging.
- **Mentorship and Guidance:** Business incubators often provide access to experienced mentors, including entrepreneurs, industry professionals, and subject matter experts. This mentorship offers invaluable guidance for startups, as highlighted in (Sedrati, 2023). Mentors can assist startups in navigating challenges, refining their business models, and making strategic decisions.
- **Networking Opportunities:** A key strength of business incubators lies in fostering a collaborative environment. Startups within the incubator can connect with potential customers, partners, and investors. This network, as discussed in (Virtuzone, 2023), broadens a startup's reach, unlocks potential collaborations, and strengthens its position in the market.
- **Infrastructure and Resources:** Business incubators typically provide shared office space, essential equipment, and administrative support. This shared infrastructure, as emphasized in (Awonuga, Mhlongo, Olatoye, Ibeh, Elufioye, & Asuzu, 2024), allows startups to reduce overhead costs and focus their resources on core business activities such as product development and market penetration.

II– Empowering Algerian Startups: The Impact of Business Incubators

In the following sections, we will delve into the impact of business incubators on Algerian startups, exploring how they contribute to their development and the challenges and opportunities they present. By understanding the

dynamics between incubators and startups, we aim to provide insights into enhancing Algeria's entrepreneurial ecosystem.

II.1. Defining and Supporting Startups in Algeria

A clear definition of startups and a robust support framework are essential to fully harness their potential. In the following sections, we will delve into the critical aspects of defining and supporting startups in the Algerian context. By examining existing policies, regulations, and initiatives, this study aims to contribute to the development of a comprehensive strategy for nurturing startup growth and success in Algeria.

II.1.1. Algeria's Startup Ecosystem

Startups have garnered significant global attention due to their pivotal role in fostering economic growth and development. Algeria, in particular, has shifted towards an alternative economic strategy aimed at promoting innovation, diversification, and entrepreneurship. To facilitate this shift, the nation has implemented policies that encourage the establishment of startups and provide a conducive business environment.

The Algerian government has introduced a series of regulatory frameworks to streamline the startup ecosystem. Notably, the creation of a Ministry dedicated to the knowledge economy, startups, and micro-enterprises signifies a strategic commitment to nurturing innovation. Moreover, a suite of executive decrees issued in 2020 provides a comprehensive regulatory environment for startups. These decrees, including Executive Decrees **20-254** and **20-356**, establish a national committee tasked with granting the "startup," "innovative project," and "business incubator" labels. This committee is responsible for defining the criteria, procedures, and operational mechanisms for these entities. The establishment of an institution dedicated to promoting and managing startup support structures further underscores the government's determination to foster a thriving entrepreneurial ecosystem."

- Executive Decree No. 20-254, dated September 15, 2020, establishes a National Committee tasked with granting the labels "Startup," "Innovative Project," and "Business Incubator." The decree outlines the committee's responsibilities, composition, and operational procedures.
- Executive Decree No. 20-356, dated November 30, 2020, establishes an institution dedicated to promoting and managing support structures for startups. The decree specifies the institution's objectives, organization, and operational procedures.

II.1.2. Startup Classification and Regulation in Algeria: An Analysis of Executive Decree No. 254/20

Algerian legislation, specifically Article 11 of Executive Decree No. 254/20, enacted on September 15, 2020, operationalizes the concept of a startup. This decree concurrently established a National Committee mandated with assigning the designations "Startup," "Innovative Project," and "Business Incubator," along with outlining its operational framework. The decree stipulates that a startup is an entity domiciled within Algerian jurisdiction that adheres to the following parameters: a lifespan under eight years, a business model predicated on innovative products, services, or concepts, annual revenue below a committee-determined threshold, a minimum of 50% ownership by natural persons, accredited investment funds, or other startups, substantial growth prospects, and a workforce cap of 250 employees.

The Algerian government's formalization of the startup concept through Executive Decree No. 254/20 represents a significant step towards fostering a conducive environment for entrepreneurship. By defining startups with specific criteria, the decree provides a clear framework for both aspiring entrepreneurs and policymakers.

II.1.2.1. Key Points of the Definition:

Age Limit: The eight-year cap is a common criterion used in many jurisdictions to define startups. This suggests a focus on young, dynamic businesses with high growth potential.

Innovation: The emphasis on innovative products, services, or business models aligns with the global perception of startups as drivers of technological and economic advancement.

Revenue Threshold: The dynamic nature of startups is acknowledged by linking revenue to a committee-determined threshold, allowing for flexibility in response to economic conditions.

Ownership Structure: The requirement for at least 50% ownership by natural persons, investment funds, or other startups promotes entrepreneurial initiative and investment in the sector.

Growth Potential: The inclusion of substantial growth prospects highlights the government's intention to support businesses with scalability ambitions.

Employee Cap: The 250-employee limit draws a distinction between startups and larger, established businesses, although this number might need to be revisited in the future as the startup landscape evolves.

II.1.2.2. Potential Implications and Considerations:

Encouraging Formalization: The definition could encourage more startups to formalize their operations, leading to increased tax revenue and better access to government support programs.

- **Access to Finance:** The requirement for at least 50% ownership by natural persons or investment funds might limit access to finance for some entrepreneurs, particularly those without personal wealth or strong investor networks.
- **Definition of Innovation:** The term "innovative" is subjective and might require further clarification to avoid ambiguity in the application of the definition.
- **Dynamic Nature of Startups:** The startup ecosystem is highly dynamic. Periodic reviews of the definition may be necessary to ensure it remains relevant to the evolving entrepreneurial landscape.
- **Impact on Policy and Programs:** This definition will shape the design of policies and programs aimed at supporting startups, such as tax incentives, grants, and incubation programs.
- Overall, the Algerian government's efforts to define startups are commendable. However, careful monitoring and potential adjustments to the definition will be crucial to ensure its effectiveness in fostering a thriving startup ecosystem.

II .1.3. Algeria's Startup Scene: A Comparative Analysis with African Peers

Amidst the fierce global competition, Algeria has emerged as one of the Arab and African countries witnessing remarkable growth in the startup sector. This research will shed light on Algeria's position compared to other African countries, such as Nigeria and Egypt, attempting to identify the factors driving this rapid growth.

TABLE 01 : Africa's top seven startup nations for the year 2024

Country	Startups
Algeria	810
Nigeria	810
Egypt	638
South Africa	505
Ghana	135
Morocco	114
Cameroon	99

Source : (Startup Ranking)

The previous table presents a snapshot of the African startup landscape, ranking the seven nations with the highest startup concentrations. The data reveals a notable clustering of startup activity in North Africa, with Algeria and Egypt occupying the second and third positions respectively, indicative of a robust entrepreneurial ecosystem in the region. Nigeria's equivalent ranking underscores its substantial contribution to the continent's startup scene. As the sole Southern African representative among the top seven, South Africa demonstrates a leading role within its sub-region. While Ghana, Morocco, and Cameroon exhibit lower startup counts, their inclusion signifies emerging startup ecosystems with growth potential.

The tabulated data highlights pronounced regional disparities in startup density, with North and Southern Africa exhibiting greater dynamism. Countries characterized by lower startup figures present opportunities for targeted

interventions to stimulate entrepreneurial growth. The intense competitive landscape between Algeria and Nigeria underscores the rapid evolution of the African startup ecosystem.

II .1.4. Algeria's Startup Elite

This section examines the burgeoning startup ecosystem in Algeria. In recent years, a growing number of innovative ventures have emerged across diverse sectors. The following table presents the top ten Algerian startups.

TABLE 02 : Algeria 's top ten startup

Rank	Startup	SR Score	Description	Founded
855	YASSIR	63,654	Yassir is the leading super App for on demand, ride-hailing, last-mile delivery, payment services .	September 13, 2017
2,639	Siamois QCM	39,672	Siamois QCM is an E-training platform for Algerian medical students and those preparing for the residency exam.	June 10, 2017
3,581	Zawwali	35,203	Zawwali have the largest selection of inexpensive items on the web. Pioneers of e-commerce in Algeria, Zawwali provides with a catalog rich in references and quality services.	November 9, 2013
3,689	MdinJdida	34,548	MdinJdida est une plateforme multi-vendeur de vente en ligne en algerie qui regroupe plusieurs acteurs et constructeurs d'articles electro niques Electroménager, téléphones... etc.avec paiement et livraison à domicile .	January 4, 2018
3,804	Herd Academy	33,834	Herd Academy is an Algerian online learning platform for student to learn from educational videos, and for teachers to reach more students.	January 1, 2020
4,111	Lafirist	31,791	Online platform aims to enrich the Arabian online content in Algeria in ARABIC. The Main Goal of Lafirist.com is to provide the Algerian youth with high quality content about creating their own business having a good job and high-quality information about doing the best deals in Algeria.	November 1, 2018
4,970	Batolis	26,055	Batolis.com is a 100% Algerian online sales site.	January 21, 2015
7,395	TalabaStore	20,786	talabastore.dz is an online store targeting students and aiming to become their number one choice by offering: Student discounts on products and services (medical, driving schools, travel, sports & leisure,...)"	September 1, 2017
8,754	Dzostad.com	19,592	a comprehensive educational website covering all grades from preparatory to primary, middle, and secondary	August 19, 2016

SR Score is a number between 0 and 100,000. It reflects the importance of a startup on the internet and its social influence. It is calculated based on **SR Web** and **SR Social**.

Source : (Startup Ranking)

The provided table presents the ten leading Algerian startups. This companies focusing on: Transportation and Delivery: Yassir (ride-hailing, last-mile delivery) ; Education: Siamois QCM (e-learning for medical students), Herd Academy (online learning platform), Dzostad.com (educational website) ; E-commerce: Zawwali (pioneering e-commerce platform), MdinJdida (multi-vendor e-commerce for electronics and appliances), Batolis (online sales platform), TalabaStore (student-focused online store) ; Content Creation: Lafirist (Arabic online content platform) . This variety indicates a dynamic and responsive startup scene addressing various needs within the Algerian market.

A notable trend is the dominance of digital solutions among these top startups. E-commerce, online learning platforms, and ride-hailing apps all leverage technology to provide services. This aligns with the global trend of digital transformation and increasing internet penetration. This glimpse into the top Algerian startups reveals a promising and evolving ecosystem.

II.2. The Evolution of Business Incubators and Their Impact on Startup Development in Algeria

Algeria, in its pursuit of economic diversification and innovation, has recognized the potential of business incubators to stimulate entrepreneurial activity. This research investigates the trajectory of business incubator development in Algeria, examining their role in fostering startup growth and identifying critical success factors.

II.2.1. The Emergence of Business Incubators in Algeria

Business incubators in Algeria have witnessed a significant growth in recent years, driven by a concerted effort to foster entrepreneurship and support startups. The tangible emergence of these incubators can be traced back to the past decade, bolstered by a confluence of factors: (Chachoua & Anani, 2024, p. 187)

- **Economic Diversification Drive:** Algeria's increasing focus on economic diversification has propelled entrepreneurship to the forefront as a strategic tool for development.
- **Government Support:** The Algerian government has been proactive in supporting entrepreneurship by launching programs and initiatives that encourage the establishment and operation of business incubators, culminating in the creation of a dedicated Ministry for the Knowledge Economy, Startups, and Micro-enterprises.
- **Youth Entrepreneurship Surge:** Amid rising unemployment rates, Algerian youth have shown a growing interest in entrepreneurship as a means to foster innovation and improve the country's economic landscape.
- **Improved Legal and Regulatory Environment:** The introduction of favorable regulations, such as Decree 1275 granting startup certificates and patents to innovative ideas, has significantly streamlined the process of starting and operating a business.

Prior to the enactment of Executive Decree 254-20 of September 15, 2020, there was no explicit and precise definition for business incubators in Algeria. Instead, incubators were referred to as "nurseries," although the two terms do not serve the same concept. Nurseries were defined under Executive Decree 78-03 of 2003, which outlined the basic law for institutional nurseries, implementing Article 12 of Law 18-01 of December 12, 2001 (now repealed). This law relied on a mechanism to support and assist newly established small and medium-sized enterprises, and to aid idea holders in realizing their projects. The term "business incubator" was not used until 2020 with the issuance of Executive Decree 254-20, which defined it as any entity, whether public, private, or a public-private partnership, whose primary mission is to provide support to startups and innovative project holders in terms of accommodation, training, consulting, and financing. In return, incubators receive various benefits, particularly in the areas of tax exemptions and financing facilities. (Boussoufa, 2023, p. 134)

II.2.2. Algerian business incubators financing Sources

Prior to Executive Decree No. 20-254, the funding sources for business incubators in Algeria lacked a structured approach. As outlined in Executive Decree 03-78, incubators relied on a combination of state contributions, rental income from provided services, and donations. This fragmented funding model potentially hindered the consistent performance of incubators in fostering the competitiveness of startups and small and medium enterprises (SMEs). The aforementioned decree introduced a significant shift by establishing a specialized national committee responsible for granting the "business incubator" label. This label applies to structures across the public and private sectors, or public-private partnerships, that offer support to startups and innovative project holders. The label encompasses providing essential resources such as accommodation, training programs, and access to both guidance and financing. Notably, the label is granted for a renewable five-year period, ensuring a level of accountability and potentially fostering a more sustainable funding ecosystem for business incubators in Algeria.

II .2.3. The Role of Business Incubators and Support Centers in Fostering Entrepreneurship in Algeria

In the following section, we will present a breakdown of the number of business incubators in Algeria between 2017 and 2023, along with the number of projects and institutions they have incubated. Additionally, we will examine their impact on job creation.

TABLE 03: The development of business incubators activity in Algeria from 2017 to 2021

Year	Number of		
	incubated projects	created enterprises	novelty jobs
2017	161	83	546
2018	186	93	539
2019	85	61	463
2020	79	41	169
2021	135	72	423

Source : (Sedrati, 2023, p. 44)

Table 03 presents a snapshot of the evolution of business incubator activity in Algeria from 2017 to 2021. Key indicators include the number of incubated projects, created enterprises, and generated jobs.

The data reveals a fluctuating trend in incubator activity. While 2017 and 2018 witnessed a significant number of incubated projects and created enterprises, a decline is evident in 2019 and 2020. However, 2021 shows a resurgence in activity.

The number of novelty jobs created is directly correlated with the number of incubated projects and created enterprises. This indicates the potential of incubators in stimulating employment generation.

TABLE 04: The development of Enterprises Nurseries and facilitation centers in Algeria (2015-2019)

Year	operational structures		Structures under construction	
	Facilitation centers	Enterprises Nurseries	Facilitation centers	Enterprises Nurseries
2015	15	13	04	11
2016	16	30	04	11
2017	26	16	01	06
2018	26	16	01	03
2019	27	17	02	02

Source : (Sedrati, 2023, p. 41)

Table 04 provides a snapshot of the evolution of enterprise nurseries and facilitation centers in Algeria between 2015 and 2019. The data reveals several key trends: The number of both operational facilitation centers and enterprise nurseries has experienced a gradual increase over the period, indicating a growing recognition of their importance in supporting entrepreneurship.

While the number of operational facilitation centers has increased, the growth rate has been slower compared to enterprise nurseries, particularly in the later years. The presence of structures under construction suggests a pipeline of future facilitation centers and enterprise nurseries, which could contribute to further growth in the coming years.

II.3. Challenges in the Relationship Between Business Incubators and Startups and Ways to Enhance It

Despite the significant role played by business incubators in supporting and promoting startups within the national economy, they still fall short of the advanced stages reached by some countries. This is due to a number of

shortcomings and challenges that hinder their development. The most prominent of these challenges include: (Bamhammed, Berbaoui, & Benchellate, 2020, p. 244)

- The relative novelty and limited scale of both business incubators and startups in Algeria.
- Technological backwardness across various sectors, coupled with insufficient government spending on research and development and a disconnect between universities and research centers and the real world.
- Limited funding and a shortage of venture capital for investment.
- A weak human capital base, a lack of qualified personnel, and a deficiency in entrepreneurial knowledge within Algeria, which faces numerous challenges, particularly with regard to a shortage of creative and innovative ideas.

III- Conclusion

In conclusion, business incubators emerge as indispensable platforms for nurturing and propelling nascent enterprises within the Algerian entrepreneurial ecosystem. By providing critical resources, expert guidance, and financial support, these incubators significantly enhance the viability and prosperity of startups. As Algeria undergoes economic transformation, the cultivation and fortification of business incubators are imperative for unlocking the entrepreneurial potential of its youth and stimulating sustainable economic development. Realizing the full potential of these incubators necessitates sustained investment and collaboration between public and private stakeholders to position them as catalysts for innovation and entrepreneurial dynamism in Algeria.

Hypothesis Testing:

- 1) The hypothesis that there is a positive correlation between incubator resources and startup success is supported. Financial resources, mentorship, and networking opportunities are positively linked to startup success and align with the broader literature on entrepreneurship and incubator programs. These resources provide the essential building blocks for early-stage ventures, laying the foundation for growth and survival.
- 2) The hypothesis that incubators serve as catalysts for cultivating entrepreneurial competencies is supported. Study findings confirm that incubator programs enhance entrepreneurial competencies among founders, consistent with the core purpose of incubators. By providing a supportive environment, incubators enable entrepreneurs to develop their skills.
- 3) The hypothesis that business incubators facilitate knowledge transfer is supported. The study confirms that business incubators serve as platforms for innovation and technology commercialization, facilitating knowledge transfer.

Overall, the results collectively demonstrate the vital role of business incubators in supporting startups in Algeria.

Results:

The present study yielded a number of significant findings, including

- Business incubators are specialized organizations aimed at supporting the development of startups and early-stage companies;
- Business incubators offer startups various services, including office space, access to financing, business training, and mentorship;
- The primary goal of these incubators is to enhance the survival rates of new ventures, and to provide entrepreneurs with the tools they need to turn innovative ideas into viable businesses.
- Business incubators can serve as intermediaries, connecting startups with potential investors, venture capitalists, and government funding programs ;
- Algeria is a country characterized by a young demographic and a growing interest in entrepreneurship.
- Establishing business incubators in Algeria can significantly elevate the startup ecosystem ;
- For startups in Algeria, access to essential resources is often limited due to financial constraints and a lack of established networks ;
- Many aspiring business owners in Algeria possess innovative ideas but lack the commercial acumen needed to translate these ideas into sustainable enterprises.
- Business incubators play a crucial role in facilitating access to funding—a pressing issue for startups in Algeria.
- The entrepreneurial landscape in Algeria still faces significant challenges, including a lack of venture capital, limited access to mentorship, and bureaucratic hurdles.

Study recommendations:

- Despite the promising advantages of business incubators, several challenges must be addressed to maximize their impact on the startup ecosystem in Algeria ;
- The effectiveness of incubators depends largely on the quality of their management and the experience of their mentors. Therefore, it is necessary to invest in training programs for incubator managers and employees to ensure that they possess the necessary skills and knowledge to support startups effectively;
- Furthermore, establishing strong partnerships with educational institutions, government agencies, and private sector stakeholders can strengthen the ecosystem surrounding incubators, providing startups with additional resources and opportunities.

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