

A COMPARATIVE ANALYSIS OF THE STARTUPS ECOSYSTEM IN THE UAE AND KSA WITH REFERENCE TO ALGERIA

Wassila Saoud¹, Mohamed Meddahi²

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Abstract

The study aimed to compare the startup ecosystems in the UAE and KSA to determine their location on the global map of these systems, in addition to shedding light on the Algerian experience as a recent model in this field. The study reached the difference between the startup ecosystems in these countries: while the UAE is considered one of the most successful experiences with very advanced ranks in the world and the first in the Arab world, Saudi Arabia succeeded during 2022 in achieving good results that strengthened its global position in that. As for Algeria, it is still laying the groundwork for its startups ecosystem. Although, as a country, it has not yet entered the global ranking of the 100 best startups ecosystems, the city of Algiers has entered the ranking of the 1000 best cities, achieving a huge qualitative leap compared to the preceding year in the startups ecosystem, opening the way for it to compete for more advanced ranks.

Keywords: *Entrepreneurship; Startup; Ecosystem; UAE; KSA; Algeria.*

JEL Codes: *L26, O57.*

Introduction

Start-ups are today one of the most important topics that receive great attention from academics and economists, as they have become among the essential ways and tributaries that contribute to achieving economic development and keeping pace with technological developments at the same time. This importance has increased with the rising role of creativity and innovation in promoting development and economic growth, which is directly linked to start-ups (Ziakis, Vlachopoulou, & Petridis, 2022, p. 01). Also, start-ups

¹ Associate professor A, Faculty of Economic, Commercial and Management Sciences, University of Akli Mohand Oulhaj, Bouira, Algeria, (Laboratory of "development policies and prospective studies"), w.saoud@univ-bouira.dz, <https://orcid.org/0000-0002-8018-6444>.

² Associate professor A, Faculty of Economic, Commercial and Management Sciences, University of Akli Mohand Oulhaj, Bouira, Algeria, (Laboratory of "development policies and prospective studies"), m.meddahi@univ-bouira.dz, <https://orcid.org/0009-0007-4947-5209>.

can play a pivotal role in economic growth and dynamism through their contribution to creating more jobs and employment opportunities while increasing innovation and enhancing competition (Kartini & Callista, 2021, p. 931). This has made startups a "tendency" that both developed and developing countries are heading towards, through the support and stimulation of their establishment and launch by entrepreneurs. Through this, countries pay great attention to preparing and providing an integrated institutional framework that allows support for the establishment of start-ups and works on their success. This by covering various aspects, including the legal, legislative, and regulatory aspects; the financing aspect; a stimulating investment environment; exchange with the education community, such as universities, research centers, and specialized institutes; availability; and then interaction with other similar and complementary bodies within the "startup ecosystem"(Ziakis, Vlachopoulou, & Petridis, 2022, p. 01). In this area, various studies and reports have highlighted a clear difference between countries that have achieved great success and an international reputation in the establishment and success of start-ups and those that have encountered difficulties in setting the appropriate climate for them.

Many international bodies and organizations have taken an interest in studying and evaluating the "startup ecosystem" at the countries level, in view of the importance and role of these systems in supporting and developing the fabric of start-ups. That comes in order to identify the strengths and weaknesses of each of those ecosystems while benefiting from successful experiences in that area, including Arab Gulf Countries and Algeria.

Problematic and hypotheses of the study:

Arab countries are working to keep pace with the international market at various levels while improving their ranking in many global indicators. Some of them have experienced tremendous growth in their start-ups ecosystems and have placed them in good ranks at the global level to become a model for the start-ups ecosystem, led by Arab Gulf countries like the United Arab Emirates (UAE) and the Kingdom of Saudi Arabia (KSA). On the other side, Algeria is still new and recent in this field, where its approach to the issue of start-ups does not exceed 3 years, while the ecosystem in its practical sense is still under construction through serious initiatives and important steps in the legal, financial, and even academic aspects. Therefore, **the reality of the startups ecosystem in each of the UAE, KSA, and Algeria** is the main issue of this study.

To answer the problematic of this study, we propose the following general hypothesis: The ecosystem of start-ups knows a clear discrepancy between the UAE, the KSA, and Algeria, where they agree on the potential and growth rate witnessed by the ecosystem, while they differ in the development recorded in each of them.

While the proposed partial hypotheses are:

- In 2022, the UAE will still maintain its reputation as one of the most important ecosystems for start-ups in terms of attraction and facilities.
- The KSA managed to impose itself on the global map of start-up ecosystems through an advanced ranking during the year 2022.
- Despite the efforts made in Algeria to strengthen the ecosystem of start-ups, it is still far from the world level in this field.

Objectives and importance of the study:

The importance of the study appears in the basic and effective role that the ecosystem plays in the success of the start-ups, as the presence of these enterprises means the availability of all the factors and elements that help them to do so. Therefore, knowing the practical reality of these systems is important to benefit from successful experiences, especially those that converge in some characteristics, such as the Arab countries. This study aimed to determine the status of each of the UAE, the KSA, and Algeria on the global map of start-up ecosystem, in order to determine the weight of these systems and the extent of their effectiveness in the establishment of start-ups in each of them. As well as a comparison of these ecosystems to identify their similarities and differences.

THEORETICAL BACKGROUND

1. Literature review:

Entrepreneurship is among the domains that countries are working to develop in order to contribute to supporting the economy; therefore, many researchers have been interested in studying and evaluating the ecosystems of entrepreneurship, sometimes in comparison, in order to extract successful models to project on other experiences. Since start-ups are considered one of the most discussed topics recently, their ecosystem is usually included within the entrepreneurial ecosystem of countries.

The study of (Ali-Aljarwan & al., 2019) aimed to evaluate the ecosystem of entrepreneurship and start-ups in the UAE. The researchers analyzed the results of an applied study of practical interviews with actors in the ecosystem of start-ups, and surveys, in order to understand the extent of the presence and availability of these elements in the ecosystem and the extent of their impact on it, especially through the relationship between the government - academia – industry. So that the study concluded with building a practical framework for entrepreneurship that is ideal for the Emirates according to the specificities that the country possesses.

In the same context, the study of (Rahatullah-Khan, 2016) had as an objective to conduct a critical review of the entrepreneurship ecosystem, including startups, in the KSA, based on evaluating entrepreneurship initiatives to understand their growth and mapping the national entrepreneurship ecosystem, through interviews with a group of general managers and CEOs. The study concluded that the ecosystem in Saudi Arabia is in the stage of construction and launch with rapid expansion rates, which prompts it to adopt a continuous development strategy to enhance its ecosystem for startups.

While the study of (Balawi, 2021) tries to make a comparison between the entrepreneurship ecosystems of the UAE, the KSA, and Qatar, it focuses on the UAE case according to the Global Entrepreneurship Index. The study found that although there are similarities between these countries as a part of the Gulf Countries, the UAE reached very advanced ranks in many sub-indices, while the KSA has other characteristics but is still far from the UAE in general with serious and broad prospects for growth, which preaches the reduction of the difference between them.

As for Algeria, the study of (Sadkaoui, 2019) focused on the evaluation of the entrepreneurship ecosystem, including start-ups, through a survey study among a group of Algerian entrepreneurs in order to try to understand the components of the ecosystem and the interaction between them in terms of financing, cooperation, environment, innovation, and others, within a proposed framework in this field. The study concluded that the ecosystem of entrepreneurship and start-ups in Algeria needs gradual environmental and technological changes in order to adapt to the requirements of this type of enterprise, with the need to enrich and develop related efforts. Similarly, the study of (Baaziz, 2018) tried to provide contexts and paths for thinking about startups by studying the relationship between ecosystems of entrepreneurship and start-ups and some of the actors in this system. The study concluded the necessity of matching and adapting the entrepreneurship and start-up ecosystems with the local requirements of the countries in the framework of the existing conditions and the problems that can be faced.

2. Theoretical framework:

2.1. Definition of "Start-up":

Despite the interest of many studies and research in the start-up, no agreement has been reached on a single and unified definition of it, due to different points of view and the angle from which it is viewed, as start-up is considered a part or an image of entrepreneurship. Although it was previously viewed as a stage of the enterprise life cycle, it has today become a form of enterprise that can move to another in case of its success; otherwise, it fails and exits the business market (Ziakis, Vlachopoulou, & Petridis, 2022,

p. 01). It is indicated that the start-up is « an enterprise at an early stage, which, through the development of its competitive and technological capabilities, can move to another form of enterprise whether a company, partnership or temporary organization » (Kartini & Callista, 2021, p. 931). This can be considered acceptable despite the special characteristics of the start-up that distinguish it from other types of enterprises. It is often the first stage in which the project begins and is launched, in order to have the opportunity to transform into another model of enterprise in the event of achieving the required success in light of the high risk, which means significant growth, or the inability to conform to these conditions and directly exit the market.

Therefore, it can be said that a start-up is « a group of people seeking to propose and provide a new product or service, under conditions of complete uncertainty » (Ziakis, Vlachopoulou, & Petridis, 2022, p. 01). This uncertainty often results from the element of creativity that accompanies the start-up, whether in its product, operations, market, or business model. Which requires it to be innovative and uncommon judging from the fact that the start-up is « an organization in its early stage and early phase of its life and operation, it may aim to enter an existing market, create, or open a new market, this through an innovative product or service » (Nurchahyo, Akbar, & Gabriel, 2018, p. 44). Consequently, a start-up is an enterprise characterized by its youth, smallness, independence, creativity, innovation, and carrying out research and development activities, all with the aim of providing current and futuristic solutions to real problems through an attractive business model and a talented team.

Thus, start-ups differ from other types of enterprises in many characteristics. The most important of which is the high degree of innovation that distinguishes start-ups, whether in technology, product or service, business model, operations, etc.. As well as in their great ability to exploit the internet to penetrate markets at the global level and their accessibility to various and new financing sources that give them the opportunity to grow faster than other enterprises (Sevilla-Bernardo, Sanchez-Robles, & C. Herrador-Alcaide, 2022, p. 01).

2.2. Presentation of the startups ecosystem:

The emergence and growth of startups is not only related to the owners of ideas and talents, and it is not enough either. This must be accompanied by the availability of an environment based on various private and governmental entities, which have a contribution to support and care for these enterprises. That which facilitates and clarifies the work of the entrepreneur in launching and following up his startup, especially if the ecosystem has previous experience, which means the availability of previous projects with clear financing mechanisms, an advanced innovation system, and a stimulating and conducive climate to

do so (Agnihotri, March 2018, p. 02). Which has been confirmed by some studies related to the success factors of start-ups. Those studies concluded that some of the important aspects of the launch and success of start-ups are based on: the sustainability of the approved business model, the high capabilities of employees, theoretical and educational support, benefiting from and participating in programs related to start-ups like business incubators and accelerators, the attitude and turnout of investors to risk, as well as the availability of angel investors (Sevilla-Bernardo, Sanchez-Robles, & C. Herrador-Alcaide, 2022, p. 04). That is, the cognitive and innovative aspect that characterizes start-ups is not sufficient alone for their success and continuity, but rather requires the availability of a complete system of institutions, bodies, and individuals who support this approach from constituent, organizational, financing, and many other axes required by these enterprises.

According to that, any start-up ecosystem aims to develop and expand a network that includes a diverse mix of talents and resources that solve problems facing society, locally or globally. The start-up ecosystem is "a community or fabric that includes many parties and elements that are linked to each other in the framework of cooperation, integration, and collaboration in order to enhance the special value of this ecosystem and raise its impact and effectiveness". It includes idea owners, skilled people, founders of innovative projects, early-stage young companies, business incubators and accelerators, venture capitalists, angels, media, and others. In addition to integration with other parties represented in the educational and research community such as universities, research centers and laboratories, government, the private sector, banks, workers' representatives, family businesses, entrepreneurs' associations, etc. (ALEISA, 2012-2013, pp. 06, 07). So, the startup ecosystem can play the role of a bridge between many parties who are in and exist within this system. Which means mutual benefit between the various stakeholders, bodies, and institutions and startups. For example, the ecosystem allows start-ups to provide information related to new consumer needs and advanced technologies, whether in operations or delivery, in addition to the size and type of capabilities and machines available, the suppliers, the services, the marketing, etc.. Therefore, the ecosystem of start-ups will try to link and combine ideas, resources, and people (Mason & Brown, 7th November 2013, p. 10) .

Thus, the ecosystem of startups includes each of the capital represented in the money in itself and in the available infrastructure that stimulates and facilitates the launch and growth of emerging enterprises; the knowledge including creative ideas, innovation owners, entrepreneurs, designers, engineers, and others. It also requires the rebellion and the risk that must characterize the entrepreneur to continuously create innovations in the product, process, or others (Agnihotri, March 2018, p. 02).

It should be noted that although the internet and technology allow access and communication between organizations and projects on an international level, local structure and interaction are still considered vital and pivotal to start-ups, especially in their early stages (Bachtiar, Sawiji, & Vandenberg, November 2022, p. 02). This has doubled interest in the start-up ecosystems at local and national levels, to compare them between countries and to identify points of shortcomings that can be overcome or strengthened, and points of strength that must be benefited from and exploited. This appears in the endeavor of many countries to develop their start-up ecosystems in accordance with the specifics of the local society and market on the one hand, and with the requirements of the global market on the other hand. Which is also what prompted international bodies interested in the issues of entrepreneurship to design and propose many indicators for measuring and evaluating these ecosystems.

Methodology

In line with the nature of the subject and the intended objective of the study, the analytical-descriptive approach was relied upon by examining a set of articles and reports related to the startup ecosystem, with analyzing and interpreting the data contained in the Global Startup Ecosystem Index 2022. The comparative approach was also adopted in the comparison between the countries under study. In order to achieve this, the positions of the UAE and KSA in the index will be discussed as countries, then their positions will be analyzed according to their classified cities, and then reference will be made to the case of Algeria.

The Global Startup Ecosystem Index (GSEI) is an annual report issued by StartupBlink, which represents a research center that specializes in studying and evaluating the startup ecosystems at the global level. It is considered the most comprehensive in this field. It works to provide stakeholders and those interested in the subject such as researchers, developers and innovators, businessmen and investors, the public sector, the private sector, and other parties, with the necessary tools for a comprehensive assessment of the startups ecosystems in the countries or cities of which they are interested; in order to make the appropriate decision for investment, research, or personal purposes. As well as providing the ecosystem owners with sufficient accurate information in order to develop this system in addition to promotion, generation of potential customers, analysis, consulting, and others (StartupBlink, 2017a).

In this regard, the Center annually issues a special report based on the classification of startup ecosystems at the level of 100 countries and 1000 cities in the world. So that, this index is not only concerned with the startups themselves, but also highlights all the actors

in the ecosystem, such as co-working spaces, business accelerators, investors, entrepreneurs, and others (StartupBlink, The Global Startup Ecosystem Index, 2017b).

This index is updated annually according to the changing data for each year regarding startups since 2017. In this index, the start-up ecosystem gets a certain score, which represents a total of 03 sub-points (Startup-Blink-Report, 2022, pp. 14-16):

- **Quantity score:** As the start-up ecosystem does not only include start-ups, it must be supported by many bodies and institutions that help provide and obtain resources, networks, and capital. Therefore, building an ecosystem for start-ups and its quantitative development require the participation of many stakeholders. This sub-indicator measures the "quantitative part" that is available at the level of the country or city being assessed, by which it means the number of start-ups, co-working spaces, accelerators, and meetups related to start-ups.

- **Quality score:** This sub-indicator is concerned with evaluating the quality of the start-up ecosystem at the country or city level. It includes existence of strategic branches and research and development centers for international companies in technolog, availability of branches for multinational companies, total private sector investment in the start-up ecosystem, number of employees in start-ups, the number and size of global events related to start-ups, in addition to the presence of global events related to them, number of start-ups supported by accelerators, especially international ones, presence of Unicorns, Exits, Pantheon companies, and Global Start-up Influencers.

- **Business Environment Score:** It relates to the general environment that has a direct or indirect impact on the establishment, development, and success of start-ups, such as infrastructure, business environment, size and weight of the ecosystem, and the extent of freedom and ability to establish this type of enterprise in the country. Among the elements that are measured and evaluated in this sub-indicator are: Diversity index; Internet speed and Internet freedom; R&D investment, Number of patents per capita; Availability of technological services (payment portals, ride-sharing apps.); Level of English proficiency; Top universities per location.

Results and discussion

1. Startups ecosystem in the UAE and KSA according to GSEI 2022

According to the evaluation and points granted to the UAE and KSA, concerning their startup ecosystems based on the criteria for measuring and evaluating the GSEI, their ranking for the year 2022 is shown in the following table:

Table no. 1 – The startups ecosystem assessment in UAE and KSA for 2022

| | Quantity score | Quality score | Business score | Total score | Rank 2022 | Ranked cities |
|-----|-----------------------|----------------------|-----------------------|--------------------|------------------|----------------------|
| UAE | 2.19 | 4.30 | 2.92 | 9.412 | 27 | 03 |
| KSA | 0.28 | 0.16 | 0.51 | 0.948 | 72 | 04 |

Source: (Startup-Blink-Report, 2022, pp. 30, 32, 49)

The UAE and KSA are distinguished by many similar characteristics, resulting from their presence within the same geographical scope with great convergence in economic, social, and other aspects. Despite this, each of them still maintains local characteristics that result in clear differences in the level of performance, ranking and evaluation of each country at the level of the ecosystem for start-ups

The UAE relies on a rich and diverse startup ecosystem based on many motivating elements to attract investments and talents. It has a regulatory framework that is characterized by openness and transparency, with a constant endeavor to strengthen and develop its governance system in line with international standards. That means providing a safe and reliable business environment, including for entrepreneurs and SMEs, for which the UAE has worked for a long time to facilitate their establishment, to reach in 2020, for example, to contribute to more than 50% of the non-oil GDP in the Emirates (Expo-2020, october 2021, p. 05). This has led to the UAE occupying a very advanced rank at the global level in the start-up ecosystem, such as 27th in the world, 2nd in the Middle East, and 1st in the Arab world, with a total score of 9.412 (Table 01). Which means a very competitive system that has greater prospects for development over the past few years, with the possibility of entering among the top 10 in the world.

This result is the sum of the points recorded in the sub-indicators of the GSEI 2022, as Table 01 shows that the UAE achieved 2.19 points in the Quantity Score. It takes into account the quantitative aspect of the ecosystem, as the UAE recorded approximately 340 start-ups, 4 accelerators, 3 co-working spaces, 21 organizations, 0 leaders, and other entities and organizations not evaluated by the index. As for Quality Score, the UAE achieved 4.30 points. It indicates the qualitative results achieved by the start-up ecosystem that is highlighted by attracting some private bodies such as Unicorns, Exits, and Pantheons; the UAE has many entities of that. While for Business Score, the UAE was awarded 2.92 points, given that this sub-index measures economic and commercial indicators on the national level (StartupBlink, Best Countries for Startups, 2022a) & (StartupBlink, United Arab Emirates Startup Ecosystem Overview, 2022b).

This is thanks to the many reforms adopted by the UAE several years ago, which allowed the establishment and building of a strong legal and financial infrastructure. This includes legislation and laws that stimulate entrepreneurs, developing the banking and

financing system, especially for projects that are based on innovation, in addition to the bankruptcy law, the flexible visa system, licensing startups, and other procedures that had a positive impact and reflection on the business environment and attracted investments, capital, talents, and entrepreneurs. Which made the UAE a suitable place and an important center for launching projects and businesses, especially with the marketing of the UAE and their cities as ecosystems for start-ups, which thus attracted global attention (Startup-Blink-Report, 2022, p. 140). This corresponds to the study of (Ali-Aljarwan & al., 2019), which indicated that the UAE had adopted a special long-term vision based mainly on economic diversification, starting in 2006, through which it aimed to make the UAE a leader in innovation and creativity within the framework of sustainable development. It has focused on encouraging entrepreneurship and the growth of the role and contribution of SME's in the economy, while enhancing the competitiveness of the UAE by constantly moving towards everything new at the international level in industry, products, and services. In order to support start-ups, many initiatives, programs, and bodies launched by governmental or private entities, appear in various regions of the Emirates. Among them, we found business incubators, accelerators, and financing funds, where start-ups benefit from accompaniment and training, in order to prepare them to face local and international challenges. So that it is allowed to startups to conduct experiments within these entities, in order to expand them outside the UAE in the event of their success, by providing workspaces and activities at nominal costs, in addition to the reliability or credibility that these entities grant to start-ups when presenting their works, resulting from the reputation of the supportive body. These initiatives have led to the allocation of a part of the activities of large private and governmental enterprises and companies to dealing with start-ups, giving them priority in many sectors, accepting their business models and products through evaluation only, without going through tender. These companies should also provide the start-ups, when necessary, with educational programs related to innovation and technology, and financing local high-tech research and technologies through charitable funds (Ali-Aljarwan & al., 2019, pp. 08, 09). Especially since the growth of technology and the development of artificial intelligence provided great opportunities for start-ups and SMEs to determine the requirements and nature of the market. Which allowed them to build business models and environmental systems that help meet the needs of this market, while creating added value for consumers. This can subsequently contribute tremendously to enhancing the growth of these start-ups and SMEs, as it provides them with opportunities to expand their internal markets and move towards external markets, especially for those who prefer digital transformation (Atanasova, 2022, p. 08). Given that entrepreneurship in the field of technology seeks mainly to enhance the level of performance of enterprises by gaining them a competitive advantage (Dimitrakaki, 2018, p. 139).

It should be noted that, within the framework of linking the relationship between government-university-industry, which was the focus of (Ali-Aljarwan & al., 2019), the UAE tends to try to mandate the government for both the university and the academic community, as well as the industry, to contribute to supporting and accompanying the start-ups, each according to its specialization and specificities. So that the government funds and motivates universities and research centers to teach and include entrepreneurship, and what is related to it, within the curricula therein. In order to build an entrepreneurial culture in the Emirates, as well as to contribute to building distinguished human capital with advanced skills that are in line with the requirements of the economy in the current era of innovation and technology. Which in turn will contribute, in the future, to the creation of new entrepreneurs and start-ups, with the new jobs that this entails. As for industry, the government mandates the industrial sector in the UAE to link and strengthen the relationship with the academic community through research and development. Which allows the university's outputs to be presented according to the data provided by the industry about the practical reality, whether in the form of business models, products, services, or human capital that practically match the requirements and needs of the industry. On the other hand, the government also mandates the industrial sector to support and cooperate with start-ups, which helps the industrial sector contribute to the development and diversification of the economy. So that UAE believes that this mandating is necessary at the beginning in order to build and strengthen the ecosystem of startups in it, and that once this system grows sufficiently, this mandating will be gradually reduced, because the relationship between stakeholders and actors within this ecosystem will become automatic, sequential, and interdependent (Ali-Aljarwan & al., 2019, pp. 12-15).

That is confirmed by the results obtained in this field, where it was noted that the UAE attracted headquarters for more than 35% of the value of an investment exceeding one billion dollars in start-ups in the Middle East in 2020, including approximately 33 of Forbes' recent 50 most-funded start-ups. This is done by providing a remarkable and clear roadmap and strategy to provide the most appropriate ecosystem for start-ups and entrepreneurs, such as the Entrepreneurial Nation project, which aims to provide all types of assistance available to innovators in order to launch and develop their startups. The UAE seeks to attract 20 startups over a period of 10 years, each with a value of more than one billion dollars, as well as the UAE's Operation 300 billion industrial plan and the 13500 planned industrial companies in sectors based on innovation, which allow the establishment of an important number of start-ups (SEED, 2021, pp. 05, 06).

On the other side, for nearly 20 years, the business environment in Saudi Arabia did not encourage the establishment of start-ups or focus on them, which was reflected in the ecosystem of start-ups, which was neither motivating nor integrated and polarizing

entrepreneurship and was characterized by many shortcomings. But, Saudi Arabia's intention, with a strong political will supported by the Kingdom's summit, to get out of dependence on oil, prompted it to underline a strategy of economic diversification and prosperity, led by a real revolution in the field of entrepreneurship. This initiative and effort were in order to prepare the right way and climate to launch investment and entrepreneurial projects, including start-ups. It is done through multiple medium- and long-term programs, which allowed organizations, universities, research centers, chambers of commerce entities, private enterprises, and others, to integrate into building the entrepreneurial ecosystem and interact with it, which later created a generation of entrepreneurs. Saudi Arabia also targeted researching and attracting everything related to innovation and intellectual capital, backed by a physical and technological structure that helped in that (Khan, Al-Akkad, & Al-Khursani, 2017, p. 19).

Considering that reliance on entrepreneurship within the strategic plans of Saudi Arabia is considered somewhat recent, as it was included in the Saudi Vision 2030 launched in 2016, the ecosystem for start-ups is still witnessing successive developments with significant improvements and changes that serve this goal. Among these changes are many regulatory reforms including the acceleration of the pace of legislation related to this field, the availability of capital, the gathering of young talents, and the establishment of a strong infrastructure. Along with the harmonization of the several ministries, agencies, and various authorities that are necessary within the ecosystem to facilitate the procedures for doing business and launching projects.

Also, as a part of its vision, KSA has established extensive initiatives in order to promote a culture of entrepreneurship among its citizens and residents through strong interaction and movement among entrepreneurs, the private sector, and various Saudi organizations and bodies (OC&C-Startegy-Consultants, 2018, pp. 30, 31). It is the same as the findings of (Rahatullah-Khan, 2016) with regard to the gradual preparation of the ecosystem for entrepreneurship and start-ups, which was launched even before 2016 to draw the features of development that it is today. Saudi Arabia has taken many measures and initiatives in order to strengthen its ecosystem and make it more open, attractive, and effective. This includes the cooperation and integration that take place between: the strategic level in the KSA (represented by the Summit, the ministries and authorities concerned with that); the institutional level (represented by the contribution of Saudi companies and enterprises, especially large ones, in all programs and plans that work to provide means that support the establishment of SMEs' and start-ups). The support covers the establishment of funds and appropriate financing formulas that reduce the financial burdens of the entrepreneur in order to launch the project. Also, since 2015, new organizations have been launched, specializing only in the field of SMEs and then start-

ups, in order to follow up on their establishment and growth and work on coordination between stakeholders. They work too, to diagnose problems and challenges and try to find solutions in the form of new policies, laws, and facilities. In addition to increasing the number and quality of services provided by various ministries and organizations related to this issue, such as the Ministry of Interior, the Ministry of Labor, the General Authority for Investment, King Abdulaziz City for Technical Sciences, the Human Resources Development Fund, and others. So that these bodies worked, each according to its competence, to provide the sound and correct frameworks to build an appropriate and competitive entrepreneurship and start-up ecosystem (Rahatullah-Khan, 2016, pp. 79-86).

As a result of all this, in 2022, Saudi Arabia reached the 72nd rank in the world in terms of its start-up ecosystem, thus being among the best 100 ecosystems in the world in which start-ups can be established and succeed in various sectors, with a total point of 0.948 according to the index (Table 01). In detail on this point obtained, we find that KSA has achieved 0.28 points in Quantity Score as it recorded approximately 104 start-ups, 0 accelerators, 2 co-working spaces, 2 organizations, and 01 leader, in addition to many governmental and private business incubators and many co-working spaces that are not included in the index. As for the Quality Score, Saudi Arabia achieved 0.16 points; it is noted that entities like Unicorns, Exits, and Pantheons, are absent so far, which led to a low point for KSA in this regard. While for the Business Score, Saudi Arabia was awarded 0.51 points (StartupBlink, Saudi Arabia Startup Ecosystem Overview, 2022c); in this sub-score, it can be said that KSA is working hard to provide a better business environment for investors and entrepreneurs. This is as a part of the KSA strategy to shift towards a more diversified economy, through developing the private sector and increasing its contribution to the economy, with a special focus on innovation, where the Kingdom encourages all initiatives that support innovation. For example, Saudi Arabia offers, through private institutions and bodies, the possibility of financing innovative projects in the form of startups in the technology sector, with approximately 90% of the financing value (Startup-Blink-Report, 2022, pp. 241, 242). As for the most popular sectors of activity for start-ups in KSA, we find Transportation, Hardware & IoT, Ecommerce & Retail.

In support of the foregoing, it appears that both the UAE and KSA are characterized by some similar characteristics that allowed them to achieve positive and stimulating results at the global level in the field of the ecosystem of startups, with their being among the top 100 startup ecosystems in the world, including their presence in the MENA region. Some studies confirm that it is a region that is witnessing significant growth, whether in the number of startups that have been established or in the volume of funding for these enterprises. Those start-ups work to adapt the business models that they offer with the regional requirements and the local requirements in each country in the region, before

moving to business models more presentable or expanding outside the local market. Therefore, the innovation, creativity, and boldness adopted by entrepreneurs in the region, while adopting best practices in investment and entrepreneurship, helps to provide greater value to investors and projects, as well as to the ecosystem of start-ups in the region (Alkasmi & al., 2018, pp. 06, 07, 09).

Some indicators highlight that in the year 2020, for example, only three countries obtained a total of approximately 88% of the invested capital, namely the UAE, KSA, and Egypt, with the UAE acquiring more than 50% of this capital. The increasing concentration of investments and start-ups in the UAE and KSA can be explained by the availability of a strong capital base advantage and the established strategies in these countries to attract strong, distinguished talents and unify resources. They work, also, to introduce many reforms related to the business field, such as registration processes, including electronic registration, and reducing fees for launching projects and enterprises, with the possibility of full foreign ownership in many sectors, except for sensitive and strategic sectors. In addition to launching sovereign funds that finance start-ups in both the UAE and KSA, with the aim of encouraging investment in them and reducing dependence on oil revenues in exchange for building a diversified economy based on innovation, knowledge, and digitization (The-Lauder-Institute, 2022 , pp. 58, 59).

Despite these similarities between the UAE and KSA, Table 01 clearly shows a difference in the ranking and scores of each of them in the index, through the superiority of the UAE with a clear and significant difference from KSA. It is the result of some local and national particularities, where the UAE is classified as an innovation-driven economy, while KSA is classified as an efficiency-driven economy. This can be explained by the dissimilarity in the timing and implementation of the strategies outlined to achieve economic diversification in each of them, which was relatively discussed in the results of (Balawi, 2021). In 2020, for example, the UAE was able to rank first in the Arab world, including the Gulf countries, in the field of business performance. It is characterized by many facilities that have been formulated and adopted, such as business and real estate registration, building permits, ease of paying taxes, etc., which make it one of the most successful markets in which business is conducted. In addition to strengthening the position of entrepreneurship in the UAE and making it a major axis in achieving the desired economic development and diversification, where SMEs today represent more than 94% of the total business in the UAE. It is also being sought for the continuous development of the system and environment of entrepreneurship in the UAE by providing a business environment suitable for entrepreneurs who present innovative ideas, new products, and processes, with opportunities to link with international markets and the possibilities of financing with risk capital, which are all necessary for the establishment of start-ups.

On the other hand, the KSA still relies on oil significantly in its economy and has not moved towards relying as a priority on including entrepreneurship, SME's, and start-ups within its plan to achieve economic diversification and get out of oil dependence except through the Saudi Vision 2030, which was launched in 2016. This means continuing to build the ecosystem so far, and it is still marred by some problems and obstacles that KSA is working to find the necessary solutions for in order to improve its global ranking in this and reduce the difference from the UAE as the leader in the region in this field (Balawi, 2021, pp. 59, 60, 62).

2. Startups ecosystem at the cities level in UAE and KSA

The country usually works to create and build an ecosystem for startups that is integrated and comprehensive enough to reach the various regions. But the real application of this on the ground shows clear differences between countries and between cities in the same country, either in the availability of the components of this system or the extent of success in laying its foundations. Which prompted the index to assess the start-up ecosystem in cities as well. The results for the UAE and KSA are shown in the table:

Table no. 2 – Evaluation of start-ups ecosystems in UAE and KSA by ranked cities

| | Number of ranked cities | The ranked cities | National rank | Global rank 2022 | Change rank (2021) | Total score |
|-----|-------------------------|-------------------|---------------|------------------|--------------------|-------------|
| UAE | 03 | Dubai | 01 | 61 | + 6 | 10.328 |
| | | Abu Dhabi | 02 | 171 | - 2 | 4.716 |
| | | Sharjah | 03 | 898 | - 176 | 0.199 |
| KSA | 04 | Riadh | 01 | 254 | - 62 | 2.916 |
| | | Jeddah | 02 | 385 | - 91 | 1.281 |
| | | Demmam | 03 | 563 | / | 0.566 |
| | | Mecca | 04 | 977 | - 282 | 0.168 |

Source: (Startup-Blink-Report, 2022, pp. 139, 241)

As for the classification of start-up ecosystems in cities, Table 02 shows that the UAE has 3 classified cities in the top 1000 start-up ecosystems for cities in the world, with considerable advanced ecosystem, especially for Dubai, which reached a total score of 10.328. This made it earn six ranks compared to 2021 and led it as one of the best 100 cities start-up ecosystems all over the world. According to (StartupBlink, The Ecosystem of Dubai Startups, 2022d), Dubai registers 302 start-ups, 4 accelerators, 2 coworking spaces, 4 organizations, and no leaders: these start-ups are spread principally over Foodtech, Transportation, Fintech and other sectors. Although the seven emirates operate under a unified national policy, each emirate strives and works to build and develop its own ecosystem according to its own characteristics.

Dubai is considered one of the most important commercial centers around the world, as it is gaining a wide reputation for being among the best places to invest, launch projects, implement and develop innovations. This rank was obtained thanks to a supportive and encouraging entrepreneurial environment that provides all facilities and privileges that contribute to attracting capital, entrepreneurs, innovators and talents, supported by excellent infrastructure, stimulating tax policies, and leadership that supports innovation, and technology. Which means providing an opportunity for innovators, entrepreneurs, and owners of creative ideas to launch their startups through a large number of free zones or specialized cities in Dubai, such as Dubai Media City, Dubai Knowledge Park, Dubai Multi Commodities Centre, Dubai International Financial Center, Dubai Silicon Oasis, Dubai Airport Free Zone, Jebel Ali Free Zone, and many other places. In addition to that, the start-up ecosystem in Dubai includes a significant number of bodies and organizations that work to accompany entrepreneurs, owners of start-ups, and even foreign investors, from the advisory, financial, or practical side. Among these bodies are Dubai Foreign Direct Investment, The Mohammed bin Rashid Fund, Dubai Future Accelerators, a large network of business incubators and co-working spaces, enabling platforms, The Nasdaq Dubai Growth Market, The Dubai Angel Investors...etc (Expo-2020, october 2021, pp. 45, 46).

Abu Dhabi is also known as one of the most attractive regions for projects, investments, and talents in the world due to its business system and start-up ecosystem that facilitate the establishment of businesses in various aspects. Thus, Abu Dhabi obtained 4,715 as a total score, ranking 171 among the best 1000 start-up ecosystems of cities in the world. It also counted, according to the index map: 27 start-ups primarily in sectors of Education, Fintech, Marketing and Sales, and other sectors, and 01 coworking space, with no accelerator, no organization, and no leaders (StartupBlink, The Ecosystem of Abu Dhabi Startups, 2022e).

Abu Dhabi has been able to achieve an important position in the businesses environment, as it has become a preferred investment destination for many companies in the world, thanks to the great growth witnessed by the various industries in which start-ups are active, especially those related to technology, as mentioned previously. This is due to the impact of the measures taken to encourage the establishment of business within the five free zones in Abu Dhabi, which include 100% foreign ownership, a low-cost operating environment, full repatriation of capital and profits, and exemption from many taxes. In addition, the Abu Dhabi start-up ecosystem contains the headquarters of 2 of the largest banks in the region namely First Abu Dhabi Bank and Abu Dhabi Commercial Bank, and 24 foreign banks, with many cooperation and financing programs and agreements signed between Abu Dhabi banks and the bodies competent in developing entrepreneurship. All

of that in order to support, finance, stimulate, and enable the start-ups (Expo-2020, october 2021, pp. 42, 43).

This made Abu Dhabi a high-quality ecosystem, especially with regard to innovation, knowledge, and technology. Thanks to the strengths of this ecosystem of entrepreneurship and start-ups in several respects including: advanced physical infrastructure, wide and easy business networks, the wide demand of consumers for new and innovative products and the desire to try them, and work to simplify and accelerate the administrative procedures for the establishment and management of start-ups, innovative projects, and others.

As for what is taken on the ecosystem of entrepreneurship and start-ups in Abu Dhabi, the obstruction of the flow of new knowledge among entrepreneurs. It appears that the new knowledge produced by local universities, research centers, and large companies is not taken as an important and priority source of ideas. In addition to financing, although the amount of financing available in Abu Dhabi is sufficient for start-ups and entrepreneurs there, its sources are not sufficiently diversified, as most of them are concentrated in the government, with a lack of diversification of financing sources such as loans, angel investors, and the like (GEM, 2019/2020, pp. 10, 11).

On other side, Sharjah remains one of the top 1000 start-up ecosystems for cities despite its decline by 176 rank compared to 2021. It achieved a total score of 0.199 points, the lowest achieved point among the cities classified in the UAE; the index map was evaluated in Sharjah, 05 startups, 01 organization, no co-working spaces, no accelerators, and no leaders (StartupBlink, The Ecosystem of Sharjah Startups, 2022f). Sharjah has gradually developed into a center for culture and arts in the Emirates, beside building a base and infrastructure that have made it a leading industrial center. It is also being distinguished by a significant number of developed free zones. These latter open the way wide for investors, entrepreneurs, and innovators in various biomes, scientific and media fields, and various research centers. Which helped it to be a good background for launching start-ups and building the ecosystem that suits them by many facilities provided by Sharjah. As well as the bodies and institutions that its start-up ecosystem contains such as the Sharjah FDI Office, the Sharjah Investors Services Centre. This Center is considered a distinguished body in accompanying investors and entrepreneurs to launch their projects and start-ups, by providing an integrated set of government solutions to investors. Without neglecting the role of the Sharjah Chamber of Commerce and Industry in regulating the economy and industry in the emirate (Expo-2020, october 2021, p. 47).

Sharjah's position has supported its presence within a country that is classified among the most developed and attractive economies for investors, in addition to its geographical location close to promising markets, an attractive business environment, and

a support system for start-ups. At the local level, Sharjah is characterized by an integrated and distinguished group of bodies and entities that form its ecosystem for entrepreneurship and start-ups. It is based on: highly rated universities, the technology park that is the fastest growing in the region represented by Sharjah Research Innovation and Technology Park, the Sharjah Entrepreneurship Center (Sheraa) specialized in building the ecosystem for entrepreneurship with international standards, and the Sharjah Entrepreneurship Festival to promote entrepreneurial culture. In addition to a significant number of bodies supporting, following up on, and financing investment and startups (Startup-Genome, 2021, p. 150).

GSEI 2022 also shows 4 Saudi cities classified within the ranking of the best 1000 start-up ecosystems for cities in the world. Although Table 02 shows the decline of each of Riyadh, Jeddah, and Makkah in the ranking by significant places compared to 2021, with the city of Dammam entering the ranking for this year, Saudi Arabia still maintains its position in the Middle East in terms of the number of cities classified in the index (rank 02). As shown in Table 02, the points awarded to each city differ from the other, based on its local characteristics and its local ecosystem. It appears that Riyadh records the highest point in the KSA as 2.916, with 16 start-ups in Transportation, 15 in Fintech, and 12 in Marketing and Sales, as the most prevalent sectors in Riyadh, in addition to nearly 19 other startups in other sectors. Riyadh registered 2 workspaces, 1 organizations, and no accelerators or leaders (StartupBlink, The Ecosystem of Riyadh Startups, 2022g).

The second start-up ecosystem city in KSA is Jeddah with a total score of 1.281. The GSEI 2022 sees that Jeddah is the ideal place for setting up startups in Fintech, Hardware & IoT and Ecommerce & Retail, as the most popular industries in this city, which counts according to the index evaluation and startup blink map, 15 startups and no accelerators, coworking spaces, organizations, and leaders (StartupBlink, The Ecosystem of Jeddah Startups, 2022h).

In the same context, it appears that the start-up ecosystem in the city of Dammam is very suitable for Software and Data sector, with a census according to the map of only 3 start-ups and the absence of the rest of the bodies and institutions in this ecosystem (StartupBlink, The Ecosystem of Dammam Startups, 2022i). This is the same as registered in Makkah with only 4 startups and the absence of those other bodies and organizations. Makkah is distinguished by being a suitable system for start-ups active in Hardware & IoT, Ecommerce & Retail and Health (StartupBlink, The Ecosystem of Mecca Startups, 2022j).

3. Algeria in the start-ups ecosystem global map

According to GSEI 2022, Algeria has obtained the most important scores mentioned in the following table:

Table no. 3 – The startups ecosystem of Algeria according to GSEI 2022

| | Quantity score | Quality score | Business score | Total score | Rank 2022 | Ranked cities |
|---------|-----------------------|----------------------|-----------------------|--------------------|------------------|----------------------|
| Algeria | - | - | - | - | n.c | 01 |
| Algiers | 0.04 | 0.13 | 0.13 | 0.299 | 771 | - |

Source: (Startup-Blink-Report, 2022, p. 299) & (startup-blink, 2022)

According to the index, Algeria has not yet entered the classification of the best 100 ecosystems in the world covered by this index. This is due to a set of challenges that startups face within the Algerian environment in order to enhance their position and role in the economy. It includes the novelty of the idea of startups, the lack of awareness of the importance of these enterprises in achieving the required economic diversification, and the lack of creative ideas and entrepreneurial background in Algerian society. This is what led to a shortage of qualified human resources in line with global developments, especially with the lack of compatibility and integration between universities and their trainings and courses with the requirements of local and national reality. In addition to a lack of funding and investment capital, complex bureaucratic procedures, and a technical backwardness at the level of dealing with global developments, such as the delay in adopting and spreading e-payment, e-commerce, and others (Fetni & Barhoum, 2022, p. 30).

This is the same as indicated in the studies of (Sadkaoui, 2019) and (Baaziz, 2018) who attempted to diagnose and analyze the ecosystem of entrepreneurship in Algeria, whether for SME's or startups. They found that corruption and administrative procedures have an important negative impact on the entrepreneurial activities, especially with regard to some formal and bureaucratic procedures that take a long time and delay the launch of the startup. As well as the concentration of various accompaniment and support bodies and institutions such as incubators, accelerators, financial institutions and others, in Algiers in particular without the rest of the cities and regions, which is considered a negative point in the development of an ecosystem that encourages the trend towards start-ups throughout Algeria. They also noted that the technological environment is not suitable for the infrastructure and ICT services currently available. They confirmed too, the obstacles related to human resources, where they showed their dissatisfaction with the educational and training programs offered by universities, which are often not in line with what the labor market requires and their practical application in reality. In terms of culture, despite the availability of some factors that open up positive prospects to enhance the trend towards entrepreneurship in the future, Algerian society still needs to be pushed, motivated, and some attitudes and prejudices regarding this field changed. While financing is also considered one of the most important obstacles facing the ecosystem of start-ups in Algeria which is represented in the absence and lack of financing opportunities. In the form of bank

loans, that require large guarantees that the owner of a new start-up may not be able to meet. The venture capital that is considered little in Algeria. Even for angel investors, who are also limited (Sadkaoui, 2019, pp. 484- 489) & (Baaziz, 2018, pp. 73- 75). This is despite the importance of angel investors, as an example, in playing a great role in financing start-ups, where they rank second, in some countries, as the largest source of financing, after family and friends. Funding for angel investors may be in the form of minority investment ranging between 10-30%, in the capital of new projects and ventures at the pre-seed, seed, early stage, and startup phases. The Angels can use various rounds of financing and frequent co-investment with other equity and co-investment funds, in the case that more growth financing is needed (Stankovska, Stamevska, & Dimitrieska, 2018, p. 109).

Accordingly, Algeria is trying with intense efforts to solve these problems by underlining a strategy aimed to supporting and assisting the establishment and success of start-ups. Where the government is seriously moving towards supporting and motivating Algerian youth to invest more in the field of entrepreneurship, through policies that support their orientation towards this sector, especially towards start-ups, with the aim of making entrepreneurs value makers and real and effective contributors to the development of the economy (Belgoum & Benessalah, 2023, p. 22). Especially since youth entrepreneurship is considered one of the important aspects of modern entrepreneurship, along with social entrepreneurship, green entrepreneurship, technological entrepreneurship, and others. In addition to being a main focus in modern employment policies, where young people work within their framework to achieve self-employment, which will also have a reflection on the level of creativity, innovation, and development in the country (Dimitrakaki, 2018, p. 139). As many indicators have proven and confirmed the existence of a relationship between the degree of availability and practices of entrepreneurial activities in a country and the level of national economic growth in it. Entrepreneurs have an important impact on creating job opportunities and promoting creativity and economic growth, as they provide the opportunity for other individuals to achieve financial independence. Thus, they work alongside the government in reducing unemployment rates and providing opportunities for generating appropriate income for various groups of society to achieve prosperity (Raguž, 2017, p. 106).

From these points, a Ministry of Knowledge Economy and Startups was established in 2019 that works to strengthen the ecosystem of these enterprises through many activities and operations. Also, in this context, enterprises that have obtained the label "start-up" benefit from a set of tax and quasi-tax benefits to facilitate their establishment and launch, such as exemption from commercial activity tax, corporate income tax, and value-added tax on purchases for investment purposes. As for the year 2020, the Algerian Start-ups Fund (ASF) was established, which is managed by six public banks and targets start-ups in the

early stages represented in the thinking and pre-establishment stages. In March 2022, the fund provided nearly 3.2 million euros to more than 390 startups that applied to it for funding. The startup ecosystem also includes a government-supported business accelerator represented in Algeria-Venture; in May 2022, the accelerator signed an agreement with the Algerian Investment Fund amounting to \$10 million for diversified funding for startups outside the ASF, in order to provide growth and financing for the next stage. In addition, the National Agency for Support and Development of Entrepreneurship (ANADE) is now providing services related to financing startups. For Angel Investors, Algeria has only one private network, (Kasbah Business Angel) which was launched in 2013 and invests in startups. In addition, an application called “MY STARTUP” has been launched that enables entrepreneurs to access and communicate directly with the Ministry of Knowledge Economy and startups in order to answer their questions, support them regarding the legal, administrative, and financing aspects, and build a brand. Algeria has also changed the approved legal form for the establishment of a startup to a more simplified form to give it greater flexibility than other types of enterprises, which is required by its specificities. It is also noted that there has been a recent trend in increasing the number of business incubators and accelerators, while trying to ensure their deployment in all regions of Algeria during the coming period. As for the aspect of spreading the culture of entrepreneurship, it has established many youth associations that are interested in the field of entrepreneurship and are working to spread this culture among young people, with the launch of private offices or business incubators at the universities to promote that. With reference to the establishment of an event under the name Disrupt as an annual conference aimed at highlighting and introducing the ecosystem of startups in Algeria, at the national and regional levels (Sarangé & al., August 2022, pp. 16, 17).

As for startup ecosystem classification in cities, Algiers entered the 2021 classification for the first time as one of the best 1000 ecosystems at the level of cities in the world, making a huge leap in the following year, jumping from 984th place to 771st place in 2022 with a total score of 0.299.(Startup-Blink-Report, 2022, pp. 299, 300), by 0.04 for quantity score, 0.13 for quality score, and 0.13 for business score (StartupBlink, Top Cities for Startups in Algeria Ranked by StartupBlink, 2022k). This is thanks to the availability of many elements and factors in Algiers that help the establishment and development of start-ups when compared to the rest of Algeria. Among them the business incubators and accelerators, the speed of Internet flow, the availability of the infrastructure and superstructure necessary for the work of these enterprises, the availability of banking institutions, and various national economic and investment institutions and bodies in abundance in Algiers, and other factors (Fetni & Barhoum, 2022, p. 23). A performance that deserves praise as it has achieved the largest annual improvement among all the cities

included in the classification of the index. If this trend continues, there are promising prospects for Algeria to enter as a strong competitor among the 100 best startups ecosystems in the near future. Especially since Algeria is ranked at 117th globally and 4th in Northern Africa in the start-up ecosystems classified by the Global Startup Ecosystem Index 2022 (StartupBlink, Algeria Startup Ecosystem Overview, 2022).

Conclusion

This study came in order to compare the ecosystem of start-ups in UAE and KSA, shedding light on the case of Algeria. It was found that the UAE and KSA have succeeded in entering among the top 100 start-up ecosystems in the world by establishing an integrated system. It includes various bodies and elements that contribute to attracting entrepreneurs and owners of creative ideas, from inside or outside of the country, to be classified among the best countries for investment and doing business in the world, which reflected positively on their start-up ecosystems. The UAE has been at the forefront of the Arab countries and the Gulf States in this field for years, especially with its success in diversifying its economy. Which confirms the validity of the first partial hypothesis indicating that the UAE is still among the best ecosystems for start-ups in the world for attraction and facilities that promote its reputation in that.

In other side, the KSA continues to develop the frameworks and context of its business and investment environment to raise the effectiveness and efficiency of the start-up ecosystem and improve its global ranking in that area while achieving successful results in that area. Which was approved by the presence of KSA among the top 100 ecosystems for start-ups around the world, with distinction. This is due to the prosperous construction of these systems at the local level, where 4 Saudi cities were ranked among the top 1000 cities in relation to the ecosystem of start-ups according to the index when the UAE counted 3 classified cities. Which confirms the validity of the second partial hypothesis, indicating that the KSA has already imposed itself on the global start-up ecosystem map.

As for Algeria, it is trying, through serious and intensive efforts, to activate positively and quickly its ecosystem of start-ups. It contains trying to put in place the legislative, financial, institutional, research, cultural, and other frameworks necessary to encourage the establishment of this type of enterprise and accompany it in order to ensure its success. Despite the fact that the issue of start-ups in Algeria is very recent, those efforts succeeded in including Algiers among the best 1000 ecosystems at the level of cities in the world, achieving an important quantum leap in the ranking compared to 2021. This prompted GSEI 2022 to place Algiers among the start-up ecosystems with great prospects for success in the future. In addition to a high probability of Algeria joining the list of the top 100 start-up ecosystems soon, if the efforts made by the various actors and stakeholders

with interest in the start-ups continue to develop the ecosystem of these enterprises at an advanced and positive pace. Which denies the third partial hypothesis that considered the efforts exerted within the framework of establishing and building an effective ecosystem for start-ups in Algeria, are still far from international standards, competition, and the global map in this area.

That calls for recommending the need to promote the entrepreneurial culture and stimulate creativity and innovation in Algerian society. It can be achieved through educational programs starting at a young age and encouraging entrepreneurs and owners of start-ups to participate in university business incubators or in lectures and scientific forums with universities, to bring their experience closer to students. As well as the marketing of the idea of start-ups to the Algerian business environment, in a way that encourages Algerian businessmen, as individuals or enterprises, to finance risk in the framework of venture capital or angel investors.

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