

Strategic Analysis of the Entrepreneurial Environment in Algeria Using PESTEL and Porter's Five Forces Model

Comparative Indicators and International Benchmarking, 2025–2026

Bouderbala Mohamed Rafik

Laboratory Administrative development to improve economic institutions, University of Ghardaia (Algeria)
Email: Rafikbou0888@gmail.com

Ameur Mihoub

University of Laghouat, Algeria
Email: redatostat@gmail.com

Hadjer Bouderbala

University of Laghouat, Algeria
Email: hadjerboud@gmail.com

Abstract

This paper offers an academic reading of entrepreneurship centered on strategic analysis rather than on ecosystem theory alone. It briefly traces the evolution of the entrepreneurship concept across major intellectual schools, presents the components of the entrepreneurial ecosystem according to Isenberg's six-domain model, and subjects this ecosystem to two strategic analytical tools — PESTEL analysis and Porter's Five Competitive Forces — in order to uncover the points of intersection between the macro-environment, the competitive environment, and the ecosystem's domains. The paper reviews the most recent international indicators and statistics (2025-2026) issued by reference institutions, namely the Global Entrepreneurship Monitor, the World Intellectual Property Organization, and StartupBlink, before applying this theoretical framework to Algeria through a SWOT analysis and a set of quantitative indicators. The central contribution of the paper is a comparative international and national study that benchmarks Algeria's entrepreneurial ecosystem against a leading international model — the United Arab Emirates — and against the neighboring experiences of Tunisia and Egypt, in order to extract transferable policy lessons. The paper concludes that the effectiveness of any entrepreneurial ecosystem depends on the positive interaction among its six domains, and that comparative benchmarking, used carefully in light of the non-replicability principle, can still orient public policy toward addressing Algeria's structural imbalances.

Keywords: Entrepreneurship; Entrepreneurial Ecosystem; PESTEL Analysis; Porter's Five Forces Model; Global Innovation Index; Comparative Study; Startup Ecosystems; Algeria; United Arab Emirates.

1. Introduction

Over the past few decades, entrepreneurship has evolved from an isolated individual activity carried out by a person with an idea or capital into a complex economic and social phenomenon studied within an integrated system of actors, institutions, and policies known as the “Entrepreneurial Ecosystem.” This

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transformation has been accompanied by a parallel evolution in the analytical tools used to understand the business environment, making the combination of classical strategic analysis tools — such as PESTEL and Porter's Five Competitive Forces — with entrepreneurial ecosystem literature a methodological necessity for a comprehensive understanding of the factors determining the success or failure of entrepreneurial initiatives.

The importance of this study stems from the fact that entrepreneurship is today one of the most important alternative economic levers on which developing countries, including Algeria, are relying to diversify national income sources away from a rent-based economy, and to address high unemployment rates among youth and university graduates. The present version of the study updates the international evidence base to the 2025-2026 cycle and extends the analysis with an explicit comparative dimension, benchmarking Algeria's ecosystem against a leading international model and against its immediate regional neighborhood.

1.1 Research Problem

This paper is structured around the following central question: To what extent can strategic analysis tools (PESTEL and Porter's model) contribute to a deeper understanding of the components of the entrepreneurial ecosystem and their interactions, and what does a comparative reading of recent international indicators reveal about the position of Algeria's ecosystem relative to a leading international model and to its regional neighbors?

1.2 Objectives and Methodology

- To theoretically ground the concepts of entrepreneurship and the entrepreneurial ecosystem through the main foreign intellectual schools.
- To build an intersection matrix between the dimensions of PESTEL analysis and the components of the entrepreneurial ecosystem according to Isenberg's model.
- To build an intersection matrix between Porter's Five Competitive Forces model and entrepreneurial activity variables.
- To present and analyze the most recent international indicators and statistics on entrepreneurship and innovation for the 2025-2026 cycle.
- To diagnose the state of the entrepreneurial ecosystem in Algeria using SWOT analysis.
- To conduct a comparative international and national study benchmarking Algeria against the United Arab Emirates (a leading international model) and against Tunisia, Morocco, and Egypt (regional neighbors), in order to extract transferable policy lessons.

The study adopts a descriptive-analytical and comparative approach, reviewing the foreign reference literature in the fields of entrepreneurship and strategic management, and analyzing secondary data issued by specialized international bodies.

2. Conceptual Framework of Entrepreneurship

2.1 The Evolution of the Concept of Entrepreneurship across Intellectual Schools

The term “entrepreneurship” derives from the French verb *entreprendre*, meaning “to undertake.” The concept has evolved gradually over time. In the eighteenth century, the French-Irish economist Richard Cantillon, in his *Essai sur la Nature du Commerce en Général* (1755), offered the first clear economic depiction of the entrepreneur as an actor who buys at a known price and sells at an uncertain future price, thereby bearing the risk of uncertainty (Cantillon, 1755). The French economist Jean-Baptiste Say later added an organizational dimension in his *Catéchisme d'Économie Politique* (1816), portraying the entrepreneur as an organizer who shifts economic resources from an area of lower productivity to one of higher productivity.

Joseph Schumpeter (1934) offered one of the most influential contributions to the field, linking entrepreneurship to the function of “creative destruction,” arguing that the entrepreneur's role lies in revolutionizing the mode of production through five forms of innovation: developing a new product, discovering a new method of production, opening a new market, acquiring a new source of raw materials, and reorganizing an industry (Schumpeter, 1934). Israel Kirzner (1973), in *Competition and Entrepreneurship*, developed an alternative approach centered on “entrepreneurial alertness” — the ability to discover profit opportunities embedded in market disequilibria, without necessarily requiring the radical innovation described by Schumpeter.

Peter Drucker (1985), in *Innovation and Entrepreneurship*, later offered a practical, functional definition linking entrepreneurship to the systematic search for change, and the response to and exploitation of that change, considering innovation the entrepreneur's specific tool. At the contemporary academic level, Shane and Venkataraman (2000), in their landmark article published in the *Academy of Management Review*, offered a comprehensive definition establishing entrepreneurship as an independent field of research examining “how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited” (Shane & Venkataraman, 2000).

International literature, particularly the reports of the Global Entrepreneurship Monitor (GEM), today uses the Total early-stage Entrepreneurial Activity (TEA) index as a standardized measure allowing cross-country comparisons — a measure discussed further in Section 6 of this paper.

2.2 Characteristics and Typologies of the Entrepreneur

Foreign studies have varied in identifying the personal traits that distinguish entrepreneurs. Collins and Moore's (1970) study of 150 entrepreneurs found that their most prominent traits were psychological resilience and the need for autonomy and achievement, while David McClelland (1961) concluded that entrepreneurs are driven primarily by a “need for achievement” rather than by direct material gain. Barney and Busenitz (1997) confirmed that entrepreneurs display overconfidence when assessing the likelihood of success, which partly explains their willingness to bear risk despite statistically high failure rates.

In terms of typology, Cole (1959) distinguished four types of entrepreneurs: the Innovator, the Innovator-Combiner, the Optimistic Promoter, and the Organization Builder. Similarly, GEM reports adopt an important operational distinction between opportunity-driven entrepreneurship and necessity-driven entrepreneurship — a distinction essential for understanding the state of entrepreneurship in developing economies, where the latter type is markedly more prevalent.

2.3 Core Dimensions of Entrepreneurial Orientation

The concept of Entrepreneurial Orientation (EO), developed by Danny Miller (1983) in *Management Science*, marked a qualitative shift in analyzing entrepreneurship at the firm level rather than the individual level alone, identifying three interacting core dimensions: innovativeness, proactiveness, and risk-taking propensity. Lumpkin and Dess (1996) later extended this model by adding two further dimensions — autonomy and competitive aggressiveness — making entrepreneurial orientation one of the most widely used theoretical constructs for measuring entrepreneurial behavior in both startups and established firms (Lumpkin & Dess, 1996).

3. Entrepreneurial Culture and Entrepreneurial Leadership Skills

3.1 The Concept of Entrepreneurial Culture

Alain Fayolle (2005) defined entrepreneurial culture as a blend of value-based and behavioral norms, within and outside the organization, characterized by competitiveness and the capacity for renewal, aimed at generating economic and social gains for the individual, the organization, and society alike. From a broader anthropological perspective, Geert Hofstede (2001), in *Culture's Consequences*, views culture generally as a “collective programming of the mind,” and accordingly entrepreneurial culture represents a collective

programming toward values of proactiveness, calculated risk acceptance, tolerance of failure as part of the learning process, and openness to new ideas.

Stuetzer and Audretsch's (2018) study on regional entrepreneurial culture showed that the historical intensity of entrepreneurial activity in a given geographic area produces a persistent cultural effect that is transmitted across generations, even after the original economic conditions that generated it have disappeared — which explains the considerable disparity in entrepreneurial intensity between regions within the same country.

3.2 Factors Shaping Entrepreneurial Culture

Gnyawali and Fogel (1994), in their landmark study “Environments for Entrepreneurship Development,” published in *Entrepreneurship Theory and Practice*, distinguished five key dimensions that shape a supportive entrepreneurship environment: government policies and procedures, socio-economic conditions, entrepreneurial and managerial skills, financial support, and non-financial (advisory and technical) support. This framework was among the earliest academic attempts to link the macro-environment to individual entrepreneurial behavior, and it later paved the way for the emergence of entrepreneurial ecosystem literature discussed in Section 4.

3.3 Leadership Skills for Entrepreneurs

Robert Katz's (1955) model, published in the *Harvard Business Review* under the title “Skills of an Effective Administrator,” remains one of the oldest reference frameworks for classifying leadership skills, distinguishing between three categories: technical skills, human skills, and conceptual skills, with the relative weight of each varying by managerial level. In a context more directly related to entrepreneurship, Renko and colleagues (2015), in their study published in the *Journal of Small Business Management*, developed a dedicated scale for Entrepreneurial Leadership Style, measuring the entrepreneurial leader's ability to influence and direct individuals toward seizing opportunities and managing risk within a highly volatile and uncertain context — distinguishing entrepreneurial leadership from traditional managerial leadership.

The literature indicates that entrepreneurial leadership skills are practically distributed across four complementary categories: managerial skills (planning, decision-making, marketing), conceptual skills (critical thinking, innovation), human skills (emotional intelligence, effective communication), and competitive skills (distinctiveness, competitive advantage building, internationalization) — categories that intersect directly with the “human capital” domain of the entrepreneurial ecosystem discussed below.

4. The Entrepreneurial Ecosystem

4.1 Theoretical Foundations of the Entrepreneurial Ecosystem Concept

Credit for shaping the contemporary concept of the “Entrepreneurial Ecosystem” is generally attributed to Daniel Isenberg (2010, 2011), Professor of Practice at Babson College, who presented — first in his *Harvard Business Review* article “How to Start an Entrepreneurial Revolution” (2010), then in his paper “The Entrepreneurship Ecosystem Strategy as a New Paradigm for Economic Policy” (2011) — a model composed of six domains that interact in a complex and context-specific manner: a culture that celebrates entrepreneurship, enabling policies and leadership, access to appropriate finance, quality human capital, open markets, and an institutional support system (incubators, accelerators, infrastructure, specialized professionals). Isenberg argues that ecosystem success cannot be reduced to a single decisive factor, but is rather the outcome of non-linear interaction among these six domains (Isenberg, 2011).

Colin Mason and Ross Brown (2014), in their OECD report “Entrepreneurial Ecosystems and Growth Oriented Entrepreneurship,” developed this framework further, confirming that the defining feature of an effective entrepreneurial ecosystem is the rich “information flow” that allows individuals to access knowledge of buyers, new technologies, and funding opportunities (Mason & Brown, 2014). Erik Stam (2015), in his study “Entrepreneurial Ecosystems and Regional Policy: A Sympathetic Critique,” published

in European Planning Studies, proposed an important methodological distinction between “framework conditions” (formal and informal institutions, physical infrastructure) and “systemic conditions” (networks, leadership, finance, talent, knowledge, demand), arguing that systemic conditions represent the true core of the ecosystem.

Ben Spigel (2017), in “The Relational Organization of Entrepreneurial Ecosystems,” published in *Entrepreneurship Theory and Practice*, made an important theoretical contribution by distinguishing three categories of ecosystem attributes: cultural attributes, social attributes, and material attributes, arguing that ecosystem strength lies in the relationships linking these attributes rather than in their mere individual presence. Auerswald (2015) added an essential collaborative dimension, considering that a dynamic ecosystem is one that allows the exchange of people and ideas among actors in order to create new ventures and integrate existing businesses.

4.2 Characteristics of Entrepreneurial Ecosystems

- **Non-replicability:** No fixed model can be literally transferred from one context to another, as each ecosystem forms a unique pattern resulting from the complex interaction of its components (Isenberg, 2011) — a principle that directly qualifies the comparative reading undertaken in Section 8 of this paper.
- **Dynamism and self-evolution:** Ecosystems evolve through successive life-cycle stages (emergence, growth, maturity, and sometimes decline), as shown by Mack and Mayer's (2016) study in *Urban Studies* on “The Evolutionary Dynamics of Entrepreneurial Ecosystems.”
- **Interdependence among components:** every element in the system influences and is influenced by the other elements, such that the effect of finance, for instance, cannot be isolated from the effect of culture or policy.
- **Regional/local character:** ecosystems typically form at the regional or urban level rather than the aggregate national level, given the importance of geographic proximity to knowledge flows and networks.

4.3 Intersecting PESTEL Dimensions with the Entrepreneurial Ecosystem

PESTEL analysis is one of the most important tools for macro-environment scanning. Its roots trace back to the ETPS framework developed by Francis Aguilar (1967) in *Scanning the Business Environment*, before it later evolved into the extended PESTEL format encompassing six dimensions: Political, Economic, Social, Technological, Environmental, and Legal (Sammut-Bonnici & Galea, 2015). Because the entrepreneurial ecosystem is essentially a micro-reflection of the surrounding macro-environment, mapping the PESTEL dimensions onto Isenberg's six domains reveals a precise intersection matrix showing how each macro-level factor feeds into one or more domains of the entrepreneurial ecosystem, as illustrated in Figure 1 and Table 1 below.

Figure 1 — Intersection of PESTEL Dimensions with the Six Domains of the Entrepreneurial Ecosystem (Isenberg, 2011)

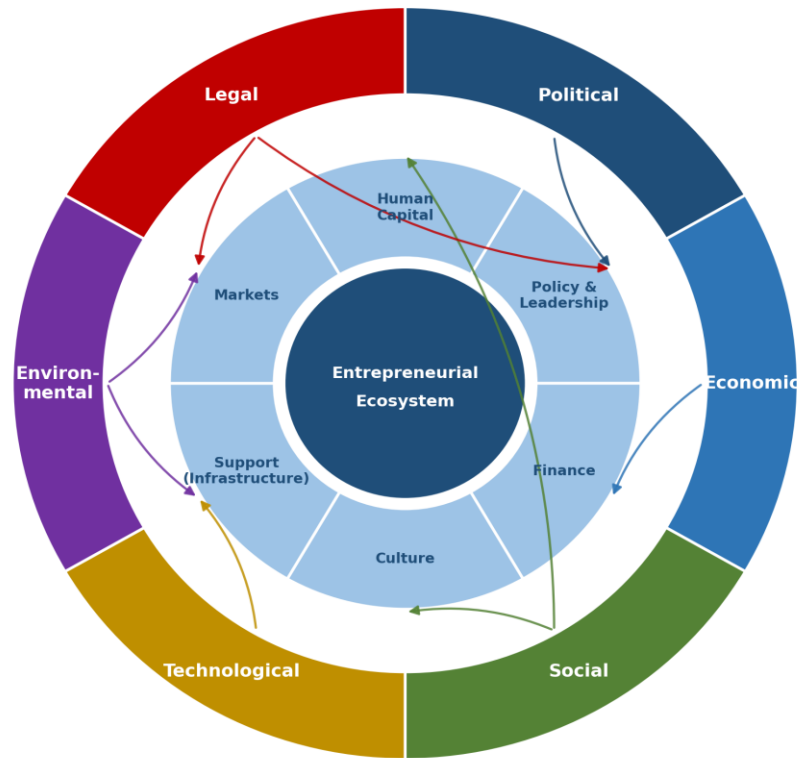


Table 1 — Explanatory Matrix: Intersection of PESTEL Dimensions with the Six Domains of the Entrepreneurial Ecosystem

PESTEL Dimension	Content of the Dimension	Most Affected Ecosystem Domain (Isenberg)	Illustrative Indicators
Political	Governance stability, public policy, state support for entrepreneurship	Policy & Leadership	Government support programs, national startup strategies
Economic	Economic growth, inflation, interest rates, investment flows	Finance + Markets	Availability of venture capital, loan interest rates
Social	Cultural values, risk acceptance, demographics, education	Culture + Human Capital	Youth proportion, education level, social attitudes toward failure
Technological	Digital infrastructure, technology transfer, innovation	Support (incubators, accelerators, infrastructure)	Internet penetration, number of incubators and accelerators

PESTEL Dimension	Content of the Dimension	Most Affected Ecosystem Domain (Isenberg)	Illustrative Indicators
Environmental	Environmental regulation, transition to a green economy	Markets + Support	Green entrepreneurship opportunities, sustainability project financing
Legal	Company law, intellectual property protection, contract enforcement	Policy + Markets	Ease of company formation, contract enforcement timeframes

Source: Prepared by the author based on (Aguilar, 1967; Isenberg, 2011; Sammut-Bonnici & Galea, 2015).

The intersection matrix above shows that the political and legal dimensions jointly exert the greatest influence on the “Policy & Leadership” domain, while the social dimension alone feeds both the “Culture” and “Human Capital” domains — which explains the relatively slow pace of entrepreneurial cultural change compared with the faster pace of legislative reform, since socio-cultural factors accumulate across generations, whereas legal frameworks can be amended within relatively short timeframes.

5. Strategic Analysis of Entrepreneurship Using Porter's Five Forces Model

5.1 Theoretical Framework of Porter's Model

Michael Porter (1979), in his landmark Harvard Business Review article “How Competitive Forces Shape Strategy,” and later in *Competitive Strategy: Techniques for Analyzing Industries and Competitors* (1980), introduced an analytical model for determining the attractiveness of an industry and its level of competition, based on five forces that collectively determine industry profitability and the ability of its players to create sustainable value: the threat of new entrants, the bargaining power of suppliers, the bargaining power of buyers, the threat of substitutes, and rivalry among existing competitors.

Although this model was originally designed to analyze the strategies of established, mature firms, its application to the entrepreneurial context carries particular significance, since an entrepreneur faces these five forces from the very first moment of market entry. Indeed, much of the “opportunity-seizing” decision discussed in the Kirzner and Schumpeter literature is itself grounded in a prior assessment of the intensity of these forces.

5.2 Intersecting the Five Competitive Forces with Entrepreneurial Activity Variables

Figure 2 — Porter's Five Competitive Forces Applied to Entrepreneurial Ventures and Startups

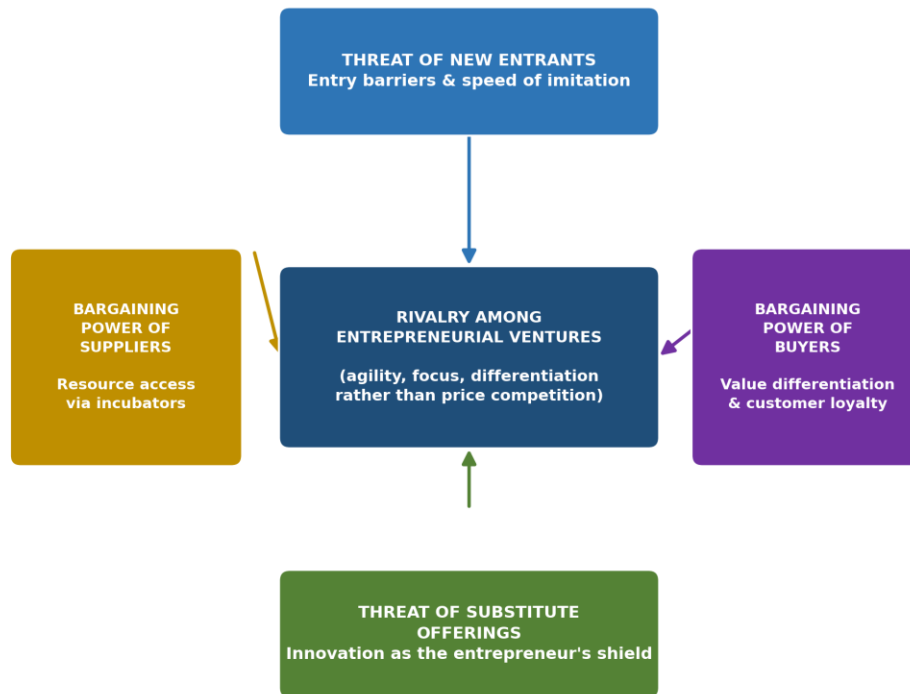


Table 2 — Explanatory Matrix: Intersection of Porter's Five Forces with Entrepreneurial Activity and Startups

Competitive Force	General Meaning in Porter's Model	Implication for the Entrepreneur / Startup	Link to the Entrepreneurial Ecosystem
Threat of New Entrants	Height or weakness of barriers to entry into the industry	Low barriers grant the entrepreneur an entry opportunity, but signal rapid future competition, requiring an early competitive advantage	Markets domain + Policy (simplified company-formation procedures)
Bargaining Power of Suppliers	Extent of supplier control over prices and terms	Startups often suffer from weak bargaining power vis-à-vis suppliers owing to small order volumes	Support domain (incubators help pool resources and reduce cost)
Bargaining Power of Buyers	Extent to which customers can dictate prices or specifications	In the digital economy, consumers hold growing bargaining power (price comparison, reviews), requiring the entrepreneur to focus on differentiated value	Markets domain + Human Capital (marketing skills)

Competitive Force	General Meaning in Porter's Model	Implication for the Entrepreneur / Startup	Link to the Entrepreneurial Ecosystem
Threat of Substitutes	Availability of alternatives satisfying the same need differently	Innovation is the entrepreneur's principal weapon to reduce this threat, directly linked to Schumpeter's creativity dimension	Technical support domain + a culture that encourages innovation
Rivalry Among Existing Competitors	Number of competitors, industry growth rate, exit costs	Startups typically compete through agility, speed, and niche specialization rather than direct price competition with large incumbents	Finance domain (financial resilience during price wars)

Source: Prepared by the author based on (Porter, 1979, 1980; Isenberg, 2011).

This intersection shows that each of the five forces connects to one or more domains of the entrepreneurial ecosystem, confirming that classical strategic analysis and entrepreneurial ecosystem literature are not separate fields but complementary in explaining the entrepreneurial phenomenon: while Porter's analysis explains “why” a venture may succeed or fail within its competitive industry, Isenberg's model explains “how” the surrounding environment supplies the resources and support needed to confront those competitive forces.

6. Recent International Indicators and Statistics on Entrepreneurship and Innovation (2025-2026)

6.1 Global Entrepreneurship Monitor (GEM) 2025/2026 Indicators

The GEM 2025/2026 Global Report, titled “From Uncertainty to Opportunity,” was launched at Tecnológico de Monterrey and produced through a global collaboration of 53 national teams, whose economies represent close to 43% of world population and 57% of global GDP. The 27th edition of the report finds that entrepreneurial activity remains strong worldwide, with startup rates at record levels in many regions, but flags two structural divides that qualify this optimism: a widening “Survival Gap,” in which too few early-stage ventures transition into established firms beyond the 3.5-year threshold, and an expanding “AI Readiness Gap” separating entrepreneurs with access to artificial intelligence tools from those without, which is producing a two-tier entrepreneurial economy.

On the human dimension, the report shows that 84% of early-stage entrepreneurs now factor social and/or environmental impact into their business decisions, confirming the continued rise of purpose-driven entrepreneurship. Fear of failure nonetheless still deters about two in five adults worldwide from pursuing opportunities they perceive as good, even as individuals who have previously exited a business show a markedly higher propensity to start again. On gender parity, 9 of the 23 middle-income economies surveyed have reached or are approaching parity in startup activity between men and women. Within the National Entrepreneurship Context Index (NECI), which evaluates the strength of framework conditions across participating economies, the United Arab Emirates ranked first for the fifth consecutive year — a result directly relevant to the comparative study in Section 8.

6.2 The Global Innovation Index (GII) 2025

The Global Innovation Index is issued annually by the World Intellectual Property Organization (WIPO) in partnership with the Portulans Institute, ranking the performance of 139 economies across seven core pillars using close to 80 indicators. In its 2025 edition, Switzerland topped the global ranking for the

fifteenth consecutive year, followed by Sweden, the United States, the Republic of Korea, and Singapore among the top five, with the United Kingdom, Finland, the Netherlands, Denmark, and China completing the top ten — China's entry into the top ten being a first for a middle-income economy (WIPO, 2025). The next edition, GII 2026, is scheduled for release on 29 September 2026 under the theme “Powering Entrepreneurs at the Frontier of Science,” and was not yet available at the time this study was finalized; the analysis below therefore relies on the GII 2025 results as the latest published data.

6.3 The Global Startup Ecosystem Index (GSEI) 2025

The Global Startup Ecosystem Index (GSEI) is issued by StartupBlink in partnership with more than 100 international government bodies and global data partners such as Crunchbase and Statista. The 2025 edition ranked 118 countries and more than 1,400 cities worldwide, with the top five global positions held by the United States, the United Kingdom, Israel, Singapore, and Canada (StartupBlink, 2025). A new “Annual Ecosystem Growth” metric introduced in the 2025 edition highlighted Saudi Arabia, Uzbekistan, and Singapore as the fastest-growing national ecosystems of the year, while the United Arab Emirates recorded its sixth consecutive year of advancement, confirming a sustained regional momentum discussed further in Section 8.

Table 3 — Key International Indicators of Entrepreneurship and Innovation (2025-2026)

Indicator	Issuing Body	Coverage	Key 2025/2026 Finding
Global Entrepreneurship Monitor (GEM)	GERA	53 economies / ~43% of world population	Record TEA levels alongside a widening “Survival Gap” and “AI Readiness Gap”; UAE ranks 1st in NECI for the 5th consecutive year
Global Innovation Index (GII)	World Intellectual Property Organization (WIPO)	139 economies	Switzerland ranked 1st for the 15th consecutive year; China enters the top 10 for the first time
Global Startup Ecosystem Index (GSEI)	StartupBlink	118 countries / 1,400+ cities	United States leads, followed by the UK and Israel; UAE is the top-ranked Arab ecosystem

Source: Prepared by the author based on (GEM, 2026; WIPO, 2025; StartupBlink, 2025).

7. The Entrepreneurial Ecosystem in Algeria: Current State

7.1 International Indicators Relating to Algeria

a) The Global Innovation Index (GII)

Algeria's GII trajectory over the 2020-2025 period shows a gradual net improvement despite year-to-year fluctuations, moving from the 121st position (out of 131 economies) in 2020 to the 115th position (out of 139 economies) in 2025, after a temporary dip to 119th in 2023. In the 2025 edition, Algeria ranks 35th among the 36 upper-middle-income economies and last (18th of 18) among the economies of Northern Africa and Western Asia, confirming that the improvement in absolute rank has not yet translated into a stronger relative regional position (WIPO, 2025).

Year	Global GII Ranking	Remarks
2020	121 out of 131	Overall weakness in both innovation inputs and outputs

Year	Global GII Ranking	Remarks
2021	120 out of 132	Slight improvement in innovation inputs
2022	115 out of 132	Notable improvement in innovation outputs
2023	119 out of 132	Temporary decline in innovation inputs
2024	115 out of 133	Progress in patents and education expenditure
2025	115 out of 139	Algeria ranks 112th in inputs and 111th in outputs, both improved on 2024; last in the Northern Africa & Western Asia region

Source: Prepared by the author based on (WIPO, 2022, 2024, 2025).

The 2025 data confirm that Algeria continues to perform better in innovation outputs than in innovation inputs, and that six of the Global Innovation Tracker's short-term indicators improved for Algeria while two worsened — a mixed but net-positive trend. As in previous editions, Algeria retains comparatively strong sub-indicators such as education expenditure and the number of science and engineering graduates, against a persistent weakness in the “Market Sophistication” and “Business Sophistication” pillars, reflecting a structural gap between the quality of available human capital and the market's limited capacity to absorb it and convert it into economic value (WIPO, 2025).

b) The Global Startup Ecosystem Index (GSEI)

Algeria's position in the GSEI has continued to improve incrementally: after being absent from the global top-100 in the 2023 edition, the country ranked 111th globally and 4th in Northern Africa in the 2025 edition, with an annual ecosystem growth rate of approximately 7.2% and 31 startups recorded in StartupBlink's database (StartupBlink, 2025). This places Algeria behind Egypt (65th), Tunisia (82nd), and Morocco (88th) — the three neighboring ecosystems examined in the comparative study in Section 8 — confirming that, while Algeria's momentum is real, it remains modest relative to the pace of improvement achieved by its immediate neighbors.

7.2 SWOT Analysis of Algeria's Entrepreneurial Ecosystem

Table 4 — SWOT Analysis of the Entrepreneurial Ecosystem in Algeria

Strengths	Weaknesses
Growing government support for innovation and startup creation	Complex bureaucratic procedures and limited administrative digitalization
Establishment of a national fund to finance startups	A legal and regulatory framework still under adaptation
A broad network of universities and research centers	Gaps in digital infrastructure and weak internet speed
A well-educated youth population with strong innovative capacity	Weak investment culture and entrepreneurial culture

Strengths	Weaknesses
Natural resources opening opportunities for renewable-energy ventures	Limited effectiveness of incubators and accelerators in actual mentoring

Opportunities

- The global shift toward social and green entrepreneurship, reflected in recent GII editions.
- The possibility of learning from successful regional ecosystem models (Tunisia, Morocco, Egypt) and from the United Arab Emirates through South-South and South-Gulf cooperation, as detailed in Section 8.
- The growth of the digital economy and crowdfunding opportunities as an alternative to traditional bank financing.

Threats

- Continued dependence of the national economy on oil rent instead of encouraging innovation-driven diversification.
- Limited venture capital available to startups in their early stages.
- The need to align higher-education outcomes with the actual needs of the entrepreneurial labor market.

7.3 Government Measures Supporting the Entrepreneurial Ecosystem

- Creation of a delegated ministry, later a full ministry, in charge of startups and the knowledge economy.
- Establishment of a national fund to finance startups with initial capital of 1.2 billion Algerian dinars.
- Launch of a digital crowdfunding platform to facilitate financing for project holders.
- Creation of more than 150 incubators and accelerators since 2020, alongside 84 entrepreneurship development centers.
- Development of the legislative framework through the self-employed entrepreneur status and the open-innovation law, along with amendments to the commercial code.

7.4 Financing Entrepreneurship in Algeria

Financing remains one of the most significant structural bottlenecks of Algeria's entrepreneurial ecosystem. Local operational data indicate that a considerable proportion of startups struggle to access adequate financing, given stringent bank lending conditions (high collateral requirements, high interest rates), and a clear shortage of venture capital, which remains a marginal share of total investment compared with neighboring countries. Bank loans directed toward startups likewise remain a limited share of total loan portfolios, underscoring the need to diversify alternative financing tools, such as crowdfunding and participatory finance, which public authorities have recently begun to encourage.

8. Comparative International and National Study

8.1 Rationale and Method of Comparison

Isenberg's (2011) principle of non-replicability warns against treating any single ecosystem as a template to be copied wholesale. Used carefully, however, comparative benchmarking remains a legitimate diagnostic

tool: it does not prescribe copying a foreign model, but rather identifies which specific policy mechanisms, within a comparable macro-environment, have measurably strengthened one or more of Isenberg's six domains elsewhere, so that their underlying logic — rather than their literal form — can inform Algerian policy design. This section therefore benchmarks Algeria's ecosystem against two reference points: (i) the United Arab Emirates, selected as a leading international model within the same broader Arab macro-environment and one that GEM's own NECI ranking places first worldwide for framework conditions; and (ii) Tunisia, Morocco, and Egypt, Algeria's immediate Maghreb and Nile-valley neighbors, which share closely comparable institutional, linguistic, and economic starting conditions.

8.2 The United Arab Emirates: A Leading International Model

The United Arab Emirates offers the clearest evidence, among Arab economies, of what sustained multi-domain investment across Isenberg's model can achieve. On the Policy & Leadership domain, the UAE has ranked first worldwide in GEM's National Entrepreneurship Context Index for five consecutive years, reflecting a deliberate, long-horizon policy commitment rather than a single reform. On the Markets and Finance domains, the country climbed to 30th place in the GII 2025 — the top position among Arab economies — and to a leading position among Arab ecosystems in the GSEI 2025, driven by aggressive investment, regulatory reform, and public-private collaboration; StartupBlink data record the UAE's sixth consecutive year of ecosystem advancement, moving from 43rd place in 2020 to a top-tier global position by 2025, with the ecosystem's fintech and blockchain verticals ranking among the strongest worldwide.

At the Support (institutional infrastructure) domain, city-level hubs such as Dubai — whose local ecosystem climbed dozens of places over six years on the strength of initiatives like the Dubai Future District Fund and the Dubai Internet City free zone — and Abu Dhabi's Hub71 accelerator illustrate how concentrated, well-funded institutional infrastructure can compound national-level policy gains. Enabling mechanisms frequently cited in the literature and reporting on the UAE case include 100% foreign ownership in free zones, 0% corporate tax regimes for qualifying free-zone entities, long-term “golden visa” residency for entrepreneurs and investors, and dedicated sovereign or quasi-sovereign vehicles such as ADQ's DisruptAD. For Algeria, the transferable lesson is not the free-zone model as such, but the underlying principle: multi-year policy consistency across the Policy, Markets, and Support domains simultaneously, rather than isolated single-domain reforms, is what produced the UAE's measurable gains.

8.3 The Regional Neighborhood: Tunisia, Morocco, and Egypt

Within Algeria's immediate regional neighborhood, the 2025 international indicators show a consistent pattern: all three neighboring economies now outrank Algeria on both the GII and the GSEI, though each has followed a distinct policy path. Morocco recorded one of the largest jumps in the GII 2025, climbing nine places to 57th — its highest-ever ranking — on the strength of industrial design, education expenditure, and labor productivity, while also breaking into the GII's “overperformer” category; its GSEI rank of 88th is anchored by the Casablanca hub and institutional vehicles such as UM6P Ventures and the Maroc Numeric Fund. Tunisia, an earlier mover on the legal dimension through its pioneering 2018 Startup Act, ranks 76th in the GII 2025 (also newly classified as an overperformer) and 82nd in the GSEI 2025. Egypt, whose ecosystem remains highly centralized around Cairo, ranks 86th in the GII 2025 and leads the three neighbors in the GSEI 2025 at 65th globally, with Cairo itself recording its fifth consecutive year of upward movement in the city rankings.

Table 5 — Comparative Benchmarking: Algeria, the United Arab Emirates, and the Regional Neighborhood (2025)

Country	GI I 2025 Rank (/139)	GSEI 2025 Rank (/118)	Key Ecosystem Strength	Illustrative Policy Instrument
United Arab Emirates	30th (1st among Arab economies)	Top-ranked Arab ecosystem;	Policy consistency; NECI 1st for 5 consecutive years	Free-zone regime (100% foreign ownership, 0%

Country	GII 2025 Rank (/139)	GSEI 2025 Rank (/118)	Key Ecosystem Strength	Illustrative Policy Instrument
		Dubai in the global top 50 cities		corporate tax); golden visas; Hub71 / DisruptAD
Tunisia	76th (overperformer; +5 places)	82nd	Early legal-framework reform	2018 Startup Act (pioneer legal status for startups in the region)
Egypt	86th	65th (leads the three neighbors)	Hub concentration and scale	Cairo-centered fintech and e-commerce ecosystem
Algeria	115th (last in the Northern Africa & Western Asia region)	111th (+7.2% annual growth)	Growing public financing commitment; large university network	National Startup Fund (DZD 1.2 billion); 150+ incubators since 2020

Source: Prepared by the author based on (WIPO, 2025; StartupBlink, 2025; GEM, 2026).

8.4 Lessons for the Algerian Ecosystem

- From the UAE: sustained, multi-year policy commitment across several ecosystem domains simultaneously outperforms isolated single-domain reforms; the relevant lesson is the consistency of the approach, not the literal transfer of the free-zone model.
- From Tunisia: an early, dedicated legal status for startups (on the Tunisian Startup Act model) can accelerate the Policy & Leadership and Markets domains well before large-scale financing becomes available..
- From Egypt: even with resource constraints, sustained multi-year focus on a single metropolitan hub can generate compounding, self-reinforcing ecosystem growth.
- For Algeria specifically: translating the existing public financing commitment (the National Startup Fund, 150+ incubators) into a comparable ranking improvement will likely require the same combination visible in all three neighboring cases — legal simplification, a concentrated flagship hub, and continuity of policy over several years rather than single initiatives.

Consistent with Isenberg's non-replicability principle, none of these lessons implies transplanting a foreign institutional model unchanged; each points instead to a policy mechanism whose underlying logic — legal clarity, geographic concentration of support, or multi-year consistency — is transferable even where the specific instrument is not.

9. Conclusion and Recommendations

This paper concludes that entrepreneurship is a multidimensional concept that has evolved cumulatively through successive foreign intellectual contributions — from Cantillon and Say to Schumpeter, Kirzner, and Drucker — before crystallizing into its contemporary form within the “entrepreneurial ecosystem” framework laid down by Isenberg and further developed by Mason and Brown, Stam, and Spigel. The study also showed that subjecting this system to the two strategic analysis tools, PESTEL and Porter's model, reveals precise intersections between the macro-environment and the competitive environment on one hand, and the six domains of the ecosystem on the other, providing a more comprehensive analytical framework for understanding the factors behind the success or failure of entrepreneurial initiatives.

Regarding the Algerian case, the updated 2025-2026 international indicators (GII 2025, GSEI 2025, GEM 2025/2026) show gradual, though still modest, improvement relative to national ambitions and, more pointedly, relative to the accelerating performance of the United Arab Emirates and of Algeria's immediate neighbors — Tunisia, Morocco, and Egypt — all three of which now outrank Algeria on both major indices. The comparative study in Section 8 suggests that this regional gap is closing for the neighboring economies primarily through legal simplification, hub concentration, and sustained multi-year policy continuity rather than through financing volume alone. In light of this, the following recommendations can be proposed:

- Strengthen the investment culture and broaden alternative financing tools (venture capital, crowdfunding), drawing on Morocco's model of dedicated institutional VC vehicles.
- Simplify the administrative and legislative procedures associated with establishing startups and accelerate their digitalization, informed by Tunisia's early dedicated legal status for startups.
- Concentrate institutional support (incubators, accelerators, specialized professionals) around one or two flagship metropolitan hubs rather than dispersing it thinly, following the Casablanca and Cairo examples.
- Improve the performance of incubators and accelerators in terms of mentoring quality rather than quantity alone.
- Align university entrepreneurial education outcomes with actual market needs through partnerships with the private sector.
- Integrate strategic analysis tools (PESTEL, Porter's model) into entrepreneurship training programs to strengthen entrepreneurs' capacity to evaluate opportunities and risks prior to launch.
- Commit to a multi-year, cross-domain policy roadmap inspired by the consistency underlying the UAE's five consecutive years atop GEM's National Entrepreneurship Context Index, rather than treating individual measures as one-off initiatives.

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