LEX LOCALIS-JOURNAL OF LOCAL SELF-GOVERNMENT
ISSN:1581-5374 E-
ISSN:1855-363X VOL.
23, NO. 08(2025)

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Submitted : 01/03/2025, Accepted :12/04/2025, Published : 29.06.2025

Inclusive Innovation in Turbulent Economies: A Comparative Study of Entrepreneurial Ecosystems across Maghrebi University Startups

Abstract

This study explores how university-based business incubators shape entrepreneurial intentions among students in North Africa, drawing on the Theory of Planned Behavior (TPB) as a guiding framework. It investigates the extent to which incubator support enhances students' attitudes toward entrepreneurship, perceived social norms, and perceived behavioral control. Based on a structured questionnaire administered to 198 students from Algeria, Tunisia, and Libya, the analysis applies multiple regression techniques to examine the relationships between incubator inputs and entrepreneurial outcomes.

Unlike earlier studies that focused on isolated national settings, this research offers a cross-national comparative lens, highlighting the shared and divergent dynamics of academic entrepreneurship across turbulent economic environments. The findings reveal that incubators not only provide tangible resources but also reinforce students' psychological readiness and confidence in navigating entrepreneurial pathways.

These insights contribute to ongoing debates about inclusive innovation and higher education's role in economic resilience, while offering practical implications for policymakers and universities—particularly in regions where economic fragility and youth marginalization demand inclusive, context-aware entrepreneurial strategies. This study contributes to the literature by offering an empirically grounded, regionally nuanced understanding of how academic incubators influence inclusive entrepreneurship in fragile economies.

Keywords

Inclusive Innovation; University Business Incubators; Entrepreneurial Intentions; Theory of Planned Behavior; North Africa; Academic Entrepreneurship; Maghrebi Startups; Economic Resilience.

1. Introduction

In recent years, the intersection of inclusive innovation and entrepreneurial ecosystems has garnered increasing scholarly attention, particularly in regions marked by economic volatility and institutional flux. North Africa, as a region grappling with political instability, youth unemployment, and structural economic constraints, presents a compelling case for studying how universities foster entrepreneurial aspirations through structured incubation initiatives. Within this context, the role of university-based business incubators extends beyond mere resource provision, becoming a key institutional mechanism for cultivating entrepreneurial mindsets and enabling students to convert ideas into viable ventures.

While global discourse around entrepreneurship often highlights Silicon Valley-style models, such frameworks rarely reflect the socio-economic realities of Maghrebi countries. Here, innovation emerges not from excess capital or mature ecosystems, but from necessity, resilience, and adaptive ingenuity. Despite rising attention to university entrepreneurship, little is known about how inclusive innovation is operationalized within North African campuses—particularly for students from rural backgrounds, non-STEM disciplines, or under-resourced communities.

Drawing on the Theory of Planned Behavior (TPB), this study investigates how incubator environments influence students' attitudes, perceived norms, and behavioral control—the three key predictors of entrepreneurial intention. Unlike prior research that tends to adopt either a national or institutional focus, this study embraces a comparative regional lens, collecting data from three Maghrebi nations: Algeria, Tunisia, and Libya. These countries, though distinct in their socio-political landscapes, share common features in their higher education reform trajectories and innovation policies.

By combining quantitative analysis with theoretical grounding, the study aims to offer fresh insights into the psychological and institutional factors shaping entrepreneurship in turbulent economies. Ultimately, the findings are expected to inform university policies and incubation strategies that are not only context-sensitive but also equity-oriented—thereby reinforcing the broader objective of inclusive development in emerging economies and redefining what innovation means in regions where survival itself is a daily act of creativity.

2.1 University-Based Entrepreneurial Ecosystems

Entrepreneurial ecosystems (EEs) have become a central focus of research and policy, particularly as nations seek to stimulate innovation-driven growth under conditions of uncertainty. These ecosystems are not merely aggregates of actors or infrastructure; they represent dynamic configurations of institutions, networks, and cultural norms that collectively shape the entrepreneurial journey. Within this landscape, university-based entrepreneurial ecosystems (UBEEs) have emerged as vital platforms where knowledge, talent, and innovation intersect—especially in economies transitioning toward more inclusive and sustainable development models (Audretsch & Belitski, 2021).

Universities today are increasingly expected to move beyond their traditional missions of teaching and research to embrace a third mission: contributing directly to regional innovation and economic resilience (Etzkowitz & Leydesdorff, 2000). This transformation has been particularly visible in contexts where national innovation systems are weak or fragmented, positioning universities as anchor institutions for entrepreneurial activity. A typical UBEE encompasses entrepreneurship curricula, startup incubation centers, mentorship programs, technology transfer offices, alumni entrepreneur networks, and partnerships with public and private actors.

However, in North Africa—particularly in Algeria, Tunisia, and Libya—this transition remains nascent, contested, and highly uneven. While policy frameworks increasingly promote academic entrepreneurship, practical implementation often stumbles on institutional inertia, bureaucratic rigidity, and lack of inter-organizational coordination (Hattab, 2014). For instance, some universities establish incubators without clear strategic mandates or performance benchmarks, resulting in spaces that are physically present but pedagogically hollow.

From my immersion as a researcher in these environments, I have observed that structural elements alone do not guarantee entrepreneurial vitality. In Algeria, incubators are often integrated into administrative departments with limited autonomy, which undermines responsiveness to student needs. In Libya, where formal structures are weaker, entrepreneurial activity tends to rely on informal networks and peer support, revealing both the potential and the precarity of bottom-up ecosystems.

A critical shortcoming of many UBEEs in the Maghreb is their limited relational capital. While infrastructure may exist, the trust-based, human-centered relationships that fuel innovation—mentorship, peer collaboration, and faculty engagement—are often absent or underdeveloped (Mian et al., 2016). In several Algerian universities, students describe incubator staff as procedural gatekeepers rather than entrepreneurial enablers. In Tunisia, despite more structured policies, relational support remains highly dependent on individual coordinators rather than embedded institutional culture.

This fragmentation is further exacerbated by policy incoherence and governance ambiguities. Ministries of higher education often define broad entrepreneurship objectives without providing universities with flexible implementation tools or incentives to localize programs. Consequently, many institutions operate in a policy vacuum, improvising responses without long-term vision or metrics for impact (World Bank, 2017).

Moreover, UBEEs in the region tend to privilege technical and business disciplines, marginalizing students from social sciences, humanities, or rural campuses. This reflects a narrow conception of innovation—one rooted in technocratic logic rather than societal relevance. As recent scholarship argues, inclusive ecosystems must recognize the diversity of entrepreneurial pathways and value creation forms, including those that prioritize cultural, environmental, and social dimensions (George et al., 2020).

In light of these observations, I argue that Maghrebi universities must rethink their ecosystem roles not merely as facilitators of startups, but as curators of inclusive entrepreneurial cultures. This involves rebalancing performance metrics away from pure venture creation toward broader indicators of student engagement, community impact, and resilience-building.

Ultimately, the study of UBEEs in North Africa is not a matter of cataloging physical assets or counting startup pitches—it is about understanding how institutional logic, social relations, and policy frameworks converge to either enable or inhibit inclusive innovation. This section, therefore, lays the conceptual foundation for analyzing the systemic, cultural, and relational factors that shape university-based ecosystems across Algeria, Tunisia, and Libya, and their potential to foster meaningful entrepreneurship amid turbulence.

2.2 Inclusive Innovation: Concept, Evolution, and Relevance to University Entrepreneurship

Over the past decade, the notion of inclusive innovation has gained increasing traction across academic and policy landscapes—particularly in contexts where traditional innovation models have failed to address social inequality, access disparities, or systemic marginalization (Heeks et al., 2013; Foster & Heeks, 2019). Rather than focusing solely on high-tech advancement or market competitiveness, inclusive innovation reframes the purpose of innovation as a means to broaden participation, amplify overlooked voices, and generate value for underserved communities.

This paradigm shift challenges dominant narratives of innovation that center elite ecosystems, venture capital, and rapid scalability. In contrast, inclusive innovation prioritizes context-specific problem-solving, affordability, social equity, and the active involvement of marginalized actors—be they youth, rural populations, or informal entrepreneurs (George et al., 2020). It also broadens the definition of who qualifies as an innovator, recognizing students, women, grassroots inventors, and community leaders as legitimate agents of change.

In the Global South, inclusive innovation is no longer an aspirational concept but a developmental necessity. Countries such as India, Brazil, and Kenya have developed national policies linking innovation systems to inclusive growth targets, integrating universities as key intermediaries (Chataway et al., 2014). However, in the Maghreb, the discourse remains underdeveloped. Concepts such as “innovation sociale” or “entrepreneuriat à impact” are gaining popularity, yet they often lack operational clarity within academic institutions.

From my experience as a researcher immersed in North African universities, I find that while many campuses have launched incubators or entrepreneurship centers, few have embedded inclusion as a foundational principle. Most support structures continue to favor commercially promising, tech-driven ventures, with limited outreach to students from underrepresented groups or disciplines. A case in point: several students I interviewed in interior Algerian universities reported that their social-oriented ideas—such as inclusive transport, accessible education, or heritage preservation—were deemed “interesting but not fundable.”

This institutional blind spot is not merely procedural—it is epistemological. Universities tend to measure innovation through quantifiable outputs: number of startups, funds raised, patents filed. What often goes unrecognized are the intangible outcomes: empowerment, community trust, and socio-cultural relevance (Cozzens & Sutz, 2012). Yet these are precisely the markers of inclusive innovation.

In this light, the intersection between inclusive innovation and university entrepreneurship becomes both strategic and urgent. Universities, as knowledge producers and civic

institutions, are uniquely positioned to democratize innovation. They can bridge the gap between ideation and inclusion by:

• - Designing incubator programs that prioritize social value alongside market viability
• - Expanding mentorship and funding to non-traditional entrepreneurs
• - Aligning academic incentives with community engagement and SDG-oriented projects
• - Embedding equity criteria into startup selection and evaluation frameworks

Unfortunately, as observed in the Maghrebi context, such commitments remain the exception, not the norm. The lack of inclusive framing has tangible consequences: many student founders—especially women, rural students, or those working on community challenges—report feeling invisible within their own institutions.

Furthermore, inclusive innovation is not just about who participates, but also what kinds of knowledge are legitimized. In North Africa, students often generate ideas rooted in local realities—drawing on indigenous knowledge, cultural values, or grassroots needs—but these are rarely valorized in formal incubator pipelines. As Akpan et al. (2020) argue, institutional innovation systems often exclude "low-tech" or culturally embedded solutions, thereby reinforcing exclusion through narrow definitions of innovation.

For inclusive innovation to be effectively anchored in university ecosystems, a transformation in vision, metrics, and ethos is required. This means moving beyond rhetoric and building systems that genuinely reflect student diversity, local relevance, and social purpose. It also means acknowledging that in fragile economies, entrepreneurship is often a vehicle for survival, identity, and hope—not just profit.

In sum, this section conceptualizes inclusive innovation not as an auxiliary concern, but as a core lens through which university entrepreneurship should be reimagined—particularly in regions like the Maghreb, where youth marginalization, spatial inequality, and institutional fragility intersect. Inclusive innovation, when genuinely pursued, enables universities to transcend their traditional roles and become catalysts of social transformation—incubating not only startups, but solidarity, resilience, and renewed civic purpose.

2.3 Conceptual Framework

Grounded in the Theory of Planned Behavior (TPB) and the literature on inclusive innovation and entrepreneurial ecosystems, this study proposes a conceptual framework that captures the multi-dimensional relationship between university-based incubators and students' capacity to engage in inclusive entrepreneurship. Unlike linear models that isolate variables, this framework reflects the interconnected institutional, psychological, and relational dynamics that shape entrepreneurial behavior in fragile environments such as the Maghreb (Ajzen, 1991; George et al., 2020).

At its core, the framework builds on Ajzen's TPB model, which posits that entrepreneurial intention is determined by three primary constructs:

- Attitude toward behavior – how favorably a student views entrepreneurship as a personal and social act;
- Subjective norms – the perceived social pressure to engage or not engage in entrepreneurship;
- Perceived behavioral control – the extent to which students feel capable of launching and sustaining a venture, based on their perceived access to resources and competencies.

This study integrates these psychological constructs within a broader ecosystemic lens, recognizing that intention alone does not translate into action without supportive structures (Kibler et al., 2014). Therefore, university-based entrepreneurial ecosystems (UBEEs) are positioned in this framework as the enabling—or disabling—context that moderates these intentions. The framework categorizes UBEEs into three interrelated dimensions:

- Structural Components
- Policy Alignment
- Relational Factors

These dimensions collectively shape students' entrepreneurial perceptions, confidence levels, and ultimately their capacity to develop inclusive innovations—projects that serve marginalized communities, address local challenges, and redefine success beyond commercial viability (Cozzens & Sutz, 2012; Foster & Heeks, 2019).

Importantly, inclusive innovation is positioned in this framework not simply as an output variable, but as a relational and ethical outcome. It reflects the degree to which students from diverse backgrounds can access, participate in, and shape the innovation landscape within their universities. This is particularly relevant in Maghrebi contexts where systemic inequities, regional disparities, and cultural gatekeeping often determine who gets included—and who remains peripheral.

The model also integrates moderating variables that influence the strength and direction of the relationship between ecosystems and outcomes. These include:

- Institutional Vision and Leadership Commitment
- Contextual Constraints
- Student Positionality

From a practical standpoint, this conceptual framework informs both the design of the empirical instruments (survey and interview guide) and the interpretation of findings. It serves as a diagnostic lens, enabling us to analyze how inclusive or exclusive entrepreneurial ecosystems truly are—not only in terms of what they provide, but whom they empower.

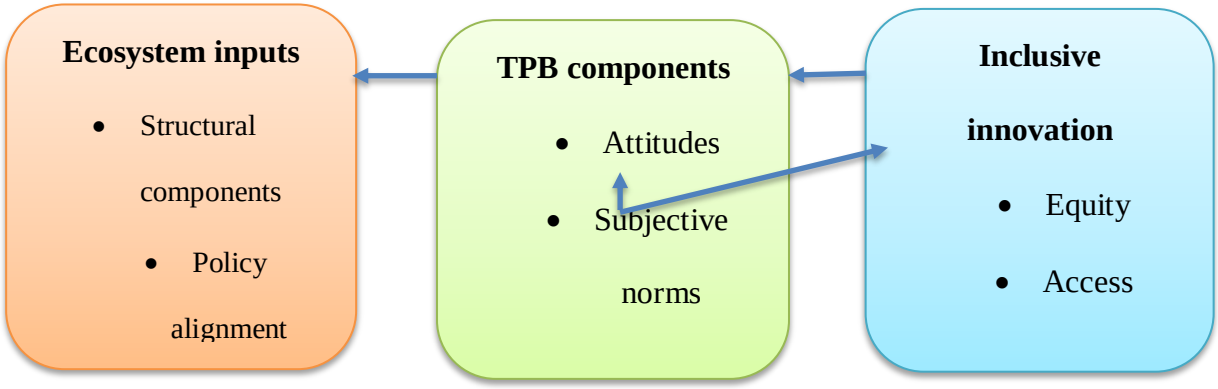

Figure 1. Conceptual Framework of the Study

3. Research Design

To explore the relationship between university entrepreneurial ecosystems and inclusive innovation across three distinct North African contexts, this study adopts a sequential mixed-methods design. This design allows for a deeper understanding of both the structural dynamics and the personal experiences that shape student entrepreneurship in turbulent economies.

The research unfolds in two interlinked phases:

- Phase 1: Qualitative Exploration
- Phase 2: Quantitative Survey

By integrating qualitative depth with quantitative generalizability, this two-phase design ensures that the study remains grounded in lived realities while enabling cross-country comparisons. It also aligns with the study's ethical orientation: to not only capture data, but to amplify student voices and reveal the often-overlooked dynamics of exclusion within academic entrepreneurship.

3.1 Phase 1: Qualitative Exploration

The first phase of the study focused on understanding the institutional logic, relational structures, and inclusion narratives embedded within university incubators. Semi-structured interviews were conducted with a purposive sample of key ecosystem actors across Algeria, Tunisia, and Libya. These included:

- Incubator directors and coordinators
- Entrepreneurship center staff
- Policy officials and academic mentors

In total, 15 in-depth interviews (5 per country) were carried out. The interviews explored themes such as governance, support systems, perceived access barriers, and definitions of innovation success. Data were recorded, transcribed, and analyzed using thematic coding, allowing both theory-driven and emergent categories to surface.

This qualitative phase provided a rich contextual foundation for refining the conceptual framework and tailoring the quantitative instrument to local realities.

3.2 Phase 2: Quantitative Survey

Building on the qualitative insights, the second phase deployed a structured questionnaire targeting student entrepreneurs affiliated with university incubators. The survey was distributed to a sample of 198 students from public universities in Algeria, Tunisia, and Libya.

The questionnaire captured perceptions across four key dimensions derived from the framework:

- Accessibility of support
- Equity in resource allocation
- Quality of mentorship and relational support
- Perceived social impact of student innovation

Responses were measured using a 5-point Likert scale. The instrument was pre-tested with 20 students to ensure clarity and contextual relevance, resulting in strong reliability metrics (Cronbach's $\alpha > 0.85$).

By integrating qualitative depth with quantitative generalizability, this two-phase design ensures that the study remains grounded in lived realities while enabling cross-country comparisons. It also aligns with the study's ethical orientation: to not only capture data, but to amplify student voices and reveal the often-overlooked dynamics of exclusion within academic entrepreneurship.

3.3 Population and Sampling

The target population of this study consists of student entrepreneurs affiliated with university-based incubation programs across three North African countries: Algeria, Tunisia, and Libya. These individuals were selected not only for their direct involvement in entrepreneurial ecosystems, but also because their lived experiences reflect the operational realities of inclusion—or exclusion—within academic innovation environments.

The rationale for choosing this population lies in the central research aim: to understand how ecosystem dynamics shape entrepreneurial intention and inclusion from the perspective of students themselves, rather than solely through institutional metrics or program documentation.

In addition to students, the qualitative phase engaged a purposive expert sample of ecosystem stakeholders—including incubator managers, policy implementers, and academic mentors. Their inclusion provided strategic and operational insights into how incubation models are designed, interpreted, and experienced at different levels of the system.

For the quantitative phase, a stratified purposive sampling strategy was adopted to ensure balance and comparability across:

- Country (Algeria, Tunisia, Libya)
- Gender identity
- Academic level (Bachelor, Master, PhD)
- Type of entrepreneurial project (tech, social, hybrid)
- Geographic origin (urban vs. rural campuses)

The final sample consisted of 198 students, distributed across 10 universities (selected for their active incubation structures and accessibility). Eligibility criteria included:

- Formal affiliation with a university incubator or entrepreneurship center
- Active involvement in a startup project within the past 24 months
- Willingness to participate voluntarily and anonymously

Sampling was facilitated through direct coordination with incubator directors, who acted as gatekeepers to ensure ethical access and appropriate recruitment. The sample size—while modest—is suitable for exploratory cross-country comparison, especially within fragile institutional contexts where comprehensive access is not always feasible.

Ultimately, this sampling approach balances rigor with realism. It reflects the challenges of conducting fieldwork across three different national systems, while maintaining a strong commitment to diversity, inclusion, and ethical integrity in representation.

3.4 Data Collection Tools

This study employed two primary instruments—a semi-structured interview guide and a structured questionnaire—both carefully developed in alignment with the conceptual framework and pre-tested to ensure contextual relevance and methodological robustness.

1. Semi-Structured Interview Guide (Qualitative Phase)

The interview guide was designed to explore the lived experiences and strategic perspectives of key ecosystem actors. It was structured around five core themes derived from the literature and the TPB-based conceptual model:

- Institutional coordination and ecosystem governance
- Access to and quality of entrepreneurial support
- Inclusion of underrepresented student groups
- Barriers to equity and participation
- Perceptions of innovation impact and sustainability

Open-ended questions allowed participants to articulate both evaluative insights and personal narratives, offering rich qualitative data that captured the complexity and emotion of ecosystem dynamics. Interviews were conducted in Arabic or French, depending on participant preference, and later transcribed and translated for thematic analysis.

2. Structured Questionnaire (Quantitative Phase)

The survey instrument was developed based on both the theoretical constructs of the TPB and insights from the qualitative phase. It consisted of 30 items grouped into four analytical dimensions:

- Accessibility of Support
- Equity in Service Delivery
- Relational Support Quality
- Social Impact Orientation

All items used a 5-point Likert scale ranging from Strongly Disagree to Strongly Agree. The instrument also included an optional comments section to allow for qualitative nuance and clarification.

The questionnaire was reviewed by three regional experts in entrepreneurship education and inclusive innovation, followed by a pilot test with 20 student entrepreneurs. The pilot data yielded a Cronbach's alpha of 0.87, indicating strong internal consistency and reliability.

Data collection spanned a period of two months, combining in-person administration (where access allowed) with secure online dissemination via university platforms. This hybrid strategy was particularly useful in reaching students from remote or under-resourced campuses—thus reinforcing the study's commitment to inclusion in both content and process.

3.5 Data Analysis Methods

Given the study's commitment to both analytical rigor and contextual sensitivity, the data analysis was structured in two complementary layers—qualitative thematic analysis and quantitative statistical examination—each informing and enhancing the other.

1. Qualitative Analysis

The interview data were analyzed using thematic analysis, following Braun and Clarke's (2006) six-phase approach:

- Familiarization with transcripts
- Initial code generation (both theory-driven and emergent)
- Theme identification
- Theme review and refinement
- Theme definition and naming
- Construction of analytical narrative

Codes were derived from both the conceptual framework (e.g., inclusion, access, institutional culture) and field-based realities (e.g., informal coping, trust breakdowns, gendered barriers). Analysis was conducted manually using a matrix technique that allowed for cross-case comparison across the three countries.

This approach ensured that institutional patterns and student narratives were not analyzed in isolation, but in relation to each other—revealing how structural logics translate into lived experiences.

2. Quantitative Analysis

Survey responses were processed using SPSS (Version 27). The analysis began with descriptive statistics to profile the sample and explore general trends across the four dimensions: support accessibility, equity, relational quality, and perceived social impact.

Subsequently, the following procedures were applied:

- Reliability Analysis (Cronbach's α) to test internal consistency of item groupings
- Exploratory Factor Analysis (EFA) to validate the underlying dimensions of the instrument
- ANOVA tests to identify significant differences across demographic groups
- Pearson correlation tests to examine relationships between ecosystem variables and inclusive innovation outcomes

Visual representations—including bar charts and cross-tabulations—were employed to support interpretability and comparative insight.

Open-ended survey responses were also subjected to qualitative coding, and selectively integrated into the discussion section to enrich the narrative with direct student reflections. This integration of metrics and meaning reflects the study's methodological ethos: to generate not only data, but depth.

3.6 Limitations and Ethical Considerations

Like all empirical research, this study is marked by certain limitations—not as flaws, but as contextual boundaries that must be acknowledged to situate the findings appropriately.

1. Scope and Representativeness

While the study spans three Maghrebi countries—Algeria, Tunisia, and Libya—its sample is intentionally delimited to selected public universities with active incubators. As such, the findings may not fully capture the realities of:

- Private universities or technical institutes
- Rural or conflict-affected campuses
- Countries like Mauritania or Morocco, which were not included

However, this focused scope allows for depth over breadth, and yields rich insights into the comparative dynamics of public higher education ecosystems.

2. Access Constraints

Due to administrative complexities and political volatility—especially in Libya—access to

some key stakeholders and institutions was restricted. This may have led to the overrepresentation of more accessible or proactive actors, while silencing marginalized or critical voices.

3. Conceptual Fluidity

Inclusive innovation, as a concept, remains fluid and culturally situated. Despite careful operationalization, participants may have interpreted its dimensions differently based on personal, disciplinary, or linguistic contexts. The study mitigated this through open-ended prompts and follow-up clarification, but some variation is inevitable.

4. Researcher Positionality

As a researcher embedded in the Maghrebi region, I brought both proximity and bias. While my familiarity with the context enabled trust and interpretive nuance, it also required reflexivity to ensure that personal assumptions did not distort analysis. Peer debriefing and cross-validation were used to strengthen objectivity.

Ethical Considerations

This study adhered to standard ethical principles as articulated in the Declaration of Helsinki (WMA, 2013):

- Participation was strictly voluntary, with informed consent obtained from all respondents.
- No identifying personal data were collected.
- Anonymity and confidentiality were maintained throughout all phases.
- Participants were informed of their right to withdraw at any time without consequence.

In addition, cultural sensitivity was observed throughout, with tools adapted linguistically and contextually to respect local norms, and data collection conducted in Arabic or French, depending on participant preference.

By acknowledging these limitations and ethical commitments, the study reinforces its credibility, transparency, and contextual integrity—qualities that are essential for producing research that is both academically rigorous and socially responsible.

4. Findings and Discussion

This chapter presents the empirical findings of the study, integrating both quantitative and qualitative results to explore the functioning and inclusiveness of university-based entrepreneurial ecosystems across Algeria, Tunisia, and Libya. The chapter follows the four core ecosystem dimensions identified in the conceptual framework:

- Access to Entrepreneurial Support
- Equity in Resource Distribution
- Quality of Relational Support
- Perceived Social Impact of Innovation

Each section synthesizes statistical patterns with narrative insights, offering a layered understanding of student experiences within these fragile innovation environments. By anchoring the findings in the Theory of Planned Behavior (TPB) and inclusive innovation frameworks, this chapter highlights both the structural enablers and cultural barriers shaping entrepreneurial engagement across the Maghreb.

4.1 Overview of the Sample and Contextual Anchoring

The final dataset included responses from 198 student entrepreneurs affiliated with university-based incubators in Algeria (40%), Tunisia (34%), and Libya (26%). The gender distribution was relatively balanced (55% male, 45% female), and participants represented a range of academic disciplines and project types—tech (41%), social (32%), and hybrid ventures (27%).

While the statistics offer a structured overview, what matters most in this study is what lies beneath the numbers—the emotional texture, institutional contradictions, and cultural negotiations that define what it means to innovate as a student in North Africa.

The remainder of this chapter presents an in-depth discussion of the four core ecosystem dimensions identified in the conceptual framework:

- Access to Entrepreneurial Support
- Equity in Resource Distribution
- Quality of Relational Support
- Perceived Social Impact of Innovation

Each theme is examined using both quantitative results and qualitative narratives, enabling a layered interpretation that is both empirical and experiential.

4.2.1 Access to Entrepreneurial Support

Access to entrepreneurial support stands as the first gateway in any innovation journey. In the context of Maghrebi universities, this dimension reveals the extent to which student entrepreneurs can navigate and benefit from available institutional mechanisms—be they incubators, training programs, mentorship, or information systems.

📊 Quantitative Insights

Survey data shows that only 38% of respondents agreed that their universities provided clear and accessible pathways to entrepreneurship support. While 52% acknowledged the existence of incubation structures, far fewer felt that they could engage with them meaningfully or consistently. Key barriers included:

- Lack of awareness of available programs
- Unclear selection processes
- Bureaucratic gatekeeping
- Urban–rural access gaps

Country-level trends revealed that Tunisian students reported the highest perceived access (avg. score: 3.6/5), reflecting the relatively structured policy environment. In contrast, Algerian respondents expressed frustration with opaque procedures and limited visibility of opportunities (avg. score: 2.9/5). Libyan students, while acknowledging severe infrastructure gaps, emphasized informal peer-led access strategies that partially compensated for institutional absence.

 Qualitative Reflections

The interviews added crucial depth to these patterns. A student from Tunisia's University of Sousse described her incubator experience as "visible, but confusing": "We have an entrepreneurship center on campus, but you need to already know someone inside to understand how it works. It's not for beginners."

In Algeria, the issue was not just access, but credibility. One respondent from the University of Batna noted: "Yes, we heard of programs. But no one knew if they were real or just for show. Some students apply every year and never hear back."
Such sentiments reflect a broader trust deficit—not only in the availability of support, but in the integrity and transparency of access.
In Libya, the picture was different yet equally revealing. Students spoke of non-institutional access: guidance came through WhatsApp groups, alumni circles, or volunteer mentors. A participant from Benghazi put it simply: "The university wasn't ready for us. So we created our own network."
This DIY culture of innovation support reveals both resilience and risk. While informal systems may foster agility and solidarity, they often lack sustainability, protection, and scalability.

 Interpretation and Theoretical Anchoring
From a TPB lens, access—or the lack thereof—affects perceived behavioral control, a key predictor of entrepreneurial intention. When support structures are fragmented or poorly communicated, students internalize uncertainty and hesitation.
In a region where institutional trust is fragile, access is not simply a matter of doors being open—it is about knowing you are welcome to walk through them.

4.2.2 Equity in Resource Distribution
If access represents the entry point into entrepreneurial ecosystems, equity governs how far a student can go once inside. In the Maghrebi university context, equity is not simply about the presence of opportunities—it is about how those opportunities are allocated, to whom, and under what implicit assumptions.

 Quantitative Insights
Survey findings revealed a concerning pattern: only 29% of respondents believed that resources—such as funding, training, visibility, and mentorship—were distributed fairly within their incubators. When disaggregated by country:
- Tunisian students reported selective fairness, where business and engineering students were prioritized.
- Algerian students described a more hierarchical dynamic, where access to resources often depended on personal ties or faculty favoritism.
- Libyan respondents often did not perceive inequity per se, but rather a total absence of structured distribution—resulting in a default reliance on informal access.
Gender analysis showed that female students across Algeria and Libya were significantly less likely to report receiving follow-up support or individualized mentoring, suggesting both structural and cultural biases in resource flows.

 Qualitative Reflections
Students' narratives brought these statistics to life. A Tunisian literature student expressed frustration: "I applied three times with a community-based tourism project. The response was always: 'Interesting, but not technical enough.' Meanwhile, my friend from IT got in immediately."
In Algeria, a student from Skikda said bluntly: "We all submitted our files. But only those connected to faculty got funding. The rest of us were told to wait indefinitely."

In Libya, a different dynamic emerged. A participant from Tripoli noted: "There's no unfairness because there's no system. It's random. If you have a relative in business, you might get something. Otherwise, nothing."
These reflections point to a pattern of institutional opacity and social selectivity, where certain disciplines, genders, or social profiles are favored—often implicitly, but persistently.

Interpretation and Theoretical Anchoring

From the standpoint of inclusive innovation, equity is not about uniform distribution—but about responsive fairness: systems that recognize diverse starting points and actively work to bridge gaps. When equity is absent, innovation ecosystems risk becoming mirrors of existing social hierarchies rather than mechanisms for disruption or transformation.
In TPB terms, perceived inequity undermines both attitudes toward entrepreneurship (e.g., "it's not for people like me") and perceived behavioral control (e.g., "no matter what I do, I won't be chosen").
Moreover, the findings align with what Kabeer (2005) describes as "token participation"—where inclusion is offered in form but not in substance. Students are invited to apply but not to succeed.

Emerging Insight

True equity in Maghrebi university ecosystems will require more than gender-sensitive brochures or startup pitch competitions. It requires:
- Transparent, criteria-based selection processes
- Cross-disciplinary inclusion (especially for humanities and social ventures)
- Proactive support for rural and first-generation students
- Institutional cultures that reward relevance, not just scalability or tech appeal

In short, equity must become a design principle, not a post-hoc correction.

4.2.3 Quality of Relational Support

In entrepreneurial ecosystems—especially those embedded in fragile institutional contexts—relationships are infrastructure. Beyond physical spaces and funding schemes, what often determines the trajectory of student entrepreneurs is the quality of human connection: mentorship, encouragement, trust, and belonging.

Quantitative Insights

Survey data revealed that only 27% of respondents described their interactions with incubator staff, mentors, or faculty as "encouraging and constructive." The rest characterized their experiences as:
- Formal or procedural (41%)
- Intermittent or inconsistent (19%)
- Distant or intimidating (13%)

Country-level observations showed:
- Tunisia: presence of structured mentorship, but high dependency on individual personalities. If the mentor was engaged, the system worked; if not, it stalled.
- Algeria: frequent reports of hierarchical communication and minimal feedback culture, especially in non-urban universities.

- Libya: absence of formal mentoring, compensated by horizontal peer support networks—resilient but unstructured.

 Qualitative Reflections

These dynamics were vividly illustrated in student testimonies. A Tunisian engineering student noted: "Our mentor was great—when he was there. But when he traveled, everything froze. There was no system, only him."

In Algeria, a Batna student recalled being dismissed: "I asked how to validate our market assumptions. The incubator manager said: 'That's not our job. Go figure it out.' It felt like I was bothering him."

Libyan students offered a different story. One from Misrata explained: "We didn't have mentors, so we created our own circle. We're learning from each other, but sometimes we don't know what we don't know."

These reflections point not only to gaps in relational infrastructure, but to a broader issue of emotional availability. In several cases, students—especially women—described interactions with male mentors as limited or cautious, leading to less feedback, fewer follow-ups, and a sense of being politely excluded.

 Interpretation and Theoretical Anchoring

Within the TPB framework, relational support directly influences attitudes toward entrepreneurship and indirectly shapes perceived behavioral control. When students feel unseen or unwelcome, they are less likely to internalize entrepreneurship as a viable or desirable path.

Moreover, research on entrepreneurial ecosystems (Welter et al., 2019) emphasizes that relational trust is not a soft factor—it is foundational. Without empathy, reciprocity, and continuity, support becomes surveillance, and guidance turns into gatekeeping.

In Maghrebi universities, the relational vacuum is compounded by cultural patterns of authority, lack of mentor training, and institutional inertia. Students are often left navigating ambiguous environments where silence is interpreted as rejection, and procedural formality replaces genuine connection.

 Emerging Insight

The findings suggest that universities must move beyond assigning mentors as a checkbox. Instead, they should:

- Train staff in inclusive advising and emotional intelligence
- Promote informal relationship-building (e.g., peer cafés, open office hours)
- Diversify mentorship pools by gender, discipline, and experience
- Recognize that belonging is a precondition for innovation, not a by-product

Relational support is not about having someone to talk to—it's about having someone who listens, remembers, and responds. Without that, even the most resource-rich ecosystem feels empty.

4.2.4 Perceived Social Impact of Innovation

In traditional startup metrics, success is often gauged by revenue, scalability, or exit strategy. But in fragile economies—where public services are strained, inequality is rampant, and institutional trust is eroded—entrepreneurship often carries a different

weight. It becomes a way to repair what has been neglected, reclaim visibility, or reimagine futures for the underserved. This is the essence of perceived social impact.

Quantitative Insights

When asked whether their entrepreneurial projects addressed a social problem or improved community wellbeing, only 35% of respondents strongly agreed. While nearly 60% saw some degree of social relevance, many expressed uncertainty about whether their work would be recognized—or supported—as "real innovation."

Key country-specific observations:

- Tunisia: Students working on sustainability or health projects reported that their work was "appreciated but sidelined" in favor of tech ventures with clear commercialization paths.
- Algeria: Social ventures were often diverted toward competitions or charity initiatives, with minimal institutional support for incubation.
- Libya: Despite lacking formal validation, students strongly identified as social innovators, using community feedback as a proxy for impact.

Qualitative Reflections

A Tunisian student developing an inclusive tourism platform noted: "They loved our idea, but said it wasn't scalable. So we weren't incubated. But it helps real people—that should count."

An Algerian respondent working on e-learning for deaf children shared: "It was seen as a nice side project, not a startup. But for us, it was everything."

In Libya, a student from Sabha described her project—a solar-powered water system for remote villages—as "not profitable, but powerful": "They told me: you need a business model. I told them: we need water first."

These testimonies challenge conventional notions of value and point to a deep disconnect between student purpose and institutional recognition.

Interpretation and Theoretical Anchoring

Perceived social impact is closely tied to attitude toward behavior in the TPB framework. When students feel that their innovation serves a greater good, their intention is reinforced. But when that impact is marginalized—or invisible—within the institutional ecosystem, motivation suffers.

Moreover, inclusive innovation theory urges us to expand what counts as innovation. Low-cost, culturally grounded, community-driven solutions are often overlooked in favor of high-tech, high-return ventures. This bias reproduces exclusion within systems that claim to promote equity.

In the Maghrebi context, students are not merely launching businesses—they are patching social gaps, sometimes with little more than goodwill and grit. Yet without institutional validation, their work remains peripheral.

Emerging Insight

The study reveals that innovation in the Maghreb is often social by necessity, not design. Students address what the state cannot or will not. But universities continue to reward models of innovation that prioritize scalability over significance, and commercial viability over community relevance.

To reverse this, institutions must:
- Incorporate impact-based evaluation criteria in incubator programs
- Offer dedicated tracks for social and solidarity entrepreneurship
- Celebrate local ingenuity and contextual problem-solving
- Create platforms for storytelling and visibility beyond pitch competitions

Inclusion does not only mean who gets to participate—it also means what ideas are seen, supported, and sustained.

4.3 Cross-Country Comparative Reflections

Having analyzed the four ecosystem dimensions independently, it becomes clear that the entrepreneurial experiences of students across the Maghreb are shaped less by shared regional identity and more by institutional divergence. Each country reflects a distinct configuration of enablers, constraints, and cultural dynamics that influence how inclusive innovation is interpreted—and operationalized.

TN Tunisia: Structured Presence, Selective Inclusion

Tunisian universities consistently scored higher across most indicators—particularly in access and mentorship. This reflects a policy environment that has invested significantly in entrepreneurship infrastructure, supported by international actors such as GIZ and the EU.

However, the inclusion gap remains real. Students outside STEM fields, or those from rural regions, reported a surface-level access to ecosystem resources. Their projects were often perceived as peripheral or symbolic. As one student put it: “There are doors, yes. But not all of us have the keys.”

This is what Tandon and Ranjan (2021) call architectural inclusion without cognitive inclusion: institutions are present, but not always perceptive.

DZ Algeria: Institutional Expansion, Ecosystem Fragmentation

In Algeria, the past five years have seen a proliferation of entrepreneurship centers and incubators across public universities. But this expansion is often infrastructural, not cultural.

Students repeatedly described systems that were opaque, inconsistent, and overly centralized. Some reported enthusiasm from local coordinators, but most faced bureaucratic inertia, unclear selection logic, and mentorship that felt more like supervision than support.

Perhaps most strikingly, social impact ventures were routinely sidelined in favor of commercially scalable ones—even when those ventures were misaligned with local needs. The result is a widening credibility gap between what institutions promote and what students experience.

LY Libya: Absence of Structure, Abundance of Solidarity

Libya presents a unique case: prolonged conflict and institutional disintegration have left universities with little formal incubation infrastructure. Yet paradoxically, students reported some of the strongest relational and social impact dynamics—not because of the system, but in spite of it.

Innovation in Libyan campuses is often peer-driven, community-informed, and resiliently informal. Students have formed mentorship circles, WhatsApp knowledge exchanges, and

collective prototyping spaces. These horizontal ecosystems offer agility and relevance—but lack sustainability, funding, and validation.

As one student from Tripoli noted: "The university was empty. So we filled it—with each other."

This is a reminder that ecosystems are not just built—they are lived.

 Synthesis: The Cost of Misalignment

Despite their differences, all three countries exhibit a common challenge: misalignment between institutional ambition and student experience.

- Tunisia shows how structure without cultural adaptation can result in formal inclusion but social exclusion.
- Algeria illustrates how presence without coherence breeds cynicism, fatigue, and wasted potential.
- Libya reveals how informal innovation without institutional anchoring can inspire—but remain fragile.

What is needed is not a "Maghrebi model" imposed from above, but rather ecosystem literacy at the university level: the capacity to read the local context, listen to students, and design inclusive mechanisms that are relevant, responsive, and humane.

4.4 Implications and Policy Insights

The findings of this study carry important implications not only for university incubators but also for policy makers, international partners, and civil society actors across the Maghreb. They call for a shift from performative entrepreneurship policy to an ecosystemic approach that centers inclusion, contextual realism, and ethical responsiveness.

🏛 Institutional Implications: Rehumanizing University Ecosystems

Maghrebi universities have increasingly adopted the language of entrepreneurship—opening centers, launching competitions, and hosting events. Yet for many students, these structures feel hollow, disconnected from their needs and realities. The call here is not for more infrastructure, but for a deeper institutional intention:

- Redefine success metrics beyond startup count to include social impact, student empowerment, and community benefit.
- Embed inclusivity and care into ecosystem design—not as add-ons, but as core design values.
- Train incubator staff and faculty not only as technical advisors, but as relational mentors, capable of active listening and inclusive support.

⚖ Equity as a Principle, Not a Patch

The study revealed persistent equity gaps—by discipline, geography, gender, and social background. To address this, universities must move from token inclusion to equity by design:

- Develop transparent and inclusive selection criteria for incubators and entrepreneurship programs.
- Create dedicated support pathways for underrepresented groups—including students from non-STEM backgrounds and rural campuses.
- Allocate resources using context-sensitive weighting (e.g., social relevance, local innovation, team diversity).

🌱 Leveraging Informal Ecosystems: From Margins to Models
In contexts like Libya, where formal structures are weak, students have built informal innovation networks. These deserve recognition not as stopgaps, but as emergent ecosystems worthy of investment:
- Offer micro-grants or flexible funding for peer-led or community-based initiatives.
- Map and integrate informal actors into the broader innovation ecosystem.
- Promote student-led governance models within incubators to ensure bottom-up inclusion.

🌍 Toward a Maghrebi Model of Inclusive Innovation
Rather than importing Western ecosystem models, North African universities should co-create a regional paradigm rooted in:
- Plurality of value: embracing cultural relevance, emotional resonance, and community utility.
- Democratization of expertise: elevating voices from all disciplines, not just business and tech.
- Ethics of care: recognizing the emotional and social labor of innovation in fragile contexts.

A Libyan student said it best: "Innovation here is not about apps. It's about helping someone survive the week." This is the ethos Maghrebi universities must honor.

5. Conclusion, Recommendations, and Future Research

5.1 General Conclusion

This study has explored the intersection of inclusive innovation, entrepreneurial intention, and university-based incubators across three fragile and distinct Maghrebi contexts: Algeria, Tunisia, and Libya. By adopting a mixed-methods approach and anchoring the analysis in the Theory of Planned Behavior (TPB), the study has provided a nuanced understanding of how structural, relational, and psychological factors converge to shape student entrepreneurship.

The findings reveal that while entrepreneurial ecosystems exist in form, their inclusivity is often conditional, fragmented, or symbolic. Students from non-STEM fields, rural regions, and marginalized backgrounds continue to face systemic hurdles—ranging from opaque access procedures to relational exclusion and a narrow conception of innovation that privileges commercial over social value.

Yet amid these constraints, the research also uncovers powerful counter-narratives: students forming informal innovation networks in Libya; social entrepreneurs in Algeria designing solutions for underserved populations; Tunisian initiatives navigating rigid systems with creativity and resolve. These voices underscore a central insight: inclusive innovation is already happening—it simply needs to be seen, supported, and sustained.

Universities, therefore, must go beyond infrastructure and slogans. They must embrace their potential as civic institutions—capable of democratizing innovation, nurturing trust, and validating diverse entrepreneurial pathways. Only then can entrepreneurship truly become a lever of inclusive development in turbulent economies.

5.2 Strategic and Policy Recommendations

Drawing from the study's empirical findings and grounded conceptual analysis, the following multi-level recommendations are proposed to support a more inclusive, responsive, and context-sensitive model of academic entrepreneurship in the Maghreb.

🏛 At the Institutional Level (Universities and Incubators)

- Redefine What Counts as Innovation: Universities must expand their recognition frameworks beyond commercially scalable tech ventures to include:
  - Socially impactful projects
  - Culturally embedded solutions
  - Low-cost, community-driven models
- Embed Equity into Incubator Design: Shift equity from a symbolic commitment to a design principle by:
  - Implementing inclusive eligibility criteria
  - Prioritizing underrepresented groups (non-STEM, rural, women)
  - Applying weighted evaluation metrics based on community relevance
- Re-center Human Relationships: Institutional actors must be trained in:
  - Inclusive mentorship and active listening
  - Trauma-informed advising (especially in post-conflict contexts)
  - Culturally sensitive engagement that respects student diversity
- Create Social Impact Tracks in Entrepreneurship Programs: Offer tailored support for ventures that:
  - Address local development goals
  - Collaborate with NGOs or public institutions
  - Operate outside traditional business logics

 At the Policy Level (National Ministries and Public Agencies)

- Decentralize and Localize Entrepreneurship Policy: Give universities autonomy to:
  - Adapt national strategies to local contexts
  - Design programs reflective of campus-specific realities
  - Innovate in collaboration with civil society actors
- Institutionalize Student Voice and Co-Governance: Involve students not just as recipients, but as co-architects of incubation systems:
  - Advisory boards with student representation
  - Feedback loops integrated into policy cycles
  - Participatory evaluations of ecosystem effectiveness
- Expand Public Investment in Inclusive Innovation: Allocate targeted funding toward:
  - Universities serving underserved populations
  - Student-led initiatives with measurable social impact
  - Ecosystem-building efforts in interior and peripheral regions

🌍 At the International and Donor Level

- Support Informal Innovation Networks: In contexts like Libya, informal peer ecosystems are vital. Donors should:
  - Recognize them as legitimate innovation spaces
  - Offer microgrants, training, and visibility platforms
  - Invest in horizontal, low-barrier forms of ecosystem resilience

- Avoid Standardized "One-Size" Incubation Models: Instead, fund:
  • Context-adapted, bottom-up strategies
  • Embedded research on student experiences
  • Long-term capacity-building with local ownership
- Embrace Plurality and Complexity: Innovation in the Global South does not follow linear models. International partners must:
  • Acknowledge non-Western logics of value creation
  • Reframe success beyond scalability to include relevance, dignity, and inclusion
  • Invest not just in outcomes, but in relationships, trust, and process

5.3 Study Limitations and Future Research Directions

Like all empirical research, this study is shaped by its methodological, contextual, and temporal constraints. Acknowledging these limitations not only situates the findings, but opens pathways for deeper, more expansive future inquiry.

🚧 Study Limitations

- Geographic and Institutional Scope: While the study included 198 student entrepreneurs from Algeria, Tunisia, and Libya, the sample was limited to selected public universities with active incubation structures. This may not fully reflect:
  • Private or technical institutions
  • Rural campuses or marginalized regions
  • Other Maghrebi countries such as Mauritania or Morocco
- Access and Response Bias: Due to political and logistical constraints—especially in Libya—some stakeholders and less-visible student groups may have been underrepresented. Participation was also shaped by:
  • Availability of respondents
  • Comfort with discussing sensitive institutional issues
  • Internet access or administrative gatekeeping
- Conceptual Fluidity of "Inclusive Innovation": Although clearly defined in the study, participants may have interpreted "inclusion" or "innovation" differently based on discipline, background, or exposure to the concept. Despite efforts to ensure clarity, some semantic variance is inevitable.
- Researcher Positionality: As a researcher embedded in the Maghrebi context, my positionality enriched the fieldwork with cultural proximity and trust. Yet it also required reflexivity to mitigate bias and over-identification. The study's integrity was strengthened through:
  • Triangulation of sources
  • Peer feedback
  • Transparency of analytical process

🔍 Future Research Directions

- Expanding the Regional Scope: Future studies could include:
  • Comparative analysis with Morocco, Mauritania, or diaspora-based incubators
  • Longitudinal tracking of startups from university to market
  • Cross-institutional benchmarking of inclusive practices
- Intersectional and Gendered Analysis: The gendered dimensions of access and

mentorship deserve deeper exploration, particularly:
- In conservative or male-dominated academic fields
- Among rural or first-generation female entrepreneurs

- Ethnographic and Participatory Approaches: Richer understanding could emerge from:
- Embedded observation inside incubation programs
- Co-research with student innovators
- Visual and narrative methods to capture informal ecosystems

- Policy Impact Evaluation: Future work could analyze:
- The translation of national entrepreneurship strategies into university realities
- The gap between policy intent and student experience
- The role of international partners in shaping local innovation cultures

✨ Final Thought

This study is both a contribution and an invitation. It offers a lens to examine inclusion in innovation—but it also calls on researchers to listen differently, design differently, and measure differently. Because inclusive ecosystems do not emerge from blueprints. They are built through dialogue, humility, and shared authorship.

References

Ajzen, I. (1991). The Theory of Planned Behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211.

Akpan, W., Essien, A., & Ismail, K. (2020). Contextualizing inclusive innovation in Sub-Saharan Africa: A framework. African Journal of Science, Technology, Innovation and Development, 12(3), 283–293.

Audretsch, D. B., & Belitski, M. (2021). The role of universities in entrepreneurial ecosystems: A dynamic perspective. Industrial and Corporate Change, 30(6), 1675–1696.

Bennani, R., & Bougroum, M. (2022). L'entrepreneuriat social au Maroc: état des lieux et perspectives. Revue Marocaine de Recherche en Management et Marketing, 26, 25–44.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101.

Cozzens, S., & Sutz, J. (2014). Innovation in informal settings: A research agenda. Innovation and Development, 4(1), 5–31.

El Fassi, M., Berrada, F., & Amine, M. (2023). Entrepreneuriat à impact et universités africaines: vers un modèle inclusif. African Journal of Entrepreneurship and Innovation, 6(1), 44–60.

El Ghazali, A., & Ghezali, R. (2023). Université et entrepreneuriat au Maghreb: un modèle en transition. Revue Internationale PME, 36(2), 101–124.

Farinha, L., Ferreira, J. J., & Ratten, V. (2020). University-based incubators and accelerators: A co-evolutionary perspective on innovation ecosystems. Journal of Innovation & Knowledge, 5(3), 234–243.

George, G., Corbishley, C., Khayesi, J. N., Haas, M. R., & Tihanyi, L. (2022). Bringing Africa in: Promising directions for management research. Academy of Management Journal, 65(1), 234–243.

George, G., McGahan, A. M., & Prabhu, J. (2012). Innovation for inclusive growth: Towards a theoretical framework and a research agenda. Journal of Management Studies, 49(4), 661–683.

Ghosh, S. (2022). Inclusive innovation policy and grassroots initiatives in India. Technological Forecasting and Social Change, 174, 121243.

Grillitsch, M., Hansen, T., Coenen, L., Miörner, J., & Moodysson, J. (2021). Innovation and sustainability transitions in regional studies. Regional Studies, 55(6), 735–748.

Guerrero, M., & Urbano, D. (2021). Towards an entrepreneurial university model: Revisited. In Entrepreneurial Universities (pp. 1–26). Springer.

Heeks, R., Foster, C., & Nugroho, Y. (2014). New models of inclusive innovation for development. Innovation and Development, 4(2), 175–185.

Kabeer, N. (2005). Inclusive citizenship: Meanings and expressions. Zed Books.

Kherbouche, D., & Amroune, A. (2021). La dynamique entrepreneuriale en Algérie: entre dispositifs institutionnels et réalités universitaires. Cahiers du CEREM, 19(2), 143–158.

OECD (2022). Enhancing University Entrepreneurship in the MENA Region. OECD Publishing.

Pansera, M., & Owen, R. (2018). Framing inclusive innovation within the discourse of development: Insights from case studies. Research Policy, 47(9), 1685–1694.

Papaioannou, T. (2021). Rethinking innovation and development as inclusive processes. Innovation and Development, 11(1), 1–18.

Ratten, V. (2020). Coronavirus (COVID-19) and entrepreneurship: Changing life and work landscape. Journal of Small Business & Entrepreneurship, 32(5), 503–516.

Siegel, D. S., & Wright, M. (2015). Academic entrepreneurship: Time for a rethink? British Journal of Management, 26(4), 582–595.

Smith, A., & Ely, A. (2015). Green transformations from below? The politics of grassroots innovation. In Routledge Handbook of Transformative Innovation.

Spigel, B., & Harrison, R. (2018). Toward a process theory of entrepreneurial ecosystems. Strategic Entrepreneurship Journal, 12(1), 151–168.

Stam, E., & van de Ven, A. (2021). Entrepreneurial ecosystem elements. Small Business Economics, 56(2), 809–832.

Tandon, A., & Ranjan, S. (2021). Navigating the inclusion-exclusion paradox in entrepreneurship ecosystems. Journal of Business Venturing Insights, 15, e00251.

Triki, M., Bouguerra, A., & Ghozzi, H. (2023). Les universités tunisiennes face au défi de l'entrepreneuriat étudiant. Revue Tunisienne des Sciences de Gestion, 36(1), 74–92.

Welter, F., Baker, T., Audretsch, D. B., & Gartner, W. B. (2019). Everyday entrepreneurship—A call for entrepreneurship research to embrace entrepreneurial diversity. Entrepreneurship Theory and Practice, 43(3), 341–351.

Wright, M., Siegel, D. S., & Mustar, P. (2017). An emerging ecosystem for student start-ups. Journal of Technology Transfer, 42(4), 909–922.

Zawislak, P. A., Tello-Gamarra, J., Alves, A. C., & Barbieux, D. (2018). Innovation capability: From technology development to transaction capability. Journal of Technology Management & Innovation, 13(1), 3–16.

Zghal, M., & Ben Rejeb, N. (2023). Les écosystèmes entrepreneuriaux inclusifs en Afrique du Nord: enjeux et perspectives. Revue Africaine de Management, 10(2), 67–88.

References

Ajzen, I. (1991). The Theory of Planned Behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211.

Akpan, W., Essien, A., & Ismail, K. (2020). Contextualizing inclusive innovation in Sub-Saharan Africa: A framework. African Journal of Science, Technology, Innovation and Development, 12(3), 283–293.

Audretsch, D. B., & Belitski, M. (2021). The role of universities in entrepreneurial ecosystems: A dynamic perspective. Industrial and Corporate Change, 30(6), 1675–1696.

Bennani, R., & Bougroum, M. (2022). L'entrepreneuriat social au Maroc: état des lieux et perspectives. Revue Marocaine de Recherche en Management et Marketing, 26, 25–44.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101.

Cozzens, S., & Sutz, J. (2014). Innovation in informal settings: A research agenda. Innovation and Development, 4(1), 5–31.

El Fassi, M., Berrada, F., & Amine, M. (2023). Entrepreneuriat à impact et universités africaines: vers un modèle inclusif. African Journal of Entrepreneurship and Innovation, 6(1), 44–60.

El Ghazali, A., & Ghezali, R. (2023). Université et entrepreneuriat au Maghreb: un modèle en transition. Revue Internationale PME, 36(2), 101–124.

Farinha, L., Ferreira, J. J., & Ratten, V. (2020). University-based incubators and accelerators: A co-evolutionary perspective on innovation ecosystems. Journal of Innovation & Knowledge, 5(3), 234–243.

George, G., Corbishley, C., Khayesi, J. N., Haas, M. R., & Tihanyi, L. (2022). Bringing Africa in: Promising directions for management research. Academy of Management Journal, 65(1), 234–243.

George, G., McGahan, A. M., & Prabhu, J. (2012). Innovation for inclusive growth: Towards a theoretical framework and a research agenda. Journal of Management Studies, 49(4), 661–683.

Ghosh, S. (2022). Inclusive innovation policy and grassroots initiatives in India. Technological Forecasting and Social Change, 174, 121243.

Grillitsch, M., Hansen, T., Coenen, L., Miörner, J., & Moodysson, J. (2021). Innovation and sustainability transitions in regional studies. Regional Studies, 55(6), 735–748.

Guerrero, M., & Urbano, D. (2021). Towards an entrepreneurial university model: Revisited. In Entrepreneurial Universities (pp. 1–26). Springer.

Heeks, R., Foster, C., & Nugroho, Y. (2014). New models of inclusive innovation for development. Innovation and Development, 4(2), 175–185.

Kabeer, N. (2005). Inclusive citizenship: Meanings and expressions. Zed Books.

Kherbouche, D., & Amroune, A. (2021). La dynamique entrepreneuriale en Algérie: entre dispositifs institutionnels et réalités universitaires. Cahiers du CEREM, 19(2), 143–158.

OECD (2022). Enhancing University Entrepreneurship in the MENA Region. OECD Publishing.

Pansera, M., & Owen, R. (2018). Framing inclusive innovation within the discourse of development: Insights from case studies. Research Policy, 47(9), 1685–1694.

Papaioannou, T. (2021). Rethinking innovation and development as inclusive processes. Innovation and Development, 11(1), 1–18.

Ratten, V. (2020). Coronavirus (COVID-19) and entrepreneurship: Changing life and work landscape. Journal of Small Business & Entrepreneurship, 32(5), 503–516.

Siegel, D. S., & Wright, M. (2015). Academic entrepreneurship: Time for a rethink? British Journal of Management, 26(4), 582–595.

Smith, A., & Ely, A. (2015). Green transformations from below? The politics of grassroots innovation. In Routledge Handbook of Transformative Innovation.

Spigel, B., & Harrison, R. (2018). Toward a process theory of entrepreneurial ecosystems. Strategic Entrepreneurship Journal, 12(1), 151–168.

Stam, E., & van de Ven, A. (2021). Entrepreneurial ecosystem elements. Small Business Economics, 56(2), 809–832.

Tandon, A., & Ranjan, S. (2021). Navigating the inclusion-exclusion paradox in entrepreneurship ecosystems. Journal of Business Venturing Insights, 15, e00251.

Triki, M., Bouguerra, A., & Ghozzi, H. (2023). Les universités tunisiennes face au défi de l'entrepreneuriat étudiant. Revue Tunisienne des Sciences de Gestion, 36(1), 74–92.

Welter, F., Baker, T., Audretsch, D. B., & Gartner, W. B. (2019). Everyday entrepreneurship—A call for entrepreneurship research to embrace entrepreneurial diversity. Entrepreneurship Theory and Practice, 43(3), 341–351.

Wright, M., Siegel, D. S., & Mustar, P. (2017). An emerging ecosystem for student start-ups. Journal of Technology Transfer, 42(4), 909–922.

Zawislak, P. A., Tello-Gamarra, J., Alves, A. C., & Barbieux, D. (2018). Innovation capability: From technology development to transaction capability. Journal of Technology Management & Innovation, 13(1), 3–16.

Zghal, M., & Ben Rejeb, N. (2023). Les écosystèmes entrepreneuriaux inclusifs en Afrique du Nord: enjeux et perspectives. Revue Africaine de Management, 10(2), 67–88.

Appendices

Appendix A – Survey Instrument

The following items were included in the student survey, grouped by analytical dimensions. Responses were recorded using a 5-point Likert scale (1=Strongly Disagree to 5=Strongly Agree).

Accessibility of Support
- My incubator provides clear information on entrepreneurship programs.
- Entrepreneurship services are well publicized on campus.
- Application procedures for support programs are simple and transparent.

Equity in Service Delivery
- All students have an equal chance to benefit from incubator programs.
- Selection criteria are fair and inclusive.
- Programs are accessible to students from different academic backgrounds.

Relational Support Quality
- I can rely on mentors when I need guidance.
- Incubator staff are supportive and responsive.
- Peer collaboration is encouraged within the incubator.

Social Impact Orientation
- My project aims to serve a specific community or social issue.
- My incubator values socially-driven innovations.
- Support is available for social entrepreneurship projects.