

The Role of University Libraries in Fostering Entrepreneurial Culture Among University Students: A Case Study of Students Engaged in Economic Enterprise Projects at the Faculty of Humanities and Social Sciences, Djilali Liabes University, Sidi Bel Abbès

دور المكتبات الجامعية في تنمية الثقافة المقاولاتية لدى الطلبة الجامعيين: دراسة حال مجتمع الطلبة حاملي مشاريع المؤسسات الاقتصادية بكلية العلوم الإنسانية والاجتماعية بسبدي بلعباس

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Abstract :

This study examines the role of Djilali Liabes University libraries (Sidi Bel Abbès) in supporting entrepreneurial culture among Humanities and Social Sciences students. Using a descriptive survey design, data were collected from a purposive sample of 51 students (96.1% at the Master's level). Findings indicate moderate perceived support across key dimensions: informational resources ($M=3.10$, $SD=1.03$), guidance services ($M=2.94$, $SD=1.07$), infrastructure ($M=3.55$, $SD=0.89$), and economic openness ($M=3.27$, $SD=0.22$). While physical spaces were positively rated, significant gaps persist in practical resources and personalized mentoring. The most cited barrier was the scarcity of up-to-date materials (26.2%), while 29.6% of participants prioritized establishing a dedicated entrepreneurship corner. The overall entrepreneurial impact was moderate ($M=3.00$), suggesting library support remains largely symbolic. The study recommends strategic reorientation toward curating applied resources, developing digital guidance platforms, and formalizing partnerships with business incubators to align academic libraries with the entrepreneurial mission of Fourth-Generation Universities.

Keywords: Academic libraries, Entrepreneurial culture, Student entrepreneurship, Algeria, Fourth-generation university

ملخص:

تبحث هذه الدراسة في دور مكتبات جامعة جيلالي ليابس بسبدي بلعباس في دعم الثقافة المقاولاتية لدى طلبة كلية العلوم الإنسانية والاجتماعية المنخرطين في مشاريع اقتصادية كمتطلب للتخرج. اعتمدنا لإجراء هذا البحث على منهج المسح الوصفي، حيث تم جمع البيانات عبر استبيان موجه لعينة قصدية بلغت 51 طالباً (96.1% منهم في مستوى ماستر). تكشف النتائج عن وجود دعم مُدرّك بمستوى متوسط عبر الأبعاد الرئيسية: الموارد المعلوماتية ($M=3.10$, $SD=1.03$)، وخدمات التوجيه ($M=2.94$, $SD=1.07$)، والبنية التحتية ($M=3.55$, $SD=0.89$)، والانفتاح الاقتصادي ($M=3.27$, $SD=0.22$). ورغم التقويم الإيجابي للفضاءات المادية، لا تزال فجوات واضحة قائمة في الموارد التطبيقية والإرشاد المخصص. وقد مثل نقص المصادر الحديثة العائق الأكثر شيوعاً (26.2%)، بينما أعطى 29.6% من المشاركين أولوية لإنشاء ركن مخصص لريادة الأعمال. وكان الأثر الريادي الكلي للمكتبة بمستوى متوسط ($M=3.00$)، مما يشير إلى أن دعمها يبقى رمزياً في غالبيته. وتوصي الدراسة بإعادة توجيه استراتيجي نحو اقتناء موارد تطبيقية متخصصة، وتطوير منصات توجيه رقمية، وإضفاء الطابع الرسمي على الشراكات مع حاضنات الأعمال، بما يتوافق مع المهمة الريادية لجامعات الجيل الرابع. كلمات المفتاحية: المكتبات الأكاديمية، الثقافة المقاولاتية، ريادة الأعمال الطلابية، الجزائر، جامعة الجيل الرابع.

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Introduction:

The contemporary university is increasingly conceptualized as an entrepreneurial ecosystem, particularly within the framework of Fourth-Generation Universities that emphasize knowledge transfer, innovation, and socio-economic engagement (Etzkowitz, 2013; Etzkowitz & Zhou, 2017). Within this paradigm, academic libraries are evolving from passive repositories of information into dynamic knowledge hubs that actively support student entrepreneurship through curated resources, methodological guidance, and collaborative spaces (Corrall, 2014; Melo et al., 2023). In the Algerian context, where higher education reforms aim to foster a culture of self-employment and economic initiative, the role of university libraries in supporting entrepreneurial competencies among Humanities and Social Sciences students warrants systematic investigation.

Problem Statement:

Despite policy-level emphasis on entrepreneurship in Algerian higher education, preliminary observations and institutional reports suggest a gap between the rhetorical commitment to entrepreneurial support and the operational capacity of university libraries to deliver targeted, phase-specific resources and guidance. Students undertaking graduation-based enterprise projects often report difficulties accessing practical materials, receiving personalized mentoring, or connecting with economic actors through library-mediated channels. Consequently, the scope of the research problem is delineated through the following research questions:

1. Does the library provide informational resources (print/digital) that support the development of entrepreneurial culture and start-up projects?
2. What is the nature of guidance and structured support services offered to student entrepreneurs?
3. Does the library's infrastructure provide a suitable environment for collaborative entrepreneurial work?
4. To what extent is the library open to the economic ecosystem to support start-up projects?
5. How does the library influence the transformation of participants' entrepreneurial pathways?
6. What difficulties limit student entrepreneurs' ability to benefit from library services?

Research Objectives:

The study pursues four specific objectives:

- To evaluate the adequacy and relevance of informational resources (print and digital) provided by the library for entrepreneurial project development.

- To assess the nature and perceived effectiveness of methodological guidance and support services offered to student entrepreneurs.
- To examine the suitability of library infrastructure—physical and digital—for fostering collaborative, innovation-oriented work.
- To analyze the extent of the library's institutional connectivity with business incubators and economic actors, and its impact on students' entrepreneurial trajectories.

1. A Conceptualizing the Notion of Entrepreneurial Culture:

Conceptualizing entrepreneurial culture necessitates constructing an integrative epistemological framework that synthesizes two distinct semantic domains: culture and entrepreneurship. Within the social sciences, culture is defined as an integrated system of values, beliefs, and orientations that regulate individual behavior and shape cognitive patterns within a specific society. Notably, Edgar Schein posits that culture constitutes a pattern of basic assumptions learned by a group over time, developed to guide its perceptions, decisions, and modes of interaction with its social and organizational environment (Schein, 2010). Concurrently, Geert Hofstede conceptualizes culture as a form of "collective mental programming" that dictates how individuals and groups think, act, and make decisions (Hofstede, 2001). Consequently, culture serves as a pivotal analytical lens for examining diverse social and economic behaviors, particularly entrepreneurial behavior, which is inherently governed by specific values, norms, and cultural references.

Parallel to this trajectory, the concept of entrepreneurship has transcended its conventional economic boundaries to emerge as a multifaceted cognitive and social construct. While traditionally delineated as the establishment of profit-oriented ventures, the paradigm shifted significantly through the seminal work of Joseph Schumpeter, who framed entrepreneurship around innovation and the agent's capacity to instigate "creative destruction" within economic systems (Schumpeter, 1934). Building on this foundation, Peter Drucker posited that entrepreneurship extends beyond mere venture creation; fundamentally, it constitutes a behavior rooted in the systematic identification and innovative exploitation of opportunities (Drucker, 1985). Consequently, within the cumulative scholarly discourse, entrepreneurship is no longer viewed solely as an administrative function, but rather as a distinct cognitive orientation and behavioral paradigm.

The conceptualization of entrepreneurial culture stems directly from this semantic expansion of entrepreneurship and its subsequent integration into societal and institutional cultural frameworks. As entrepreneurship came to be conceptualized as a system of values and behaviors—encompassing initiative, calculated risk-taking, creativity, and autonomy—it became feasible to frame it as a cultural construct that can be cultivated rather than an innate trait (Hisrich & Peters, 2002). Consequently, the construct of "entrepreneurial culture" encapsulates the intellectual and social milieu that fosters the translation of ideas into viable ventures and promotes the adoption of an entrepreneurial orientation across diverse spheres of life.

The nexus between culture and entrepreneurship is predicated on a core premise: entrepreneurial behavior does not emerge in isolation, but is fundamentally shaped by the value-laden and cognitive environment surrounding the individual (Thomas & Mueller, 2000). Empirical evidence substantiates that the proliferation of entrepreneurial ventures within a specific society is contingent upon the dominant value system—characterized by risk tolerance, the valorization of individual initiative, and the normalization of failure as a

learning mechanism. Consequently, entrepreneurial culture serves as a critical antecedent for cultivating individuals capable of entrepreneurial cognition and for converting knowledge into tangible economic and social value.

Within the context of educational institutions, entrepreneurial culture manifests as a pedagogical and social process designed to inculcate values of initiative and innovation among students. Entrepreneurial education extends beyond the mere transmission of knowledge regarding business creation; fundamentally, it aims to foster positive dispositions toward entrepreneurial endeavors, bolster self-efficacy, and enhance problem-solving competencies through innovative methodologies (Gibb, 2002). Consequently, entrepreneurial culture has emerged as a strategic educational objective that universities seek to integrate systematically through formal curricula, extracurricular initiatives, and supportive ecosystems that nurture creativity.

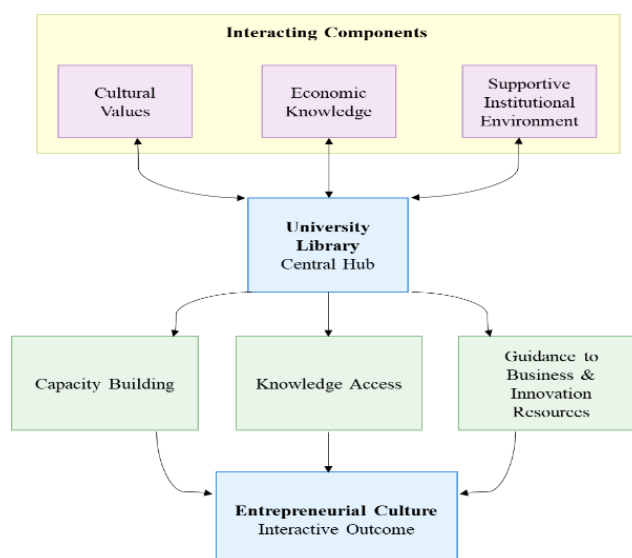
The paradigmatic shifts inherent in the knowledge economy necessitate a reconfiguration of the roles of various university stakeholders to consolidate this culture, with university libraries occupying a pivotal position. The academic library has transcended its conventional role as a passive repository of resources; it has emerged as a critical knowledge infrastructure capable of facilitating self-directed learning, innovation, and information literacy essential for informed decision-making. Given that entrepreneurial culture is predicated on the access, analysis, and mobilization of knowledge to identify opportunities, university libraries constitute pivotal institutional enablers capable of sustaining this orientation (Kuratko, 2005).

The integration of entrepreneurial culture within university libraries aligns with the paradigmatic shift toward the Fourth-Generation University model, which establishes entrepreneurship and innovation as core functions of higher education. Within this framework, the university transcends its traditional mandate of teaching and research; it is increasingly mandated to contribute directly to economic development by fostering entrepreneurial initiatives among students and researchers. As articulated by Henry Etzkowitz (2013), this transformation necessitates the integration of innovation and entrepreneurship into institutional missions. Consequently, the university library must evolve from a paradigm of traditional service provision to one of strategic cognitive support, supplying resources and information that facilitate entrepreneurial cognition and enable the conversion of ideas into viable ventures.

Elucidating the multidimensional construct of entrepreneurial culture necessitates transcending abstract theoretical exposition in favor of a visual representation that delineates the dynamic interrelationships among its constituent components. The preceding conceptual analysis substantiates that entrepreneurial culture does not emerge from a singular determinant; rather, it constitutes the outcome of systemic interactions among cultural values, knowledge mobilization, and a supportive institutional ecosystem within the university. Given that university libraries represent the locus most capable of embodying this interaction and operationalizing it into practical application, comprehending their role necessitates a conceptual model that positions them at the core of this system. Accordingly, the following figure is presented as a conceptual framework illustrating the positioning of the university library as a central nexus mediating between knowledge and institutional inputs and the resultant outputs of entrepreneurial culture.

Figure 1.

The Role of the University Library as a Central Hub in Building Entrepreneurial Culture



Source: Prepared by the author.

The figure delineates that entrepreneurial culture within the university emerges through a dynamic interplay wherein three core determinants converge: cultural values, knowledge mobilization, and a supportive institutional ecosystem. These determinants do not function in isolation but are characterized by a continuous and synergistic relationship. The model positions the university library as a central nexus, receiving these inputs and operationalizing them into targeted services and interventions directed toward students and researchers. By facilitating knowledge access, the library empowers users with specialized information resources requisite for navigating business and innovation landscapes. Through capacity-building initiatives, it fosters the development of entrepreneurial competencies and cognitive skills. Via its consultative and guidance mechanisms, it mediates connections between students and entrepreneurial resources and opportunities available within both internal and external ecosystems.

This synergistic trajectory culminates in a transformative outcome: the institutionalization of entrepreneurial culture as a cognitive orientation, competencies, and embedded practice within the academic ecosystem. Consequently, the conceptual framework substantiates that the integration of entrepreneurial culture within university libraries transcends a peripheral auxiliary function; rather, it constitutes a strategic imperative within the paradigmatic shift toward the Fourth-Generation University, wherein entrepreneurship and innovation emerge as core institutional outcomes.

2. Operationalizing Entrepreneurial Culture: Practices and Services within University Libraries

The discourse surrounding the role of university libraries in fostering entrepreneurial culture transcends theoretical formulations and abstract treatments; it is now intrinsically linked to the concrete practices and services these libraries deliver within the university ecosystem. Entrepreneurial culture is not cultivated through prescriptive discourse or isolated initiatives; rather, it emerges progressively through experiential learning and integrated interventions that address actual student needs, facilitate knowledge construction, enhance entrepreneurial competencies, and shape cognitive orientations toward initiative and innovation. Consequently, it becomes imperative to transcend descriptions of the library's traditional functions in favor of a rigorous examination of the practical tools and operational

mechanisms that enable it to guide students along entrepreneurial trajectories, converting abstract concepts into tangible ventures within the institutional context.

The practices implemented by university libraries to foster entrepreneurial culture vary contingent upon the needs of the academic ecosystem and the complexity of contemporary economic dynamics. Nevertheless, they converge upon a shared epistemic and developmental objective: empowering students to convert their ideas and aspirations into viable ventures. The library transcends the mere provision of information; it equips students with the analytical competencies and cognitive tools requisite for navigating the entrepreneurial landscape with self-efficacy and informed awareness. In this context, economic and business information services constitute a critical operational pillar of these interventions. Libraries facilitate access to specialized databases, current market reports, economic statistics, and sectoral studies—resources that constitute the cognitive foundation of any viable entrepreneurial venture. Empirical evidence substantiates that structured access to such information is a critical determinant in enabling students to identify opportunities and make decisions grounded in reliable data (Kuratko, 2005).

Exemplary international libraries constitute benchmark paradigms within this domain. The MIT Libraries deliver an integrated ecosystem of resources dedicated to innovation and entrepreneurship, facilitating student access to databases on markets and emerging technologies. Similarly, Stanford University Libraries have developed customized informational interventions for student ventures through advisory services and guided research workshops. A globally recognized benchmark model is the Business & IP Centre at the British Library, which disseminates specialized information services for entrepreneurs. This center has established a comprehensive framework for assisting individuals across various stages of venture creation and development. Empirical data indicates that the initiative supports over forty thousand beneficiaries annually in launching or scaling their ventures, leveraging one of the largest specialized collections of business and intellectual property information in the United Kingdom. Service delivery mechanisms encompass both dedicated spaces within the British Library and a national network extending to more than seventy public libraries, reflecting an institutional commitment to equitable access to entrepreneurial knowledge.

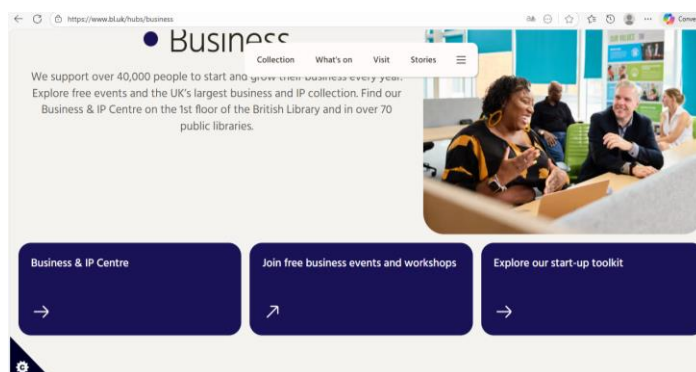
The philosophical framework underpinning this model is predicated on three core pillars (see Figure 02):

- The establishment of an integrated Business & Intellectual Property Centre facilitating access to specialized databases;
- The orchestration of complimentary events and workshops focused on venture creation and development;
- The deployment of a "Start-Up Toolkit" disseminating practical guides and methodological resources for aspiring entrepreneurs.

This framework exemplifies how a library can transcend its traditional functions to evolve into a strategic platform for nurturing and guiding entrepreneurial initiatives upon robust epistemic and professional foundations.

Figure 02:

Illustrating the philosophy of the British Library's Business & IP Centre platform.



Source: <https://www.bl.uk/hubs/business>

Complementary instructional interventions further contribute to cultivating advanced research competencies, objective information evaluation, and the practical application of knowledge in constructing feasibility studies, venture plans, and opportunity analyses. These interventions are embedded within a competency-based learning framework wherein the student is conceptualized not as a passive recipient of information, but as an active agent capable of mobilizing knowledge within practical and professional contexts (ACRL, 2016). Consequently, the library evolves into a dynamic pedagogical space that refines critical thinking competencies, strengthens initiative, and cultivates an entrepreneurial cognitive orientation, thereby enhancing students' capacity to engage effectively within the contemporary entrepreneurial ecosystem.

Over the preceding two decades, an emergent paradigm—currently undergoing institutionalization within university libraries—has been characterized by the reconfiguration of underutilized physical infrastructures into makerspaces, innovation labs, and creative studios. These spaces are designed to facilitate experiential learning, experimentation, and the conversion of abstract concepts into tangible prototypes. They function as mechanisms mediating theoretical knowledge and embedded entrepreneurial practice. Empirical evidence substantiates the proliferation of over 284 active makerspaces within the academic ecosystem in the United States, many of which are directly affiliated with academic library services, reflecting the growing diffusion of such ecosystems that cultivate creativity and innovation (Melo, Hirsh, & March, 2023).

Empirical evidence substantiates that these spaces facilitate collaborative engagement, strengthen technical and creative competencies, and enhance pedagogical outcomes within multidisciplinary teams (Faraj, 2023; Oswald, 2021). Exemplifying this paradigm, the James B. Hunt Jr. Library at North Carolina State University operates a benchmark Maker Studio, configured with additive manufacturing technologies and digital production facilities that facilitate experiential student ventures.

Such ecosystems position the library as a strategic platform for innovation, wherein students from diverse disciplines converge to exchange ideas and collaborate on joint ventures. This interaction reinforces values of initiative, collaboration, and creative problem-solving, thereby operationalizing entrepreneurial culture from the level of abstract concepts to that of embedded practice within the academic ecosystem.

Supportive interventions are further exemplified through specialized reference services delivered to student and researcher agents within the academic ecosystem. Numerous libraries have instituted individual mentoring and advisory interventions facilitating access to information regarding venture creation, funding mechanisms, patents, intellectual property, and market research—often designated as "One-to-One Information Clinics" (Library, 2026). This strategic intervention embodies significant epistemic and operational

value, as it mediates between embedded practice needs and mobilized knowledge resources, providing structured advisory mechanisms that enhance informed decision-making (Corrall, 2014).

Another increasingly institutionalized intervention within university libraries is the orchestration of entrepreneurship-oriented events and activities, encompassing awareness seminars on venture creation, experience-sharing sessions with successful entrepreneurial agents, student venture exhibitions, innovation competitions, and business plan contests. These interventions cultivate a motivating cultural climate that fosters entrepreneurial cognitive orientation and mediates between students and the realities of the contemporary entrepreneurial ecosystem. They also facilitate opportunities to build professional networks that may serve as a robust foundation for future ventures. In this manner, the library evolves into a space of social and epistemic interaction that integrates theoretical learning with embedded practice, supporting both individual and collaborative initiative within the academic ecosystem.

Within the overarching paradigm of digital transformation, university libraries have increasingly institutionalized digital interventions and platforms to cultivate entrepreneurial culture. These encompass facilitating remote access to information resources, the development of thematic portals dedicated to venture creation, the deployment of digital repositories and guides, and interactive mechanisms facilitating student agents in constructing venture plans and monitoring economic dynamics. Such digital interventions expand the reach to beneficiary agents and render mobilized knowledge accessible anytime and anywhere, aligning with the epistemic expectations of the digital cohort. Furthermore, these interventions reinforce the Triple Helix model of interaction among government, university, and industry, cultivating an integrated knowledge ecosystem conducive to innovation and venture creation, as articulated by Henry Etzkowitz and Loet Leydesdorff (Etzkowitz & Zhou, 2017).

In light of the foregoing analysis, the interventions implemented by university libraries constitute tangible mechanisms for operationalizing entrepreneurial culture within the academic ecosystem. However, their efficacy is contingent upon their integration within a coherent institutional strategy and the extent of strategic alignment between the library and complementary entrepreneurship-support structures, such as venture incubators, innovation centers, and technology transfer offices. The library cannot fulfill this mandate in isolation; rather, it must function within an integrated network of stakeholders united by a shared objective: cultivating agents capable of mobilizing knowledge into tangible economic and social value. Consequently, the imperative of adopting a comprehensive institutional vision becomes evident—one that positions entrepreneurial culture as a strategic pillar among all stakeholders within the academic ecosystem, thereby enhancing the prospects for the sustainable viability of entrepreneurial ventures.

3. The Contribution of Djilali Liabes University Libraries (SBA) to Fostering Entrepreneurial Culture: A Field Study of Student Entrepreneurs at the Faculty of Humanities and Social Sciences

This field study aims to explore the role of the Djilali Liabes University Library in Sidi Bel Abbès in supporting and promoting entrepreneurial culture among students of the Faculty of Humanities and Social Sciences, with a particular focus on those engaged in economic enterprise projects as part of their graduation requirements. The study seeks to determine the effectiveness of information resources, guidance services, infrastructure, and engagement with the economic environment in developing students' entrepreneurial

competencies. Furthermore, it evaluates the library's impact on guiding academic and cognitive trajectories toward the establishment of viable projects.

This section of the study provides a systematic analytical overview of the university library's current status by collecting quantitative data on students' attitudes and perceptions. Data were gathered through a specifically designed questionnaire covering both theoretical and practical aspects of entrepreneurial culture, reflecting the interaction between the library's information environment and the entrepreneurial demands within the Algerian university context.

3.1. Study Methodology and Procedures

Research Design: This study adopts a Descriptive Survey Research design, a methodological choice aligned with the nature of the phenomenon under investigation, which necessitates the quantitative assessment of students' attitudes and perceptions regarding university library services. This design facilitates the interpretation of trends in light of demographic and academic variables, the measurement of satisfaction levels, the identification of gaps in resources and services, and the formulation of evidence-based recommendations.

Data Collection Tools: The primary instrument for data collection was a structured questionnaire, divided into three main sections:

- **Section One:** Demographic and academic data (gender, major, academic level, project stage), along with patterns of library use (library type, frequency of visits, visit motivations).
- **Section Two:** The library's contribution to promoting entrepreneurial culture (resources, services, infrastructure, partnerships, openness to the social and economic environment, and entrepreneurial impact).
- **Section Three:** Future perspectives for an entrepreneurial university library (challenges and threats, suggested improvements).

Validity and Reliability of the Instrument: Content validity was established by submitting the questionnaire to a panel of experts specializing in Library and Information Science, Psychology, and Sociology. Experts provided feedback on the clarity of terms and their appropriateness within the study context. Internal consistency was measured using Cronbach's Alpha, which yielded a coefficient of 0.87, indicating high reliability and confirming the instrument's suitability for measuring the targeted phenomenon.

3.2. Study Population and Sample

The study population consisted of all students enrolled in the Faculty of Humanities and Social Sciences at Djilali Liabes University in Sidi Bel Abbès who were undertaking economic enterprise projects as part of the 2025–2026 graduation requirements. A purposive sample of 51 students was selected, representing various academic majors to ensure comprehensive coverage of individual experiences with library services. The following tables present detailed sample characteristics in terms of gender, academic level, major, and project stage, providing a clear basis for quantitative analysis and an in-depth understanding of the data.

Table 01:

Distribution of Sample Participants by Gender

Gender	Frequency	Percentage (%)
Male	8	15.7%
Female	43	84.3%
Total	51	100%

The gender distribution reveals a marked predominance of female participants in the study sample, constituting 84.3% compared to 15.7% for males. This disparity reflects a demographic characteristic inherent to the study population rather than a statistical anomaly. This predominance may be interpreted within the socio-economic context of Algeria, where educated women increasingly embrace entrepreneurship as a strategic pathway to achieve professional autonomy and navigate barriers within the traditional labor market. This trend suggests a growing awareness of the importance of self-development and the effective utilization of information resources provided by the university library. Furthermore, the nature of projects typically undertaken by students in the Faculty of Humanities and Social Sciences—often service-oriented, educational, or cultural in focus—tends to attract higher female participation, a pattern corroborated by local studies. Consequently, the strong representation of women in the sample aligns with both the academic specialization and the prevailing types of entrepreneurial activity.

Table 02:

Distribution of Sample Participants by Academic Major

Major	Frequency	Percentage (%)
Library and Information Science	11	21.6%
Media and Communication Studies	7	13.7%
Psychology	12	23.5%
Education Sciences	7	13.7%
Sociology	14	27.5%
Total	51	100%

Table 02 illustrates the diversity of academic disciplines represented within the sample. Sociology students constitute the largest group (27.5%), followed by Psychology (23.5%) and Library and Information Science (21.6%), while Media and Communication Studies and Education Sciences each account for 13.7% of the sample. This composition underscores the interdisciplinary nature of entrepreneurial initiatives within the humanities, which frequently draw upon insights into social structures and human behavior.

Within the context of a study examining the university library's role, the 21.6% representation of Library and Information Science students holds particular analytical significance. This cohort is anticipated to possess advanced levels of information literacy, thereby enabling more effective utilization of library resources and serving as a pertinent benchmark for assessing service efficacy. Concurrently, the substantial representation of Sociology and Psychology students suggests that student projects in this context are predominantly oriented toward addressing social and educational challenges, leveraging the methodological frameworks of these disciplines to analyze community needs.

Table 03:

Distribution of Sample Participants by Academic Level

Academic Level	Frequency	Percentage (%)
Bachelor's	2	3.9%
Master's	49	96.1%
Doctorate	0	0.0%
Total	51	100%

Table 03 reveals a marked predominance of Master's level students, who constitute 96.1% of the sample, compared to a minimal representation of Bachelor's students (3.9%) and no Doctoral participants. This distribution reflects the specific composition of the study population, which comprises students undertaking economic enterprise projects. The strong focus on Master's students aligns with the LMD (Licence-Master-Doctorat) system in Algerian higher education, wherein the completion of an entrepreneurial project or an economic enterprise-based graduation thesis provides students in the Humanities and Social Sciences with opportunities to engage with the paradigm of fourth-generation universities while simultaneously fostering self-employment pathways aligned with Algeria's evolving economic framework.

The substantial representation of Master's students suggests a high level of academic and cognitive maturity, enhancing their capacity to comprehend entrepreneurial culture concepts and utilize library resources purposefully, given their advanced research and methodological competencies. Consequently, the study findings primarily reflect the perspectives of students at an advanced stage of their academic trajectory, thereby strengthening the reliability of data pertaining to the utilization of information resources in support of economic projects.

Table 04:

Project Stage of Respondents with Economic Enterprises

Project Stage	Frequency	Percentage (%)
Idea	25	45.5%
Feasibility Study	9	16.4%
Under Implementation	21	38.2%
Established Enterprise	0	0.0%
Total	55	100%

Note: The total frequency (55) exceeds the sample size (51) due to the allowance of multiple responses, as some participants reported involvement in projects at different stages simultaneously.

Table 04 indicates a clear concentration of responses in the early stages of entrepreneurial project development. The 'Idea' stage predominates at 45.5%, followed by 'Under Implementation' at 38.2%, and 'Feasibility Study' at 16.4%, with no responses recorded for 'Established Enterprise'. This distribution reflects the developmental trajectory of student projects, suggesting that the majority remain in the conceptualization or initial implementation phases.

This pattern is largely attributable to the timing of data collection, which occurred at the beginning of the second semester—a period during which Master's students typically commence the practical execution of economic projects as components of their graduation theses. The allowance of multiple responses accounts for the total frequency exceeding the sample size, as some students reported managing concurrent initiatives or projects transitioning between theoretical planning and practical implementation.

Within the framework of fourth-generation universities, this semester represents a critical juncture for transforming conceptual ideas into viable prototypes, underscoring the pivotal role of the university library in providing targeted information resources and supporting

entrepreneurial culture. The absence of projects at the 'Established Enterprise' stage reflects the reality that market entry typically requires a timeframe extending beyond the current academic cycle, thereby highlighting the necessity for sustained institutional support mechanisms post-graduation.

Table 05:

Type of Library Visited by Sample Participants

Library Type	Frequency	Percentage (%)
Faculty Library	17	31.5%
Central Library	5	9.3%
Both	13	24.1%
Do not attend regularly	19	35.2%
Total	54	100%

Note: The total frequency (54) exceeds the sample size (51) due to the allowance of multiple responses.

Table 05 reveals notable variation in library usage patterns. The largest proportion of participants (35.2%) reported irregular attendance, followed by those utilizing the Faculty Library (31.5%), both library types (24.1%), and the Central Library (9.3%).

The elevated proportion of irregular users may be attributed to several interrelated factors:

- **Limited digital and virtual library services:** The surveyed libraries' insufficient provision of remote-access resources may compel entrepreneurial students—who require temporal and spatial flexibility—to either forgo physical visits or rely on external, non-institutional information sources.
- **Socio-cultural patterns:** Prevailing reading habits and library attendance norms among Algerian students may influence resource utilization patterns, potentially contributing to lower frequencies of physical library engagement.
- **Proximity and specialization:** The preference for Faculty Libraries over the Central Library likely reflects considerations of accessibility and collection relevance, as faculty libraries tend to offer more targeted resources for students in the Humanities and Social Sciences. The 24.1% of participants utilizing both library types suggest an awareness of the value of diversifying research sources despite structural and cultural constraints.

This pattern of irregular attendance should be interpreted not merely as a negative indicator but as an analytical imperative for enhancing library services in alignment with the needs of entrepreneurial students. Recommendations include digitizing collections, developing remote search platforms, and implementing programs to foster reading and research culture, thereby more fully addressing the demands associated with fourth-generation university models.

Table 06:

Frequency of Library Visits Among Sample Participants

Visit Frequency	Frequency	Percentage (%)
Daily	1	2.0%
Weekly	6	11.8%
Monthly	22	43.1%
Rarely	22	43.1%
Total	51	100%

Table 06 demonstrates a notable concentration of responses in the 'Monthly' and 'Rarely' categories (each 43.1%), while 'Weekly' and 'Daily' visits represent marginal proportions (11.8% and 2.0%, respectively).

This distribution pattern may be interpreted as follows:

- **Project-related temporality:** The time-bound nature of Master's graduation projects, particularly at the beginning of the second semester, may render library use periodic rather than routine, aligning with specific research phases such as literature reviews or theoretical framework development.
- **Cultural and infrastructural factors:** The substantial proportion of 'Rarely' responses may reflect socio-educational factors influencing regular library attendance. Additionally, limited digital and remote-access services may encourage entrepreneurial students to reduce physical visits or seek alternative information sources. Therefore, irregular attendance should not be construed solely as an indicator of disengagement; rather, it underscores the necessity of reorienting university library services to better meet the expectations of entrepreneurial students. Potential adaptations include establishing rapid reference services, scheduling targeted information literacy sessions, and developing digital platforms enabling remote access. Without such strategic enhancements, the library risks remaining a traditional space insufficiently aligned with the requirements of fourth-generation universities and their mandate to support emerging student enterprises.

3.3. Presentation, Analysis, and Discussion of Results

Presentation of the First Research Question:

"Does the library provide informational resources (print/digital) that support the development of entrepreneurial culture and emerging projects?"

This research question addresses a central issue concerning the adequacy of the university library's information infrastructure in supporting the development of entrepreneurial knowledge among students in the Humanities and Social Sciences. It necessitates an analysis of the relationship between the nature of available resources and their effectiveness in enabling students to transition from a theoretical understanding of entrepreneurship to the practical implementation of emerging projects.

Based on the data presented in Table 07, evaluating this role cannot be reduced to a simple overall mean. Instead, it warrants a systematic approach that considers the diversity of resources, quality of services, efficiency of digital infrastructure, the library's engagement with its economic environment, and the ultimate impact on students' entrepreneurial trajectories.

Table 07:

Library Resources Supporting Student Entrepreneurship

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
The library provides up-to-date resources on entrepreneurship	11.8%	17.6%	13.7%	56.9%	0.0%	3.16	1.09
The library provides books on business plan preparation and feasibility studies	7.8%	29.4%	23.5%	37.3%	2.0%	2.90	1.03
The library provides access to useful electronic resources for projects	5.9%	31.4%	31.4%	21.6%	7.8%	2.98	1.04
The library provides information on intellectual property	3.9%	21.6%	19.6%	51.0%	3.9%	3.33	0.96
The library assists in finding market information	5.9%	23.5%	25.5%	41.2%	3.9%	3.12	1.02
Sub-Dimension Overall Mean	—	—	—	—	—	3.10	1.03

Note: Likert scale coding: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

The statistical analysis of Table 07 indicates that the overall mean for this sub-dimension is 3.10, with a standard deviation of 1.03, corresponding to a "moderate" level on the semantic scale. This suggests a relatively acceptable level of perceived support; however, it falls short of the strategic engagement necessary to effect a qualitative transformation in students' entrepreneurial competencies. In other words, while the library provides foundational support, its impact remains limited when benchmarked against the requirements of a contemporary, knowledge-driven entrepreneurial environment that demands rapid and practical access to information.

A closer examination of individual statements reveals meaningful variation in participants' evaluations. The statement *"The library provides information on intellectual property"* received the highest mean (3.33) and the lowest standard deviation (0.96), indicating a relatively homogeneous perception and moderate satisfaction with this service. This reflects institutional attention to the legal and regulatory dimensions of innovation protection. Nevertheless, focusing solely on legal aspects is insufficient to guide entrepreneurial projects, which require multidimensional support encompassing planning, financial analysis, marketing, and risk management.

Conversely, the statement *"The library provides books on business plan preparation and feasibility studies"* recorded the lowest mean (2.90), with a notable proportion of disagreement (29.4%). This signals a discernible gap in practical resources that are essential for the development of emerging projects. This shortfall may be attributed to the predominantly theoretical orientation of curricula in the Humanities and Social Sciences, which is often mirrored in library acquisition policies that prioritize conceptual references over applied guides and procedural models.

Similarly, the statement *"The library provides access to useful electronic resources for projects"* yielded a relatively low mean (2.98) with a standard deviation of 1.04, reflecting variability in participants' experiences with digital services. This pattern suggests a dual challenge: limitations in digital infrastructure coupled with uneven levels of information literacy among students. Consequently, limited digitization represents not merely a technical shortfall but a structural impediment that prevents the library from evolving into a flexible knowledge platform capable of delivering timely, updated resources to support entrepreneurial decision-making in a rapidly changing economic context.

The specific composition of the study sample—students from the Faculty of Humanities and Social Sciences—underscores the urgent need for interdisciplinary resources that integrate sociological analysis of societal dynamics with managerial tools necessary to transform ideas into sustainable projects. Current library holdings appear to lack such integrative materials; specialized resources for community needs assessment, program design, and impact evaluation remain limited, despite their critical importance for the service-oriented or cultural projects that predominate among this student population.

This analytical assessment leads to the conclusion that the library provides foundational, primarily theoretical support for entrepreneurial culture. However, there is a pressing need to reorient its documentary strategy toward specialized, applied resources—including methodological guides, feasibility study templates, and economic databases—alongside enhanced digitization and flexible access mechanisms. Without such strategic transformations, the library risks remaining a traditional space with limited impact, whereas the demands of an entrepreneurial university necessitate its evolution into a dynamic knowledge hub that actively contributes to competency development and project implementation.

Presentation of the Second Research Question:

"What is the nature of methodological guidance and support services provided by the library to entrepreneurial students?"

This research question examines the functional dimension of the university library as a facilitative entity, whose role extends beyond the provision of resources to actively supporting students in shaping their entrepreneurial trajectories through specialized methodological services. Analyzing this dimension necessitates moving beyond simple quantitative averages to interpret the substantive meaning of the results in terms of service characteristics, degree of customization, and relevance to the actual developmental stages of emerging projects.

Table 08:

Nature of Specialized Library Services Supporting Entrepreneurial Culture

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
The library provides informational guidance to project holders	5.9%	23.5%	39.2%	27.5%	5.9%	3.04	1.03
The library organizes workshops on project preparation	7.8%	33.3%	7.8%	41.2%	7.8%	3.18	1.21
The library provides individual research consultations	5.9%	45.1%	17.6%	35.3%	0.0%	2.79	0.96
The library provides electronic guides for entrepreneurship	5.9%	29.4%	33.3%	21.6%	7.8%	2.96	1.05
The library assists in searching for funding opportunities	7.8%	47.1%	13.7%	29.4%	3.9%	2.75	1.08
Sub-Dimension Overall Mean	—	—	—	—	—	2.94	1.07

The statistical analysis of Table 08 indicates that the overall mean for this sub-dimension is 2.94, with a standard deviation of 1.07, positioning it at the lower threshold of the "moderate" range on the semantic scale. Interpretively, this suggests a trend toward limited effectiveness when benchmarked against the aspirational goal of effecting a qualitative transformation in students' practical entrepreneurial competencies. This finding indicates that, although guidance services exist in principle, they fall short of delivering the comprehensive methodological support necessary for the library to assume a strategic role within the university's entrepreneurial ecosystem.

A detailed examination of individual statements reveals significant variability in participants' perceptions:

The statement *"The library organizes workshops on project preparation"* recorded the highest mean (3.18), suggesting a noteworthy institutional effort in providing guidance. However, the relatively high standard deviation (1.21) indicates inconsistent participation or uneven service coverage, potentially reflecting irregular scheduling, limited outreach, or misalignment of content with the diverse needs of projects at different developmental stages and across various academic specializations. Consequently, the episodic or generalized nature of these workshops may attenuate their transformative potential for developing stable, applied competencies.

Conversely, the statement *"The library assists in searching for funding opportunities"* yielded the lowest mean (2.75), with 47.1% of respondents expressing disagreement. This highlights a critical gap in the financial guidance dimension of entrepreneurial support. This dimension

is essential for translating ideas into actionable projects; access to theoretical literature alone is insufficient without practical accompaniment in understanding funding mechanisms, preparing investment proposals, and navigating national support structures. The absence of such targeted support risks confining entrepreneurial competencies to a conceptual level, without facilitating the practical execution necessary to meet market demands.

The statement *"The library provides individual research consultations"* registered a high disagreement rate (45.1%), reflecting limited availability of personalized guidance (i.e., mentoring). Contemporary scholarship on entrepreneurship emphasizes that qualitative development in an entrepreneur's trajectory is closely linked to customized support that accounts for the specificity of the idea, its socio-economic context, and its stage of maturity. The scarcity of regular, individualized consultations diminishes the library's capacity to construct a deeply influential functional framework, positioning its services closer to general informational support rather than strategic, tailored accompaniment.

Similarly, the mean for *"The library provides electronic guides for entrepreneurship"* (2.96) indicates a shortfall in developing systematic digital tools that could serve as enduring references for entrepreneurial students. This underscores that the library's digital infrastructure remains underdeveloped, without evolving into an integrated digital guidance platform offering interactive manuals, ready-to-use templates, and step-by-step procedural pathways for project development.

This analytical assessment leads to the conclusion that library guidance services, while existent in form, are characterized by generality and lack phase-specific customization, comprehensive financial integration, and methodological coherence. A library that does not provide individualized mentoring or incorporate financial literacy into its service portfolio risks remaining a peripheral knowledge space rather than an active partner in shaping entrepreneurial pathways.

This necessitates a redefinition of the librarian's role—from a mere information provider to an entrepreneurial mentor—capable of accompanying students throughout their journey, from idea conception to the establishment of viable and sustainable business models.

Presentation of the Third Research Question:

"Does the library's infrastructure provide an environment suitable for collaborative entrepreneurial work?"

This research question necessitates an analysis of the university library's infrastructure as a physical and organizational framework capable of facilitating collaborative entrepreneurial activities, rather than functioning solely as a traditional space for individual study. This entails evaluating the adequacy of workspaces, equipment, and the motivational environment in supporting collective innovation and project prototyping within the context of the entrepreneurial university.

Table 09:

Analysis of Library Infrastructure for Collaborative Work

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
The library provides collaborative workspaces	0.0%	14.0%	6.0%	62.0%	18.0%	3.84	0.85
The library offers a stimulating environment for creativity	0.0%	19.6%	15.7%	52.9%	11.8%	3.57	0.80
The library provides digital equipment supporting innovation	9.8%	27.5%	25.5%	31.4%	5.9%	2.96	1.08
The library allows working on projects in a comfortable and organized space	3.9%	7.8%	11.8%	54.9%	21.6%	3.82	0.83
Sub-Dimension Overall Mean	—	—	—	—	—	3.55	0.89

The statistical analysis of Table 09 indicates that the overall mean for this sub-dimension is 3.55, with a standard deviation of 0.89, which superficially suggests a positive assessment of infrastructure adequacy. However, a deeper analytical interpretation reveals that this quantitative elevation does not necessarily reflect qualitative readiness to support entrepreneurial transformation; rather, it may indicate participants' satisfaction with the library's traditional functionality more than its suitability as a dedicated collaborative workspace for entrepreneurial endeavors.

The statement "*The library provides collaborative workspaces*" achieved the highest mean (3.84) with a relatively low standard deviation (0.85), indicating favorable participant perceptions regarding opportunities for teamwork. Nonetheless, this result warrants cautious interpretation: it may reflect an awareness of the importance of collaborative work rather than the existence of purposefully designed co-working spaces featuring spatial flexibility, integrated technical equipment, and reconfigurability aligned with project-specific needs. A library that merely offers group seating does not automatically constitute an environment conducive to strategic planning, brainstorming, or prototyping.

The statement "*The library allows working on projects in a comfortable and organized space*" (mean = 3.82) corroborates a positive assessment of physical comfort and organizational order. While comfort facilitates concentration, it alone does not constitute a productive entrepreneurial environment; innovative work requires dynamic, interactive spaces that accommodate movement, discussion, presentation, and experimentation—extending beyond the traditional paradigm of quietude typically associated with academic libraries.

In contrast, the statement "*The library provides digital equipment supporting innovation*" yielded a lower mean (2.96) with a relatively high standard deviation (1.08), revealing a discernible technological gap. This reflects the limited availability of specialized digital tools that would enable participants to design business models, analyze market data, and prepare investment presentations within a supportive technical environment. The variability in responses further suggests unequal access or inconsistent equipment quality, thereby constraining the library's potential to evolve into an integrated digital innovation platform.

The statement "*The library offers a stimulating environment for creativity*" (mean = 3.57) indicates a generally positive perception of the spatial climate. However, fostering creativity extends beyond aesthetic appeal or acoustic comfort; it necessitates flexible organizational policies, interactive programming, and technical support that facilitate the transformation of ideas into testable prototypes. Creativity as a practical, iterative process demands a synergistic physical-digital ecosystem, rather than merely a comfortable physical space.

This analytical assessment leads to the conclusion that the library's physical infrastructure is well-suited for individual study and traditional academic work but has not yet attained the level of readiness required to support collaborative entrepreneurial work and digital innovation. The absence of specialized technological equipment and flexibly designed spaces aligned with university incubator principles limits the library's capacity to function as an enabling environment for the development of entrepreneurial competencies.

Therefore, it is imperative to reimagine library infrastructure within the vision of Fourth-Generation Universities, transforming it from a conventional reading space into a dynamic hub for knowledge production and collective innovation.

Presentation of the Fourth Research Question:

"To what extent is the library open to the economic ecosystem to support emerging projects?"

This research question examines the university library's positioning within the broader entrepreneurial ecosystem, particularly its capacity to establish interactive linkages with economic actors, business incubators, and self-employment support initiatives. Analyzing this dimension necessitates moving beyond the evaluation of internal motivational functions to exploring the extent to which the library functions as an institutional intermediary, connecting student entrepreneurs with market opportunities and practical support mechanisms.

Table 10:

Level of Library Engagement with the Socio-Economic Environment

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
The library contributes to connecting participants with the economic environment	8.0%	26.0%	24.0%	38.0%	4.0%	3.04	1.05
The library coordinates activities with business incubators	2.0%	38.0%	6.0%	42.0%	12.0%	3.24	1.15
The library promotes entrepreneurial competitions and initiatives	2.0%	22.0%	22.0%	44.0%	10.0%	3.24	1.02
The library encourages innovative thinking within the university	3.8%	17.3%	13.5%	51.9%	13.5%	3.54	1.05
Sub-Dimension Overall Mean	—	—	—	—	—	3.27	0.22

The statistical analysis of Table 10 indicates that the overall mean for this sub-dimension is 3.27, with a relatively low standard deviation (0.22), reflecting a notable degree of consensus among participants and a moderate appraisal of the library's efforts to engage with the economic environment. However, while this level of engagement demonstrates stability, it falls short of the strategic partnership standard expected within universities aspiring to implement the entrepreneurial university model, wherein external connectivity should constitute a central pillar in supporting emerging projects.

The statement *"The library encourages innovative thinking within the university"* achieved the highest mean (3.54), with a majority of participants indicating agreement (51.9%). This suggests that participants perceive the library as playing a symbolic, motivational role in fostering a culture of initiative. Nevertheless, moral encouragement alone is insufficient to ensure the translation of ideas into actionable projects; it must be complemented by tangible communication channels with the economic environment and institutional mechanisms that facilitate interaction with real-world entrepreneurial experiences.

Conversely, the statement *"The library contributes to connecting participants with the economic environment"* recorded the lowest mean (3.04), with 50% of participants selecting either

"Disagree" or "Neutral." This highlights the limited and ambiguous nature of this connectivity for nearly half of the sample, indicating that, despite its campus presence, the library has not yet evolved into an effective intermediary between student entrepreneurs and surrounding economic actors, including companies, independent entrepreneurs, and support agencies.

The statement *"The library coordinates activities with business incubators"* (mean = 3.24), coupled with a relatively high standard deviation (1.15), points to variability in participants' perceptions. This may reflect either limited actual coordination or insufficient communication regarding existing collaborative activities. In either scenario, the absence of regular and visible engagement with incubator structures constrains the library's capacity to function as a knowledge-institutional bridge in the process of transforming ideas into viable startups.

Similarly, the statement *"The library promotes entrepreneurial competitions and initiatives"* (mean = 3.24) indicates a moderate level of effort in awareness-raising. However, promotion alone, without practical follow-up and structured guidance, remains largely informational and does not constitute strategic support that accompanies participants through the application and implementation stages of their projects.

These findings reveal that external engagement represents the weakest link in the library's entrepreneurship support system. A library that does not establish sustainable institutional partnerships, facilitate regular interactions between students and economic actors, or streamline access to support and funding mechanisms risks remaining an internally focused entity with limited impact within an ecosystem where university-market integration is essential.

This analytical assessment leads to the conclusion that, while the library provides acceptable internal motivational support for fostering innovative thinking, it has not yet achieved deep institutional engagement with the economic environment. Addressing this gap necessitates reorienting its strategy toward formalized partnerships, organizing structured forums with economic actors, and strengthening intermediary mechanisms between participants and support structures. Such transformations would enable the library to evolve from a semi-closed academic space into an active contributor within the entrepreneurial ecosystem, aligned with the vision of Fourth-Generation Universities.

Presentation of the Fifth Research Question:

"How does the library influence the entrepreneurial trajectory of students?"

This research question shifts the analytical focus from inputs (resources, services, infrastructure) to outcomes, evaluating the library's effect on participants' entrepreneurial development across conceptual, methodological, and attitudinal dimensions toward establishing their own enterprises. It examines whether the library catalyzes a qualitative transformation in participants' personal and professional trajectories or remains confined to providing general informational support.

Table 11:

Entrepreneurial Impact of the Library on Participants

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Std. Deviation
The library contributed to developing my project idea	13.7%	47.1%	15.7%	19.6%	3.9%	2.82	0.95
Library resources helped in preparing a feasibility study	8.0%	32.0%	34.0%	26.0%	0.0%	2.78	0.67
The library enhanced my entrepreneurial spirit	2.0%	26.0%	26.0%	40.0%	6.0%	3.22	0.96
The library changed my attitude toward establishing a business	7.8%	43.1%	23.5%	19.6%	5.9%	2.73	1.09
I consider the library an actor in supporting local development	6.1%	12.2%	20.4%	51.0%	10.2%	3.47	1.03
Sub-Dimension Overall Mean	—	—	—	—	—	3.00	0.95

The overall mean of 3.00 (SD = 0.95) indicates a moderate perceived impact, accompanied by considerable variation across individual experiences. This suggests that while the library exerts a discernible influence, it is not yet decisive in producing a qualitative shift in participants' entrepreneurial trajectories.

A detailed examination of individual statements reveals meaningful patterns in participants' perceptions:

The statement *"I consider the library an actor in supporting local development"* achieved the highest mean (3.47), reflecting participants' theoretical awareness of the library's broader societal role. However, this perception appears largely symbolic, without a correspondingly direct or applied effect on the development of participants' individual projects.

Conversely, the statement *"The library changed my attitude toward establishing a business"* recorded the lowest mean (2.73), with 43.1% of participants expressing disagreement. This highlights the limited transformative effect of library services on participants' entrepreneurial mindset and behavioral orientations. Despite its knowledge resources, the library has yet to catalyze an epistemological shift—from knowledge consumer to value creator—which constitutes a cornerstone for cultivating a robust entrepreneurial mindset.

Similarly, the statement *"The library contributed to developing my project idea"* (mean = 2.82; 47.1% disagreement) indicates weak direct support during the early conceptual stage of project development. This suggests that participants may rely more heavily on external or informal networks rather than institutional library resources for ideation and initial project framing.

The substantial proportion of neutral responses regarding feasibility study support (34.0%) points to ambiguity in perceived utility, reinforcing the interpretation that available resources, while theoretically relevant, do not consistently translate into structured, practical guidance for project implementation.

These findings are further corroborated by overall satisfaction data: 58% of participants expressed general satisfaction, 36% reported being "somewhat satisfied," and 6% indicated dissatisfaction. This distribution suggests that appreciation of the library's role is conditional and contingent upon the provision of enhanced, targeted, and phase-specific services.

This analytical assessment leads to the conclusion that the library's impact on entrepreneurial trajectories remains moderate and primarily symbolic. While it contributes to raising awareness and fostering a general entrepreneurial spirit, it has not yet achieved the depth of engagement necessary to induce substantive transformations in participants' project development processes, methodological competencies, or attitudinal orientations toward enterprise creation.

Addressing this gap necessitates a strategic reorientation of library services toward outcome-oriented support: integrating project mentoring into reference services, developing structured pathways from ideation to implementation, and establishing measurable indicators of entrepreneurial impact. Such transformations would enable the library to evolve from a supportive backdrop into an active catalyst within participants' entrepreneurial journeys, aligned with the mission of Fourth-Generation Universities.

Presentation of the Sixth Research Question:

"What are the difficulties that limit entrepreneurial participants' effective utilization of the library?"

This research question aims to identify the fundamental obstacles that constrain entrepreneurial participants' effective engagement with library resources and services, whether at the level of informational resources, guidance services, or institutional connectivity with the economic environment. Addressing this question enables a deeper understanding of the structural and functional gaps that hinder the library's transformation into a genuine platform for supporting emerging projects.

Table 12: Difficulties Limiting the Library's Role in Supporting Entrepreneurial Projects

Difficulty	Frequency	Percentage (%)
Scarcity of up-to-date resources	27	26.2%
Inadequate promotion of services	21	20.4%
Absence of entrepreneurship-oriented activities	18	19.4%
Limited training in information literacy	17	17.5%
Weak connectivity with the economic environment	20	16.5%
Other	0	0.0%
Total	103	100%

Note: The total frequency (103) exceeds the sample size (51) due to the allowance of multiple responses, as participants could select more than one difficulty.

The analysis of Table 12 reveals that the most frequently cited difficulties cluster around "scarcity of up-to-date resources" (26.2%), "inadequate promotion of services" (20.4%), "absence of entrepreneurship-oriented activities" (19.4%), and "weak connectivity with the economic environment" (16.5%). This distribution suggests that, despite providing certain resources and services, the library faces structural constraints in collection development, user engagement, and economic integration—factors that collectively limit its capacity to exert a tangible impact on participants' project development trajectories.

The prominence of "scarcity of up-to-date resources" signals a discernible gap between the rapid pace of knowledge production in entrepreneurship and the library's capacity to curate and provide timely, relevant materials. This shortfall directly affects the quality of informational and methodological support available to participants. Similarly, the elevated proportions associated with "inadequate promotion of services" and "weak connectivity with the economic environment" indicate that the library remains a relatively insular space, lacking effective communication strategies to reach its target users and strategic partnerships with business incubators and economic actors.

Regarding proposed solutions, the suggestion to "establish a dedicated entrepreneurship corner" received the highest endorsement (29.6%), reflecting participants' awareness of the value of creating a physical and symbolic space that integrates specialized resources, collaborative workspaces, and tailored guidance mechanisms. Furthermore, the combined proportion of responses favoring "organizing workshops on project preparation" and "developing partnerships with business incubators" (52% collectively) underscores participants' desire for

a comprehensive support system that bridges applied training with access to economic support networks.

This alignment between identified difficulties and proposed solutions reflects a precise diagnostic and pragmatic recommendations articulated by participants themselves. Rather than merely critiquing current limitations, participants offer a clear roadmap for transforming the library into an active platform for supporting emerging ventures.

Consequently, this analytical assessment leads to the conclusion that, in light of these findings, the university library urgently requires a strategic reimagining of its role along three principal axes:

1. **A dedicated entrepreneurship space:** A physically and functionally distinct area integrating specialized collections, collaborative workstations, and prototyping resources.
2. **Applied training programs and support workshops:** Structured, phase-specific interventions targeting methodological competencies, from ideation to feasibility analysis and pitch preparation.
3. **Strategic partnerships with the economic environment and business incubators:** Formalized mechanisms for regular interaction with economic actors, mentorship opportunities, and streamlined access to funding and support structures.

Investing in these three axes would enable the library to evolve from a conventional reading space into an integrated knowledge incubator—one that actively fosters entrepreneurial culture, adapts to evolving economic dynamics, and serves as a genuine partner in participants' journeys from concept to enterprise creation.

Conclusion

This study concludes that the university library plays a supportive yet circumscribed role in fostering entrepreneurial culture among Humanities and Social Sciences students. While providing an acceptable baseline of theoretical resources and general guidance, the library falls short in delivering the applied, phase-specific support necessary to catalyze a qualitative transformation in participants' entrepreneurial trajectories.

Key findings indicate three primary gaps: (1) a scarcity of practical resources—such as business plan templates, feasibility guides, and economic databases—alongside underdeveloped digital infrastructure; (2) limited personalized mentoring and weak connectivity with funding mechanisms and the economic environment; and (3) inadequate collaborative workspaces and formal partnerships with business incubators. These constraints collectively restrict the library's capacity to function as an integrated knowledge incubator.

Participants identified corresponding challenges—outdated resources, inadequate service promotion, absence of entrepreneurship-oriented activities, and weak economic linkages—and proposed actionable solutions: establishing a dedicated entrepreneurship corner, organizing hands-on workshops, and forging strategic partnerships with incubators and economic actors.

Ultimately, realizing the library's potential within the framework of Fourth-Generation Universities necessitates a strategic reorientation along three axes: curating applied interdisciplinary resources, institutionalizing competency-based guidance, and building sustainable ecosystem partnerships. Through such integrated transformations, the library can evolve from a traditional academic space into a dynamic catalyst for participants' journeys from ideation to enterprise creation.

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