The Influence of Owner and Company Characteristics on Startup Financing in the Algerian Tourism Sector: Evidence from a National Survey

Karima BENBOUZID[1]
Narimane BENABDERRAHMANE[2]
Fella DJANI[3]

DOI: 10.24818/mer/2026.01-01

ABSTRACT

Access to external financing is a critical and structural challenge for young enterprises in developing economies, notably within Algeria's strategic tourism sector. Startups face barriers such as high risk and information asymmetries, often forcing reliance on internal capital. This exploratory research utilises data from a 2023 national survey of 43 Algerian tourism startups to map funding patterns. It investigates the influence of owner (sex, age, education) and company (region, certification, international scope) characteristics on mobilising traditional, alternative, and public financing sources. Descriptive statistics and cross-tabulation show an overwhelming dominance of traditional financing, with 88.4% of firms relying primarily on personal financial resources. Critically, no respondent reported using bank credit (0%), and alternative instruments such as venture capital or crowdfunding remain marginal. Public subsidies were accessed by only 9.3%. However, greater diversification is observed among men, the most educated, young owners, certified companies, and those with an international scope, particularly those located in the North-Central region (Algiers). The study confirms that funding success is determined by an interaction of individual and organisational characteristics, highlighting the urgent need for adapted support structures to enhance external financing for tourism startups.

KEYWORDS: *Company Characteristics, Financing, Owner Characteristics, Startup, Tourism.*

JEL CLASSIFICATION: *H32, Z23, M13, L83*

1. INTRODUCTION

Innovative startups are nowadays widely recognised as major drivers of innovation, sectoral transformation, and economic growth, notably through their ability to contribute significantly to the dynamism of entrepreneurial ecosystems by introducing new business models and exploring underdeveloped market niches (Acs et al., 2017). However, their development remains closely tied with access to financing, a particularly critical challenge in their early stages (Berger & Udell, 1998). Because of their youth, the technological uncertainty surrounding them, and the information asymmetry they generate, traditional investors often perceive these companies as highly risky, which limits their access to external financial resources (Cosh et al., 2009).

[1] Centre for Research in Applied Economics for Development, Algiers, Algeria, benbouzid15karima@gmail.com
[2] Centre for Research in Applied Economics for Development, Algiers, Algeria, benabderrahmanenarimane@gmail.com
[3] Centre for Research in Applied Economics for Development, Algiers, Algeria, felladjani@gmail.com

Classical capital-structure theories such as (Modigliani–Miller, the trade-off theory, or agency theory) are often ill-suited to these specificities (Cumming & Johan, 2017). Conversely, alternative approaches such as life-cycle theory (Berger & Udell, 1998), managerial choice theory (Cumming & Johan, 2017), transaction cost theory (Hall & Lerner, 2010), and the Pecking Order Theory (Myers & Majluf, 1984) provide more relevant analytical lenses. These frameworks emphasise how founders' characteristics (gender, age, education, experience) and firm attributes (size, location, innovativeness, activity segment) shape financing decisions (Colombo & Grilli, 2007; Robb & Watson, 2012). In this context, signalling theory (Spence, 1973) also plays a key role; it provides a crucial framework. It states that in environments with high information asymmetry, owners and companies proactively convey observable attributes, such as advanced education or experience, on the one hand, and certification, international scope, on the other hand, to reduce perceived risk and establish credibility with potential investors.

In Algeria, promoting entrepreneurship constitutes a strategic lever for diversifying an economy historically dependent on hydrocarbons (OECD, 2023). Several public initiatives have been introduced to support young innovative firms, including the "One Graduate, One Startup" program and the establishment of a national fund dedicated to startups (Labbani, 2024). Despite these advances, the entrepreneurial ecosystem remains in a consolidation phase, marked by persistent structural constraints, including the scarcity of adapted financial instruments, high collateral requirements, complex administrative procedures, and a weak venture capital culture (OECD, 2023). These persistent structural constraints, including high collateral requirements and complex administrative procedures, results in near-complete exclusion of emerging ventures from formal credit markets. Recent empirical studies have confirmed this severe financial exclusion, finding a nearly total absence of formal bank financing among Algerian startups (Benlefki et al., 2024). These studies have highlighted the structural barriers to accessing stable external financing, issues that are particularly evident in the tourism sector.

Within this broader context, the tourism sector occupies a particular place. It is considered a priority axis for economic diversification**,** yet the sector remains underexploited. In 2023, Algeria welcomed between 2.5 and 3.3 million tourists, a growing but still modest figure compared to other regional destinations (Ministry of Tourism and Handicrafts, 2025). Nevertheless, the government aims to increase arrivals fivefold by 2030 (Ministry of Tourism and Handicrafts, 2025). In this context, tourism startups, yet continue to struggle to access the financial resources required for their development.

Despite the growing importance of tourism in national diversification strategies, empirical research on the financing of tourism startups in MENA countries is scarce (World Bank, 2022). The few existing studies address entrepreneurial finance from a general perspective, without examining the interactions between founders' profiles, firm characteristics, and sectoral constraints (Hall & Lerner, 2010). This gap hinders our understanding of resource mobilisation mechanisms within North African tourism ecosystems.

This study seeks to partly fill this empirical gap by analysing the financing mechanisms of 43 active Algerian startups operating in the tourism sector. Although small, this dataset reflects the main characteristics of the identified population and provides one of the first empirical mappings of financing practices among young tourism firms in Algeria (World Bank, 2022).
More specifically, this research aims to answer the following questions:

1. *What are the main financing sources mobilised by Algerian tourism startups?*

2. *To what extent do owners' characteristics influence financing choices?*
3. *How do organisational attributes (companies' characteristics) shape access to different financing sources?*

In this context, this work tends to contribute to the literature on entrepreneurial finance in emerging economies by focusing on a strategic yet understudied sector.

2. EMPIRICAL LITERATURE REVIEW AND HYPOTHESIS

2.1 Startups financing mechanisms

The entrepreneurial finance literature identifies three primary categories of funding sources for startups: traditional financing, alternative financing and public support (Cumming & Johan, 2017).

The traditional financing consists of personal financing, bank financing and venture capital. In most emerging economies, startups mainly rely on personal financing, often referred to as "love money", due to limited access to formal credit markets, a challenge which, largely driven by information asymmetries, a lack of collateral, and a high perceived risk, reduces the young firms' ability to obtain external funds (Nguyen & Canh, 2021).

Empirical studies show that, during the initial phases, the owners typically mobilise personal savings and contributions from family and close networks (Cassar, 2004; Robb & Robinson, 2014). This financing pattern is consistent with the pecking-order logic and remains particularly pronounced in developing countries. Although bank financing and venture capital are theoretically available, they are rarely mobilised in the early stages. This is primarily because banks apply conservative lending practices, especially when dealing with firms lacking financial track records or tangible assets. In emerging contexts, the literature confirms that obtaining bank credit requires collateral and solid guarantees, which many young firms cannot provide (Beck et al., 2005). In Algeria, recent assessments similarly highlight the challenges faced by startups in accessing bank loans, reinforcing the prevalence of self-financing (Benlefki et al., 2024).

Alternative financing, including bank crowdfunding and business angels, which is considered as complementary instrument to traditional financing methods. It is particularly suited to covering moderate financial needs while promoting the creation of a community committed to the project. It offers strategic support through active mentoring, facilitate access to professional networks, and strengthen the credibility of the projects they support (Mason & Harrison, 2000).

Public support programs which aim to correct market. In several emerging countries, governments directly support innovation through dedicated programs. However, their uptake by sector-specific startups, including those in tourism, remains under-documented. This raises the question of the degree to which tourism startups effectively access and utilise public support mechanisms.

Within this framework, the present study investigates whether startups operating in the tourism sector exhibit similar financing patterns or if specific sectoral dynamics lead to a different configuration. In this regard, we formulate the following hypothesis:

H1. *While Algerian tourism startups continue to rely on traditional funding, especially personal funds, as main source, they are now increasingly incorporating alternative financing*

(business angels and crowdfunding) alongside public support dedicated to tourism and innovation.

2.2 Determinants of access to funding

Beyond the type of financing, the empirical literature also highlights that certain characteristics of the owner and the company significantly influence access to fundings. (Abbasian & Yazdanfar, 2012; Chinonso & Zhen, 2016; Fairlie & Robinson, 2023; Lafarre & Schoonbrood, 2023; Malinin, 2023).

First, the personal characteristics of the owner, such as sex, age, education level, and field of study, play an important role. Rop et al. (2021) points out that in the case of [SMSs] Companies (small and medium sized companies) the owner's sex and the companies have an important impact on the access to bank financing. Their research shows that male entrepreneurs have better chances to obtain fundings from banks than women entrepreneurs; this reflects systemic prejudices.

The age of the owner is a key factor in access to financing (Chinonso & Zhen, 2016; Rusu & Roman, 2019). Rusu and Roman (2019) note that young entrepreneurs may suffer from a lack of guarantees and experience, which impacts their ability to secure financial resources.

Additionally, financial self-confidence among owners is a crucial determinant of successful funding acquisition; those with greater self-confidence tend to secure funding more effectively. Financial education has been shown to enhance this confidence (Malinin, 2023). In addition, the level of education and field of studies determine access to financing (Chinonso & Zhen, 2016; Sanyal & Mann, 2010). In this regard, Malinin (2023) highlights that technical training has an impact on early-stage financing. while many entrepreneurs encounter challenges due to biases in the venture capital industry, technical backgrounds help raise funds, this was especially observed during the pandemic (Malinin, 2023).

We included these personal variables, in our research, to test their effect on financing. Making the hypothesis:

H2. *The owner's characteristics (including Sex, age, level of education, field of studies) significantly influence the access of the funding sources.*

Second, the company's characteristics also determine the financial resources that can be mobilised. The geographical location has been one of the most critical determinants of financing. Indeed, a startup located in urban areas generally benefits from a richer entrepreneurial ecosystem composed of financial institutions, incubators, and support organisations, compared to those operating in rural areas (Frimanslund & Nath, 2022; Tariq, 2013). However, the rise of digital technologies is changing this scenery by offering rural startups greater access to online financing platforms (Hu, 2023; Wuth, 2023). In the light of this, our study examines whether the location still plays a decisive role in shaping the access to financing for tourism startups in Algeria, or whether companies, regardless of where they operate, now benefit from similar financing opportunities.

Besides, the startup's sector of activity shapes both its financing needs and funding sources. Traditional tourism enterprises. In this regard, Castaldo et al. (2023) have shown that startups operating in accommodation and transport often attract conventional credit more readily due to their possession of tangible assets.

Furthermore, Startup's certification plays an essential role in access to financing by acting as a credible signal of the company quality, thereby reducing information asymmetry between startups and financial institutions (Fernandez, 2021; Minard, 2016). Research shows that certified startups have a significantly higher probability of obtaining bank loans compared to non-certified ones. Also it has shown that startups engaged in exporting or operating in international markets benefits from specific support programs benefit from specific support programs (chambers of commerce, export funds) as well as from a more diversified investor base, particularly in countries with strong legal framework and investor protection (Chavis et al., 2012; Vasilescu, 2014).

Finally, that a company's life cycle plays a decisive role in accessing to financing, as a startup progresses through its life cycle, it gains easier access to a variety of funding sources, thereby diversifying its options beyond initial internal financing (Lafarre & Schoonbrood, 2023; Schuh & Hamm, 2022).

The present study incorporates these variables in order to determine their effect on access to financing. These theoretical insights have led to the following hypothesis:
H3. *The characteristics of the company (geographical location, field of activity, the scope of the company, and life cycle) have an effect on the access to different funding sources.*

3. METHODOLOGY

3.1 Data and variables

This research is based on a survey conducted in 2023 among startups in tourism sector, in Algeria. The approach used is descriptive based on a conceptual framework that links the owner and the company characteristics to the types of funding sources mobilised. This framework is grounded in the literature on entrepreneurial finance, which highlights the importance of (i) human capital, (ii) firm attributes, and (iii) information asymmetries in shaping access to financial resources (Cassar, 2004; Cumming & Johan, 2017; Myers & Majluf, 1984). The studied variables are as follows:

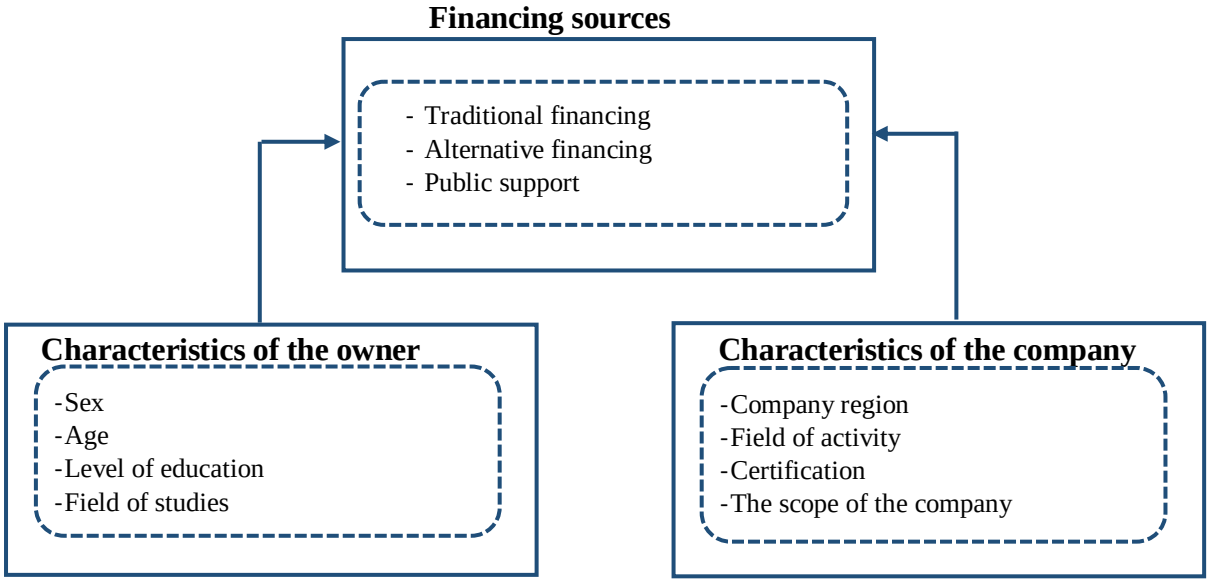

Figure 1. Conceptual model of the study
Source: Developed by the authors based on the theoretical framework

The Figure 1 Presents the three axes that the analy
sis is based upon:
Axe1. Financing sources are grouped into three categories:
(a) Traditional financing *(personal financing, bank credit, venture capital),*
(b) Alternative financing *(business angels, crowdfunding),*
(c) Public support[4] *(national or international competitions, subsidies, and government programs).*

Axe 2. Owner characteristics (sex, age, educational level, field of studies) were selected because prior research demonstrates that demographic and human capital attributes influence financial behaviours, risk perception, and the ability to attract external finance (Beck et al., 2005; Robb & Robinson, 2014). In this study, these variables were operationalised using detailed categorical scales to capture heterogeneity among owners:
(a) Sex: *man* / *woman,*
(b) Age groups: *24–29, 30–34, 35–39,* and *40 and above,*
(c) Educational level: *vocational training, university degree, higher education,*
(d) Field of studies: *exact sciences and technology*; *natural and earth sciences*; *medical sciences*; *social and human sciences.*

Axe 3. Company characteristics: Geographical location, Field of activity, certification, the scope of the company and its life cycle. These variables were included based on evidence that geographical context, sectoral positioning, and organisational maturity of the company shape its access to both traditional and alternative funding (Berger & Udell, 1998; OECD, 2023). To ensure conceptual clarity and methodological transparency, each variable was defined and operationalised as follows:
(a) Company geographical location (region): divided into major geographic zones to reflect heterogeneity in local institutional support, market development, and entrepreneurial ecosystems. The regions include *High Plateau Center (HPC), High Plateau East (HPE), North Central (NC), Northeast (NE), and Northwest (NO),*
(b) Field of activity: distinguishes between different domains within the tourism ecosystem, such as *financial services, delivery and logistics, direct tourism services, e-commerce activities, digital solutions, and communication and marketing,*
(c) Certification: refers to whether the firm holds the official "*Startup Label"* granted by the Algerian Ministry of Knowledge Economy and Startups. This variable includes three response categories: *yes, the firm is labelled*; *no, the firm is not labelled*; and *the owner is not familiar with the label or its meaning,*
(d) Scope of the company: indicates whether the startup operates primarily at the *national* or *international* level,
(e) Life cycle stage: distinguishes between startups based on their level of development: *launch, survival, success, take-off* or *maturity* phase,
Data for each feature was collected via questionnaire administered to the startup manager / owner. Questions regarding financing focused on the use of each type of source (yes/no, and percentage).

[4] In Algeria, organizations such as the National Unemployment Insurance Fund (CNAC) and the National Agency for Investment Development (ANDI) offer assistance to startups and exports, but their actual use by tourism businesses remains poorly documented. Some sectoral plans provide subsidies for innovative tourism projects. It is therefore expected that at least a fraction of startups will benefit from such assistance (Benlefki et al.2024).

3.1 Data collection

This work has been part of a research project that's instated by CREAD, given the absence of comprehensive public registers of tourism startups, we proceeded via an exploratory approach over two years (2022-2023) to identify target companies. Which included: participation in major national and international tourism fairs (in Algeria and abroad); solicitations to public and private incubators (e.g., CAP Cowork, IncubMe, Almaahed, etc.) and the Ministry of Startups; as well as consultation of official lists of emerging startups.

These steps resulted in a preliminary list of 65 startups active in various segments of tourism (accommodation, transport, cultural activities, and e-tourism). The questionnaire was administered in two stages. First, an online survey was conducted via Google Forms from 15th to 31st of October 2023, accompanied by regular follow-ups, which yielded 22 responses. Next, to improve the participation rate, a face-to-face data collection phase was carried out between December 2023 and February 2024, during which the questionnaire was administered directly to owners, leading to collect an additional 25 responses.

A total of 47 companies responded. After verification, four responses were excluded because they contained insufficient or inconsistent information. The final dataset therefore includes 43 Algerian tourism startups, corresponding to an effective response rate of 66% of the target population. Although the absolute number of observations may appear limited, it reflects the intrinsically small size of the targeted population and not constraints related to respondents' accessibility. Hence, this dataset provides rare and valuable empirical insights into the financing of tourism startups in Algeria.

3.2 Analysis method

The collected data were processed through descriptive analysis using SPSS software. Key statistics such as frequencies, percentages, and means were calculated for each variable to establish the characteristics of the respondents and their financing practices. Next, bivariate analyses using cross-tabulations was performed to explore the relationship between the owner and the company characteristics and the financing sources used.

The choice of descriptive and bivariate analyses is justified by both the exploratory nature of the study and the structural constraints of the studied population. In particular, the small size of certain subgroups does not result from methodological limitations but reflects the actual configuration of the Algerian entrepreneurial population. For instance, women represent only around 3.2% of Algerian entrepreneurs (Chamber of Commerce, 2023). Under these conditions, applying inferential statistical tests or multivariate models would not have satisfied the necessary assumptions for statistical validity.

4. RESULTS

4.1 Respondents profile

In the following part we are going to describe the characteristics of our respondents, it consists of 43 owners of startups operating in the tourism sector in Algeria.

A sociodemographic analysis shows that the vast majority of owners are men (93%, n = 40), with only 7% (n = 3) women. The predominant age category is 24–35 years, representing 74.4% of the respondents (n = 32), indicating a strong entrepreneurial presence among young adults. Regarding the level of education, 58.1% hold university degrees (bachelor or master's degree, n=25), 16.3% have a higher degree (doctorate or engineering, n=7), and 25.6% have

completed professional training (n=11). In terms of academic background, two thirds (2/3) of the respondents specialise in social sciences and humanities (n=29), while 33% have expertise in technical sciences (n=18).
Geographically, 70% of these startups are located in the North-Central region (n=30), mainly within the capital (Algiers). The remaining startups are distributed between 18% high plateaus (n=8) and 13% in the Northeast and Northwest regions (n=5). Regarding the activity sector, the sample is fairly diverse: 20.9% engage in tourism-related e-commerce (n=9), 25.6% provide tourism services such as event organisation and leisure activities (n=11), 23.3% focus on developing digital solutions (including applications and platforms, n=10), 4.7 % operate in financial services connected to tourism (n=2), 16.3% specialise in delivery and logistics (n=7), and 9.3% are involved in tourism marketing (n=4).

Regarding the geographical reach of their activities, 84% of startups focus mainly on the local market (n=36), while 16% have an international presence (n=7). In terms of certification, 58% of the companies have obtained official certification (public incubation or government programs, n=25), 37% lack certification (n=16), and 5% are uncertain about their administrative status (n=2). Regarding the entrepreneurial life cycle, 35% of startups are in the launch phase (n=17), 40% are in the survival phase (n=16), and 25% have reached the growth phase (n=10) including take off, success, or maturity, indicating that the tourism startups are relatively young and still in an early stage of their growth.

These data indicate a relatively young sample, mainly male, well-educated, and with a strong concentration in the capital region. The sectoral activity is diverse, yet focused on digital and service-oriented activities.

4.2 Funding mechanisms mobilised

The analysis of financing mechanisms for startups in the tourism sector in Algeria highlights significant figures that illustrate the preferred sources of financing as well as the challenges encountered by entrepreneurs.

Traditional financing is the most prevalent source of funding for all startups in the tourism sector (n=43), which is based primarily on personal and family financing. According to the data, 88.4% (n=38) of the entrepreneurs reported using their own money. This predominance shows that many entrepreneurs rely on their personal resources or the help of family and friends to start their businesses. Which represents the entrepreneurs' confidence in their projects. This type of financing is crucial, especially in the initial phases, where access to external capital can be limited. No entrepreneurs reported obtaining a bank loan (0% bank financing), highlighting the nearly total absence of formal credit in our sample. Venture capital, which is crucial for startups with high growth potential, was not widely used in the tourism sector in Algeria, with merely 11.6% (n=5) of the entrepreneurs using it. This type of financing is essential for startups in the expansion phase that require significant resources to develop their activities.

Regarding alternative financing, as assumed, it remains marginal: only a small segment (n=2) reported having used this type of financing. The access to business angels, which provide funding in exchange for an equity stake, while important, remains relatively rare among startups, with only one respondent reporting using this type of investment. This low use could reflect a limited awareness of access to this source of funding. However, investment by business angels represents a significant financing mechanism, as it offers not only funds but also strategic advice and a network of contacts essential for startup development.

Crowdfunding is also emerging as a relevant financing tool, with only one company using this method to raise funds. This model allows startups to raise funds from a broad audience interested in their project, which is particularly relevant in the tourism sector, where the project's appeal can mobilise contributions.

Of the 43 companies surveyed, only 5 reported having received a public support, of which only 2.3% (n=1) obtained funding through their success in national competitions, while 9.3% (n=4) received funding through international competitions, indicating that this source of funding is more common than national one. It is notable that none of the companies surveyed received financing from public organisation such as CNAC, ANDI, ANGEM, or FGAR. This lack of support highlights the marginal role of a public support system in startup financing. This observation could be explained by intense competition, rigorous selection criteria, or the insufficient amounts allocated to meet startups' financial needs.

These results validate hypothesis H1. traditional financing (personal and family) largely dominates. They also confirm that the use of business angels and crowdfunding is limited, and that some startups benefit from public support, but to a lesser extent than traditional financing.

4.3 Influence of the owner characteristics

Table 1 summarises the distribution of financing sources according to the owner's characteristics. The main trends are:

(a) Owner's sex: Women entrepreneurs (n=3) appear to have relied more on family support and grants (40% of them used funds from their entourage, compared to only 6.7% of men). No women reported using venture capital. In contrast, 4.4% of men mobilised alternative financing. As a result, women (few in number) resort less to external financing.

(b) Owner's age: Although traditional financing is dominant for all categories, some owners aged between 24 to 29 and 30 to 34 demonstrate a certain openness to diversification, mobilising respectively 13.3% and 12.5% of public support, and 6.7% and 4.2% of alternative financing (crowdfunding, business angels, etc.). In contrast, 100% of entrepreneurs in the age groups 35–39 and 40+ have declared relying exclusively on traditional financing, without turning to public support or any alternative method. This may be explained by a smaller network for young people (fewer personal guarantees) and also a greater openness to alternatives.

(c) Level of education: University graduates (n=25) rely heavily on traditional financing (88.5%), with very limited use of public support (11.5%) but without alternative financing. Higher-level graduates (doctorate or engineering, n=7) are distinguished by a relatively higher use of alternative financing (16.7%), but without benefiting from public or family support. On the other hand, vocational training holders (n=11) have the lowest rate of traditional financing (76.9%) and are the ones who make the most use of public support (15.4%), while also accessing alternative financing (7.7%). These patterns will be further explored in the Discussion section.

(d) Field of studies: Among the owners from technical sciences background (n=11), 92.9% used only internal financing, and only 7.1% pursued alternative financing. Those from the natural and earth sciences (n=4) resorted more to crowdfunding (25%). Entrepreneurs with the social sciences background (n=28) followed the general model (78.6% traditional, 10.7%

alternative financing, 10.7% public grants). It can be noted that the technical disciplines had a slightly better access to alternative financing.

Table 1. Distribution of funding sources according to the owner's characteristics (N=43)

Category	Traditional financing%	Alternative financing%	Public support%	Total
Sex of the owner				
Man	88.9	4.4	6.7	**40**
Women	60.0	0.0	40.0	**03**
Age of owner				
24-29	80.0	6.7	13.3	**11**
30-34	83.3	4.2	12.5	**21**
35-39	100.0	0.0	0.0	**06**
40 and older	100.0	0.0	0.0	**02**
Level of education				
Vocational training	76.9	7.7	15.4	**11**
University	88.5	0.0	11.5	**25**
Superior	83.3	16.7	0.0	**07**
Field of studies				
Exact sciences and Technology	92.9	7.1	0.0	**11**
Natural Sciences & Earth	75.0	25.0	0.0	**04**
Medical Sciences	0.0	0.0	0.0	**00**
Social & Human Sciences	78.6	10.7	10.7	**28**
Total	**43**	**02**	**05**	

Source: CREAD Survey 2023

The previous elements underline that personal characteristics influence sources of financing, confirming H2. We observed that men and the most educated (superior level of education) tend to access formal channels a little more, while these 3 categories: Women, Middle aged, and the owners with social sciences background were the most willing to rely mainly on internal or family sources.

4.4 Influence of the company characteristics

Table 2 bellow shows the distribution of financing sources according to the company characteristics. The highlights are:

(a) Company region: Startups located in the central high plateaus (HPC), the North-West (NO), and the Northen East (NE) regions present a homogeneous configuration: they rely exclusively on internal financing (100%), with no reported use of public support or alternative financing. In the region of the eastern high plateaus (HPE, n = 7), a slight variation appears: 85.7% of the companies mobilise traditional financing, while 14.3% have obtained public support. In the Northen Central region (NC, including the capital Algiers, n = 30) we found much greater diversity: 85% of startups use traditional financing, but 3% have accessed venture capital and 12% public support. These results show that startups located in large urban areas, particularly in Algiers, benefit from a more favourable financial environment, allowing them to diversify their sources of financing.

(b) Field of activity: Startups in the sector of finance (n=3) are the only ones to have recourse to alternative financing (33.3%). The ones providing logistics/delivery services (n=5), digital solutions and digital marketing/communication companies, respectively (n=7), (n=4) used only traditional financing. Companies offering direct tourism services (n=10) have received

public support of up to 10%. Last, the E-commerce startups (n=11) stands out with 18.2% public support and 81.8% self-financing. These data indicate that some sectors (financial, due to their revenue potential) attract investors to some extent, while digital-only startups remain dependent on internal sources. Public support is mainly present in areas that are the government priority (e-commerce, cultural tourism).

(d) The scope of the company: Local businesses (n=32) rely heavily on traditional financing (96.9%), and almost none of them uses public support (3.1% were able to access crowdfunding). In contrast, international startups (n=12) are more diversified: 58.3% still use internal financing, but 25.0% have used alternative financing and 16.7% have used public support. This contrast clearly illustrates the market orientation: startups with international focused activates manage to attract diverse resources (foreign investors, export aid) than purely local oriented structures. This observation supports H3, by showing that international openness moderates' access to financing.

(e) Certification: 87.5% of certified startups (n=25) declared using traditional financing and 12.5% of them have received public support, while none of them have pursued alternative financing. In contrast, 93.8% of non-certified startups (n=16) used personal financing and 6.3% alternative financing, and none have received a public support. This suggests that certification opens up greater access to public support (perhaps through better support or greater institutional visibility), while non-certified companies tend to seek business angels on their own. The «signalling» effect of certification is thus perceptible: it improves integration into support programs.

(f) Life cycle: As expected, all the startups that are in the launch phase (n=15) have financed their projects only on traditional financing. All those in the survival phase (n=17), 82.4% remained on traditional financing, but we observe a first use of alternative financing and some reliance on public support (11.8%). 66.7% of the companies that are in the success phase have obtained public support (1/3 of the sample) and 33.3% personal financing, without venture capital. For the ones that are in the take-off phase (n=5), personal financing remains the majority (80%), but the use of public support increase to (20%). Last, the mature companies (n=3) return to 100% self-financing, without diversification, which can be explained by the fact that firms at this stage generally generate stable internal cash flows, thereby reducing their dependence on external funding sources.
Table 2 hereafter, highlights the mechanisms of financing by company characteristics. It confirms that certain variables modulate the access to financing (hypothesis H3): region, activity, international scope, and certified status are associated with differences in the sources mobilised. These findings will be further explored in the discussion.

Table 2. Distribution of financing sources according to the company characteristics

Category	Traditional financing%	Alternative financing%	Public support %	Total
Company region[5]				
HPC	100.0	0.0	0.0	**01**
HPE	85.7	0.0	14.3	**07**
NC	85.0	3.0	12.0	**30**
NE	100.0	0.0	0.0	**02**

[5] *HPC = High Plateau Center Region; HPE = High Plateau East Region; NC = North Central Region; NE = Northeast; NO = Northwest.*

Category	Traditional financing%	Alternative financing%	Public support %	Total
NO	100.0	0.0	0.0	**03**
Field of activity				
Finance	66.7	33.3	0.0	**03**
Delivery	100.0	0.0	0.0	**05**
Direct tourism services	90.0	0.0	10.0	**10**
e-commerce	81.8	0.0	18.2	**11**
Digital solutions	100.0	0.0	0.0	**07**
Communication & Marketi	100.0	0.0	0.0	**04**
The scope of the company				
National	96.9	3.1	0.0	**36**
International	58.3	25.0	16.7	**07**
Certification				
Yes	87.5	0.0	12.5	**25**
No	93.8	6.3	0.0	**16**
Unknown	100.0	0.0	0.0	**02**
Life cycle				
Launch	100.0	0.0	0.0	**15**
Survival	82.4	5.9	11.8	**17**
Success	66.7	0.0	33.3	**03**
Take-off	80.0	0.0	20.0	**05**
Maturity	100.0	0.0	0.0	**03**
Total	**43**	**02**	**05**	**43**

Source: CREAD Survey 2023

5. DISCUSSION

The data from this study provide meaningful insights into the financing mechanisms mobilised by tourism startups in Algeria and make it possible to interpret the observed dynamics in light of fundamental theories in entrepreneurial finance. The results indicate that financing in this sector remains largely dominated by traditional and internal mechanisms, mainly auto-financing and family financing, which is consistent with the pecking-order theory (Myers & Majluf, 1984) and with previous studies on emerging economies (Cassar, 2004; Cumming & Johan, 2017). The complete absence of bank loans in the studied population reinforces the idea that early-stage firms in developing economies face structural barriers to accessing formal finance, a phenomenon widely documented in North African and MENA contexts (Klapper et al., 2006).

The analysis of a startup owner's characteristics shows that the latest significantly influence openness to external sources. The owner's sex, age, educational level, and educational background influence the propensity to rely on alternative financing or public support. For instance, men resort slightly more frequently to external sources, while women tend to rely more on family financing, illustrating gender inequalities in access to financial networks and investor visibility (Brush et al., 2018).

Younger owners and those with advanced human capital, notably academics, appear to be more open to alternative financing, which may be interpreted as a credibility signal for investors and a reduction in information asymmetries (Colombo & Grilli, 2007). On the other hand, owners with vocational background tend to Favor public support schemes, reflecting

both their integration into national programs and their limited access to other types of financing (Benlefki et al., 2024).

At the organisational level, the companies' characteristics also play a decisive role in the access to financing. Startups located in the Central-Northern region, particularly in Algiers (the capital), present the most diversified financing structure, confirming that ecosystems with greater institutional density and a more developed entrepreneurial infrastructure offer better financing opportunities (Spigel, 2017). In contrast, startups located in the other regions remain heavily dependent on internal resources, which is consistent with the literature on spatial inequalities in entrepreneurial ecosystems (Müller, 2016).

Moreover, internationally oriented firms and those at more advanced stages in their life cycle display greater diversification. This pattern illustrates the logic of financial growth cycle theory (Berger & Udell, 1998): as startups mature, information asymmetries decrease, facilitating access to public and external financing, while international exposure strengthens legitimacy and investor confidence (Autio, 2017; Lu & Beamish, 2001).

Differences in field of activity are also identified: tourism startups with a financial orientation show the strongest reliance on alternative financing mechanisms, reflecting their potential for scalability and revenue generation, which is in line with studies on technological entrepreneurship (Cumming & Johan, 2017).

Overall, these findings reveals that the financing trajectories of tourism startups in Algeria are determined by a combination of individual and organisational factors. The three main hypotheses of the study are therefore confirmed:

1. Startups are starting to use more alternative financing and public support, even though they remain overwhelmingly dominated by the traditional type.
2. The owner's characteristics significantly influence financing choices and opportunities.
3. Company characteristics shape the degree of diversification of financing sources.

6. CONCLUSION

This study provides one of the first empirical examinations of the financing mechanisms mobilised by tourism startups in Algeria, based on original primary data collected from 43 companies identified through a rigorous two-year exploratory mapping process. By jointly analysing owner and company characteristics, this research sheds the light on the financial structure of an entrepreneurial segment that remains largely under-documented in the literature on entrepreneurial finance.

The methodological choice to use descriptive and bivariate analyses was guided by the structural properties of the entrepreneurial population under study, as well as by empirical constraints commonly observed in emerging economies, where small population sizes and substantial heterogeneity limit the relevance of more complex inferential techniques. Covering approximately 66% of all identified tourism startups nationwide, the survey offers a reliable descriptive mapping of financing practices.

The results indicate that traditional financing constitutes the main funding source, whereas the use of alternative mechanisms or public support schemes remains limited. These patterns point to constraints within the financing environment that are associated to a combination of

individual factors *(Sex, age, level of education, and field of studies)* and organisational attributes *(Region, field of activity, the scope of the company, certification, and cycle of life*).

One of the main methodological limitations lies in the relatively modest sample size, which reflects the developing nature of the sector under study. Nevertheless, the present research opens several avenues for future studies. Comparative analyses involving other innovative sectors (such as digital industries, cultural and creative industries, or agritech) could help determine whether these financing configurations are specific to tourism or reflect broader startups dynamics in Algeria. Secondly, Qualitative approaches, particularly in-depth interviews, could enhance the understanding of the institutional, cognitive, and organisational dimensions shaping financing choices. And lastly, in a context marked by the progressive emergence of new support instruments, longitudinal research would also be useful for analysing the evolution of startups' financing trajectories over time.

From a practical perspective, the descriptive evidence highlights the importance of improving the clarity and accessibility of financing instruments targeted at early-stage companies, as well as fostering complementary private mechanisms such as business angels and crowdfunding, without inferring institutional shortcomings beyond the empirical scope of the study. In summary, the findings suggest that the financing patterns of tourism startups in Algeria result from the interaction of individual and organisational determinants. This study helps fill a significant empirical gap in the entrepreneurial finance literature by providing rare company level data in a North African context.

REFERENCES

Abbasian, S., & Yazdanfar, D. (2012). The impact of owner and firm characteristics on external capital acquisition at start-up: Empirical evidences from Swedish data. *International Business Research, 5*(12), 19-30. https://doi.org/10.5539/ibr.v5n12p19

Acs, Z. J., Stam, E., Audretsch, D. B., & O'Connor, A. (2017). The lineages of the entrepreneurial-ecosystem approach. *Small Business Economics, 49*(1), 1-14. https://doi.org/10.1007/s11187-017-9957-7

Autio, E. (2017). Entrepreneurial innovation: The importance of context. *Research Policy, 46*(4), 604-615.

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2005). SMEs, growth, and poverty: Cross-country evidence. *Journal of Economic Growth, 10*(3), 199-229. https://doi.org/10.1007/s10887-005-3533-5

Benlefki, S., Bouchetara, M., Saba, A., & Gahlam, A. (2024). Financing practices of labeled startups. *Financial Markets, Institutions and Risks, 8*(2), 119-140. https://doi.org/10.61093/fmir.8(2).119-140.2024

Berger, A. N., & Udell, G. F. (1998). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. *Journal of Banking & Finance, 22*(6-8), 613-673. https://doi.org/10.1016/S0378-4266(98)00038-7

Binks, M. R., & Ennew, C. T. (1996). Growing firms and the credit constraint problem. *Small Business Economics, 8*(1), 17-25. https://doi.org/10.1007/BF00393231

Brush, C. G., Edelman, L. F., Manolova, T. S., & Welter, F. (2018). A gendered look at entrepreneurship ecosystems. *Small Business Economics, 53*(2), 393-408.

Cassar, G. (2004). The financing of business start-ups. *Journal of Business Venturing, 19*(2), 261-283. https://doi.org/10.1016/S0883-9026(03)00029-6

Castaldo, A., Pittiglio, R., Reganati, F., & Sarno, D. (2023). Access to bank financing and start-up resilience: A survival analysis across business sectors in a time of crisis. *The Manchester School, 91*(3), 141-170. https://doi.org/10.1111/manc.12433

Chavis, L. W., Klapper, L. F., & Love, I. (2012). International differences in entrepreneurial finance. In D. Cumming (Ed.), *The Oxford Handbook of Entrepreneurial Finance*. Oxford University Press. https://doi.org/10.1093/oxfordhb/9780195391244.013.0025

Chinonso, O. K., & Zhen, T. (2016). The influence of entrepreneurial characteristics on small and medium-sized enterprise accessibility to debt finance in Nigeria. *International Journal of Managerial Studies and Research, 4*(10), 83-92. https://doi.org/10.20431/2349-0349.0410008

Colombo, M. G., & Grilli, L. (2007). Funding gaps? Access to bank loans by high tech start-ups. *Small Business Economics, 29*(1-2), 25-46. https://doi.org/10.1007/s11187-005-4067-0

Cosh, A., Cumming, D., & Hughes, A. (2009). Outside entrepreneurial capital. *The Economic Journal, 119*(540), 1494-1533. https://doi.org/10.1111/j.1468-0297.2009.02270

Cumming, D., & Johan, S. (2017). The Problems with and Promise of Entrepreneurial Finance. *Strategic Entrepreneurship Journal, 11*, 357-370. https://doi.org/10.1002/sej.1265

Douadi-Amiar, L., & Derridj, R. (2022). Le crowdfunding: moyen de financement adapté aux startups, état des lieux en Algérie. *Al-Bashaer Economic Journal, 8*(3), 591-603.

Fairlie, R. W., & Robinson, D. T. (2023). Racial differences in access to capital for innovative start-ups. In B. Jones & J. Lerner (Eds.), *Entrepreneurship and Innovation Policy and the Economy* (Vol. 2). University of Chicago Press. https://doi.org/10.1086/723238

Fernandez, V. (2021). The role of trust and social commitment in start-up financing. *International Review of Financial Analysis, 75*, 101722. https://doi.org/10.1016/j.irfa.2021.101722

Frimanslund, T., & Nath, A. K. (2022). Regional determinants of access to entrepreneurial finance: A conceptualisation and empirical study in Norwegian startup ecosystems. *Journal of Small Business & Entrepreneurship, 36*(3), 482-509. https://doi.org/10.1080/08276331.2022.2035171

Hall, B. H., & Lerner, J. (2010). The financing of R&D and innovation. In B. H. Hall & N. Rosenberg (Eds.), *Handbook of the Economics of Innovation*, *1*, 609-639. Elsevier. https://doi.org/10.1016/S0169-7218(10)01014-2

Hu, S. (2023). The effect of inclusion in digital finance on income gaps between urban and rural regions. In *Proceedings of the 3rd International Conference on Big Data Economy and Information Management (BDEIM 2022)*. EAI. https://doi.org/10.4108/eai.2-12-2022.2328718

Hyun, S., & Lee, H. S. (2022). Positive effects of portfolio financing strategy for startups. *Economic Analysis and Policy, 74*, 623-633. https://doi.org/10.1016/j.eap.2022.03.017

Labbani, H. (2024). *Un diplôme – Une startup: Nouveaux défis pour la jeunesse algérienne*. Revue des Sciences Sociales, *22*(1), 45-61.

Klapper, L. F., Laeven, L., & Rajan, R. (2006). Entry regulation as a barrier to entrepreneurship. *Journal of Financial Economics, 82*(3), 591-629.

Lu, J. W., & Beamish, P. W. (2001). The internationalization and performance of SMEs. *Strategic Management Journal, 22*(6-7), 565-586.

Mason, C. M., & Harrison, R. T. (2000). The Size of the Informal Venture Capital Market in the United Kingdom. *Small Business Economics, 15*(2), 137-148. http://www.jstor.org/stable/40229101

Malinin, A. (2023). Beyond the Pitch: Role of Founders' Characteristics in Startup Funding. *Journal of Accounting and Finance, 23*(5), 80-98. https://doi.org/10.33423/jaf.v23i5.6563

Mann, C. L., & Sanyal, P. (2010). The financial structure of startup firms: The role of assets, information, and entrepreneur characteristics (FRB-Boston Working Paper No. 10-17). *Federal Reserve Bank of Boston*. https://doi.org/10.2139/ssrn.1768099

Minard, P. (2016). Signalling through the noise: Private certification, information asymmetry and Chinese SMEs' access to finance. *Journal of Asian Public Policy, 9*(2), 243-256. https://doi.org/10.1080/17516234.2015.1083412

Ministry of Tourism and Handicrafts. (2025). Principaux Agrégats Du Tourisme – وزارة السياحة والصناعة التقليديـة

Müller, S. (2016). Entrepreneurship and regional development: On the interplay between agency and context. *Entrepreneurship & Regional Development, 28*(7-8), 585-611.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics, 13*(2), 187-221.

Nguyen, B., & Canh, N. P. (2021). Formal and informal financing decisions of small businesses. *Small Business Economics, 57*(4), 1545-1567. https://doi.org/10.1007/s11187-020-00361-9

OECD. (2023). *OECD SME and Entrepreneurship Outlook 2023*. Paris: OECD Publishing. https://doi.org/10.1787/342b8564-en

Robb, A. M., & Robinson, D. T. (2014). The capital structure decisions of new firms. *Review of Financial Studies, 27*(1), 153-179. https://doi.org/10.1093/rfs/hhs072

Robb, A., & Watson, J. (2012). Gender differences in firm performance: Evidence from new ventures in the United States. *Journal of Business Venturing, 27*(5), 544-558. https://doi.org/10.1016/j.jbusvent.2011.10.002

Rop, K. M., Otumba, E. O., Kibas, P., & Nassiuma, B. K. (2021). Influence of Entrepreneur and Firm Characteristics in Accessing Bank finance. *Journal of Entrepreneurship & Project management, 5(3)*, pp. 41-52.

Rusu, V. D., & Roman, A. (2020). Assessing the role of access to finance for young potential entrepreneurs: The case of Romania. In *Economies of the Balkan and Eastern European Countries: Selected Papers from 10th International Conference on EBEEC, 2019* (KnE Social Sciences, *4*(1), 301-324). https://doi.org/10.18502/kss.v4i1.5996

Schuh, G., & Hamm, C. (2022). Methodology for a startup lifecycle-dependent approach of financing for investors and deep tech startups. In *Proc. IEEE Int. Conf. on Industrial Engineering and Engineering Management (IEEM)*. https://doi.org/10.1109/IEEM55944.2022.9989676

Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics, 87*(3), 355-374.

Spigel, B. (2017). The relational organization of entrepreneurial ecosystems. *Entrepreneurship Theory and Practice, 41*(1), 49-72.

Tariq, T. (2013). Start-up financing. Technical report.

Vasilescu, L. (2014). Accessing finance for innovative EU SMEs – key drivers and challenges. *Economic Review: Journal of Economics and Business, 12*(2), 35-47. https://www.econstor.eu/bitstream/10419/193838/1/econ-review-v12-i2-p035-047.pdf

World Bank. (2022). *SME Finance: Improving access to finance for small and medium enterprises*. Retrieved from https://www.worldbank.org/en/topic/smefinance

World Bank. (2022). *World Development Report 2022: Finance for an Equitable Recovery*. Washington, DC: World Bank. https://www.worldbank.org/en/publication/wdr2022

Wuth, J. (2023). (Why) Do digital startups move to rural regions? *Regional Science Policy & Practice, 15*(4), 845-863. https://doi.org/10.1111/rsp3.12589