

Banking system and public support for entrepreneurial financing of SMEs: bibliometric and literature review

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Abstract

This study explores the connections between the banking system, corporate finance and government support for small and medium-sized enterprises (SMEs) through literature. It combines a bibliometric analysis of a corpus of documents from Scopus published between 2015 and 2025 examined in 698 articles, with a contextual study of the support mechanisms in Morocco. Bibliometrix and VOSviewer are used to analyze the performance of annual publications, the notoriety of citations and the joint occurrence of keywords. Annual production increases from 35 to 95 documents, an increase of 171.4%. Moreover, the most cited publications specify that the corpus goes beyond bank credit to include private equity, financing restrictions, and entrepreneurial development. These results support a multidimensional vision of SME financing, where access to finance interacts with the production of information, risk sharing and the ability of companies to implement development projects.

The findings show that annual production increased from 35 publications in 2015 to 95 in 2025, while the most-cited studies extend beyond conventional bank credit to venture capital, financing constraints, sustainability, innovation and digitalisation. The keyword network likewise identifies several connected thematic communities involving SMEs, banking, financing strategies, innovation and technological change. These patterns support a multidimensional view in which access to finance interacts with information production, risk sharing, organisational capabilities and the capacity of firms to implement development projects.

The analysis proposes a unifying model that links the thematic structure of the study to questions concerning the additionality of financing, the complementarity of levers and the divergences between companies and geographical locations.

However, the volume of publications and the combination of keywords do not demonstrate the effectiveness of specific programs. Conclusions are conditional on the cited dataset and are descriptive rather than causal in nature. Future work should combine transparent bibliography protocols with firm-level evidence of funding solicitations, program adherence and subsequent outcomes.

Keywords: SMEs; entrepreneurial finance; banking relationships; public support; credit guarantees; bibliometric analysis;

Introduction

Entrepreneurial activity and SME development are widely recognised as important contributors to innovation, employment and economic development (Newth, 2016). Yet the capacity of SMEs to invest, innovate and scale depends strongly on their ability to mobilise appropriate financial resources. This makes entrepreneurial finance a field that extends beyond the availability of bank credit to encompass information asymmetries, financing constraints, alternative sources of capital and public mechanisms intended to reduce financing frictions.

The role of small and medium-sized enterprises (SMEs) in the economic and social development of a country is highly recognized (Plane & Torres., 1998; St-Pierre et al., 2004; OECD 1, 2007). They are sources of innovation and wealth creation. In general, these enterprises account for more than 90% of all enterprises and generate more than 55% of GDP (OECD, 2002, 2007). The importance of SMEs in the Moroccan economy is confirmed by statistics. They represent more than 93% of businesses, create 50% of jobs, contribute 20% to GDP, 30% to exports and 40% to production (ANPME2, 2013). Thus, they occur in all sectors of activity and are essential for the economic and social dynamics of the territories.

In this context, several factors explain the particular importance given by policymakers, businessmen and financial markets to the evolution of business investment in general and SMEs in particular. As a component of final demand, business investment has greater volatility than private consumption, for example; in other words, it can have a significant impact on the short-term evolution of GDP growth even if its weight in GDP is rather low. To the extent that it increases the capital stock, SME investment generates an increase in potential GDP. It boosts factor productivity, thereby raising potential GDP growth and influencing the natural interest rate.

Central banks hope that by introducing large interest-rate cuts, they will provoke a reaction from SME investment. This is a long-term commitment implying that companies' internal funds (retained earnings) will not be used for dividends or share buybacks. A decision that can have an influence on the stock market price. The long-term horizon of this type of engagement also means that uncertainty can significantly impact investment behavior.

However, these companies face crippling internal and external difficulties: complexity of banking procedures, access to credit, low management rate, corruption, competition from the informal sector, mismanagement, ... etc.; but access to funding remains a considerable difficulty, making the growth of Moroccan SMEs very difficult and pushing them to focus on survival instead of innovation. The difficulties faced by our SMEs have driven the authorities, with awareness of the importance of SMEs, and have made significant efforts, such as the creation of public support schemes (Imtiaz, Moussanada, guarantee funds, etc.) and put pressure on credit institutions, SMEs' access to financing, to encourage SMEs to start investing.

The objective of this work is the study of public support for entrepreneurial financing of SMEs in general and Moroccan in particular. We will analyze this issue through a dynamic vision and managerial reflection. More precisely, the aim is to determine the origins of the programs introduced for SME financing in financial theory.

Indeed, for several years now, Morocco has made the promotion of SME entrepreneurship a national priority; several institutional and government programs have been implemented to support young entrepreneurs such as: the national agency for the promotion of small and

medium-sized enterprises (ANPME) and the launch of various programs, namely: IMTIAZ, MOUSSANADA, and the FORSA program.

1. Banking relationship and interest rate

Once the credit has been obtained by SMEs, it remains to be seen at what rate it is granted. Applied interest rates generally incorporate three elements: the cost of the resource, the bank's margin, and the risk premium (Diop, 2019). It should be noted that the effect of relational financing on the interest rate is not very clear; indeed, theoretically, two arguments are at odds. The first, based on classical banking theory, predicts a decline in interest rates with the duration of the relationship since banks accumulate information over time (Diamond, 1984; Fama, 1985). Thus, a privileged banking relationship reduces information problems and promotes access to credit by lowering interest rates, which adjust to the actual quality of the company (Coffinet & Nicolas, 2023).

The second, on the contrary, provides for an increase in interest rates with the duration of the relationship due to the informational hold-up of banks (Rajan, 1992; Sharpe, 1990; von Thadden, 1995, 2004). This informational capture of the healthy company is made possible by the informational advantage of the main bank which, unlike its competitors, identifies low-risk borrowers and is able to impose lending rates higher than those determined by a real pricing of the default risk of these companies (Ziane, 2009). According to Mbama (2021), the risk of "hold-up" is higher in the African context because the bank has private information about the company than the rest of the market does not. she may be tempted to impose high interest rates and guarantees on him because the costs of changing banks by the company are high. In the literature, empirical results therefore diverge.

Indeed, the different work carried out makes different observations. Some note an improvement in rate conditions as the relationship settles over time (Berger & Udell, 1995; Bouchellal, 2015; Ferri & Messori, 2000; Kono Abe & Mbama, 2020; Tlili, 2012; Ziane, 2004) in accordance with the hypothesis of reducing information problems with the duration of the relationship. Other studies have found an increase in the interest rate with the duration of the banking relationship, as the main bank takes advantage of its informational advantage to overcharge for its services (D'Auria et al., 1999; Degryse & Ongena, 2005; Degryse & Van Cayseele, 2000). Thus, an opaque SME will tend to concentrate its financing with one or two banks, with which it maintains an intense relationship providing it with relational financing (Chehade, 2007), which would make it possible to take advantage of favorable financing conditions, particularly in terms of interest rates.

2. Importance of public support for financing in the sustainability of SMEs

2.1. Towards adequate funding

The success of a company depends not only on its human capital, the quality and price of products and/or services it offers to customers, but also on the company's ability to mobilize adequate financing for operational and investment needs. Indeed, the mobilization of capital allows the company to finance tangible and/or intangible investments, to maintain, improve, and increase potential, diversification and positioning in a new market and also to innovate and create more added value. In addition to technical know-how and manpower requirements, access to external financing is one of the main pillars for the development of SMEs and the promotion of entrepreneurship. It allows SMEs to meet their working capital needs, support

development plans and supplement sources of internal funding. The lack of access to necessary, adequate and timely financing negatively affects the creation of new businesses and the development of existing ones. Almost all studies conducted on the role of financing show that the availability of capital is a necessary condition when creating, and the slow growth of SMEs is mainly due to the difficulties of these companies in obtaining financing in the development phase (Becchetti & Trovato, 2002; Krasniqi, 2007; Oliveira & Fortunato, 2006; Pissarides, 1999).

Today, finding the most adequate financial resources is the most important focus of a company's financial policy and especially for SMEs exposed to the problems of asymmetric information and rationing. Transactions carried out by an SME, locally or internationally, require the mobilization of capital, as well as during the entire life cycle of the company (creation, development and transmission). In each of these phases we identify diversified financing needs. In addition to the financial needs related to creation and start-up, the operating cycle generates significant financing needs. To meet these multiple and diversified needs depending on the stage of development of the SME, and to ensure its sustainability, obtaining adequate and timely financing is the key to success, and at this stage where the major challenge for SMEs is. It is customary to recall that, in addition to self-financing and bank financing, the financing networks of these companies are diversified, ranging from the financial market, venture capital, financial solidarity networks, leasing, credit lines, up to the aid and state guarantees.

2.2. Support funds for SME financing through the banking system

Guarantee systems are positioned as interfaces between borrowers and lenders, have the social function of rendering services to credit providers and applicants. The main economic role of guarantee schemes is to offer alternative and complementary guarantees to banks in order to promote and further facilitate SMEs' access to credit necessary for their sustainability. Thanks to their interventions, guarantee systems can overcome various difficulties in providing credit for profitable projects, but due to the lack of sufficient guarantees and the existence of information asymmetries, are, from the point of view of non-bankable banks (Douette et al., 2012). According to the OECD (2014), guarantee schemes are effective instruments for overcoming information gaps on bank loans to SMEs.

The National Agency for the Promotion of SMEs (ANPME), is a support and promotion structure for SMEs, created in 2004 in accordance with the provisions of the SME charter. According to this charter, ANPME is a public institution with legal personality and financial autonomy, placed under the supervision of the State and administered by a board of directors. The two flagship programs of this agency are Moussanada and Imtiaz, implemented since 2010 under the National Pact for Industrial Emergence (PNEI), vision 2009-2015. The program target new enterprises, VSEs, SMEs undergoing modernization and SMEs with high growth potential.

2.2.1. The IMTIAZ programme

This programme is one of the first programs to support and encourage industrial investment in order to promote growth and create stable jobs. It is under the leadership of Maroc PME, formerly known as the National Agency for the Promotion of Small and Medium-Sized Enterprises, in partnership with the Ministry of Industry, Trade, Investment, and the Digital Economy and the Ministry of Finance. This programme falls into three categories:

- **ISTITMAR GROWTH:** Supports the financing of industrial investments made by companies with a turnover below 10 million dirhams in the last closed financial year, up to 30% within the limit of 2 million dirhams,
- **IMTIAZ CROISSANCE:** aims to support up to 20% (within the limit of 10 million dirhams) the productive investment effort of companies having achieved during the last closed fiscal year a turnover between 10 and 200 million dirhams.
- **IMTIAZ TECHNOLOGIE:** this is financial support to help companies operating mainly in three main sectors: textile, automotive, and aeronautics, in the realization of their technological projects.

It is intended for SMEs with high growth potential, and allows companies with ambitious development projects to benefit from state aid in the form of bonuses granted by the ANPME up to 20% of the overall investment amount, within a limit of 5 million dirhams.

In 2014, ANPME launched an evaluation to measure the direct and indirect impacts of the "Imtiaz" program. Thus, up to the end of 2013, the 164 selected projects had quantitative and qualitative impacts summarized in the table below

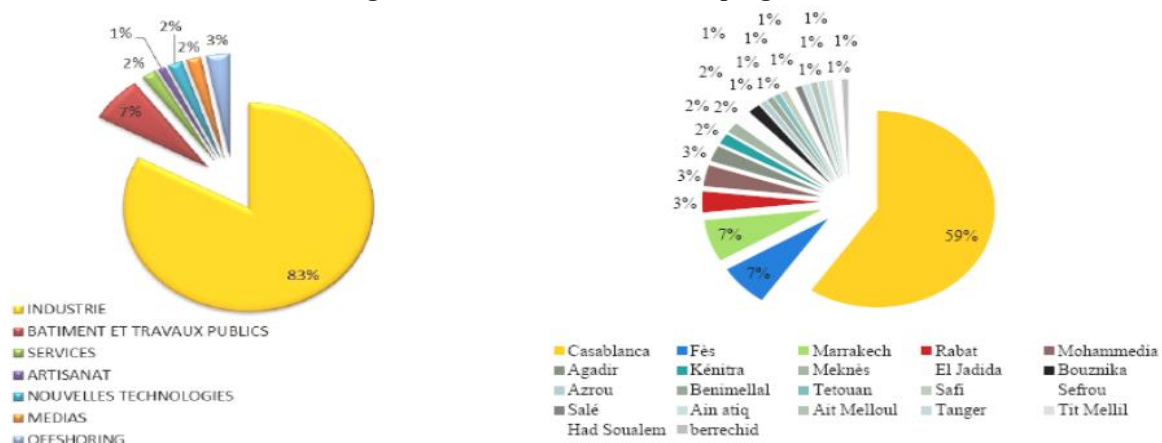
Table 1: Impacts of investment projects under the Imtiaz program over 5 years

Quantitative impacts	Qualitative impacts
Cumulative additionnel revenue : + 26 MMDH	63 projects are part of an import substitution strategy
Cumulative value Added: + 8.5 MMDH	54 projects will contribute to strengthening exports and diversifying markets, particularly in African countries
Job creation: 8721	More than 2,630 MDH of contribution in IS, for the 6 Imtiaz editions; that is nearly 5 times the premium granted
-	1 million Prime Imtiaz generates more than 6 million investments

Source :(SADEQ, 2013)

According to the same report, the agency primarily targeted the industrial sector and the major cities of Morocco that are active in terms of economic activity

Figure 1. Review of the IMTIAZ programme



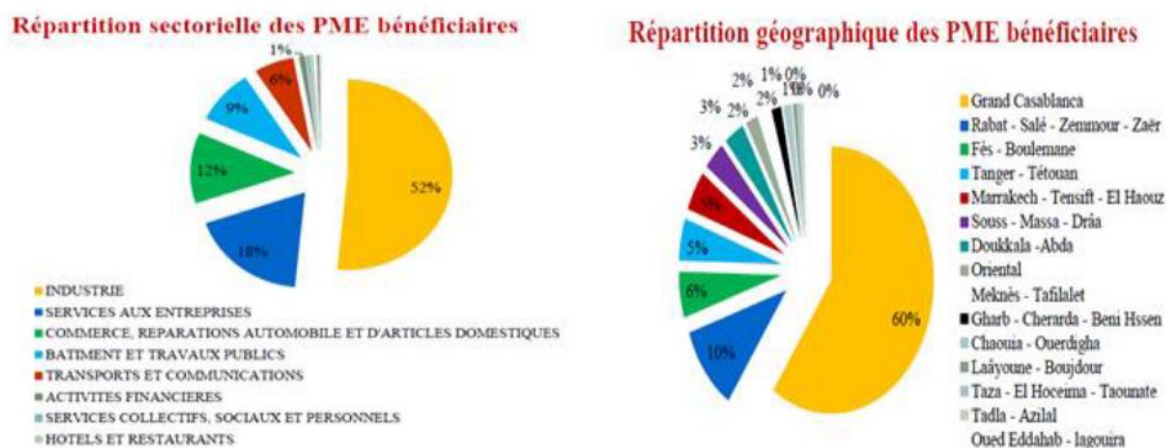
Source : (SADEQ, 2013)

The beneficiary enterprises are those operating in the industrial sector (83%), and concentrated in the Casablanca region with a large percentage of 59%.

2.2.2. The Moussanada programme

It is intended for companies in the modernization phase. It aims to improve their productivity and strengthen their competitiveness. The Moussanada offer consists of several service packs covering all business needs. This program covers 60% to 80% of the costs of providing services of up to 1 million dirhams, particularly in the context of progress plans. Up to the end of 2014, the number of beneficiaries is 962 SMEs, with a number of actions equal to 1,533, and a committed budget of 174 MDHS (balance sheet April 2017).

Figure 2. Review of the Moussanada programme



Source: (SADEQ, 2013)

As in the IMTIAZ programme, the agency places great importance on the industrial sector since beneficiary SMEs account for the largest share (52%). The business services sector comes second with 18%, followed by the trade, automotive repair and household goods sector with 12%, construction with 9%, and the transport and communications sector with 6%. Thus, Greater Casablanca holds the largest percentage of beneficiary companies with a share of 60%, followed by the Rabat-Salé-Zemmou-Zaéir region with 10%, the Fès-Boulmen region with 6%, the Marrakech-Tensift-Elhouz region and the Tanger-Tetouane region with an equal share of 5%, and the rest of the regions hold only a share below 3%.

Despite the services offered by ANPME, SMEs are unable to meet their needs. Indeed, the two support programs Imtiaz and Moussanada covered only a limited part of the companies, in addition to a great importance given only to the industrial sector with a strong concentration on the region of Casablanca. However, to overcome the challenges of financing SMEs. Several changes have been implemented. The Agency has adopted "a new visual identity, a new title (Maroc PME) and a new slogan: "entrepreneurship – growth – competitiveness," to mark the transition towards a new roadmap for 20206 dedicated to the emergence of a competitive national entrepreneurial ecosystem."

Thus, Maroc PME has launched the "IMTIAZ-CROISSANCE" program, the first initiative among a series of other initiatives planned in the new 2015 – 2020 program contract between the State and the Agency to strengthen the support system for SMEs, VSEs, and self-entrepreneurs. The IMTIAZ-CROISSANCE Program, which is part of the implementation of the Industrial Acceleration Plan, aims to support productive investment in favor of growth and employment and to strengthen industrial ecosystems, by granting an investment bonus for the benefit of selected SMEs" ("ANPME", 2016).

In addition, for SMEs whose turnover is between 10 and 200 MDHS in a growth or scaling phase wishing to strengthen their competitiveness. Maroc PME offers services in terms of technical assistance, skills transfer and digital development" ("MarocPME | Entrepreneurship, growth, competitiveness", n.d.).

2.2.3. FORSA programme, 2022

For 2022, the FORSA program will benefit from a budget envelope of 1.25 billion dirhams. This program aims to support 10,000 project leaders in various economic sectors, while ensuring the principles of regional and gender equity. The support system for project leaders includes training in e-Learning for all selected projects, as well as a 2.5-month incubation period for the most promising projects, thanks to the mobilization of regional incubators. The financing mechanism provides for a loan on trust of up to 100,000 dirhams, with a maximum grant of 10,000 dirhams. All sectors of activity are eligible, and the maximum repayment term is 10 years with a 2-year grace period. The project leaders will be selected following a call for projects to be launched at the beginning of April 2022. Candidates will be able to submit their application files on the digitale www.forsa.ma platform and may be assisted by the FORSA desks opened in the twelve regions of the Kingdom. A Customer Relations Center will also be available to assist project leaders throughout the process. The Moroccan Tourist Engineering Company (SMIT) has been entrusted with managing the FORSA program, by setting up a dedicated management and monitoring unit that will be deployed across the entire territory.

3. Method and materials

For the development of bibliometric analysis, the Scopus database was used, which is characterized by superior coverage and access to high-quality research, thus promoting the discovery and appropriate development of information by researchers (Baas et al., 2020). Based on this database, bibliometrics associated with administrative scenarios were developed (López-Rodríguez et al., 2022), as well as the topic Volatility of interest rates and public support for entrepreneurial financing of SMEs, The search syntax created by tools integrated with the Scopus database is:

TITLE-ABS-KEY (Banking OR interest AND rates OR public OR support OR entrepreneurial OR financing AND of AND smes) AND PUBYEAR > 2014 AND PUBYEAR < 2026.

The procedure for collecting bibliographic information was carried out in October 2026, using Bibliometrix (The R Project for Statistical Computing), which for Aria and Cuccurullo (2017) is a flexible tool that easily integrates with other statistical programs under the R language and is used for data analysis with scientific mapping such as bibliometrics. In addition, we used the VOSviewer tool, an interface-based manager that allows the generation of relevant graphical elements for the development of bibliometric analyses (van Eck & Waltman, 2010).

We will draw a complete and rigorous overview of the evolution of the forecasting models for volatility of interest rates and public support for entrepreneurial financing of SMEs; an exhaustive bibliometric review has been designed and implemented. This methodology, structured by its systematization and transparency, allowed not only to identify the most relevant scientific literature on the subject, but also to analyze trends in a quantitative and qualitative way, key authors and the most dynamic areas in this field. Below are detailed the steps that guided this process, ensuring the robustness and reproducibility of the results.

▪ Inclusion and exclusion criteria

To ensure the quality and relevance of the studies considered in the review, rigorous inclusion and exclusion criteria were established. In order to capture the most recent evolution of the field, only studies published between 2015 and 2025 have been included. This period coincides with the rise of the subject in various sectors, including finance, and makes it possible to observe more clearly current research trends. Peer-reviewed scientific articles published in a journal indexed on Scopus were prioritized. This decision was made in response to the need to work with research that had been subjected to a rigorous evaluation process by experts in the field, ensuring the quality and reliability of results. With regard to the content, only work that explicitly addresses the application of Volatility of interest rates and public support for entrepreneurial financing of SMEs has been taken into account.

Studies that, while mentioning interest rate or financing in a tangential way, did not have the intersection of the two areas as a central theme were excluded. Bibliometric analysis: tools, techniques and indicators Once the scientific literature collection and selection phase was completed, information was analyzed using a variety of bibliometric tools and techniques. Among the tools used are VOSviewer and Bibliometrix, specialized software for the analysis and visualization of bibliometric data, widely used in scientific research to identify models, trends and networks of collaboration in different areas of knowledge. Various analysis techniques have been implemented, each aimed at obtaining additional information on the evolution of the field:

- Citation analysis: this technique was used to identify the most influential authors and publications in the field, considering the frequency of citations as an indicator of the impact and visibility of a work within the scientific community. Both the total number of citations received by each article and the distribution of these citations over time were analyzed, which identified seminal works as well as more recent works that have gained prominence in recent years.
- Analysis of co-citations: Thanks to this technique, we have identified work networks that cite each other, revealing thematic and methodological links between the different lines of research.

This analysis made it possible to visualize the structure of knowledge in the field, by identifying clusters of works that address similar issues or use complementary methodological approaches.

- **Keyword analysis:** This technique aimed to identify the most frequently used terms in titles, abstracts and keywords of selected studies. The analysis of the frequency of occurrence of these keywords made it possible to identify the most active research areas, emerging trends, the thematic evolution of the field, and the conceptual links between the different approaches. To carry out an in-depth analysis, a number of key bibliometric indicators have been selected:
- **Number of citations:** As mentioned above, the frequency of citations is considered an indicator of the impact and visibility of a work within the scientific community.
- **Journal impact factor:** this indicator, calculated by various silver-forms such as the Journal Citation Reports (JCR), reflects the importance and notoriety of the journals where the studies are published.
- **Index of authors:** this index, which takes into account both the number of publications and the number of citations they receive, was used to identify the most productive and influential researchers in the field.

The data collection phase began with a thorough search in Scopus using the previously defined keyword strategy. This initial search produced a considerable number of documents, which were then subjected to a rigorous multi-stage screening process to ensure the selection of the most relevant and high-quality work. a preliminary selection was made based on the reading of the titles and summaries of the recovered documents. In this phase, work that clearly did not meet the pre-established inclusion criteria, whether by year of publication, type of document, or theme addressed, was rejected.

In the second step, the remaining studies were submitted to a full reading to confirm their relevance and select those that will be included in the final analysis. During this stage, the methodological quality of the research, the robustness of the results and the relevance of the conclusions to the examination theme were assessed in more detail. This iterative selection process, based on critical reading and expert evaluation, ensured that the final sample consisted only of high-quality work providing relevant information for the analysis of the evolution of the Volatility of interest rates and public support for entrepreneurial financing of SMEs models. Finally, 698 studies were selected as meeting all inclusion criteria.

4. Research results

4.1. Central themes

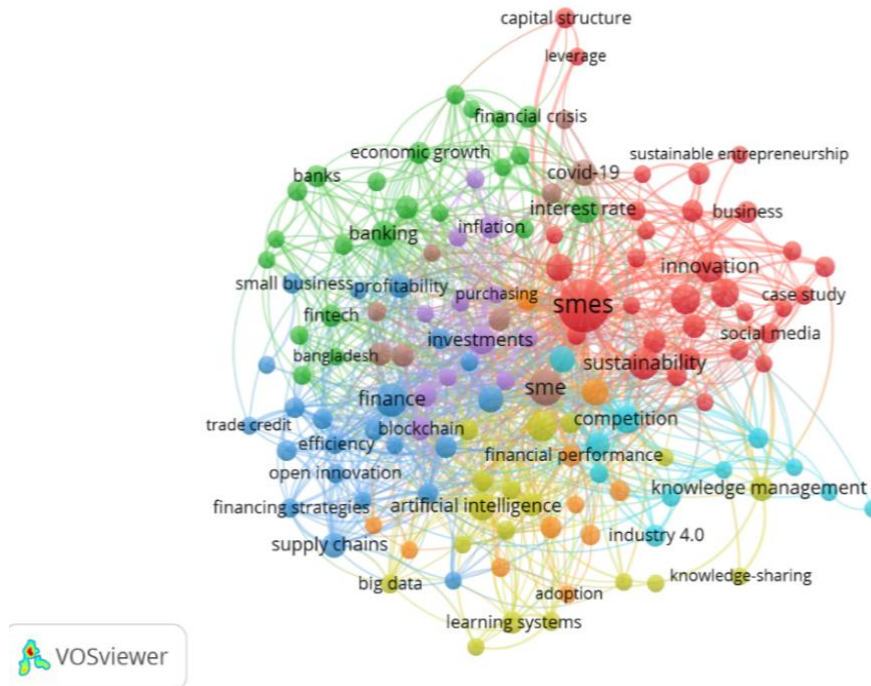
The co-occurrence map produced with VOSviewer presents a dense thematic network, Colors distinguish communities of terms, while links reflect their associations in the corpus.

The red group notably associates "smes", "innovation", "business" and "social media", highlighting an orientation towards entrepreneurial practices and organizational transformations. The green group gathers terms like «banks», «banking», «economic growth» and «interest rate». It reveals a set devoted to the banking and economic environment. The presence of "capital structure" and "leverage" in the upper part completes this reading by introducing issues of financial structure and debt.

The blue group includes in particular "trade credit", "financing strategies" and "supply chains", linking funding arrangements to business activities. In the lower part, the terms "artificial intelligence", "big data", "knowledge management" and "industry 4.0" also indicate a

technological and managerial component. Their coexistence with financial dimensions shows that the corpus goes beyond the sole issue of interest rates. The numerous connections between groups suggest thematic proximity, without establishing causal relationships.

Figure 3. Keyword co-occurrence map



Source: VOSviewer; network supplied by the author.

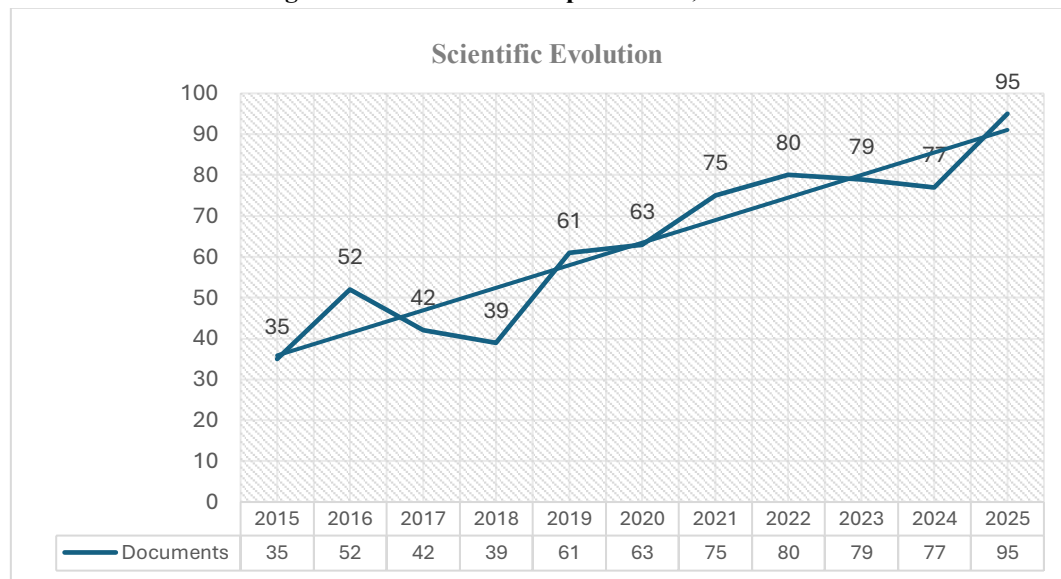
4.2. Scientific production and trends

The figure highlights a general upward trend in scientific output between 2015 and 2025. The number of documents rose from 35 to 95, an increase of 171.4%. After fluctuations between 2015 and 2018, publications steadily increased from 2019 to 2022, reaching 80 documents. A slight decline appears in 2023 and 2024, with 79 and 77 documents respectively, followed by a recovery in 2025, which records the peak of the period. This dynamic suggests a growing academic interest in the themes of the corpus related to the volatility of interest rates and public support for SME financing. However, the chart alone does not allow us to identify the factors explaining this increase.

In the context of this research on interest rate volatility and public support for entrepreneurial financing of SMEs, these results constitute a first indicator of publication dynamics. Next, they ask whether this growth mainly concerns work on credit conditions, public support instruments or the link between these dimensions. The analysis of keywords and thematic groupings will clarify this evolution and better support the research program.

Within the broader SME entrepreneurial-finance framing, the publication trend raises a more precise question: which thematic streams account for the observed growth? The keyword network and most-cited publications suggest that the expansion spans banking and credit conditions as well as innovation, sustainability, digitalisation and alternative financing. A formal temporal thematic-evolution analysis would be needed to establish how the relative importance of these streams changed over the period.

Figure 4. Annual scientific production, 2015–2025



Source: Scopus

4.3. Most-cited publications

The table shows the ten most cited publications in the corpus, at the date of data extraction. Bocken (2015) leads with 349 citations, ahead of Quartey and his co-authors (2017), who have 189. Bocken's study examines the role of venture capital in developing sustainable businesses. That of Quartey concerns the financing constraints of African SMEs. Their presence highlights the visibility of two complementary dimensions: entrepreneurial financing methods and obstacles to access financial resources.

The comparison of annual citations qualifies this ranking. Avelar and his co-authors (2024) total 150 citations, with an average of 50 citations per year, higher than that of Bocken (29.08). This publication focuses on the relationship between sustainable entrepreneurship, innovation and digitalization. It therefore enjoys high visibility despite its recent publication. Beliaeva and her co-authors (2020) also reach 150 citations, but with an annual average of 21.43, distinguishing their average rate of citation accumulation.

This diversity indicates that the selection covers a broader field than just the relationship between interest rates and financing. It provides complementary perspectives to contextualize companies' financial choices, without directly demonstrating the role of public mechanisms in dealing with rate instability.

Table 2. Most-cited publications in the reported Scopus corpus (2015–2025)

	Authors	Title	Source	Year	Total citation	Tcper year	NTC
1	Bocken nmp	Sustainable venture capital - catalyst for sustainable start-up success?	Journal of cleaner production	2015	349	29,0833333	21,91373
2	Quartey p;turkson e;abor jy;iddrisu am	Financing the growth of smes in africa: what are the constraints to sme financing within ecowas?	Review of development finance	2017	189	18,9	11,86732
3	Avelar s;borges-tiago t;almeida a;tiago f	Confluence of sustainable entrepreneurship, innovation, and digitalization in smes	Journal of business research	2024	150	50	9,418509
4	Beliaeva t;shirokova g;wales w;gafforova e	Benefiting from economic crisis? Strategic orientation effects, trade-offs, and configurations with resource availability on sme performance	International entrepreneurship and management journal	2020	150	21,42857	9,418509
5	Buli bm	Entrepreneurial orientation, market orientation and performance of smes in the manufacturing industry: evidence from ethiopian enterprises	Management research review	2017	135	13,5	8,476658
6	Hooi hc;ahmad nh;amran a;rahman sa	The functional role of entrepreneurial orientation and entrepreneurial bricolage in ensuring sustainable entrepreneurship	Management research review	2016	103	9,363636	6,467376
7	Thomas a;scandurra g;carfora a	Adoption of green innovations by smes: an investigation about the influence of stakeholders	European journal of innovation management	2021	97	16,16666	6,090636
8	Rosavina m;rahadi ra;kitri ml;nuraeni s;mayangsari l	P2p lending adoption by smes in indonesia	Qualitative research in financial markets	2019	95	11,875	5,965055
9	Verbano c;crema m	Linking technology innovation strategy, intellectual capital and technology innovation performance in manufacturing smes	technology analysis and strategic management	2016	95	8,636363	5,965055
10	Miocevic d;morgan re	Operational capabilities and entrepreneurial opportunities in emerging market firms: explaining exporting sme growth	International marketing review	2018	94	10,44444	5,902265

Source: Authors' compilation based on R Studio-Bibliometrix

5. Discussion

The results position SME entrepreneurial finance within a multidimensional research field. Annual output rises from 35 documents in 2015 to 95 in 2025, an increase of 171.4%, within the reported corpus of 698 publications. The coexistence of banking, innovation, sustainability and digital-management themes further shows that this growth concerns a broad literature rather than research exclusively devoted to public support. Publication counts and thematic mapping therefore provide complementary descriptions of the field (Donthu et al., 2021).

The banking stream is theoretically grounded in information asymmetry and relationship lending. Repeated bank–firm interactions can improve information production and potentially reduce rates or collateral requirements (Berger & Udell, 1995), while informational advantages can also generate dependence and a hold-up problem (Sharpe, 1990; Rajan, 1992). This tension clarifies why access to credit, price, maturity and collateral should remain analytically distinct outcomes rather than being collapsed into a single notion of 'better financing'.

The most-cited publications reinforce this broader interpretation. Bocken (2015), with 349 citations, addresses sustainable venture capital, whereas Quartey et al. (2017), with 189, examine SME financing constraints within ECOWAS. Avelar et al. (2024) connect sustainable entrepreneurship, innovation and digitalisation. Their prominence suggests that financing is studied alongside the capabilities and objectives associated with using resources. These supports examining whether organisational capabilities condition the implementation of financed projects, rather than assuming that capital alone ensures development. These studies concern distinct contexts; findings from ECOWAS cannot be directly generalised to Morocco. The Moroccan review provides a contextual perspective on these relationships. Oudgou and Zeamari (2019) describe financing difficulties and support arrangements including IMTIAZ and Moussanada. Investment assistance, advisory support and credit guarantees address different dimensions: project resources, enterprise capabilities and the allocation of credit losses. They should not be treated as interchangeable interventions. Moreover, historical concentrations of beneficiaries in industry and Casablanca describe participation, not coverage among eligible firms. Without information on eligible populations, applications and approval rates, these distributions cannot establish unequal treatment or demonstrate programme effectiveness.

This distinction also concerns evaluation. Schich (2017) separates financial additionality, meaning financing that would otherwise not have been obtained or improved financing conditions, from economic additionality, such as subsequent investment or employment. Accordingly, the existence of public support and reported beneficiary outcomes do not establish causal effects. Future studies could compare eligible enterprises with similar initial characteristics, follow applications and financing decisions over time, and distinguish finance-only assistance from advisory or combined support. Such designs would investigate complementarity without presuming that one instrument or combination is more effective.

Overall, the revised framework connects four levels that were previously treated too separately: (1) information asymmetry and relationship lending; (2) financing conditions and constraints; (3) public and alternative financing mechanisms; and (4) financial and economic additionality. This integration is the article's main conceptual contribution. The bibliometric component identifies how these streams are connected in the literature, while the Moroccan contextual

analysis illustrates why the type of intervention and the level of evidence matter for evaluation. Future bibliometric work should add bibliographic coupling, collaboration networks, source-impact analysis and temporal thematic evolution, while future policy research should use applicant-level longitudinal data to test additionality and distributional effects.

Conclusion

This study connects the bibliometric structure of SME financing research with a contextual discussion of public support in Morocco. The reported corpus of 698 documents shows an overall increase in annual scientific production between 2015 and 2025. The keyword network and the most-cited publications place SMEs within a multidimensional literature linking banking and finance with innovation, sustainability and organisational and digital capabilities. The results therefore support a broader understanding of entrepreneurial financing than the availability of bank credit alone.

The main contribution is an organising framework that distinguishes three related dimensions: how lenders obtain information and structure financial relationships, how enterprises mobilise resources for development, and how public instruments address particular constraints. The Moroccan discussion illustrates why investment assistance, advisory support and credit guarantees should not be treated as equivalent mechanisms. Their existence and the distribution of their beneficiaries are distinct from evidence of additional financing, improved enterprise outcomes or programme costs. The present analysis establishes neither the effectiveness of an individual programme nor the relative superiority of one instrument over another.

The research programme emerging from this synthesis focuses on financing and economic additionality, combinations and sequencing of support, differences across eligible firms and territories, and the interaction between information capabilities and access to finance. Progress on these questions requires documented programme rules, applicant-level information, financing decisions and observations of subsequent outcomes. The interpretation of the bibliometric results also remains conditional on the reported search and data-processing choices. Accordingly, the article's contribution is descriptive and conceptual rather than causal: it identifies connections that can structure further research while maintaining a clear distinction between scientific visibility, institutional description and demonstrated effects.

The main limitation of any bibliometric analysis lies in the choice of database. This choice influences the data collected and the limits of their interpretation. This study identifies three main constraints: firstly, it relied on Scopus, one of the largest online databases, to collect information on banking and financial research articles published between 2015 and 2025, while refining the search by subject categories and language (English). The integration of other databases as well as the inclusion of book chapters and conference proceedings could improve this database. Secondly, regarding the selection of keywords, although those chosen are considered the most relevant to cover the majority of articles on banking performance, it remains possible to explore more articles with additional keywords. Finally, the study could not carry out a co-citation analysis due to the unavailable format of the documents cited in the Scopus data.

References

- Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959–975. <https://doi.org/10.1016/j.joi.2017.08.007>
- Avelar, S., Borges-Tiago, T., Almeida, A., & Tiago, F. (2024). Confluence of sustainable entrepreneurship, innovation, and digitalization in SMEs. *Journal of Business Research*, 170, Article 114346. <https://doi.org/10.1016/j.jbusres.2023.114346>
- Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus as a curated, high-quality bibliometric data source for academic research in quantitative science studies. *Quantitative Science Studies*, 1(1), 377–386. https://doi.org/10.1162/qss_a_00019
- Becchetti, L., & Trovato, G. (2002). The determinants of growth for small and medium sized firms: The role of the availability of external finance. *Small Business Economics*, 19(4), 291–306. <https://doi.org/10.1023/A:1019678429111>
- Beliaeva, T., Shirokova, G., Wales, W., & Gafforova, E. (2020). Benefiting from economic crisis? Strategic orientation effects, trade-offs, and configurations with resource availability on SME performance. *International Entrepreneurship and Management Journal*, 16(1), 165–194. <https://doi.org/10.1007/s11365-018-0499-2>
- Berger, A. N., & Udell, G. F. (1995). Relationship lending and lines of credit in small firm finance. *The Journal of Business*, 68(3), 351–381. <https://doi.org/10.1086/296668>
- Bocken, N. M. P. (2015). Sustainable venture capital – catalyst for sustainable start-up success? *Journal of Cleaner Production*, 108, 647–658. <https://doi.org/10.1016/j.jclepro.2015.05.079>
- Bouchellal, A. (2015). *Incidence de la concurrence bancaire sur les conditions de crédit* [Doctoral dissertation, Université d'Orléans]. https://theses.univ-orleans.fr/public/2015ORLE0506_va.pdf
- Buli, B. M. (2017). Entrepreneurial orientation, market orientation and performance of SMEs in the manufacturing industry: Evidence from Ethiopian enterprises. *Management Research Review*, 40(3), 292–309. <https://doi.org/10.1108/MRR-07-2016-0173>
- Coffinet, J., & Nicolas, T. (2023). La relation bancaire : Un atout pour le financement des petites et moyennes entreprises françaises en situation de crise. *Revue d'économie financière*, 150(2), 75–88. <https://doi.org/10.3917/ecofi.150.0075>
- D'Auria, C., Foglia, A., & Reedtz, P. M. (1999). Bank interest rates and credit relationships in Italy. *Journal of Banking & Finance*, 23(7), 1067–1093. [https://doi.org/10.1016/S0378-4266\(98\)00131-9](https://doi.org/10.1016/S0378-4266(98)00131-9)
- Degryse, H., & Van Cayseele, P. (2000). Relationship lending within a bank-based system: Evidence from European small business data. *Journal of Financial Intermediation*, 9(1), 90–109. <https://doi.org/10.1006/jfin.1999.0278>
- Diamond, D. W. (1984). Financial intermediation and delegated monitoring. *The Review of Economic Studies*, 51(3), 393–414. <https://doi.org/10.2307/2297430>
- Diop, A. N. (2019). Taux d'intérêt et risque de crédit : Analyse du comportement des banques en relation avec les petites et moyennes entreprises sénégalaises. *Revue Interventions économiques*, (61). <https://journals.openedition.org/interventionseconomiques/5198>
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285–296. <https://doi.org/10.1016/j.jbusres.2021.04.070>
- Fama, E. F. (1985). What's different about banks? *Journal of Monetary Economics*, 15(1), 29–39. [https://doi.org/10.1016/0304-3932\(85\)90051-0](https://doi.org/10.1016/0304-3932(85)90051-0)

- Ferri, G., & Messori, M. (2000). Bank–firm relationships and allocative efficiency in Northeastern and Central Italy and in the South. *Journal of Banking & Finance*, 24(6), 1067–1095.
[https://doi.org/10.1016/S0378-4266\(99\)00118-1](https://doi.org/10.1016/S0378-4266(99)00118-1)
- Hooi, H. C., Ahmad, N. H., Amran, A., & Rahman, S. A. (2016). The functional role of entrepreneurial orientation and entrepreneurial bricolage in ensuring sustainable entrepreneurship. *Management Research Review*, 39(12), 1616–1638. <https://doi.org/10.1108/MRR-06-2015-0144>
- Kono Abe, J. M., & Mbama, P. C. (2020). Financement relationnel bancaire et asymétrie informationnelle des entreprises en zone CEMAC : Un effet de dilution. *Revue africaine de management*, 5(1), 129–145. <https://www.researchgate.net/publication/374738952>
- Krasniqi, B. A. (2007). Barriers to entrepreneurship and SME growth in transition: The case of Kosova. *Journal of Developmental Entrepreneurship*, 12(1), 71–94.
<https://doi.org/10.1142/S1084946707000563>
- Mbama, P. C. (2021). Financement relationnel bancaire et faible financement des entreprises en zone CEMAC : Peut-on indexer l’opportunisme bancaire ? *Revue internationale de management et de stratégie*. <https://www.researchgate.net/publication/374738765>
- Miocevic, D., & Morgan, R. E. (2018). Operational capabilities and entrepreneurial opportunities in emerging market firms: Explaining exporting SME growth. *International Marketing Review*, 35(2), 320–341. <https://doi.org/10.1108/IMR-12-2015-0270>
- Oliveira, B., & Fortunato, A. (2006). Firm growth and liquidity constraints: A dynamic analysis. *Small Business Economics*, 27, 139–156. <https://doi.org/10.1007/s11187-006-0006-y>
- Oudgou, M., & Zeamari, M. (2019). Les difficultés de financement des PME marocaines : Vision critique sur des dispositifs de financement. *Revue Économie, Gestion et Société*, (19).
<https://doi.org/10.48382/IMIST.PRSM/regs-v1i19.17571>
- Pissarides, F. (1999). Is lack of funds the main obstacle to growth? EBRD’s experience with small- and medium-sized businesses in Central and Eastern Europe. *Journal of Business Venturing*, 14(5–6), 519–539. [https://doi.org/10.1016/S0883-9026\(98\)00027-5](https://doi.org/10.1016/S0883-9026(98)00027-5)
- Quartey, P., Turkson, E., Abor, J. Y., & Iddrisu, A. M. (2017). Financing the growth of SMEs in Africa: What are the constraints to SME financing within ECOWAS? *Review of Development Finance*, 7(1), 18–28. <https://doi.org/10.1016/j.rdf.2017.03.001>
- Rajan, R. G. (1992). Insiders and outsiders: The choice between informed and arm’s-length debt. *The Journal of Finance*, 47(4), 1367–1400. <https://doi.org/10.1111/j.1540-6261.1992.tb04662.x>
- Rosavina, M., Rahadi, R. A., Kitri, M. L., Nuraeni, S., & Mayangsari, L. (2019). P2P lending adoption by SMEs in Indonesia. *Qualitative Research in Financial Markets*, 11(2), 260–279.
<https://doi.org/10.1108/QRFM-09-2018-0103>
- Schich, S. (2017). Les garanties publiques du crédit aux PME sont-elles efficaces ? Les enseignements d’une enquête officielle internationale. *Revue d’économie financière*, 127(3), 59–80. <https://www.aefr.eu/fr/article/3531-les-garanties-publiques-du-credit-aux-pme-sont-elles-efficaces-les-enseignements-d-une-enquete-officielle-internationale>
- Sharpe, S. A. (1990). Asymmetric information, bank lending, and implicit contracts: A stylized model of customer relationships. *The Journal of Finance*, 45(4), 1069–1087.
<https://doi.org/10.1111/j.1540-6261.1990.tb02427.x>
- Thomas, A., Scandurra, G., & Carfora, A. (2022). Adoption of green innovations by SMEs: An investigation about the influence of stakeholders. *European Journal of Innovation Management*, 25(6), 44–63. <https://doi.org/10.1108/EJIM-07-2020-0292>
- Tlili, R. (2012). *Comment justifier la multibancarité au sein des PME ?* [Doctoral dissertation, Université Paris-Dauphine]. TEL. <https://theses.hal.science/tel-00767208v1>

- van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>
- Verbano, C., & Crema, M. (2016). Linking technology innovation strategy, intellectual capital and technology innovation performance in manufacturing SMEs. *Technology Analysis & Strategic Management*, 28(5), 524–540. <https://doi.org/10.1080/09537325.2015.1117066>
- von Thadden, E.-L. (2004). Asymmetric information, bank lending and implicit contracts: The winner's curse. *Finance Research Letters*, 1(1), 11–23. [https://doi.org/10.1016/S1544-6123\(03\)00006-0](https://doi.org/10.1016/S1544-6123(03)00006-0)
- World Bank. (2015). *Principles for public credit guarantee schemes for SMEs*. <https://documents1.worldbank.org/curated/en/576961468197998372/pdf/101769-REVISED-ENGLISH-Principles-CGS-for-SMEs.pdf>
- Ziane, Y. (2009). *Financement et relations de clientèle banques-entreprises*. Presses universitaires de Nancy. <https://hal.science/hal-02325904>