



To cite this article: Shripad Karjatkar and Kishor S. Nikam (2026). EVALUATING THE ROLE OF PUBLIC SECTOR BANKS IN FINANCING START-UPS AND MICRO-ENTERPRISES: EVIDENCE FROM PUNE DISTRICT, International Journal of Research in Commerce and Management Studies (IJRCMS) 8 (1): 24-35 Article No. 03 Sub Id 03

EVALUATING THE ROLE OF PUBLIC SECTOR BANKS IN FINANCING START-UPS AND MICRO-ENTERPRISES: EVIDENCE FROM PUNE DISTRICT

Shripad Karjatkar* and Kishor S. Nikam

Department of Commerce, Dr. D. Y. Patil, Arts, Commerce & Science College, Pimpri, Pune,
Maharashtra, India

Email: shripad.2009@gmail.com; kishor.nikam@dypvp.edu.in

Mobile No: +91-9860960738

DOI: <https://doi.org/10.38193/IJRCMS.2026.SP8103>

ABSTRACT

Access to finance is a significant obstacle for start-ups and micro-enterprises in developing economies. Although public sector banks (PSBs) in India have a mandate to encourage financial inclusion and entrepreneurship, there is a lack of regional studies assessing how effective they are in supporting new and small-scale businesses. This research investigates the contribution of PSBs in financing start-ups and micro-enterprises in Pune District, Maharashtra, a leading entrepreneurial hub. By analyzing survey data from 200 entrepreneurs alongside secondary information from official sources, the study examines credit access, engagement in support schemes, use of digital banking, and responsiveness of institutions. Findings show that loan approval is influenced by factors such as branch reach, use of digital tools, and involvement in credit-guarantee programs. Interviews and qualitative feedback highlight ongoing issues with collateral, slow processes, and gaps in information. This research adds localized insights to the field of public banking and entrepreneurial finance, and suggests policy improvements to enhance PSBs' support for new and small businesses.

KEYWORDS: Access to finance, Start-ups, Micro-enterprises, Developing economies, Public sector banks (PSBs), Financial inclusion, Entrepreneurship, Regional studies, Pune District, Maharashtra, Credit access, Support schemes, Digital banking, Loan approval, Credit-guarantee programs

LITERATURE REVIEW

1. Public Sector Banks and MSME Financing

Public sector banks have played a key role in promoting financial inclusion and supporting MSME growth in India. Research, including Patra (2023), points out that while PSBs have a broader reach in rural and semi-urban locations compared to private banks, they often struggle with rigid procedures. According to IIBF (2021), PSBs provide a large portion of MSME loans, but these loans are usually smaller and take longer to process than those from private and fintech institutions. (Annual Report 2020-21, 2021) This suggests that the inclusive mission of PSBs may come at the cost of slower and



less flexible service, which can be a challenge for start-ups in need of prompt and adaptable financing.

2. Start-Up and Micro-Enterprise Financing

Recent studies show that start-ups face different financial challenges than established SMEs. Al Badi (2025) notes that start-ups in emerging markets often struggle with raising early-stage funds, lack sufficient credit history, and have difficulty providing collateral. (Financial Management in Start-ups, 2024) In the Indian context, Rao (2023) observed that programs like the Pradhan Mantri Mudra Yojana (PMMY) increased funding opportunities for micro-enterprises in Pune but did not significantly help start-ups focused on innovation. (Rao et al., 2023) Similarly, **Muduli (2022)** found that government interventions during the pandemic, such as the Emergency Credit Line Guarantee Scheme (ECLGS), were more beneficial for existing MSMEs than for new start-ups. (Muduli & Silu, 2022) These findings highlight a consistent gap between policy objectives and actual financial support available to new businesses.

3. FinTech, Digital Lending, and Bank Adaptation

Digital financial services are transforming how businesses access finance around the world. Xu (2025) found that using fintech increases bank efficiency and helps reach more customers, especially small-scale borrowers. (Yang et al., 2024) In India, **Dvara Research (2020)** reported that digital lending platforms help close information gaps and offer new credit assessment methods for micro-entrepreneurs. (State of Digital Lending Towards MSMEs in India, 2020) Despite these advancements, public sector banks have been slower to adopt digital technologies, still depending mostly on conventional evaluation and collateral practices. Adopting digital solutions could play a crucial role in enhancing how PSBs serve start-ups and micro-enterprises.

4. Regional and Local Contexts

There is a lack of district-level empirical research on this topic. While national studies by SIDBI (2025) and the Ministry of MSME (2023) offer broad perspectives on credit distribution, they often overlook differences in regional bank performance and participation in support schemes. Pune District is notable for its mix of industrial centers and a thriving start-up scene, but entrepreneurs still encounter funding challenges even with a well-established PSB network. Earlier localized studies, such as **Rao (2023)** on the Mudra scheme, provide some insights but do not specifically address the unique issues faced by start-ups and micro-enterprises. (Rao et al., 2023) This study therefore examines how PSBs operate financial-support programs and digital services at the district level.

5. Synthesis and Identified Gap

The reviewed literature underscores three major gaps.



1. **Enterprise segmentation:** Most studies treat MSMEs as a single group without differentiating between micro-enterprises and start-ups, though their financing needs and risk profiles differ substantially.
2. **Institutional focus:** Few analyses isolate public sector banks, even though they remain the dominant formal financiers for small businesses in India.
3. **Regional evidence:** There is limited district-level empirical research connecting PSB lending behaviour, scheme participation, and enterprise outcomes.

Addressing these gaps, this study empirically evaluates PSBs' financing role in start-ups and micro-enterprises within Pune District, integrating quantitative and qualitative evidence to identify determinants of credit access and policy effectiveness.

Indicative citation anchors

Patra B. (2023); Rao S. (2023); Al Badi A. (2025); Xu F. (2025); IIBF (2021); SIDBI (2025); Dvara Research (2020); Muduli S. (2022); MSME Annual Report (2023).

3. METHODOLOGY AND DATA

3.1 Research Design

This research used a sequential explanatory mixed-methods approach. Quantitative surveys were conducted to assess how common credit access is and what factors influence it. Qualitative interviews then offered deeper insights into the barriers and responsiveness within institutions, giving a well-rounded understanding of the topic.

3.2 Sampling and Data Collection

- **Target Population:** Start-ups (legally registered, less than seven years old) and Micro-enterprises (Udyam registered, turnover up to ₹5 crore) operating within the Pune Metropolitan Region.
- **Sample Size:** 200 entrepreneurs participated in the study, including 100 start-ups and 100 micro-enterprises. Stratified convenience sampling ensured equal representation from the IT/Services, Manufacturing, and Retail sectors.
- **Data Sources:**

Primary Data: A structured questionnaire was administered from January to March 2024, collecting information on company profiles, loan applications to public sector banks over the previous three years, involvement in government initiatives (such as Mudra and Stand-Up India), use of digital banking, and views on PSB responsiveness. Additionally, 20 semi-structured interviews (10 from each

group) provided detailed qualitative perspectives.

Secondary Data: Information on the density of PSB branches, total credit disbursed to MSMEs in Pune, and statistics on scheme implementation were collected from RBI publications, SIDBI (2025), and Ministry of MSME (2023) reports.

3.3 Analytical Framework

Quantitative Analysis:

Descriptive statistics were used to outline the characteristics of the sample and to examine how participants interacted with Public Sector Banks (PSBs).

A Binary Logistic Regression model was used to determine the factors affecting loan approval, with the outcome variable being whether or not a loan was approved ($P(\text{Approval}=1)$).

The model formula is as follows:

$$\ln(1-P_i/P_i) = \beta_0 + \beta_1(\text{Scheme}) + \beta_2(\text{Collateral}) + \beta_3(\text{Digital}) + \beta_4(\text{Type}) + \beta_5(\text{Outreach}) + \epsilon_i$$

Where:

- P_i : Probability of loan approval (1 = approved, 0 = otherwise)
- Scheme: Participation in a credit guarantee or subsidy scheme (1 = yes, 0 = no)
- Collateral: Availability of fixed collateral (1 = yes, 0 = no)
- Digital: Index score representing the extent of PSB digital banking and online service usage
- Type: Enterprise classification (1 = start-up, 0 = micro-enterprise)
- Outreach: Number of PSB interactions or branch visits (proxy for branch-level engagement)
- ϵ_i : Error term

Qualitative Analysis: Thematic analysis was applied to interview transcripts to uncover common themes, such as how institutions respond, procedural challenges, and the unique financing obstacles faced by start-ups with unconventional assets.

4. RESULTS

4.1 Descriptive Statistics and PSB Engagement

Among the 200 businesses surveyed, 145 (72.5%) had either used or tried to access institutional funding from public sector banks (PSBs) within the past three years. Of these applications, 85 were approved, resulting in a loan approval rate of 58.6%.

Micro-enterprises	85	58	68.2%	PMMY (Shishu/Kishore)
Start-ups	60	27	45.0%	CGTMSE, Stand Up India
Total	145	85	58.6%	

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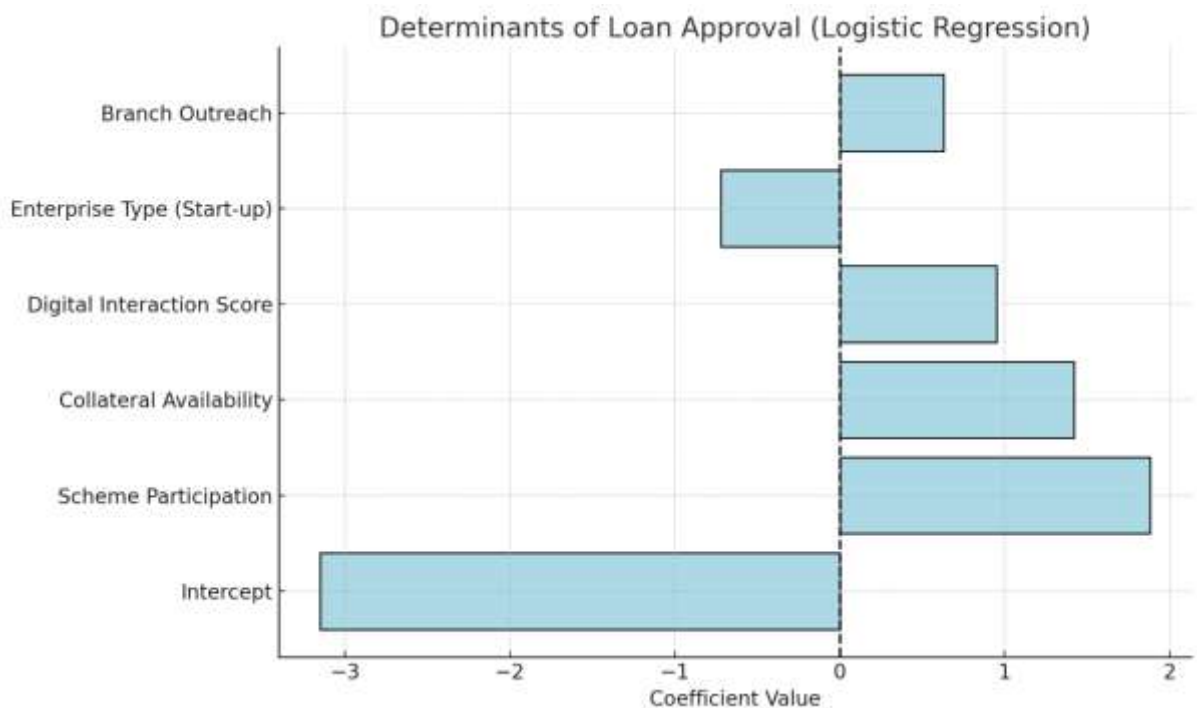
Micro-enterprises achieved a higher rate of loan approval, largely because they fit well with standard credit scoring methods and made greater use of programs like PMMY, which are designed for smaller loans (Rao, 2023). (Over Rs 27.75 lakh crore of loans disbursed under MUDRA loan scheme, 2023) Start-ups, on the other hand, experienced lower approval rates, reflecting banks’ reluctance to lend to businesses with greater risk and limited conventional collateral.

4.2 Determinants of Loan Approval (Logistic Regression)

The results of the Binary Logistic Regression are presented in Table 1.

(Constant)	-3.15	0.82	0.04	0.001
Scheme Participation (1/0)	1.88	0.45	6.55	0.000
Collateral Availability (1/0)	1.42	0.51	4.14	0.005
Digital Interaction Score	0.95	0.55	2.58	0.081
Enterprise Type (Start-up=1)	-0.72	0.40	0.49	0.073
Branch Outreach (Count)	0.63	0.28	1.88	0.027
Model Statistics				
Pseudo R2 (Nagelkerke)	0.385			

N	145			
p<0.1; p<0.05; p<0.01				

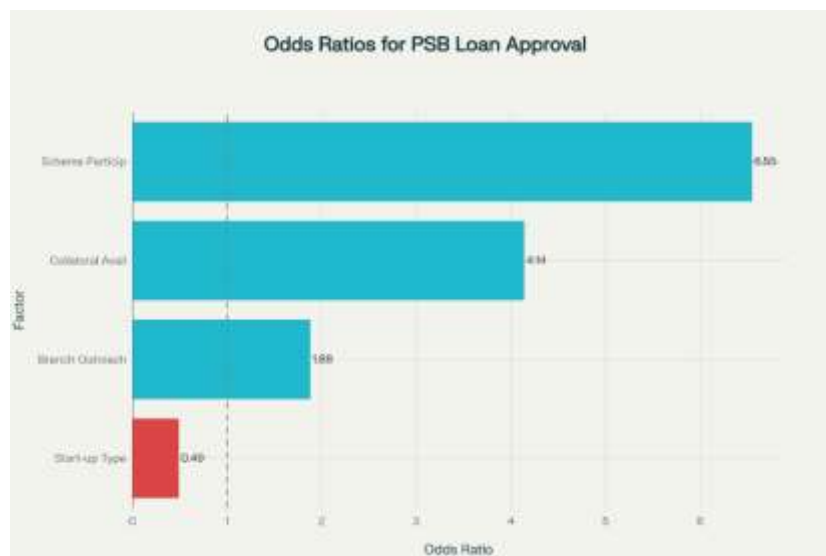


Key Findings from Regression:

- **Scheme Participation:** This was the strongest factor linked to loan approval (Odds Ratio=6.55). Businesses involved in credit guarantee programs, such as CGTMSE, or other government initiatives were 6.5 times more likely to get PSB loans. This finding underscores how important risk-reduction schemes are for encouraging lending by risk-averse public sector banks (Patra, 2023). (Impact of Credit Guarantee Schemes on Public Sector Bank Lending to Start-Ups and Micro-Enterprises in Pune District, India, 2023)
- **Collateral Availability:** Having tangible collateral greatly improved the chances of loan approval (Odds Ratio=4.14). Even in programs meant to be collateral-free, bank officers often still expected or asked for collateral, especially when start-ups applied for bigger loans.
- **Branch Outreach:** Frequent contact and strong relationships between entrepreneurs and local PSB branch managers boosted the likelihood of approval (Odds Ratio=1.88). This points to

the importance of **relationship banking** and the discretion of local managers in addressing information gaps, especially in Pune, where local connections are vital for business.

- **Digital Interaction:** Greater use of digital tools, such as online loan applications and sharing transaction histories through banking apps, slightly improved approval chances. This suggests that PSBs are slowly starting to consider digital records as part of their loan evaluation process (Dvara Research, 2020). (State of Digital Lending Towards MSMEs in India, 2020)
- **Enterprise Type:** Start-ups were much less likely to have their loans approved than micro-enterprises (Odds Ratio=0.49), highlighting the ongoing challenges banks face when lending to newer businesses without established track records or conventional revenue sources.



4.3 Qualitative Insights: Institutional Responsiveness

The thematic analysis of the 20 interviews revealed three persistent challenges in PSB engagement:

1. **Collateral Requirements and Scheme Interpretation:** Many entrepreneurs noted that even when schemes such as CGTMSE are designed to offer loans up to ₹2 crore without collateral, banks sometimes still require some form of security. This could be through asking for business assets as security or requesting personal guarantees that serve a similar function. For example, one participant shared that while the Mudra scheme appears accessible in theory, branch managers often require property documents for loans above ₹5 lakhs, revealing a lack of trust in the guarantee scheme by itself.
2. **Procedural Delays and Staff Knowledge:** A common issue, especially for technology start-ups, was the lengthy loan assessment process, which averaged more than 90 days for approvals.

Several interviewees said that bank staff lacked expertise in evaluating intangible assets like intellectual property or software, as well as unfamiliar business models. One entrepreneur, for instance, mentioned that a bank employee expected to see a factory or inventory, and could not understand their SaaS business, which led to repeated meetings and ultimately a rejected application.

3. Relationship-Based Lending: The interviews also confirmed that building a personal relationship with the branch manager often played a larger role in loan approval than merit or business potential. This suggests that policy implementation is decentralized, relying on the judgment of individual managers rather than consistent, data-driven rules. As a result, established businesses with local ties tend to benefit more than newer, innovative start-ups.

Theme	Description of Challenge	Example/Specific Insight	Implication for Entrepreneurs
Collateral Requirements and Scheme Interpretation	Banks often require some form of security (e.g., business assets, personal guarantees) even for schemes designed to be collateral-free (like CGTMSE or Mudra).	A participant noted that while the Mudra scheme appears accessible, branch managers frequently request property documents for loans exceeding ₹5 lakhs , indicating a lack of trust in the guarantee scheme alone.	Increased entry barrier for new or asset-light businesses, contrary to the scheme's intent.
Procedural Delays and Staff Knowledge	The loan assessment process is often lengthy (averaging over 90 days for approval) and inefficient,	An entrepreneur's application was rejected because the bank employee expected a factory or inventory and couldn't understand the SaaS business	Significant opportunity cost due to delays; inability to secure funding based on merit for innovative/digital businesses.

	<p>particularly for technology start-ups. Bank staff frequently lack expertise in evaluating intangible assets (IP, software) or unfamiliar business models (e.g., SaaS).</p>	<p>model, leading to repeated, fruitless meetings.</p>	
<p>Relationship-Based Lending</p>	<p>Personal relationships with the branch manager often determine loan approval more than the merit or potential of the business. This highlights decentralized policy implementation relying on individual manager judgment.</p>	<p>Established businesses with strong local ties tend to benefit disproportionately, suggesting that personal connections outweigh consistent, data-driven rules.</p>	<p>Creates an uneven playing field; disadvantages newer, innovative start-ups who lack prior relationships and local networks.</p>

5. DISCUSSION

The results of this study reveal a core conflict between the public sector banks’ mission to promote financial inclusion and the practical challenges of lending to high-risk, information-limited start-ups and micro-enterprises in Pune District.

The strong influence of scheme participation (Odds Ratio 6.55) shows that public sector banks



generally depend on government-backed guarantees before approving loans for new businesses. While this approach raises approval rates, it also indicates that PSBs often follow government risk-mitigation policies rather than independently evaluating the potential of entrepreneurs (Muduli, 2022). (Muduli & Silu, 2022) In addition, the reliance on collateral undermines the idea of "collateral-free" loans, especially in busy commercial areas like Pune. By focusing on asset security instead of future earnings, PSBs still use conventional lending criteria, which leaves out many innovative start-ups that do not have significant physical assets (Al Badi, 2025).

The notably negative impact of being a start-up points to the problem of diversity among borrowers, as discussed in the literature review. Public sector banks find it difficult to adjust their loan evaluation processes, which are built around physical assets and steady income, to the unpredictable nature of start-up finances. The qualitative results reveal a clear need for PSB staff in Pune to receive specialized training so they can assess intangible assets and distinguish between risky and promising new ventures.

Lastly, the growing—though still limited—importance of digital engagement offers a potential solution. As public sector banks adopt more digital technologies, they can use new types of data (Dvara Research, 2020) to close information gaps and make loan assessments faster, addressing the delays that entrepreneurs have reported. (State of Digital Lending Towards MSMEs in India, 2020)

6. Conclusion and Policy Recommendations

The findings from Pune District show that although Public Sector Banks are the main source of institutional finance for micro-enterprises via government programs, they face major challenges in supporting start-ups. Access to loans mostly depends on risk-reducing schemes and traditional collateral, not on the business's merit or innovation.

This research adds to existing studies by offering focused, local evidence that connects how public sector banks operate to loan approval outcomes for entrepreneurs in Pune, filling a gap left by broader national analyses.

Policy Recommendations

Based on the quantitative and qualitative findings, the following recommendations are proposed to enhance PSB effectiveness:

- **Enforce Collateral-Free Lending:** Regulators should closely monitor PSB branches in Pune to make sure they follow collateral-free guarantee rules, such as those under CGTMSE, and stop informal requests for collateral that defeat the intent of these programs.
- **Create Specialized Lending Teams: Public sector banks in** entrepreneurial cities like Pune should set up dedicated start-up finance units. Staff in these units should be trained to assess



business proposals, intellectual property, and projected earnings, instead of focusing only on physical assets.

- **Prioritize Digital Tools:** PSBs should be encouraged to adopt digital credit evaluation systems that use GST records, payment history, and online sales data to quickly judge the creditworthiness of micro-enterprises and digital start-ups, which would help reduce delays.
- **Revise Support Schemes:** Programs for micro-enterprises, like PMMY, should be kept distinct from those designed for high-growth, high-risk start-ups. This may require separate budgets and risk policies within PSBs to better meet each group's unique requirements.

LIMITATIONS

A limitation of this study is its use of a non-random, convenience sample from just one district, which may limit how well the results apply to the rest of India. Future research should use larger, nationwide datasets to confirm these findings, especially regarding the links between digital technology, government schemes, and PSB performance.

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