Journal of Rare Cardiovascular Diseases
ISSN: 2299-3711 (Print) | e-ISSN: 2300-5505 (Online)
www.jrcd.eu
RESEARCH ARTICLE

Impact of Fintech Lending Platforms on Credit Accessibility and Financial Performance of Micro, Small and Medium Enterprises in Kerala

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Article History
Received: 21.09.2025
Revised: 30.09.2025
Accepted: 17.10.2025
Published: 01.11.2025

Abstract: This study examines whether use of fintech lending platforms is associated with improved credit outcomes and financial performance among micro, small and medium enterprises (MSMEs) in Kerala. Using a balanced, cross-sectional survey of MSMEs selected through stratified quotas by firm size and region, we measured perceptions on five-point Likert scales and constructed composite indices for credit accessibility, processing efficiency, and recent financial outcomes. Group differences between fintech users and non-users were evaluated with Welch's two-sample t-tests implemented in EDUSTAT. Across all three indices, fintech users reported superior outcomes: easier access to formal credit, quicker processing, and stronger recent financial performance. These patterns are consistent with cash-flow–based underwriting and fully digital workflows that reduce reliance on collateral and compress turnaround times, enabling better working-capital management and order fulfilment. While the cross-sectional, perception-based design limits causal claims and may reflect unobserved differences in digital readiness, the results provide policy-relevant evidence that responsible fintech lending can complement traditional channels for MSMEs. Future work using longitudinal or matched designs with administrative metrics can strengthen causal inference and examine heterogeneity by firm size, sector, and regional context.

Keywords: Fintech lending; MSME finance; Credit accessibility; Kerala.

INTRODUCTION

Micro, small and medium enterprises (MSMEs) are central to output, employment, and regional development, yet they face chronic constraints in accessing timely and affordable credit. Global estimates continue to highlight a substantial MSME finance gap, indicating persistent frictions in formal lending to smaller firms (IFC, 2024; World Bank, 2025). In India, MSMEs span manufacturing, trade, and services and contribute materially to exports and local jobs; consistent policy statements prioritise easing working-capital bottlenecks and improving access to formal finance (Ministry of MSME, 2024–2025). Within this context, it is important to understand whether digitally enabled lending channels translate into better perceived access and business outcomes for MSMEs on the ground.

India's digital public infrastructure—covering electronic know-your-customer (e-KYC), payments (UPI), and consent-based data sharing—has enabled cash-flow-based underwriting that relies less on traditional collateral. Policy proposals and guidance on digital banking and cash-flow-based lending explicitly aim to bridge MSME credit gaps by leveraging GST trails, e-invoicing, and bank-statement data to reduce information asymmetry (NITI Aayog, 2021, 2022). In parallel, the Reserve Bank of India's Digital Lending Guidelines (2022) and subsequent clarifications (2023) established conduct, disclosure, and data-consent standards for digital lending apps, seeking to safeguard borrowers while preserving innovation (Reserve Bank of India, 2022, 2023). These policy and regulatory shifts make it plausible that fintech platforms can expand access and shorten loan processing times without compromising transparency.

International evidence supports these mechanisms. Studies document that fintech lenders can reach underserved segments and that alternative-data-driven models may predict repayment capacity effectively, potentially reducing dependence on collateral and branch networks (Cornelli, Frost, Gambacorta, & Jagtiani, 2022; Cornelli et al., 2023; Frost, Gambacorta, Huang, Shin, & Zbinden, 2019). Translating these insights to India's MSME landscape raises a practical question: do MSMEs that use fintech lending platforms actually experience higher credit accessibility, faster processing, and better recent financial performance than non-users?

Kerala provides a relevant empirical setting. State economic reviews describe a supportive environment for MSME formation and formalisation, which can complement digital-credit adoption (Kerala State Planning Board, 2023). Industry scorecards also point to improving MSME portfolio quality and expanding balances, suggesting a favourable risk and demand environment for formal credit (SIDBI & TransUnion CIBIL, 2025). Against this backdrop, the present study evaluates MSMEs in Kerala to test whether fintech

platform use is associated with (i) improved perceived credit accessibility, (ii) greater processing efficiency, and (iii) stronger recent financial outcomes.

Research Questions

1. Among MSMEs in Kerala, do users of fintech lending platforms report higher credit accessibility than non-users?
2. Is use of fintech lending platforms associated with shorter loan processing efficiency relative to traditional channels?
3. Do MSMEs that use fintech lending platforms report better recent financial performance than non-users?

Research Objectives

1. To compare credit accessibility between fintech-using and non-using MSMEs in Kerala.
2. To compare loan processing efficiency between fintech-using and non-using MSMEs.
3. To examine the association between fintech platform use and recent financial performance of MSMEs.

Hypotheses

1. MSMEs in Kerala that use fintech lending platforms report higher credit accessibility than non-users.
2. Use of fintech lending platforms is associated with shorter loan processing efficiency for MSMEs.
3. Use of fintech lending platforms is positively associated with MSME financial performance.

METHODOLOGY

Research design

The study adopts a cross-sectional, comparative survey design to examine whether use of fintech lending platforms is associated with (i) higher credit accessibility, (ii) shorter loan processing time, and (iii) better recent financial performance among MSMEs in Kerala. The enterprise is the unit of analysis, and the respondent is the owner, founder, or financial decision-maker who is directly involved in borrowing decisions.

Population and sampling

The target population comprises operational micro, small, and medium enterprises in Kerala that have sought business credit in the recent past, irrespective of whether they used a fintech lending platform. A stratified sampling approach was used with quotas on firm size (Micro/Small/Medium) and region (South/Central/North), and with an a-priori balance on fintech status. The final sample includes 240 MSMEs, with 120 fintech users and 120 non-users, enabling adequately powered two-group comparisons. Within strata, enterprises were selected from pragmatic frames such as Udyam/GST rosters and industry-association lists; where fintech users were sparse, targeted outreach ensured group balance.

Measures and instrument

Data were collected through a structured questionnaire. Section A captured firm profile (district, sector). Perceptions were measured on five-point Likert scales (1 = strongly disagree to 5 = strongly agree): Credit Accessibility (10 items), Processing Efficiency (8 items), Cost & Terms (10 items; one reverse-keyed "hidden charges" item), Trust & Security (10 items; one reverse-keyed "data misuse worry" item), Financial Performance Outcomes over the recent period (10 items), and External Conditions (7 items; two reverse-keyed items). Non-users rated their primary recent lender for sections that are not platform-specific; fintech users additionally answered a brief usage/experience block. Content validity was ensured through item wording aligned to MSME credit contexts (eligibility transparency, collateral, turnaround, disclosure, collections professionalism, cash-flow recognition, and working-capital adequacy).

Data collection procedure

Trained field investigators administered the instrument via in-person visits or phone-assisted self-completion after screening for eligibility. Participation was voluntary; no incentives were tied to responses about lenders or platforms. To reduce common-method bias, sections were ordered to separate profile questions from outcomes, items mixed positively and negatively worded where appropriate, and anonymity was emphasised.

Data preparation and scoring

Returned forms were screened for completeness, implausible patterns, and duplication. Reverse-coded items were keyed to ensure that higher values consistently indicate more favourable perceptions. Scale scores were computed as item means (not sums) to retain the 1–5 metric. Missingness was minimal and handled via listwise deletion for the relevant analysis. Internal consistency and item–total correlations were examined to support score reliability.

Statistical analysis

Descriptive statistics summarised the sample profile and composite indices. Group differences between fintech users and non-users on Credit Accessibility, Processing Efficiency, and Financial Performance Outcomes were tested using Welch's two-sample t-tests (two-tailed, $\alpha = .05$) with 95% confidence intervals for the mean differences. Where helpful, assumptions diagnostics (distributional shape and variance heterogeneity) guided the use of Welch tests. Analyses were carried out in EDUSTAT.

Ethical considerations

The study follows standard ethical practices for social-science surveys. Respondents provided informed consent; only non-identifying business information was collected; data were stored securely and reported in aggregate, with no enterprise or platform identifiable in the manuscript.

Data Analysis and Interpretation

The analysis examines whether fintech lending platform use among MSMEs in Kerala relates to higher credit accessibility, faster loan processing, and better recent financial performance. The enterprise serves as the unit of analysis. Multi-item indices are computed as item means on a 1–5 scale with reverse-keyed items properly recoded so that higher values indicate more favourable outcomes. Descriptive statistics summarise the sample profile and groupwise means. Inferential tests rely on Welch's two-sample t-tests (two-tailed, $\alpha = .05$) to allow for unequal variances. All analyses are carried out in EDUSTAT.

Table 1 *Key Sample Profile*

Key profile (n, %)			
Fintech status — Users / Non-users	120 (50.0)	120 (50.0)	
Firm size — Micro / Small / Medium	144 (60.0)	72 (30.0)	24 (10.0)
Region — South / Central / North	84 (35.0)	84 (35.0)	72 (30.0)
Sector — Manufacturing / Services / Trade	83 (34.6)	81 (33.8)	76 (31.7)

Table 1 shows a balanced design by fintech status (120 users; 120 non-users), which supports clean two-group comparisons. Firm size reflects the MSME structure in Kerala: micro enterprises dominate (144; 60.0%), followed by small (72; 30.0%) and medium (24; 10.0%), indicating that findings are most representative of micro units. Regional quotas are near-even across South (84; 35.0%), Central (84; 35.0%) and North (72; 30.0%), limiting geographic bias. Sectoral spread is also even—Manufacturing (83; 34.6%), Services (81; 33.8%) and Trade (76; 31.7%)—so results are not concentrated in a single sector.

Table 2 *Descriptive Statistics*

Composite indices (1–5)	Users: Mean ± SD	Non-users: Mean ± SD
Credit Accessibility	3.79 ± 0.26	3.16 ± 0.28
Processing Efficiency	3.97 ± 0.29	3.12 ± 0.37
Financial Performance Outcomes	3.69 ± 0.24	3.31 ± 0.31

Across all three indices, users report higher averages and relatively tight dispersions. Credit Accessibility is higher for users (3.79 ± 0.26) than non-users (3.16 ± 0.28), indicating easier qualification, clearer eligibility, and lighter collateral in the fintech route. Processing Efficiency shows the largest gap (users 3.97 ± 0.29 vs non-users 3.12 ± 0.37), consistent with shorter application-to-sanction and sanction-to-disbursal times and clearer communication through platforms. Financial Performance Outcomes are also higher among users (3.69 ± 0.24) than non-users (3.31 ± 0.31), reflecting perceived gains in working-capital adequacy, orders/revenue, and overall financial health. These descriptive gaps anticipate statistically significant differences in the hypothesis tests.

Table 3 *Credit Accessibility (Users vs Non-users)*

Group	n	Mean ± SD	Welch t(236.55)	mean difference	95% CI	p
			17.88	0.63	[0.56, 0.70]	< .001
Users	120	3.79 ± 0.26				
Non-users	120	3.16 ± 0.28				

Users average 3.79 (SD = 0.26) versus 3.16 (SD = 0.28) for non-users. The mean difference is 0.63 with a narrow 95% CI [0.56, 0.70]; Welch $t(236.55) = 17.88$, $p < .001$. The confidence interval excludes zero by a wide margin, indicating a precise and practically meaningful advantage for fintech users. Substantively, this aligns with easier qualification, more transparent criteria, recognition of digital cash-flow data, and reduced dependence on informal credit captured by the scale items. The evidence supports the first hypothesis.

Table 4 *Processing Efficiency (Users vs Non-users)*

Group	n	Mean ± SD	Welch t(226.53)	mean difference	95% CI	p
Users	120	3.97 ± 0.29	20.06	0.86	[0.77, 0.94]	< .001
Non-users	120	3.12 ± 0.37				

Users average 3.97 (SD = 0.29) versus 3.12 (SD = 0.37) for non-users. The mean difference is 0.86, 95% CI [0.77, 0.94]; Welch t(226.53) = 20.06, p < .001. This is the largest gap among the three outcomes and indicates a clear operational advantage associated with fintech channels—shorter cycle times from application to sanction and disbursal, lower documentation burden, real-time tracking, and clearer decision communication. Results strongly support the second hypothesis.

Table 5 *Financial Performance Outcomes (Users vs Non-users)*

Group	n	Mean ± SD	Welch t(223.23)	mean difference	95% CI	p
Users	120	3.69 ± 0.24	10.62	0.38	[0.31, 0.45]	< .001
Non-users	120	3.31 ± 0.31				

Users average 3.69 (SD = 0.24) versus 3.31 (SD = 0.31) for non-users. The mean difference is 0.38, 95% CI [0.31, 0.45]; Welch t(223.23) = 10.62, p < .001. Although smaller than the processing gap, the difference remains statistically and practically meaningful. The pattern is consistent with perceived benefits of timely financing: improved working-capital adequacy, reduced stock-outs, better supplier terms, and the ability to accept more orders. Given the cross-sectional design, results indicate association rather than causation; however, the strength and precision of estimates support the third hypothesis.

DISCUSSION OF THE RESULTS

The results show a clear and consistent pattern: MSMEs that used fintech lending platforms report better credit accessibility, faster processing, and stronger recent financial outcomes than otherwise similar non-users. The magnitude and precision of the differences are notable across all three indices, with narrow confidence intervals and large gaps relative to within-group variation. Because the sample is balanced by fintech status and broadly distributed across size, region, and sector, these contrasts are unlikely to be artefacts of a skewed composition.

The higher credit accessibility among users (Table 3) is consistent with the way fintech lenders underwrite MSMEs—placing greater weight on digital cash-flow proxies (e.g., sales invoices, GST trails, UPI receipts) and using automated scoring to reduce reliance on hard collateral. Respondents' higher ratings align with easier qualification, clearer eligibility criteria, and improved approval likelihood. Substantively, this indicates that MSMEs that maintain richer digital transaction trails may convert that data into borrowing capacity more easily through fintech channels than through conventional routes.

Processing efficiency shows the largest gap (Table 4), which accords with the fully digital workflow typical of fintech credit: e-KYC, document upload, rule-based verifications, and real-time status updates compress the application-to-sanction and sanction-to-disbursal cycle. Respondents' higher scores on turnaround and communication suggest that predictable timelines and reduced paperwork are central to the perceived value proposition. For working-capital use cases—where timing is critical—this operational speed is likely to be commercially meaningful.

Financial performance outcomes also favour users (Table 5), though with a smaller gap than for processing

speed. This is plausible: faster, more predictable credit access should help MSMEs accept additional orders, avoid stock-outs, negotiate better supplier terms, and smooth cash-flow volatility. The effect is unlikely to be instantaneous or uniform across firms, which explains a moderate, not extreme, difference. Still, the direction and significance of the results suggest that timely financing availability translates into perceived improvements in sales and operating efficiency for many adopters.

Alternative explanations warrant consideration. Differences could partly reflect unobserved characteristics—digitally savvy firms may both adopt fintech and operate more efficiently. Several design choices reduce (but cannot eliminate) this concern: fintech and non-fintech groups are balanced; Even so, the cross-sectional design limits causal claims; the findings indicate robust associations rather than definitive causation. Measurement is perception-based; while multi-item indices increase reliability and coverage, objective administrative metrics (actual approval rates, processing hours, effective APRs, realised sales growth) would strengthen inference.

Taken together, the evidence supports three practical implications. First, entrepreneurs can enhance credit access by building digital footprints—formalising invoicing, maintaining GST compliance, and adopting digital payment trails—so that fintech underwriters can recognise cash flows. Second, lenders and platforms should preserve the speed advantage while maintaining transparent, all-in pricing and professional collections; clarity sustains trust and repeat use. Third, policy actors can encourage responsible adoption by promoting data portability/consent frameworks and MSME digital capability programmes, thereby widening safe access while protecting borrowers.

Future research can deepen these results by (i) using longitudinal or panel designs to observe pre- and post-adoption performance, (ii) matching users and non-users on observables (or using propensity scores/instrumental strategies) to sharpen causal identification, (iii) incorporating administrative measures of turnaround time, approval likelihood, and cost of credit, and (iv) analysing heterogeneity—whether effects differ by firm size, sector, region, or baseline formalisation. Even with these caveats, the present evidence provides coherent and policy-relevant support for the view that fintech lending can expand and accelerate MSME credit and is associated with better reported business outcomes.

Implications of the Study

The evidence that fintech-using MSMEs report higher credit accessibility implies a clear, actionable pathway for entrepreneurs: build and curate digital transaction footprints. Consistent GST filings, electronic invoicing, UPI-based receipts, and basic digitised bookkeeping strengthen cash-flow visibility and convert operational activity into verifiable credit signals. Firms that standardise documentation, segregate business and personal transactions, and maintain simple monthly cash-flow statements stand to unlock larger limits on better terms.

For lenders and platforms, the pronounced processing advantage needs to be coupled with uncompromising transparency. Standardised, all-in cost disclosures, clear prepayment and foreclosure terms, and plain-language contracts consolidate trust while preserving speed. Simple eligibility pre-checks, progress trackers, and prompt grievance redressal keep perceived efficiency high without eroding borrower protection. Publishing typical approval timelines and rate ranges for common MSME profiles also helps set accurate expectations.

The results argue for deeper bank–fintech collaboration. Co-lending or referral models that blend bank balance-sheet strength with platform underwriting and workflow can expand reach while keeping costs low. Cash-flow–based scoring should be integrated into traditional appraisals to reduce collateral dependence where repayment capacity is demonstrably strong. Consent-based data-sharing frameworks can be used to ingest verified transaction data with appropriate safeguards, allowing faster appraisal without sacrificing prudence.

Policy implications centre on widening safe access while mitigating downside risks. Clear standards for price transparency, effective APR presentation, data privacy, and collections conduct help prevent misuse as adoption scales. Targeted credit guarantees or partial-risk instruments for viable, thin-file borrowers can crowd in private credit without distorting incentives, provided monitoring is robust. Public digital rails reduce frictions; complementary guidance that helps MSMEs prepare lender-ready data packages further lowers the cost of credit.

Entrepreneur capability building emerges as a high-return intervention. Short, practice-oriented clinics delivered through district industries centres and trade associations on topics such as digital bookkeeping, cash-conversion-cycle management, documentation readiness, and responsible credit use can translate the speed of fintech into sustained financial health. Supplier-side initiatives—like encouraging invoice digitisation and predictable payment cycles—reinforce these gains.

On performance, the association between timely credit and better outcomes underscores the importance of tying funds to productivity-enhancing uses: bridging working capital around order cycles, reducing stock-outs, and negotiating better input terms. Platforms and lenders can nudge such use through product design (e.g., flexible drawdowns, invoice-linked limits) and simple post-disbursal check-ins that support repayment discipline without being intrusive.

Finally, the findings motivate a measurement agenda. Longitudinal tracking of adopters, matched comparisons on observable characteristics, and inclusion of administrative metrics (actual approval rates, processing hours, effective cost of credit) would sharpen causal inference and quantify heterogeneity by firm size, sector, and region. Even as a cross-section, the present results provide a policy-relevant signal: when implemented with transparency and consent, fintech lending expands and accelerates MSME credit and aligns with better reported business outcomes.

CONCLUSION

Using a balanced cross-sectional sample of MSMEs in Kerala, this study finds that firms using fintech lending platforms report significantly higher credit accessibility, faster loan processing, and stronger recent financial outcomes than non-users. These results are consistent with cash-flow–based underwriting and digital workflows that reduce collateral dependence and turnaround times, and they indicate practically meaningful advantages for working-capital management and order fulfilment. While the design supports robust associations, it does not establish causality; unobserved differences (e.g., digital readiness) may partly explain the gaps. Even so, the direction and precision of the estimates suggest that responsible adoption of fintech credit—paired with transparent pricing and borrower safeguards—can complement traditional finance for MSMEs. Future work using longitudinal or matched designs with administrative metrics would sharpen causal inference and quantify heterogeneity by firm size, sector, and region, but the present evidence offers clear, policy-relevant guidance for entrepreneurs, lenders, and regulators.

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