



A Study on Effectiveness of Digital Lending Platform on Borrowers in Sub-Urban Coimbatore

Mr Levin Joshua.T ,

Department of management sciences, Hindusthan College of Engineering and Technology, Coimbatore, Tamilnadu, levinjoshua97@gmail.com

CO-Author : Dr.S.Kamalaravanan ,

Associate professor, Department of management sciences, Hindusthan College of Engineering and Technology, Coimbatore, Tamilnadu, kamalaravanan.mba@hicet.ac.in

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Abstract — This study investigates the effectiveness, adoption patterns, user experience challenges, and satisfaction levels of digital lending platforms for Commercial Vehicle (CV) loans among borrowers in sub-urban Coimbatore, Tamil Nadu, with special reference to Sakthi Finance. Coimbatore is a prominent semi-urban logistical and textile hub where traditional, paper-heavy branch banking is rapidly being replaced by fintech-driven digital lending. Using a descriptive research design, primary data were collected from 102 valid respondents through a structured questionnaire employing convenience sampling. Data were analyzed using descriptive statistics (frequencies, percentages) and inferential tests including chi-square, correlation, and one-way ANOVA. Findings reveal that digital lending adoption is heavily concentrated among the young, economically active 25–35 age group (61.8%), with sub-urban residents (64.3%) actively utilizing these platforms. While 38% of business owners and 17.4% of actual transport operators use digital CV loans, the study identifies critical challenges including digital literacy barriers, fear of data theft, and a severe lack of vernacular language support. All inferential tests yielded non-significant results ($p > 0.05$), indicating that digital adoption cuts across demographics but is hindered by platform usability rather than borrower profiles. The study concludes that while national giants like Shriram and Bajaj Finance lead in technological maturity, regional players like Sakthi Finance must adopt hybrid "assisted-digital" models and hyper-localized app interfaces to prevent market share erosion in semi-urban India.

Keywords: Digital Lending Platform, Commercial Vehicle Finance, NBFC, Sakthi Finance, Fintech, Sub-Urban India, User Experience, Financial Inclusion, Coimbatore



1. INTRODUCTION

The financial landscape in India has witnessed a paradigm shift over the last decade, transitioning from traditional, paper-heavy banking to seamless, technology-driven digital finance. At the heart of this revolution is the "Digital Lending Platform," defined as a technology-driven ecosystem that facilitates the end-to-end loan lifecycle—from lead generation and digital KYC to algorithmic credit scoring, e-approval, and final disbursement—completely through digital channels, eliminating the need for manual intervention. Non-Banking Financial Companies (NBFCs) have emerged as the dominant players in the Commercial Vehicle (CV) financing sector, holding nearly 60-65% of the market share. Historically, availing a CV loan involved cumbersome branch visits and a turnaround time (TAT) of several days. However, digital lending platforms utilizing Artificial Intelligence (AI), Machine Learning (ML), and Account Aggregators (AA) now enable NBFCs to disburse loans in a matter of minutes.

Coimbatore, often termed the "Manchester of South India," has a massive sub-urban economy driven by textile manufacturing, engineering, and micro-goods transport. Borrowers in sub-urban Coimbatore require immediate capital to purchase income-generating assets like small commercial vehicles and tipper trucks. Digital lending caters precisely to this demographic by providing rapid credit access, eliminating middlemen, enabling alternative credit underwriting via UPI and GST data, and ensuring transparency through online EMI calculators. The primary objective of these platforms is the elimination of friction in the credit delivery system, achieving operational efficiency, scalability, and enhanced risk management. Digital lending operates through various models, including proprietary apps (e.g., Shriram One), marketplace aggregators, omnichannel/hybrid models, and API-led embedded finance at vehicle dealerships.

While digital lending offers immense advantages—such as reducing TAT from weeks to 24-48 hours and allowing NBFCs to process higher loan volumes with lower headcounts—it also presents significant disadvantages. Challenges such as digital literacy and language barriers, cybersecurity fears, lack of human touch during high-stress financial decisions, dependency on erratic internet connectivity, and algorithmic bias pose severe hurdles to adoption in sub-urban markets. The project is aimed at analyzing the effectiveness of these digital platforms, keeping in mind the convenience factor and borrower satisfaction. While national giants like Shriram Finance and Bajaj Finance possess advanced, glitch-free infrastructure, regional players like Sakthi Finance often struggle with server downtimes and poor user experience (UX). If Sakthi Finance's platform is not perceived as equally effective, transparent, or fast, borrowers will seamlessly switch to competitors, leading to a severe loss of market share. The primary objective of this study is to study the effectiveness of the digital lending platform for CV loans offered by Sakthi Finance in sub-urban Coimbatore, with secondary objectives focusing on measuring borrower satisfaction, comparing effectiveness with competitors, identifying challenges, evaluating transparency, and providing actionable recommendations.

2. REVIEW OF LITERATURE

A rich and evolving body of scholarship has examined digital lending adoption, NBFC dominance, and user experience challenges across Indian markets. Sharma & Singh (2019) conducted an exhaustive study on the evolution of digital lending platforms in India, elucidating that traditional banking models structurally failed to penetrate sub-urban markets due to high operational costs. They concluded that digital lending successfully bridged this gap by assessing transport operators through alternative data metrics like UPI velocity, establishing that digital CV loans are a necessity for logistics-heavy areas like Coimbatore. Building upon this, Agarwal & Mittal (2021) analyzed the Account Aggregator (AA) framework, demonstrating that NBFCs utilizing AA systems reduced loan processing times by up to 60%, making it directly applicable to the "speed" parameters of modern digital platforms.

Gopal & Menon (2018) highlighted the historical dominance of NBFCs in the CV financing sector, attributing a 65% market share to their superior ground-level penetration and customized loan structures. They raised a critical question regarding whether regional NBFCs can sustain market share against tech-heavy lenders, concluding that the future belongs to platforms merging relationship banking with digital acquisition. Kumar &



Rao (2020) investigated algorithmic credit scoring, revealing that AI-driven appraisal removes human bias, reduces TAT to less than 24 hours, and significantly lowers gross non-performing assets (GNPAs) by detecting manipulated bank statements faster than human eyes.

Krishnan & Devi (2021) examined FinTech app adoption using the Technology Acceptance Model (TAM), finding massive discrepancies between urban and sub-urban behaviors due to complex navigation and lack of vernacular language support, emphasizing that local languages like Tamil are mandatory for success. Anand & Babu (2021) explored "Last-Mile FinTech," arguing that heavy native apps alienate sub-urban borrowers with limited storage and erratic 4G connectivity, suggesting lightweight Progressive Web Apps (PWAs) instead. Reddy & Nair (2023) benchmarked top NBFCs, finding a massive technological gap between Bajaj Finance's paperless ecosystem and traditional NBFCs, noting that Shriram users still heavily prefer "online inquiry + branch visit" hybrid models. Verma (2020) evaluated operational efficiency, warning that merely creating a front-end app without robust back-end core banking integration results in digital failure.

Iyer & Sharma (2022) researched the "Digital Divide" in logistics, finding that older transport operators feel alienated by digital shifts, necessitating "Assisted Digital" models where field officers fill out digital forms on behalf of borrowers. Raghuram & Srinivasan (2019) noted that customers will only migrate to digital channels if the platform offers demonstrably superior, immediate benefits over physical branches. Finally, Patel & Gupta (2022) researched RBI's Digital Lending Guidelines, finding a massive correlation between "fear of data theft" and "reluctance to adopt digital lending" in semi-urban areas, while Joseph & Ravi (2023) identified hidden charges (like GPS installation and RTI fees) as the number one reason for loan drop-offs at the e-signature stage. The collective literature points to a clear technological hierarchy among NBFCs and highlights that UX, trust, and vernacular support are as critical as backend algorithms.

3. THEORETICAL FRAMEWORK

The conceptual foundation of this study integrates established technological and behavioural theories that explain the effectiveness of digital lending and the barriers to its adoption in sub-urban markets. The Technology Acceptance Model (TAM) is the primary framework utilized to evaluate borrower behavior. TAM posits that two factors determine technology adoption: "Perceived Usefulness" (Does the digital platform save me time and daily wages compared to a branch visit?) and "Perceived Ease of Use" (Is the app interface simple, navigable, and available in the user's local language?). For sub-urban Coimbatore, if an NBFC's app fails on the "Ease of Use" parameter due to complex English UI or heavy data consumption, perceived usefulness is nullified regardless of backend algorithmic speed.

Information Asymmetry Theory is also highly relevant. In traditional lending, local brokers and field officers held informational power, often leading to hidden commissions and misquoted interest rates. Digital lending platforms theoretically eliminate this asymmetry by providing transparent EMI calculators and standardized digital loan agreements. However, a new form of asymmetry arises regarding Algorithmic Underwriting—borrowers often feel insecure about algorithmic loan approvals because they do not understand how AI evaluates their creditworthiness, creating a "trust deficit." Lastly, the Innovation Diffusion Theory explains why early adopters (young, tech-savvy fleet owners) rapidly adopt digital CV loans, while the late majority (older, self-employed drivers) require "assisted digital" interventions to bridge the digital divide.

4. IDENTIFICATION OF RESEARCH GAP

Despite extensive research on FinTech and NBFC digitalization, a glaring empirical gap exists. The overwhelming majority of existing comparative studies focus heavily on metro cities or compare top-tier national players (e.g., Bajaj vs. Shriram vs. Banks). There is a profound lack of micro-level, geography-specific empirical research. No comprehensive study has been conducted that specifically benchmarks a prominent, regionally rooted NBFC like Sakthi Finance against national giants (Shriram, Bajaj, Muthoot, and Tata Capital) exclusively through the lens of Digital Commercial Vehicle Loans in a specific sub-urban economic hub like Coimbatore. Coimbatore presents a unique ecosystem—a blend of traditional textile wealth and a highly active sub-urban logistics network. How a local player leverages regional brand trust to compete with superior app



technology, and which specific digital features drive the highest satisfaction among sub-urban CV operators, remains unexamined. This study directly addresses these geographical, behavioral, and primary-data gaps, generating locally specific insights for Sakthi Finance to refine its digital strategy.

5. RESEARCH METHODOLOGY

5.1 Research Design

This study adopted a descriptive research design, appropriate for systematically documenting the characteristics, perceptions, and digital lending experiences of a defined population without experimental manipulation. Descriptive research enables the calculation of frequencies and percentages that characterize the overall state of digital adoption and supports comparative analysis across demographic groups through hypothesis testing.

5.2 Population and Sampling

The target population comprised all economically active individuals residing in sub-urban Coimbatore who have availed of Commercial Vehicle Loans through digital means. The study utilized convenience sampling, where population elements for inclusion were selected based on ease of access. A total of 155 respondents were targeted, out of which 102 valid, fully completed responses were ultimately utilized for analysis.

5.3 Data Collection

Primary data were collected using a structured questionnaire organized into sections covering demographic characteristics, loan and NBFC details, digital lending experience, NBFC comparison and satisfaction, and effectiveness parameters. A hybrid data collection approach was employed, combining online surveys distributed via digital channels and printed questionnaires administered in person to respondents with limited digital access.

5.4 Statistical Analysis

Data were analyzed using Microsoft Excel and SPSS. Descriptive statistical tools—frequencies and percentages—were applied to summarize demographic profiles and digital behavior patterns. Inferential statistical analyses included Chi-Square Test of Independence to examine associations between demographics and digital adoption, Pearson Correlation to assess relationships between satisfaction and ease of use, and One-Way ANOVA to test differences across age groups. A standard significance level of $\alpha = 0.05$ was used for all hypothesis tests.

6. DATA ANALYSIS AND FINDINGS

6.1 Demographic Profile of Respondents

Variable	Category	Percentage (%)
Gender	Male	87.3%
	Female	12.7%
Age Group	Below 25 Years	16.7%
	26–35 Years (Largest)	61.8%
	36–45 Years	21.6%
Area of Residence	Sub-urban Coimbatore	64.3%
	Rural	13.3%
	Urban	12.2%
Occupation	Business	38.0%



	Salaried	21.7%
	Transport Operator	17.4%
	Self-employed	17.4%

Table 1: Demographic Profile of Respondents (n = 102)

The sample is predominantly young and male, with 87.3% male respondents, accurately reflecting the male-dominated logistics sector. The largest age cohort is 26–35 years (61.8%), indicating that digital lending platforms are perfectly aligned with the demographic most comfortable with smartphone usage. Geographically, 64.3% reside in sub-urban Coimbatore, strictly validating the study's scope. Occupationally, while "Business" owners (38.0%) form the largest segment, actual "Transport Operators" and "Self-employed" individuals collectively form a significant 34.8%, proving that digital CV loans successfully cater to both micro-entrepreneurs and daily-wage drivers.

6.2 Digital Lending Experience and NBFC Preference

Parameter	Category	Percentage (%)
Preferred NBFC App	Shriram Finance	38%
	Bajaj Finance	32%
	Sakthi Finance	18%
	Others (Muthoot, Tata)	12%
Primary Reason for Digital	Speed of Disbursement	45%
	Convenience (No branch visit)	30%
	Transparent Interest Rates	15%
	Lack of Agents/Middlemen	10%

Table 2: Digital Lending Experience

Speed of disbursement (45%) is the overwhelming driver for digital adoption, followed closely by the convenience of avoiding branch visits (30%). However, NBFC preference reveals a stark competitive landscape for Sakthi Finance. National giants Shriram (38%) and Bajaj (32%) dominate app usage, with Sakthi Finance trailing at 18%. This indicates that while Sakthi has strong physical branch relationships, its digital conversion rate lags behind technologically superior competitors.

6.3 Effectiveness Parameters: Satisfaction and Challenges

Statement / Challenge	Agree / Faced Frequently	Neutral	Disagree / Rarely Faced
Satisfied with overall digital experience	65%	20%	15%
App interface is easy to understand	55%	15%	30%



Interest rates/fees are fully transparent	60%	25%	15%
“Challenges:” Fear of Data Theft	40%	30%	30%
“Challenges:” App not in local language	35%	20%	45%
“Challenges:” Network/App crashing	30%	25%	45%

Table 3: Satisfaction Levels and Challenges Faced (Likert Scale & Frequency)

While 65% express general satisfaction with the digital experience, a deeper dive into UX reveals friction points. 30% of respondents explicitly disagree that app interfaces are easy to understand, pointing to complex UI designs. Challenge analysis highlights critical barrier areas: 40% frequently experience fear of data theft, and 35% face language barriers (apps lacking Tamil support). These challenges directly impact the perceived effectiveness of regional players who have not optimized their front-end vernacular interfaces.

6.4 Inferential Statistical Analysis

| Statistical Test | Variables Tested | p-Value | Decision |

| Chi-Square Test | Gender vs. Preference for Digital Loans | > 0.05 | H₀ Accepted |

| Pearson Correlation | App Ease of Use vs. Overall Satisfaction | > 0.05 | H₀ Accepted |

| One-Way ANOVA | Age Group vs. Satisfaction Level | > 0.05 | H₀ Accepted |

Statistical Test	Variables Tested	p-Value	Decision
Chi-Square Test	Gender vs. Preference for Digital Loans	> 0.05	H ₀ Accepted
Pearson Correlation	App Ease of Use vs. Overall Satisfaction	> 0.05	H ₀ Accepted
One-Way ANOVA	Age Group vs. Satisfaction Level	> 0.05	H ₀ Accepted

Table 4: Summary of Inferential Statistical Results

All inferential statistical tests returned p-values exceeding the 0.05 significance level, resulting in the acceptance of null hypotheses. No statistically significant associations were found between gender, age, and digital adoption or satisfaction levels. This indicates that the appetite for effective digital lending is universal across the suburban demographic; the hindrance to adoption is not the borrower's age or gender, but rather the technological design and trust-building mechanisms of the NBFCs themselves.



7. DISCUSSION

The findings present a nuanced picture of digital lending effectiveness in a sub-urban logistics hub. On the positive side, digital adoption is firmly established among the core target demographic—young, economically active transport operators and business owners in sub-urban Coimbatore. The primary value propositions of digital lending (speed and convenience) are clearly working, with borrowers successfully bypassing traditional branch bottlenecks.

However, several structural challenges threaten the market position of regional NBFCs like Sakthi Finance. The data revealing that Shriram and Bajaj capture 70% of the digital preference share, compared to Sakthi's 18%, is a critical warning signal. This digital gap aligns perfectly with Reddy & Nair's (2023) findings regarding the technological maturity gap between national and regional NBFCs. The high frequency of language barriers (35%) and UI complexity (30% disagreement on ease of use) indicates that regional players are failing to leverage their primary competitive advantage: local cultural understanding. Furthermore, the persistent fear of data theft (40%) validates Patel & Gupta's (2022) findings on psychological barriers in semi-urban markets. The non-significant inferential results carry a vital strategic implication: Sakthi Finance does not need different marketing campaigns for different age groups; rather, it requires a universally improved, Tamil-first, low-bandwidth optimized digital product that builds trust through transparency.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1 Conclusions

This study provides empirically grounded insights into digital lending effectiveness in sub-urban Coimbatore. Four major conclusions emerge. First, digital lending has successfully penetrated the sub-urban CV financing sector, driven predominantly by the 25–35 age group seeking speed and convenience, proving that traditional branch-dependent models are rapidly losing relevance for this demographic. Second, a stark digital divide exists between national and regional NBFCs. Despite Sakthi Finance's strong local legacy, its digital platform trails significantly behind Shriram and Bajaj in user preference, indicating a failure to translate physical relationships into digital stickiness. Third, the effectiveness of digital platforms is severely hampered by front-end UX issues—specifically the lack of vernacular language support and complex navigation—rather than a lack of desire from borrowers to use digital channels. Fourth, demographic variables do not dictate digital adoption; the barriers are entirely related to platform design, cybersecurity fears, and trust deficits.

8.2 Recommendations

For Sakthi Finance Limited: Prioritize an immediate overhaul of the digital app's front-end, mandating comprehensive Tamil language support and simplifying the UI to cater to self-employed drivers with limited digital literacy. Implement an "Assisted Digital" model where field officers use company tablets to help older transport operators fill out digital forms, combining human touch with digital efficiency. To combat the 40% fear of data theft, integrate visible RBI compliance badges, explicit data privacy declarations, and transparent, itemized cost breakdowns (eliminating hidden GPS or insurance charges) at the e-signature stage to build psychological trust. Optimize the app for low-bandwidth 4G networks prevalent in sub-urban outskirts like Saravanampatti and Eachanari to prevent app crashes during document uploads.

For Regulators and National NBFCs: RBI must ensure strict enforcement of Digital Lending Guidelines regarding transparent fee disclosures. National giants like Bajaj and Shriram should continue leveraging their technological superiority but must invest in localized relationship-building to capture the older demographic that still relies on community trust. For Borrowers: Transport operators should actively compare digital loan offers across NBFCs using aggregator platforms, prioritize using secure networks for financial transactions, and demand complete transparency regarding processing fees before executing e-signatures.



9. LIMITATIONS AND FUTURE SCOPE

This study has several important limitations. The sample size of 102 valid respondents, while adequate for descriptive analysis, may not fully capture the heterogeneity of Coimbatore's massive transport population. The cross-sectional design prevents longitudinal tracking of digital loan repayment behavior and default rates. Data collection via convenience sampling may introduce selection bias, and self-reported data are subject to social desirability bias. The geographical scope is strictly limited to sub-urban Coimbatore, and the rapidly dynamic nature of fintech means app interfaces evaluated today may be updated by the time of publication. Future research should address these limitations through longitudinal studies tracking the actual asset quality of digitally disbursed CV loans versus branch-disbursed loans. Comparative studies across multiple tier-2 and tier-3 cities, and experimental studies comparing the conversion rates of vernacular apps versus English-only apps among transport operators, would provide deeper insights into the future of semi-urban digital lending.

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