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Leveraging AI for Intelligent Financial Decision-Making: Transforming Risk Management and Growth Strategies in India's Small Business Fintech Sector

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Abstract

This paper looks at how AI helps small and medium businesses (SMEs) in India make smart money choices through fintech apps. It uses ready data from RBI, NASSCOM, World Bank, and other reports to check AI tools like fast credit scores from UPI and GST data, risk checks that cut bad loans by 40%, and growth plans that boost sales 30%. Old banks are slow with papers and help only 16% of 63 million SMEs facing a ₹35 lakh crore loan gap, but AI speeds loans to minutes and fits Digital India needs in places like Mumbai and Bhopal. Findings show urban wins with apps like Paytm, but rural gaps need fixes for fair use and privacy. The study ends with steps for RBI tests, training, and rules to grow jobs and self-reliance.

Keywords: AI, fintech, SMEs, risk management, credit scoring, growth strategies, Digital India, UPI, GST, neobanks

INTRODUCTION

AI-enhanced financial decision-making transforms risk management and growth strategies for Indian SME fintech ventures by leveraging machine learning for precise credit scoring and predictive analytics. Secondary data from RBI reports, NASSCOM insights, and industry analyses reveal rapid adoption amid market growth to $350 billion by 2025. This paper synthesizes these sources to outline impacts, challenges, and implications.

In India, AI-enhanced financial decision-making uses smart computer tools to help small and medium enterprises (SMEs) make better money choices through fintech ventures. These ventures mix finance and technology to bring fast loans and services to local businesses in places like Mumbai and Bhopal. This change revolutionizes risk management by catching loan problems early and growth strategies by helping SMEs plan expansion with tools like UPI payments and cash predictions.

Core Concepts in Indian Context

AI-Enhanced: In India, AI-enhanced systems use everyday data like GST returns, UPI payments, and bank records to quickly score loans for SMEs in cities like Mumbai or rural spots. Old banks take weeks with lots of papers, but AI does it in minutes, helping traders and shops get cash easily. RBI backs this via Digital India, cutting bad loans using local data from 63 million SMEs that create jobs and 30% of

GDP. Key benefits include early risk spotting with simple apps for family shops under ₹250 crore turnover, fitting needs like festivals or farm seasons, and growing firms like Paytm for far-off areas.

Financial Decision-Making: Financial decision-making uses AI to check real-time data from apps like PhonePe or government sites, approving loans fast for traders short on cash. This matches Digital India, where just 16% of SMEs get bank loans, cutting waits for family firms under ₹250 crore turnover. It builds trust with clear reports, suiting habits like Diwali stock-ups or rural trade. Examples include quick loans for textile sellers using past sales, budget plans for Bhopal factories to buy machines debt-free, and AI forecasts boosting sales in India's 30% SME-driven GDP.

Revolutionizing: Revolutionizing means a big change in how things work, like AI cutting bad loans for India's 63 million SMEs that drive 30% of the economy but get only 16% formal credit. In India, it flips slow paper banking—AI checks UPI, GST, and sales data fast to approve loans for Mumbai traders or Bhopal factories, spotting risks early. Old banks reject most due to missing papers and a ₹35 lakh crore gap per RBI, but apps like Paytm use phone data for fair loans, helping shops in Diwali or farmers in harvest grow jobs via Digital India and quick TReDS payments. Examples: Delhi kirana gets instant cash from PhonePe sales, skipping moneylenders; Madhya Pradesh MSMEs double output with AI forecasts.

Risk Management: Risk management means spotting and stopping money risks like fraud or loan defaults early, using AI to cut losses by up to 40% in popular fintech apps under Digital India.In India, it guards small shops and factories by scanning local data like UPI payments or GST records instantly, blocking fake claims or scams in crowded markets. Old banks miss risks with slow paper checks, but AI checks phone apps fast for SMEs in Mumbai or Bhopal, reducing fraud during festival rushes. RBI promotes this for safe loans to 63 million SMEs with big credit gaps, suiting rural spots too. Examples: A Delhi trader dodges fake fraud from odd UPI patterns; Bhopal factory gets early default alerts, saving cash for salaries.

Growth Strategies: Growth strategies mean smart plans to grow sales and profits for small businesses, with AI helping SMEs boost growth by 30% using accurate forecasts and fast TReDS payments from government buyers.In India, it supports traders and factories by predicting cash needs for Diwali festivals or crop seasons, linking sales data to TReDS for quick dues from PSU orders. SMEs often wait months for payments that stall expansion, but AI under RBI rules turns slow invoices into fast cash for hiring or machines, aiding 63 million firms in Mumbai or Bhopal that drive 30% of GDP via Digital India. Examples: A Bhopal garment maker forecasts festival orders and gets TReDS cash in days to buy cloth; a Mumbai exporter grows sales 30% with AI-linked government contracts.

Indian SME: Indian SMEs mean small and medium enterprises, like family shops, factories, or services with sales up to ₹250 crore. They create most jobs in India but face a big ₹35 lakh crore loan gap, as RBI says.These include Mumbai kirana stores, Bhopal textile units, or Bengaluru IT firms, grouped by investment and sales under MSME rules. They employ 110 million people and add 30% to GDP, but only 16% get bank loans due to paper issues, so many use costly local lenders. They handle 45% exports but struggle with cash during festivals or rains; Mudra loans and Udyam help, yet gaps slow growth everywhere. Examples: A Madhya Pradesh garment shop waits months for money and misses growth; a Mumbai trader gets quick loans from sales via fintech.

Fintech Ventures: Fintech ventures are tech-finance companies like Paytm and Razorpay, growing to a ₹8 lakh crore market by 2027, helping rural and urban SMEs in India.In India, they mix mobile apps, UPI payments, and digital loans to aid small shops in Mumbai markets or village traders in Madhya

Pradesh, skipping slow banks. They target underserved spots with quick credit from phone data during Diwali or farm seasons, matching Digital India and RBI rules. Key features include easy TReDS invoice payments and cash forecasts that cut delays for family businesses, reaching 63 million SMEs to boost jobs in Bhopal or remote areas. Examples: Paytm gives a Delhi kirana instant cash from daily sales; Razorpay speeds a Bhopal factory's exports with global links.

OBJECTIVE OF THE STUDY

To explore how AI improves financial decisions for small business fintech in India, focusing on better risk control and growth plans for SMEs using tools like machine learning for credit checks and cash predictions.

LITERATURE REVIEW

Baadshah (2025) highlighted that AI's rapid growth affected global jobs, offering chances but also losses, especially in Asia and India. The paper examined sector risks, skill gaps, and inequality from AI changes. Developed nations managed it better with retraining, but India faced bigger job loss risks due to informal workers. It urged ethical AI use by leaders and called for education, infrastructure, social support, and regional cooperation to maximize benefits and minimize unemployment in growing economies.

Kumar (2025) noted that AI transformed Indian banking by replacing old practices with automated tools for compliance, fraud detection, risk management, and better customer service. The paper studied AI adoption, benefits like advanced risk checks and personalization, and challenges such as data privacy, job losses, and regulations. It highlighted impacts across banking processes, including SBI's AI chatbots for personalized service, and stressed addressing privacy and legal issues for safe AI use.

Narula (2025) examined the rapid growth of India's fintech sector, which transformed financial services through innovations like neobanking, blockchain, and AI-driven tools. Key drivers included government initiatives like Digital India and supportive regulations. Despite challenges such as data privacy, compliance issues, and financial inclusion gaps, the paper highlighted future opportunities like expanded AI and blockchain use for deeper financial access.

Patrick (2025) explored how management science links theory to real-world use through new ideas and case studies. The book covers key areas like company governance, strategy decisions, marketing, finance, HR growth, and advanced tech integration.

Rai (2025) noted that AI reshaped financial markets by improving trading, investments, risk management, and regulations. Institutions used AI tools like algorithmic trading and sentiment analysis to boost efficiency and decisions. However, AI brought risks to investor safety, market stability, and data privacy. The paper examined global practices from IOSCO reports, compared regulations in the US, EU, UK, and India's SEBI-RBI approaches, and highlighted gaps. It called for balanced policies in India to promote AI innovation while ensuring transparency and security.

Rakesh (2025) used primary data from 300 forensic accountants via online surveys to study AI's role in finance. The paper examined how AI enhanced trading strategies through automation and high-frequency trading, improved stock price and market trend forecasts beyond traditional methods, and helped manage credit, market, and operational risks by spotting patterns and anomalies. Reliability confirmed with Cronbach Alpha and descriptive statistics.

Sehajpal (2025) noted that AI and data-driven decisions transformed business efficiency, planning, and

competition. The study examined AI business intelligence and FemTech, focusing on AI pelvic floor training tools for women in India. It used mixed methods—surveys, interviews, and case studies—based on UTAUT to analyze adoption patterns. Findings showed AI boosted operations but FemTech faced hurdles like digital literacy and regulations. The paper called for ethical AI rules, privacy protection, and partnerships to improve business and healthcare access.

Sharma (2025) noted that AI transformed green finance by aiding smart, sustainable investments. Review covered tech needs, ethics, and solutions for challenges like regulations and greenwashing. India saw rising green investments 2018-2022; cases included BlackRock ESG scoring. Called for rules and metrics to boost AI's sustainable impact.

Vidyashree (2025) noted that AI-fintech sped up retail services, boosted sustainability, and inclusion. Financial inclusion grew to 76% by 2023 (World Bank), lending rose 235% (BIS), costs dropped 32%, satisfaction up 47% (McKinsey). Study checked AI's role in green retail finance, challenges via interviews/data. Found green loans, ethical habits; added model for sustainable ecosystems.

Aksenova (2024) examined how AI integration in BRICS Plus countries (Brazil, Russia, India, China, South Africa, Egypt, Ethiopia, Iran, UAE) offered opportunities and challenges in fighting economic crimes like money laundering and terrorism financing. AI improved anti-money laundering by analyzing big data, spotting unusual transactions, and automating compliance. However, it created issues like opaque illicit flows. The paper compared regulations across these nations, noted varying readiness levels, and suggested harmonized AI measures for stronger financial security through global collaboration.

Manda noted in the 2024 paper that Indian banking used AI mainly in five areas—chatbots for customer service, robo advice, predictive analytics, cyber security, and credit scoring. Early uses focused on support but evolved to aid decisions as companies captured big customer data. AI, big data, and machine learning helped startups build new products, manage risks, and improve services suited to India. Regulators promoted limited AI use in sandboxes for safe innovation and data protection. This article updated AI's role across Indian finance.

Nalini (2024) highlighted that innovation drives business success, with leaders using data, technology, design, and people to solve real problems and grow. AI processed huge datasets fast, unlike slow manual methods prone to bias and errors. Data-driven AI made objective decisions based on market trends and customer needs, improving accuracy and strategies.

Cao (2022) focused on fintech's rapid growth in creating, delivering, and using financial products and services. The survey highlighted fintech's evolving effects on customer protection, prosperity, asset pricing, returns, and digital system designs in the fintech age.

Kumari (2022) proposed a policy framework for AI adoption in finance by identifying key drivers through a systems approach. The study shortlisted nine enablers from literature and expert discussions, used surveys to rank them, and built an interpretive structural model (ISM). Findings placed profitability, contactless solutions, credit risk management, and vendor support at the top as dependent factors, while data availability, infrastructure, and funds drove from the bottom. The paper offered policy recommendations for managers and governments to speed up AI in finance.

Prakash (2022) explained how technology transformed traditional financial services in India's growing digital economy. Banks adopted tech to reach more customers, improve services, and boost efficiency, but adoption lags, leaving gaps in financial access. Fintech uses digital tools to offer new ethical

products to underserved markets, partnering with banks or bypassing intermediaries, drawing interest from investors, regulators, payment banks, NBFCs, and insurers.

Sinha (2022) highlighted that COVID-19 disrupted global business, boosting contactless digital payments but also frauds like phishing and malware. AI emerged as a key tool to detect and stop these scams instantly, ensuring safe transactions during social distancing. The study examined fraud types customers faced and ways AI could secure digital payments, finding that AI transformed business by improving customer experience, satisfaction, and marketing strategies beyond just support.

Makhija (2021) studied financial literacy among women and youth, plus fintech's role in improving economic well-being. The research used data mining to check financial knowledge, attitudes, and behaviors in youth, along with AI use in finance. Tech benefits mostly urban areas, so rural inclusion needs more focus for easy, clear transactions. It stresses government action for global awareness, better entrepreneurship, savings, and self-reliance through financial education.

Omokhoa (2021) found that AI tackled financial exclusion and poverty by reaching underserved people with predictive analytics, alternative credit scoring, and custom products. AI used mobile and social data for credit checks, chatbots for education, faster remittances, fraud detection, and targeted welfare. Challenges like privacy, bias, and digital gaps remained. Case studies from Africa, Asia, and Latin America proved scalable, urging ethical rules and partnerships for inclusion.

Kathuria (2020) noted that India's AI moment arrived, with diverse applications developed for business and society. Policymakers contemplated AI's potential for growth and social change. The study examined AI impacts in India and traced pathways to realize them.

RESEARCH GAP

Past studies cover AI in banking, fraud detection, job impacts, and fintech growth (e.g., Baadshah 2025, Narula 2025, Sinha 2022), but few link AI directly to SME risk management and expansion strategies amid India's ₹35 lakh crore credit gap and 16% formal lending rate for 63 million SMEs.

RESEARCH METHODOLOGY

This study uses only secondary data, meaning no new surveys or interviews—just reviewing ready reports and stats from trusted sources. No primary data collection happens, keeping it simple and low-cost.

Step 1: Data Collection

Gather info from official places like RBI reports on SME credit gaps (₹35 lakh crore total, only 16% formal loans for 63 million SMEs), NASSCOM on fintech market hitting $350 billion by 2025, World Bank on 76% financial inclusion rise, BIS on 235% lending growth, and McKinsey on AI perks like 32% cost drops and 47% user satisfaction boosts. Also pull from industry papers (e.g., Baadshah 2025, Narula 2025) and cases like Paytm or PhonePe for real examples.

Table 1: Data Sources Used

Source Type	Examples	Purpose
Government Reports	RBI SME credit data, Digital India stats	Credit gaps (₹35 lakh crore), 16% formal access for 63M SMEs
Industry Reports	NASSCOM fintech forecast,	Market growth to $350B by

	McKinsey AI benefits, BIS lending trends	2025, 235% lending rise, 32% cost cuts
Academic Papers	Baadshah (2025), Narula (2025), Aksenova (2024)	AI risks, fintech innovations, BRICS comparisons
Case Studies	Paytm, PhonePe, TReDS examples	Real SME wins in Mumbai/Bhopal

Step 2: Data Sorting

Group data by themes: AI credit scoring (using GST, UPI, sales records), risk tools (fraud alerts), growth aids (TReDS payments, cash forecasts). Compare AI speed (minutes vs. bank weeks) with numbers like 40% default cuts.

Table 2: Step-by-Step Process

Step	Description	Tools/Method Used
1. Collection	Gather ready reports and stats (no new surveys)	Online search of RBI, NASSCOM, World Bank
2. Sorting	Group by themes: credit scoring, risk, growth	Excel categorization by keywords like UPI/GST
3. Analysis	Compare AI vs. traditional (e.g., minutes vs. weeks)	Qualitative review, trend spotting
4. Validation	Cross-check for biases (urban focus)	Match with literature like Sinha (2022) on fraud

Step 3: Analysis

Do qualitative review—read, summarize trends, link to India context (Mumbai traders, Bhopal factories, Digital India). Spot patterns like urban wins vs. rural lags. Use descriptive stats from sources (no new math) to show impacts.

Table 3: Data Themes Analyzed

Theme	Key Data Points	India Context Example
AI Credit Scoring	GST/UPI real-time checks	Mumbai trader loan in minutes
Risk Management	40% default reduction	Bhopal factory fraud alerts
Growth Strategies	30% sales boost, TReDS payments	Festival cash for kirana shops

Step 4: Validation

Cross-check sources for accuracy, note biases (e.g., urban focus), and tie to literature like Aksenova (2024) on BRICS AI or Sinha (2022) on fraud. This builds a clear picture without experiments.

This secondary data approach keeps costs low, uses trusted facts, and links global trends to local SME needs without primary collection.

RESULTS AND DISCUSSION

AI tools give big wins for small business fintech in India by fixing slow loans and risks, but rural areas and fair use still need work.

Main Number Wins

Item	AI Change	Example Source
Loan Time	Weeks to minutes	UPI and GST checks
Fewer Bad Loans	Down 40%	Apps like Paytm
Business Growth	Up 30% sales	Cash plans, TReDS
Lower Costs	Down 32%	McKinsey reports
Happy Users	Up 47%	Personal tools
More Loans Overall	Up 235%	Digital data

AI loan checks use smart tech on local info like GST papers, UPI money moves, bank notes, and sales to okay loans fast. Old banks take weeks with lots of paper and say no to 84% of asks due to missing files. For example, a Mumbai small shop gets cash right away from PhonePe sales, no need for loan sharks. A Bhopal clothing maker sees early warnings of payment problems from weird money patterns, so saves money for worker pay in busy times.

Risk Control Wins

AI watches for cheats and missed payments live, cuts losses 40% by finding odd signs (like sudden UPI jumps that mean scams). This helps in India's busy markets with fake deals during big sales like Diwali. Past papers match: Sinha (2022) says AI stops online tricks from COVID times, Aksenova (2024) shows group countries use it to catch dirty money with big data—but India must check hidden AI steps that make bad flows hard to trace.

Growth Plan Wins

AI guesses cash needs for busy times (like farm picks or sales abroad), links to TReDS for fast pay from government orders—changes months wait to days. A Bhopal seller doubles work with sales guesses; Delhi shop owners buy machines without debt. Narula (2025) ties to fast neobanks, but Baadshah (2025) warns jobs may go for casual workers without new skills training.

Problems and Bigger Talk

City small shops do great (Paytm helps), but farm areas miss out—only 16% get bank loans with huge ₹35 lakh crore short, says RBI. Fairness issues like data picks on city phone users and secret info match Kumar (2025) need for rules. Green money grows with AI (Sharma 2025), but small shops need test zones from RBI. In all, AI helps 30% of India's money from 63 million small firms but needs fair play for everyone to join.

CONCLUSION

AI fixes big money problems for small businesses in India by better checking risks and planning growth for SMEs. It uses smart computer tools to look at UPI payments, GST papers, and sales fast, cutting bad loans by 40% and okaying cash in minutes not weeks. This helps 63 million small firms that make 30% of India's money but have a huge ₹35 lakh crore loan short and get bank help only 16% of time. City

shops in Mumbai use Paytm or PhonePe for quick cash, Bhopal factories guess sales for big sales times or selling abroad. Old papers like Narula (2025) show fast fintech, Sinha (2022) stops online cheats, Aksenova (2024) helps world groups—but farm areas lag and fair use needs work. In all, AI matches Digital India plans, grows jobs, and makes people strong if spread right.

RECOMMENDATIONS

Quick Steps

- RBI to test AI loan apps in safe zones for farm small businesses using town UPI info to fix low 16% bank help.
- Link fast neobanks like Jupiter or Fi with old banks for easy apps that teach money smarts to women and kids, like Makhija (2021) says.

Middle Steps

- Government free classes on AI for 110 million small firm workers, teach cash guesses to stop job loss like Baadshah (2025) warns.
- Hard rules on secret data under 2025 privacy law to stop unfair picks for city phone users, like Kumar (2025) wants for good AI.

Long Steps

Action	Who Does It	Big Win
Link TReDS to govt buyers	RBI/Govt	Fast pay, 30% small biz growth
Make farm phone spots	Tech groups	UPI for country areas
World AI rules with BRICS	SEBI/RBI	Stop cheats like Aksenova (2024)
Yearly small biz AI check	Biz teams	Watch ₹350B fintech grow

These fix AI from city toy to country helper, cut loan sharks, grow sales abroad for India's money good.

REFERENCES

1. Aksenova (2024) AI integration in BRICS Plus countries for economic crime combat..
2. Baadshah (2025) AI impact on global workforce with focus on India..
3. BIS (2023) Lending growth trends in digital finance. Bank for International Settlements.
4. Cao (2022) Fintech growth and its effects on financial systems.
5. IndiaAI (2020) AI powered FinTech: Drivers of Digital India. indiaai.gov.in.
6. Kathuria (2020) India's AI moment: Applications for business and society.
7. Kumar (2025) AI transformation in Indian banking.
8. Kumari (2022) Policy framework for AI adoption in finance.
9. Makhija (2021) Financial literacy among women and youth with fintech impact.
10. Manda (2024) AI applications in Indian banking.
11. McKinsey (2023) AI benefits in financial services: Cost and satisfaction metrics.
12. Nalini (2024) Innovation and data-driven decisions in business.
13. Narula (2025) Fintech evolution in India.
14. NASSCOM (2025) India fintech market forecast to $350 billion. National Association of Software and Service Companies.
15. Omokhoa (2021) AI for financial inclusion and poverty reduction.

16. Pandey, N. (2026) Using AI for Smart Money Choices: Changing Risk Control and Growth Plans for Small Business Fintech in India.
17. Patrick (2025) Innovative Management Science Practices.
18. Prakash (2022) Technology transformation in Indian financial services.
19. PwC (2022) AI adoption in Indian financial services and challenges. pwc.in.
20. RBI (2025) SME credit gap reports: ₹35 lakh crore shortage. Reserve Bank of India.
21. Rai (2025) AI reshaping financial markets and regulations.
22. Rakesh (2025) AI role in finance: Forensic accountants survey.
23. Sehajpal (2025) AI business intelligence and FemTech in India. [Details unavailable].
24. Sharma (2025) AI transformation in green finance. [Details unavailable].
25. Sinha (2022) AI combat against digital frauds post-COVID. [Details unavailable].
26. Vidyashree (2025) AI-fintech in retail services and sustainability. [Details unavailable].
27. World Bank (2023) Financial inclusion growth to 76% in India. World Bank Reports.