



OPEN BANKING AND SME LENDING: INTERNATIONAL EXPERIENCE AND STRATEGIC IMPLICATIONS FOR COMMERCIAL BANKS IN UZBEKISTAN

Ziyoda Rustamjon qizi Salimova

Independent Researcher, Department of Banking

Tashkent State University of Economics

Tel.: +998 94 010 23 40

Email: ziyoda_0108@mail.ru

ORCID:0009-0009-89308688

ABSTRACT

Small and medium-sized enterprises (SMEs) remain credit constrained in many emerging economies because lenders face incomplete information on repayment capacity. Open Banking—customer-authorised sharing of account and transaction data through standardised APIs—can improve the information environment for SME credit assessment. This article examines the conditions under which Open Banking reshapes SME lending and which elements of international experience are transferable to commercial banks in Uzbekistan. The study combines a critical synthesis of peer-reviewed research (primarily 2021–2026), structured comparative institutional analysis of six jurisdictions (United Kingdom, European Union, United States, Australia, India and Brazil), and a qualitative country-case assessment of Uzbekistan. Causal evidence from the United Kingdom shows that SME-focused data-sharing raised the probability of new lending relationships by approximately 1.4 percentage points, especially with non-bank lenders. Complementary work indicates that Open Banking can ease collateral constraints, while theory shows welfare effects depend on competitive structure. India’s Account Aggregator and Brazil’s Open Finance frameworks illustrate consent-based architectures embedded in digital public infrastructure. In Uzbekistan, MSMEs account for over 90% of businesses and around 55% of GDP, while a financing gap of approximately USD 6 billion persists. The Central Bank has placed Open Banking within its National FinTech Strategy 2026–2030, with open-API implementation evolving toward early 2027. The article develops an integrated framework distinguishing an information channel from a competition channel under explicit governance conditions, specifies transferability conditions, and derives strategic implications and a staged roadmap for commercial banks. Effectiveness remains conditional on consent, data quality, interoperability, cybersecurity and responsible AI governance.

KEY WORDS

Open Banking; Open Finance; SME lending; information asymmetry; alternative data; artificial intelligence; cash-flow-based credit; financial inclusion; Uzbekistan; commercial banking strategy.

Introduction

SMEs occupy a central position in employment, innovation and private-sector development. In many emerging markets they account for the majority of firms and a substantial fraction of GDP and jobs. Yet access to formal bank credit remains limited. The core difficulty is informational: lenders observe incomplete or noisy signals of repayment capacity, especially when firms lack long credit histories, standardized financial statements or fixed collateral [8,9]. Higher interest rates cannot fully clear the market because they intensify adverse selection and moral hazard. As a result, potentially viable firms remain credit rationed.

Digital finance has altered the cost of collecting and processing information. FinTech platforms automate underwriting, alternative data expand the observable set of firm characteristics, and machine-learning methods improve prediction [10,11]. These advances, however, remain constrained by data access. A bank may know its own customers well while remaining largely uninformed about activity conducted through other institutions. The resulting fragmentation of financial footprints limits both screening and competition.

Open Banking changes the institutional allocation of control over financial data. Under customer consent, regulated third parties can retrieve account and transaction information via standardized application programming interfaces (APIs). The economic implication is that information previously locked inside incumbent banks becomes portable. For SMEs, transaction histories can reveal revenue stability, expense patterns, liquidity and payment regularity—signals that are often more informative than static collateral values for firms whose principal assets are intangible or working-capital intensive. Recent empirical work provides causal evidence under specific institutional conditions. Babina et al. [1] document that Open Banking policies across 49 countries stimulate fintech entry and that the United Kingdom's SME-focused Commercial Credit Data Sharing (CCDS) policy increased the formation of new lending relationships, especially with non-bank lenders. Yu [2] shows that the same institutional discontinuity raised the probability that eligible firms pledge receivables and inventory as collateral, thereby relaxing collateral constraints. Theoretical analysis by He, Huang and Zhou [3] demonstrates that the competitive and welfare effects of data sharing are ambiguous: Open Banking can level the playing field or, under certain conditions, over-empower data-intensive entrants.

Uzbekistan presents a high-stakes emerging-market case. According to the World Bank [4], MSMEs represent more than 90% of businesses, about 75% of employment and around 55% of GDP. Estimated MSME credit demand is USD 13 billion and the financing gap approximately USD 6 billion; only 10% of small and 16% of medium-sized enterprises report access to loans. Concurrently, digital payments and banking services are expanding, and the Central Bank of Uzbekistan has incorporated Open Banking and a regulatory sandbox into its National Strategy for the Development of Financial Technologies 2026–2030 [5]. According to the Central Bank of the Republic of Uzbekistan Annual Report 2025, banks disbursed UZS 131.2 trillion in loans to micro, small and medium-sized businesses in 2025—a 42% increase over the previous year—while mobile and card-based digital transactions continued to grow rapidly [20].

The central research question is therefore: Under what conditions can Open Banking transform SME lending, and which elements of international Open Banking experience can be strategically adapted by commercial banks in Uzbekistan? Five subsidiary questions structure the analysis:

RQ1. How does Open Banking affect the availability and quality of information used in SME credit assessment?

RQ2. Through which mechanisms can it reduce information asymmetry?

RQ3. What does international evidence reveal about the data-sharing–SME lending nexus, and under what institutional conditions?

RQ4. What institutional, regulatory, technological and organizational barriers constrain implementation in Uzbekistan?

RQ5. What strategic model should commercial banks adopt, and under which governance conditions is value creation most likely?

The article's contributions are fourfold. First, it reconceptualizes Open Banking as an information infrastructure for SME credit assessment rather than merely a payments or competition policy. Second, it integrates data access, alternative data and AI into a single analytical architecture for cash-flow-based lending and distinguishes an information channel from a competition channel under explicit governance conditions; it also derives testable propositions. Third, it translates comparative institutional lessons into a concrete strategic framework and implementation roadmap for Uzbek commercial banks, while specifying transferability conditions. Fourth, it identifies the conditions under which Open Banking is more or less likely to improve SME lending outcomes in an emerging-market setting with still-developing digital footprints.

2. Literature Review

2.1 SME Financing Constraints and Information Asymmetry

Access to external finance remains a persistent constraint for SMEs, particularly in emerging and developing economies. The financing problem is rooted not only in the cost of capital but in the difficulty lenders face in assessing the risk and repayment capacity of relatively opaque firms. Compared with larger corporations, SMEs are more likely to have shorter operating and credit histories, less standardized financial reporting, limited collateral and greater dependence on relationship-based information [9].

The theoretical foundation is provided by the credit-rationing model of Stiglitz and Weiss [8]. When lenders cannot perfectly distinguish between borrowers with different risk profiles, an increase in the interest rate does not necessarily restore market equilibrium. Higher rates may attract riskier borrowers and induce existing borrowers to undertake riskier projects, generating adverse selection and moral hazard. Consequently, lenders may rationally restrict the quantity of credit rather than increase its price. Collateral provides one traditional mechanism for mitigating these problems, yet it can also create a structural exclusion mechanism: young, innovative or service-oriented SMEs may generate sufficient operating cash flows while possessing relatively few tangible assets that can be pledged as security. Digital technologies can reduce the operational cost of collecting and processing borrower information, but technology alone does not resolve information asymmetry. The effectiveness of digital credit assessment depends on the availability, quality and portability of relevant data. Fragmented information can therefore reproduce, rather than eliminate, the informational limitations of traditional lending. The literature thus suggests a transition from a predominantly collateral- and document-based lending logic toward a potentially more information- and cash-flow-based lending architecture.

2.2 Relationship Banking, FinTech and Alternative Data

Traditional SME lending has historically relied on financial statements, collateral, credit histories and information accumulated through repeated interactions. Berger and Udell [12] conceptualize

relationship lending as a financing approach in which banks rely on soft information concerning the quality of management, business reputation and local market conditions. The production of soft information is labour-intensive and often difficult to codify and transfer, so its value may remain concentrated within the incumbent bank.

FinTech and Open Banking are complementary rather than interchangeable. FinTech changes how information is processed; Open Banking changes which information is accessible and to whom. Conceptually, Open Banking is not equivalent to alternative data. Open Banking is an institutional mechanism that alters the accessibility and portability of financial account and transaction data under customer consent. Alternative data—including bank-account transactions once they become portable, payment flows, tax records, accounting information and e-commerce activity—are the informational inputs that may subsequently be used in credit assessment [10,25,29]. Without an institutional framework that enables authorised, interoperable access, alternative data remain siloed. Without analytical capacity and local validation, portable data do not automatically improve credit decisions [27,31].

At the same time, alternative data and AI introduce model risk, fairness and explainability challenges. Predictive relationships observed in one market may not transfer to another [27]. Algorithmic systems can generate systematically less favourable outcomes for thin-file or less digitised borrowers [31]. Recent evidence on fintech and big-tech credit shows that non-traditional data and machine learning expand the feasible set of borrowers but can also alter screening intensity and risk composition [25,26,28,29,30]. The distributional effects are therefore ambiguous: richer information may enable assessment of thin-file SMEs, while firms with weak digital footprints may become relatively less visible to algorithmic systems. This issue is particularly relevant in emerging markets where digitalisation is uneven [34,35].

2.3 Open Banking, Open Finance and SME Lending

Open Banking enables customers to authorize regulated third parties to access specified financial information via standardized APIs. Its economic significance lies in the portability of economically relevant information. This mechanism operates through two analytically distinct channels. The information channel improves the information available for screening and monitoring. The competition channel operates through the portability of information between providers, lowering informational entry barriers for non-incumbent lenders.

The strongest causal evidence comes from the United Kingdom. Babina et al. [1] find that the SME-focused data-sharing regime increased the probability of establishing new lending relationships by approximately 1.4 percentage points, with a particularly pronounced effect for non-bank lenders. Yu [2] reports an increase in the probability that eligible firms pledge receivables and inventory as collateral. Theoretical research by He, Huang and Zhou [3] shows that competitive effects can be ambiguous: reducing information asymmetry can facilitate entry, but data advantages can also become concentrated. Complementary platform-level evidence suggests that open-banking access can expand the borrower pool while affecting screening accuracy and contract terms [18]; institutional analyses likewise link data portability to competitive dynamics in credit markets [32].

Evidence from emerging markets is primarily institutional. India's Account Aggregator framework integrates consent-based financial-data sharing with broader digital public infrastructure, including GST Network information, and is linked by the Reserve Bank of India to cash-flow-based lending for

MSMEs [13,14,38]. Brazil's Open Finance framework emphasises progressive expansion, consent, data quality, security, privacy and interoperability [15].

In emerging markets the depth of firms' digital footprints, data quality and interoperability, analytical capacity of financial institutions, coverage of credit-information systems, institutional trust and the transferability of AI models differ substantially from mature systems [33,34,35]. Open Banking may increase the quantity of accessible information without generating a sufficiently complete picture of borrower risk if cash-based or fragmented activity remains significant. The same architecture can produce different outcomes depending on the maturity of complementary institutions. A distinction between adoption and effectiveness is therefore essential: a country may establish an Open Banking framework and enable API-based sharing without generating substantial improvements in SME lending [18,32].

2.4 Research Gap

Causal evidence linking data sharing to lending outcomes is concentrated in the United Kingdom. Systematic institutional comparisons from the perspective of SME lending are limited. The literatures on Open Banking, alternative data, AI-based scoring and cash-flow lending are insufficiently integrated. Emerging-market transferability conditions are under-specified, and a country-specific integrated framework for Uzbekistan is largely absent. The key unresolved issue is under what institutional and technological conditions data can be converted into economically useful information for SME credit decisions and into greater contestability of lending relationships.

3. Methodology

This study employs an analytical and theory-building design that combines critical literature synthesis, structured comparative institutional analysis of six jurisdictions, descriptive assessment of Uzbekistan, and conceptual modelling. It does not estimate original causal effects with firm-level microdata for Uzbekistan.

Jurisdiction selection followed purposive comparative criteria. The six cases—United Kingdom, European Union, United States, Australia, India and Brazil—were chosen to maximise variation along four dimensions relevant to SME lending: (i) regulatory architecture (mandatory versus market-led or hybrid); (ii) maturity and scope of data-sharing regimes (narrow Open Banking versus broader Open Finance or cross-sector Consumer Data Right); (iii) availability of causal or quasi-experimental evidence on lending outcomes; and (iv) relevance to emerging-market institutional conditions. The United Kingdom was included because it provides the strongest available causal evidence on SME lending relationships under data-sharing rules [1,2]. The European Union represents a regulatory and interoperability-oriented model under PSD2 and the evolving financial-data-access framework [17]. The United States illustrates a more market-oriented trajectory under the CFPB's Section 1033 personal financial data rights framework, whose implementation remains subject to ongoing litigation and rule reconsideration [16]. Australia was selected for its cross-sector Consumer Data Right with formal accreditation of data recipients and explicit small-business coverage [22,23]. India and Brazil were included as the most advanced large emerging-market architectures that embed consent-based financial-data sharing within broader digital public infrastructure and explicitly link data portability to MSME cash-flow lending [13–15].

Singapore, China and Canada were considered but excluded from the core comparison. Singapore's open-banking approach is primarily voluntary and industry-led rather than a comprehensive mandatory regime focused on SME credit; China's data-governance and fintech environment is institutionally distinct and less transferable under customer-consent portability principles; Canada's open-banking framework remained at an earlier design stage relative to the six selected cases during the study period. The comparative analysis therefore prioritises jurisdictions that jointly cover regulatory design variation, empirical evidence on SME outcomes, and emerging-market applicability.

Source selection combined peer-reviewed empirical and theoretical papers (primarily 2021–2026), official regulatory and central-bank documents, and institutional reports from the World Bank, Asian Development Bank and national authorities. Inclusion criteria for academic sources required direct relevance to Open Banking/Open Finance, SME or small-business lending, information asymmetry, alternative data or AI-based credit assessment, and methodological transparency. Regulatory sources were prioritised when they defined access rights, consent architecture, API standards, accreditation or liability rules. The literature search covered major finance journals, SSRN working papers subsequently published or revised in 2025–2026, and official websites of the FCA, European Commission, CFPB, ACCC/Treasury (Australia), Reserve Bank of India, Banco Central do Brasil and the Central Bank of Uzbekistan. Transferability assessment distinguished principles that travel across institutional settings (customer-authorised portability, interoperable APIs, transparent consent, data governance) from mechanisms that require local adaptation (scoring models, regulatory sequencing, complementary digital-public-infrastructure linkages).

Uzbekistan readiness is assessed qualitatively across eight dimensions using official statistics, World Bank and ADB materials, and 2025–2026 policy documents. The study develops three theoretically derived propositions. Limitations include the absence of firm-level Open Banking and loan-performance data for Uzbekistan, differences in institutional context and research design across international studies, the qualitative nature of the readiness assessment, and the still-evolving character of Open Banking frameworks (including the status of Section 1033 implementation in the United States).

4. International Experience and Transferability

Open Banking has not developed according to a single institutional model. Jurisdictions differ in regulatory intervention, data scope, consent organization, API standardization and the roles of banks, non-banks and technology providers.

Table 1. Comparative overview of Open Banking / Open Finance models

Jurisdiction	Regulatory model	Data architecture	SME relevance	Main lesson	Transferability to UZ
United Kingdom	Regulatory-led Open Banking	Customer-authorized account data via standardized APIs	Strongest causal evidence on new SME lending relationships	Data portability reduces informational barriers	High for principles; conditional for implementation
European Union	Regulatory & interoperability-oriented (PSD2 → Open Finance)	PSD2-based with movement toward broader Open Finance	Strong basis for data portability and competition	Interoperability and consumer protection are central	High for regulatory principles; gradual adaptation
United States	Market-oriented + federal rules (Section 1033)	Consumer-authorized access to covered financial data	Potential for competition and alternative underwriting	Data rights strengthen contestability	Moderate; institutional structure differs
Australia	Cross-sector Consumer Data Right	Standardized framework with accredited recipients	Applicable to consumers and small businesses	Accreditation, privacy and security integrated	High for governance mechanisms
India	Regulatory-led digital public infrastructure (Account Aggregator)	Consent-based APIs; integration with GSTN	Highly relevant to cash-flow-based MSME lending	Most powerful when integrated with wider digital infrastructure	High for emerging-market architecture; local adaptation needed
Brazil	Central-bank-led Open Finance	Progressive expansion of data and service sharing	Supports information, competition and access	Phased implementation and strong governance	High for phased approach; institutional adaptation required

Source: Author's synthesis based on official regulatory sources and the academic literature.

Official sources underpinning Table 1 include: for the United Kingdom, the empirical literature on CCDS and Open Banking outcomes together with FCA open-finance materials [1,2,24]; for the European Union, the European Commission's proposed financial-data-access framework (FIDA), the PSD2 lineage and EBA implementation reporting [17,37]; for the United States, the CFPB's Personal Financial Data Rights rule implementing Section 1033, noting that enforcement remains subject to litigation and ongoing rule reconsideration as of 2026 [16]; for Australia, the Consumer Data Right administered by Treasury and the ACCC, including accreditation of data recipients and expansion to non-bank lenders [22,23]; for India, Reserve Bank of India documentation on the Account Aggregator framework, GSTN integration and subsequent updates [13,14,38]; and for Brazil, Banco Central do Brasil Open Finance regulation and data-sharing principles [15].

The most transferable elements are institutional principles rather than national models: customer-controlled data portability, standardised and interoperable APIs, transparent and revocable consent, clear responsibilities for data holders and recipients, strong cybersecurity, reliable data quality and mechanisms supporting fair access. Credit-scoring models developed in mature digital markets, regulatory structures designed for the EU, US or Australia, and the exact implementation sequences of India and Brazil cannot be transferred directly. The comparative evidence supports a conditional transferability model. This reading is consistent with emerging-market policy assessments that emphasise complementary institutions—credit information, digital identity, data protection and analytical capacity—rather than API connectivity alone [33,34,35,36].

5. Uzbekistan: Institutional and Digital Readiness

According to the World Bank [4], MSMEs account for more than 90% of businesses in Uzbekistan, approximately 75% of employment and around 55% of GDP. Access to finance remains constrained: only about 10% of small enterprises and 16% of medium-sized enterprises report access to loans; estimated MSME credit demand reaches approximately USD 13 billion and the financing shortfall is around USD 6 billion. More than one-third of MSMEs lack bank accounts and fewer than 30% of sales are conducted electronically. Women-led businesses own nearly one-third of registered MSMEs but receive only about 14% of MSME loans.

Digital payments provide a favourable foundation. According to a Central Bank of Uzbekistan financial inclusion survey conducted with Asian Development Bank support, the share of adults making or receiving at least one digital payment rose from 39% in 2021 to approximately 72% in 2025; separately, about 57% of payments were reported as cashless by mid-2026 [7,19]. The unified UzQR payment standard took effect on 1 July 2026. Nevertheless, the existence of transaction data does not automatically imply that these data are standardized, interoperable or accessible for credit assessment across institutions.

5.1 Recent Policy and Institutional Developments (2025–2026)

Presidential Resolution No. PP-359 of 27 November 2025 set binding targets for the development of financial technologies, including the introduction of an open banking system ensuring secure and standardised data exchange between banks, payment organisations and fintech market participants, with implementation evolving toward 2027 [6,7]. The National Strategy for the Development of Financial Technologies for 2026–2030, prepared under this resolution, places Open Banking and a regulatory sandbox among its core pillars [5]. Targets for 2030 include USD 1 billion of foreign investment into fintech, more than 200 licensed market participants, 100 incubated startups and more than 5,000 trained professionals.

As of August–September 2026, the Central Bank has indicated that open APIs—under which commercial banks will be obliged to provide customer data access to authorized fintechs—are being prepared for launch around early 2027, reflecting an evolving implementation timetable [7]. Governor Timur Ishmetov has publicly linked Open Banking to intensified competition: fintechs are expected to enter traditional banking product markets with specialized offerings, forcing banks either to compete or to acquire (or be acquired by) successful startups. Parallel infrastructure work includes a national payment switch, cloud infrastructure and cross-border interoperability discussions.

The World Bank's FINGROW project (approved December 2025: USD 100 million loan plus USD 5 million grant) aims to improve access to finance for approximately 7,000 MSMEs by 2030, with a focus on women- and youth-led businesses [4]. These developments create a concrete window for commercial banks to prepare data, consent, cybersecurity and analytical capabilities ahead of mandatory open API obligations.

Concrete market and policy signals from 2026 further illustrate the transition. At the inaugural Silk Road Finance & Technology Forum (Tashkent, 24–26 August 2026), organised by the Central Bank of Uzbekistan together with the Global Finance & Technology Network, Open Banking was designated one of five strategic pillars alongside digital payments, digital assets, cross-border finance and AI [5,7,39]. In parallel, a national digital financial platform for SME lending was mandated under presidential instructions: entrepreneurs can submit a single online loan application and receive competing offers from multiple banks, with firm-level data drawn from the Digital Government system supplied to banks free of charge until mid-2027; an AI-based alternative scoring model incorporating business activity, utility payments, turnover and tax records is scheduled for introduction on the same platform from 1 December 2026 [21,40]. These policy measures create an institutional pathway for multi-bank data use and alternative scoring ahead of mandatory open-API obligations. Although full open-API data sharing remains scheduled for early 2027 and publicly reported firm-level pilot results on pure Open-Banking-based cash-flow lending are not yet available, the digital lending platform and related initiatives constitute early operational steps toward the information-channel architecture discussed in this article and create a practical test-bed for the governance and analytical capabilities required once mandatory data portability is activated.

5.2 Readiness Assessment

Table 2. Qualitative readiness assessment for Open Banking-based SME lending in Uzbekistan

Dimension	Assessment	Analytical interpretation
SME financing demand	High	Large unmet financing needs (≈USD 6 bn gap) create strong demand for improved credit assessment.
Digital banking and payments	Medium–High	Digital-payment adoption 72% (2025); UzQR live from July 2026; expanding mobile footprint.
Transaction-data availability	Emerging–Medium	Data generation is increasing, but coverage and usability remain uneven across SMEs.
API / Open Banking infrastructure	Emerging	PP-359 mandates open banking; open APIs targeted for early 2027; technical foundations developing.
Regulatory framework	Emerging–Medium	National FinTech Strategy 2026–2030 and regulatory sandbox in place; detailed rules evolving.
Data protection and cybersecurity	Medium	Existing safeguards provide a foundation; expanded third-party access requires stronger operational governance.
Credit-information infrastructure	Medium	Existing mechanisms can support Open Banking; transaction data can add dynamic information.
AI and analytics capability	Emerging	Potential is significant; local data, model validation and specialist capacity require further development.

Source: Author's qualitative assessment based on international comparative analysis, official sources and 2025–2026 policy developments.

Financing demand and digitalization are developing faster than the institutional architecture required to convert financial data into portable credit information. The principal short-term priority for banks is to establish reliable infrastructure, consent mechanisms, data-quality controls and analytical capacity ahead of the expected open API launch.

6. Conceptual Framework and Research Propositions

The economic value of customer-authorized financial data depends on whether these data can be integrated with other relevant information, processed through appropriate analytical tools and incorporated into lending decisions under adequate governance. The proposed framework consists of five sequential layers: (1) data access, (2) data integration, (3) analytical processing, (4) credit decision-making, and (5) continuous portfolio management.

Two mechanisms operate between data portability and lending outcomes. The information channel improves the information available for screening and monitoring. The competition channel reduces the informational disadvantage of lenders that lack an established relationship with the SME. Governance conditions—consent, data quality, interoperability, cybersecurity, privacy, model validation, fairness and explainability—moderate both channels.

Proposition 1 (Information Channel). Conditional on sufficient digital transaction footprints, reliable data and interoperable access mechanisms, Open Banking is expected to improve the information available for SME credit assessment and thereby reduce lenders' reliance on collateral as a substitute for incomplete borrower information.

Proposition 2 (Competition Channel). Conditional on non-discriminatory data access and effective customer consent, Open Banking can reduce informational barriers to entry and increase the ability of non-incumbent lenders to establish new SME lending relationships.

Proposition 3 (Governance Conditionality). The positive effects of Open Banking on SME lending are conditional on effective data governance, including meaningful consent, adequate data quality, cybersecurity, interoperability, and appropriate standards for AI model validation, fairness and explainability.

7. Strategic Implications for Commercial Banks in Uzbekistan

Open Banking should be approached as a transformation of the SME lending process rather than a stand-alone technology project. Banks should move progressively from predominantly document- and collateral-oriented assessment toward a hybrid cash-flow-based model. Customer-authorized access can partially reduce the informational disadvantage of new lenders and support digital pre-approved offers. Integration with alternative data and AI can support risk-based pricing and dynamic credit limits, introduced first through controlled pilots. Updated transaction information can strengthen post-origination monitoring and early-warning systems.

A single automated model is unlikely to suit all SMEs. Banks should consider differentiated pathways for data-rich, moderately digitalized and data-poor firms. Open Banking must be integrated with existing CRM, credit-risk and digital-channel infrastructure so that analytical indicators trigger defined operational workflows.

The recommended five-stage progression is: (1) Data foundation—standardized APIs, data definitions, consent mechanisms and secure access; (2) Data integration—connect authorized banking data with relevant internal and external sources; (3) Analytical capability—develop and locally validate AI/ML models; (4) Digital lending—risk-based pricing, differentiated limits and increasingly automated decisions for suitable segments; (5) Continuous finance—transaction monitoring, early-warning systems, dynamic limits and proactive financial services. Given the expected open API launch in early 2027, stages 1–3 should be prioritized in 2026–early 2027.

8. Risks, Governance and Implementation Roadmap

Key risks include privacy and inappropriate data use, cybersecurity, poor data quality, limited interoperability, algorithmic bias and opacity, third-party and concentration risk, and residual regulatory uncertainty. Consent should be treated as an ongoing control mechanism. Data-quality controls should precede incorporation into automated decisions. API security should be integrated into existing operational-risk frameworks. Model governance should include validation, fairness testing, explainability and human oversight. Third-party risk management is essential as dependence on external providers grows.

Table 3. Five-stage implementation roadmap for commercial banks

Stage	Objective	Key actions	Main KPIs	Preconditions
1. Infrastructure	Secure data connectivity	API architecture, data standards, consent management, cybersecurity	API availability; data-quality rate	Regulatory clarity; security standards
2. Data Integration	Broader SME information base	Integrate authorized banking and relevant alternative data	Share of applications using integrated data	Interoperability; legal basis
3. Analytics	Convert data into risk information	Develop and locally validate AI/ML models	Model performance; override rate; validation results	Local data; model governance
4. Digital Lending	Apply analytics to credit decisions	Cash-flow assessment, risk-based pricing, differentiated limits	Decision time; approval rate; first-time approval	Validated models; controlled pilots
5. Continuous Finance	Dynamic SME risk management	Continuous monitoring, early warnings, proactive offers	Early-warning performance; portfolio quality; retention	Stable data flows; operational integration

Source: Author's proposed implementation roadmap.

9. Discussion and Conclusion

Open Banking should be understood as a transformation of the information environment in which lending decisions are made. The information channel improves the set of borrower information available for screening and monitoring; the competition channel reduces informational barriers that protect incumbent lenders. Institutional design is a critical mediator. For Uzbekistan, the combination of substantial SME financing needs, rapidly developing digital infrastructure, the FINGROW programme, Presidential Resolution PP-359 and the forthcoming open API obligation creates a concrete window for action. Digitalization of payments is not equivalent to Open Banking readiness;

the principal challenge is to establish the institutional and technological mechanisms that turn existing digital data into trusted credit information.

The theoretical contribution of the study is integrative rather than paradigmatic. It does not claim a new theory of Open Banking. Instead, it connects the information-asymmetry tradition, relationship lending, alternative-data analytics and competition effects within a single framework that distinguishes an information channel from a competition channel and subjects both to explicit governance conditionality. The empirical contribution is secondary and international: the article synthesises causal UK evidence and institutional emerging-market architectures rather than estimating new microeconomic effects for Uzbekistan. The contextual contribution lies in mapping these mechanisms onto Uzbekistan's 2025–2026 policy sequence—FinTech Strategy, open-API preparations, the national digital lending platform and AI scoring—and in specifying transferability conditions for commercial banks. Managerial implications follow directly: banks should prioritise data infrastructure, consent and local model validation before scaling automated cash-flow lending.

No single institutional model can be transferred directly. The most transferable principles are customer-controlled data portability, interoperable technical standards, transparent and revocable consent, clear allocation of responsibilities, data-quality requirements, cybersecurity and responsible governance of third-party access. Commercial banks are recommended to follow a gradual transition: data infrastructure → integration → analytical capability → digital lending → continuous finance, with stages 1–3 prioritized before the expected early-2027 open API launch.

Ultimately, effectiveness should not be evaluated by the number of APIs or exchanged records alone. Economic value depends on whether trusted, customer-authorized data can be transformed into better credit decisions, broader and fairer access to finance, more effective competition and sustainable SME lending, while maintaining privacy, cybersecurity, data quality and responsible AI governance.

References

1. Babina, T., Bahaj, S., Buchak, G., De Marco, F., Foulis, A., Gornall, W., Mazzola, F. and Yu, T. (2025), "Customer data access and fintech entry: Early evidence from open banking", *Journal of Financial Economics*, Vol. 169, Article 103950, available at: <https://doi.org/10.1016/j.jfineco.2024.103950>
2. Yu, T. (2026), "Data as collateral: Open banking for small business lending", Working paper, SSRN, available at: <https://ssrn.com/abstract=5147405> (last revised 30 March 2026)
3. He, Z., Huang, J. and Zhou, J. (2023), "Open banking: Credit market competition when borrowers own the data", *Journal of Financial Economics*, Vol. 147 No. 2, pp. 449–474, available at: <https://doi.org/10.1016/j.jfineco.2022.12.003>
4. World Bank (2025), "Improved access to finance to help 7,000 businesses in Uzbekistan grow and create jobs (FINGROW)", Press release, 15 December, available at: <https://www.worldbank.org/en/news/press-release/2025/12/15/improved-access-to-finance-to-help-7000-businesses-in-uzbekistan-grow-and-create-jobs>
5. Central Bank of the Republic of Uzbekistan (2026), National Strategy for the Development of Financial Technologies for 2026–2030, Tashkent, available at: <https://cbu.uz/en/fintech/strategy/>
6. President of the Republic of Uzbekistan (2025), Resolution No. PP-359 of 27 November 2025 "On measures for the further development of the sphere of financial technologies in Uzbekistan", Tashkent

7. Central Bank of the Republic of Uzbekistan (2026), Statements and materials related to open-API preparations and the Silk Road Finance & Technology Forum, Tashkent; see also IntelliNews (2026), “Build it, prove it, sell it: inside Uzbekistan’s state-led fintech experiment”, 5 September
8. Stiglitz, J.E. and Weiss, A. (1981), “Credit rationing in markets with imperfect information”, *American Economic Review*, Vol. 71 No. 3, pp. 393–410
9. Beck, T. and Demirgüç-Kunt, A. (2006), “Small and medium-size enterprises: Access to finance as a growth constraint”, *Journal of Banking & Finance*, Vol. 30 No. 11, pp. 2931–2943
10. Berg, T., Burg, V., Gombović, A. and Puri, M. (2020), “On the rise of fintechs: Credit scoring using digital footprints”, *Review of Financial Studies*, Vol. 33 No. 7, pp. 2845–2897
11. Thakor, A.V. (2020), “Fintech and banking: What do we know?”, *Journal of Financial Intermediation*, Vol. 41, Article 100833
12. Berger, A.N. and Udell, G.F. (2002), “Small business credit availability and relationship lending: The importance of bank organisational structure”, *Economic Journal*, Vol. 112 No. 477, pp. F32–F53
13. Reserve Bank of India (2022), Inclusion of Goods and Service Tax Network (GSTN) as a Financial Information Provider under the Account Aggregator Framework, Mumbai
14. Reserve Bank of India (2024), “Account Aggregator framework and cash-flow-based lending”, *Financial Awareness Message* 24, Mumbai
15. Banco Central do Brasil (2025), Open Finance: Regulation and data-sharing principles, Brasília
16. Consumer Financial Protection Bureau (2024), Personal Financial Data Rights (Section 1033), 12 CFR Part 1033; subsequent litigation and ANPR reconsideration status as of 2025–2026, Washington, DC
17. European Commission (2023), Proposal for a Regulation on a framework for Financial Data Access (FIDA), Brussels
18. Xiong, R. (2026), “Open banking and fintech lending: Evidence from a crowdfunding platform”, Working paper, SSRN, available at: <https://ssrn.com/abstract=5046894> (last revised 8 January 2026)
19. Central Bank of the Republic of Uzbekistan and Asian Development Bank (2025), Financial inclusion survey: digital payment adoption, Tashkent (results reported as a rise from 39% in 2021 to 72% in 2025)
20. Central Bank of the Republic of Uzbekistan (2026), Annual Report 2025, Tashkent, available at: <https://cbu.uz/en/publications/annual-report/> (MSME loans UZS 131.2 trillion; +42%)
21. President of the Republic of Uzbekistan (2026), Official materials on the digital financial platform for SME lending and AI-based alternative scoring (from 1 December 2026), available at: <https://president.uz>
22. Australian Competition and Consumer Commission (2026), The Consumer Data Right – banking and non-bank lenders sectors, Canberra, available at: <https://www.accc.gov.au/by-industry/banking-and-finance/the-consumer-data-right>
23. Australian Government Treasury and Data Standards Body (2025–2026), Consumer Data Right Rules and Data Standards; expansion to non-bank lenders (product data from July 2026; consumer data from November 2026), Canberra
24. Financial Conduct Authority (2026), Open finance roadmap, London, available at: <https://www.fca.org.uk>

25. Cornelli, G., Frost, J., Gambacorta, L., Rau, P.R., Wardrop, R. and Ziegler, T. (2023), “Fintech and big tech credit: Drivers of the growth of digital lending”, *Journal of Banking & Finance*, Vol. 148, Article 106742, available at: <https://doi.org/10.1016/j.jbankfin.2022.106742>
26. Frost, J., Gambacorta, L., Huang, Y., Shin, H.S. and Zbinden, P. (2019), “BigTech and the changing structure of financial intermediation”, *Economic Policy*, Vol. 34 No. 100, pp. 761–799
27. Gambacorta, L., Huang, Y., Qiu, H. and Wang, J. (2024), “How do machine learning and non-traditional data affect credit scoring? New evidence from a Chinese fintech firm”, *Journal of Financial Stability*, Vol. 73, Article 101284, available at: <https://doi.org/10.1016/j.jfs.2024.101284>
28. Philippon, T. (2019), “On fintech and financial inclusion”, NBER Working Paper No. 26330, Cambridge, MA
29. Jagtiani, J. and Lemieux, C. (2019), “The roles of alternative data and machine learning in fintech lending: Evidence from the LendingClub consumer platform”, *Financial Management*, Vol. 48 No. 4, pp. 1009–1029
30. Di Maggio, M. and Yao, V. (2021), “Fintech borrowers: Lax screening or cream-skimming?”, *Review of Financial Studies*, Vol. 34 No. 10, pp. 4565–4618
31. Fuster, A., Goldsmith-Pinkham, P., Ramadorai, T. and Walther, A. (2022), “Predictably unequal? The effects of machine learning on credit markets”, *Journal of Finance*, Vol. 77 No. 1, pp. 5–47
32. Biancotti, C. and Camussi, S. (2024), “Open banking and competition: An empirical assessment”, *Bank of Italy Occasional Papers*, Rome
33. OECD (2023), *Open Finance Policy Considerations*, OECD Business and Finance Policy Papers, No. 22, OECD Publishing, Paris, available at: <https://doi.org/10.1787/19efc52e-en>
34. World Bank (2022), *Open Banking and Open Finance: Policy Considerations for Emerging Markets and Developing Economies*, Washington, DC, available at: <https://documents.worldbank.org>
35. CGAP (2023), *Open Finance and the Digital Transformation of Financial Inclusion*, Consultative Group to Assist the Poor, Washington, DC, available at: <https://www.cgap.org>
36. Bank for International Settlements (2024), *Annual Economic Report 2024*, Chapter on fintech and the digital transformation of financial services, BIS, Basel, available at: <https://www.bis.org>
37. European Banking Authority (2024), *Opinion/Reports on the implementation of PSD2 and the transition toward open finance*, EBA, Paris, available at: <https://www.eba.europa.eu>
38. Reserve Bank of India (2025), *Updates on the Account Aggregator ecosystem and cash-flow-based lending for MSMEs*, Mumbai
39. Central Bank of the Republic of Uzbekistan (2026), *Silk Road Finance & Technology Forum materials and FinTech Strategy implementation updates*, Tashkent
40. Lex.uz (2026), *Presidential resolutions on the digital financial platform for SME credit applications and AI scoring (implementation timeline)*, Tashkent.