



DIGITAL DEVELOPMENT OF INNOVATIVE CORPORATE LENDING MODELS IN BANKS

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ABSTRACT

Objectives: The purpose of this article is to develop recommendations for the creation and implementation of innovative digital business lending models in banks based on modern financial technologies. **Methods.** The study is based on a mixed-methods design, including quantitative analysis (regression and econometric modeling of PD, LGD, EAD, and RAROC indicators) and qualitative analysis (thematic and content analysis of international case studies and regulatory documents). **Results:** Based on an analysis of loan volumes provided by banking institutions worldwide to their corporate clients from 2015 to 2025, it was found that, over the entire period, this indicator showed a steady upward trend. However, its growth rate had been slowing each year. It is argued that the digitalization of the economy is driving the emergence of new digital lending models, implemented not only by banks but also by fintech platforms. A comparison of traditional and digital models of corporate banking lending was conducted, and the advantages and disadvantages of each form were identified. It is emphasized that innovative forms of digital business lending are emerging at the intersection of fintech, data analytics, and the platform economy; their types are examined, and the most common form, digital end-to-end lending, is described. **Conclusions:** The parameters for end-to-end digital lending to the corporate sector at major banks have been standardized in line with current international practices. A description is provided of the main innovative forms of corporate lending in Ukrainian banks, based on a hybrid model that combines digital technologies (data-driven lending), state-guarantee mechanisms, and international financing. The further development of innovative forms of corporate lending in Ukraine is seen as a transition from a “hybrid” model to a full-fledged platform-based lending ecosystem, adapted to post-war reconstruction and integration with the EU.

Keywords: bank, corporate client, digitalization, innovative lending models, financial technology.

JEL classification: C01, G21, G32, O33

Paper type: Research article

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INTRODUCTION

The global banking sector will end the wave of full “digitization” of relationships among financial institutions and between financial institutions and their customers. These changes will transform banks into open “ecosystems” that foster the development of non-banking complements to “traditional” banking products, including corporate-sector loans (Xie et al., 2026). The challenge facing many banks is that traditional approaches to assessing a customer’s creditworthiness when granting a loan, which rely primarily on financial statements and collateral, do not provide sufficient speed, flexibility, and accuracy in decision-making amid high uncertainty and the digitalization of economic processes. At the same time, banks face competitive pressure from non-bank financial institutions and digital platforms, including fintech companies and BigTech



companies, which are actively implementing innovative lending models based on alternative data, automated scoring systems, and platform-based ecosystems (Shaleni et al., 2025; Zhang et al., 2025).

Traditional banks are gradually losing their competitive edge in the business lending segment (Kretov et al., 2024). Therefore, there is a growing need to develop innovative models of bank lending that combine the advantages of digital technologies with the traditional requirements of the lending process in the corporate segment. An analysis of international experience in developing innovative business lending models involves studying successful practices across countries to identify and adapt advanced financing approaches.

The purpose of this article is to develop recommendations for the creation and implementation of innovative digital models for corporate lending in banks based on modern financial technologies.

LITERATURE REVIEW

An analysis of the current scientific literature shows that digital transformation is radically changing corporate lending models in banks. Xie et al. (2026) analyzed the impact of digital financial technologies on corporate innovation. They concluded that adopting AI and digital tools reduces financial constraints and improves the efficiency of credit allocation. Currently, banks are becoming key drivers of digital lending, and the synergies between fintech and banks are crucial.

In analyzing a sample of companies from various countries, a group of researchers, including Zhang et al. (2025), found that the use of digital financial instruments helps expand businesses' access to financing by reducing information asymmetry and transaction costs. Fintech lending reduces companies' reliance on internal cash flows, improves access to financing for small and medium-sized enterprises, and digital platforms accelerate credit decision-making. At the same time, financial technologies complement rather than completely replace traditional banks.

A systematic review of research on fintech and banking risks, based on over 1,800 publications, enabled Liu et al. (2025) to identify the emergence of new risks accompanying the digitalization of the banking sector. These include cyber threats, operational failures, and algorithmic errors, which necessitate improvements to risk management systems. The authors identify the key risks of digital lending (credit, operational, and cyber risks) and emphasize the importance of regulating digital lending platforms; they conclude that banks are adapting to the situation created by the implementation of digital risk management models.

Kou and Lu (2025) provide an overview of modern technologies (AI, blockchain) and their applications in finance. The researchers emphasize that banks are currently transitioning to platform-based models, driven by automation and reduced transaction costs. Digital lending is becoming a key segment of fintech, and corporate lending is supported through data-driven solutions.

Also worthy of attention is an article by Kazakh researchers Abdinova, Lambekova, and Murzukbaeva (2024), which presents a bibliometric analysis of fintech development based on data from the Scopus database for the period 2014–2024. The study identifies key trends and research directions in the field of financial technologies.



Regarding digital lending, the authors argue that it is becoming a central element of fintech, with models such as P2P lending, marketplace lending, and embedded finance actively developing. The researchers concluded that banks are transforming their lending processes through technology.

Research on the digital development of innovative corporate lending models in banks indicates that these studies are part of a broader field encompassing FinTech, bank digitalization, the transformation of the credit market, and the adoption of innovative financial technologies. Kristjanpoller and Minutolo (2025) examine innovations credit market. It analyzed remote lending, the use of BankID, cloud services, and AI, as well as the development of P2P and alternative lending. The researchers conclude that Ukraine is undergoing a transition from traditional banking models to hybrid digital lending platforms. Kovalenko and Krynytsia (2025) emphasize the need for investment in digital lending platforms, as the development of digital lending models depends on such support. In addition, they recommend using venture capital and public-private partnerships as sources of investment in the future (Fedorov et al., 2023; Koval et al., 2017).

Nakonechna and Mykhailyk (2022) examined the role of FinTech in transforming the banking industry. They provided an overview of key technologies, such as artificial intelligence, blockchain, and open banking; identified the emergence of new financial services models; and concluded that digital lending models should be viewed as part of the FinTech ecosystem. Zhurko and Shcherbak (2024) continue this line of research. The authors have systematized the use of digital technologies in banks, identified the impact of FinTech on banks' competitiveness, and highlighted issues related to regulation, cyber risks, and system integration. The researchers argue that innovative lending models require regulatory adaptation and cybersecurity measures. Similarly, Ishchuk and Polishchuk (2026), examining the digitalization of financial systems, emphasize that banks are adapting lending processes to the digital economy and that digital lending is being integrated into macro-financial transformation.

Despite a significant body of research, there is currently no unified approach in the academic literature to the development of innovative corporate lending models, nor to the assessment of their effectiveness and impact on bank lending. Thus, there is a need for a theoretical foundation and for the development of innovative digital business lending models that improve lending process efficiency, reduce risk, and enhance bank competitiveness in the digital economy.

MATERIALS AND METHODS

The study employs statistical and factor analysis methods to analyze key indicators of corporate lending. The research is based on a mixed-methods design, which combines quantitative analysis of global and local statistical data with qualitative analysis of case studies, regulatory documents, and institutional conditions. This approach allows, on the one hand, to identify macroeconomic trends in corporate lending globally and in Ukraine, and on the other hand, to justify specific innovative models of digital lending, taking into account the wartime and post-war challenges facing the Ukrainian economy.



The results of the analysis were visualized using graphical methods; econometric modeling was used to calculate the economic impact of implementing an innovative business lending model at JSC “VST-Bank”; and abstract-logical methods were used to formulate theoretical generalizations regarding innovative models of corporate lending by banks in the context of digitalization and to draw conclusions.

Data sources for the study:

1) Statistical data from the Bank for International Settlements on the volume of loans extended to the corporate sector by banks worldwide for the years 2015–2025.

2) Information from the National Bank of Ukraine data on the dynamics of loan funds in the Ukrainian banking system and the discount rate for 2022–2024.

3) Financial statements of JSC “VST-Bank” for 2014–2025.

The article employs descriptive statistics and regression analysis to analyze quantitative indicators, as well as thematic analysis and content analysis to analyze qualitative indicators.

The study period covers 2015 through early 2026. The choice of the lower limit (2015) is driven by the onset of an active wave of global digitalization in the banking sector, linked to the widespread adoption of fintech solutions, big data, and artificial intelligence. The upper limit (2025–early 2026) was chosen based on the availability of complete statistical data from the Bank for International Settlements and the National Bank of Ukraine, as well as the need to account for post-COVID trends and the period of martial law in Ukraine (2022–2026).

Regression analysis was used to assess the impact of macroeconomic factors (the National Bank of Ukraine discount rate, GDP growth rates, and the inflation rate) on the dynamics of the corporate loan portfolio in Ukraine. Calculations were performed using Microsoft Excel data analysis tools (“Data Analysis” package), with verification of the statistical significance of the coefficients (t-test) and the quality of the model (coefficient of determination R^2). Econometric modeling of the economic impact of implementing the VostokSmartFlowLending model was conducted based on PD (probability of default), LGD (loss given default), and EAD (exposure at default) indicators, with calculations of expected losses and risk-adjusted returns.

RESULTS AND DISCUSSION

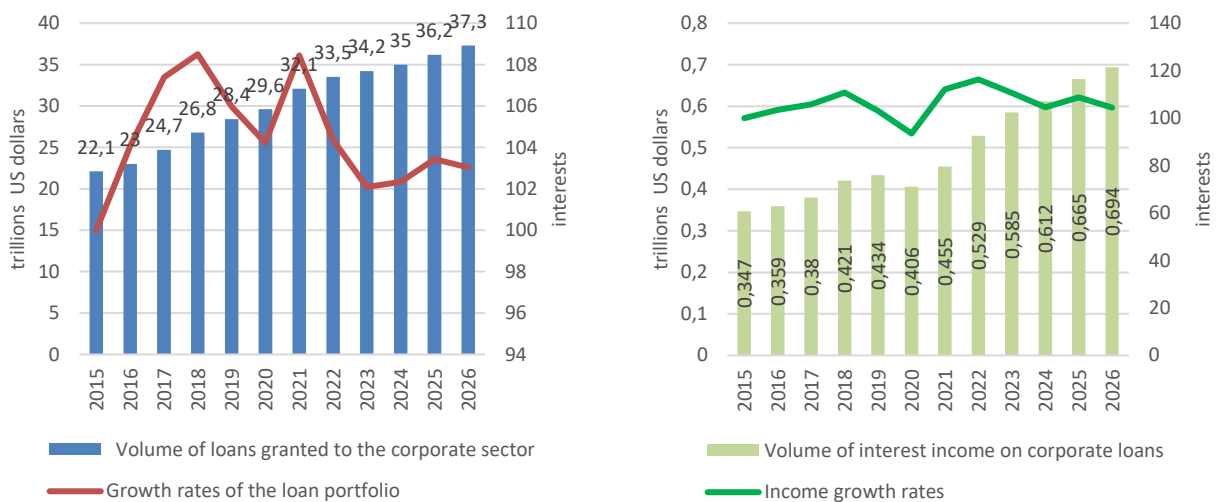
For a long time, lending has been the primary source of banks' profit. For many banks, corporate lending is more attractive than retail lending for several reasons related to transaction economics, risk, and operating costs. Although retail lending offers higher interest margins, the corporate sector provides scale and stability. According to data from most countries in the Bank for International Settlements' statistics, the volume of bank investments in corporate lending stood at \$37.3 trillion as of early 2026 (Fig. 1).

As shown in Fig. 1, the volume of loans provided by banks worldwide to corporate clients over 10 years increased by almost 70%. During the studied period, this indicator has shown a steady upward trend despite



restrictions on lending during the coronavirus quarantine. The growth in borrowed funds increased banks' interest income from corporate lending.

From 2015 to 2025, they doubled to reach \$0.7 trillion. Thus, corporate banking lending worldwide is experiencing steady growth. However, if we examine the growth rates of loans issued over the past five years, specifically since the start of the lockdown, they are significantly lower than those from 2015 to 2020. Thus, corporate lending worldwide is growing, but at a very slow pace. One reason for this situation is the spread of digital transformation across financial services.



The volume of loans extended to the corporate sector

Amount of interest income received from lending to the corporate sector

Fig. 1. Trends in the volume of loans granted by banks to corporate clients from 2015 to 2026, as of the beginning of the year

Source: developed by the authors on the basis of National Bank of Ukraine (2025), Ministry of Finance of Ukraine. (2025)

The digital transformation of the banking sector is significantly changing its relationship with corporate clients. Digitalization has now fully covered traditional banking operations, including business lending. The need for this process stems from the slowdown in global corporate banking lending. Traditional lending models, based on financial statements and lengthy analysis procedures, are giving way to digital solutions that utilize big data, artificial intelligence, and platform-based ecosystems. The methods and techniques banks use to conduct lending operations are commonly referred to as lending technologies. The adoption of new digital technologies, for example, to assess the creditworthiness of potential borrowers, represents new strategic guidelines for banking management. Fig. 2 provides a comparative overview of traditional and digital lending.

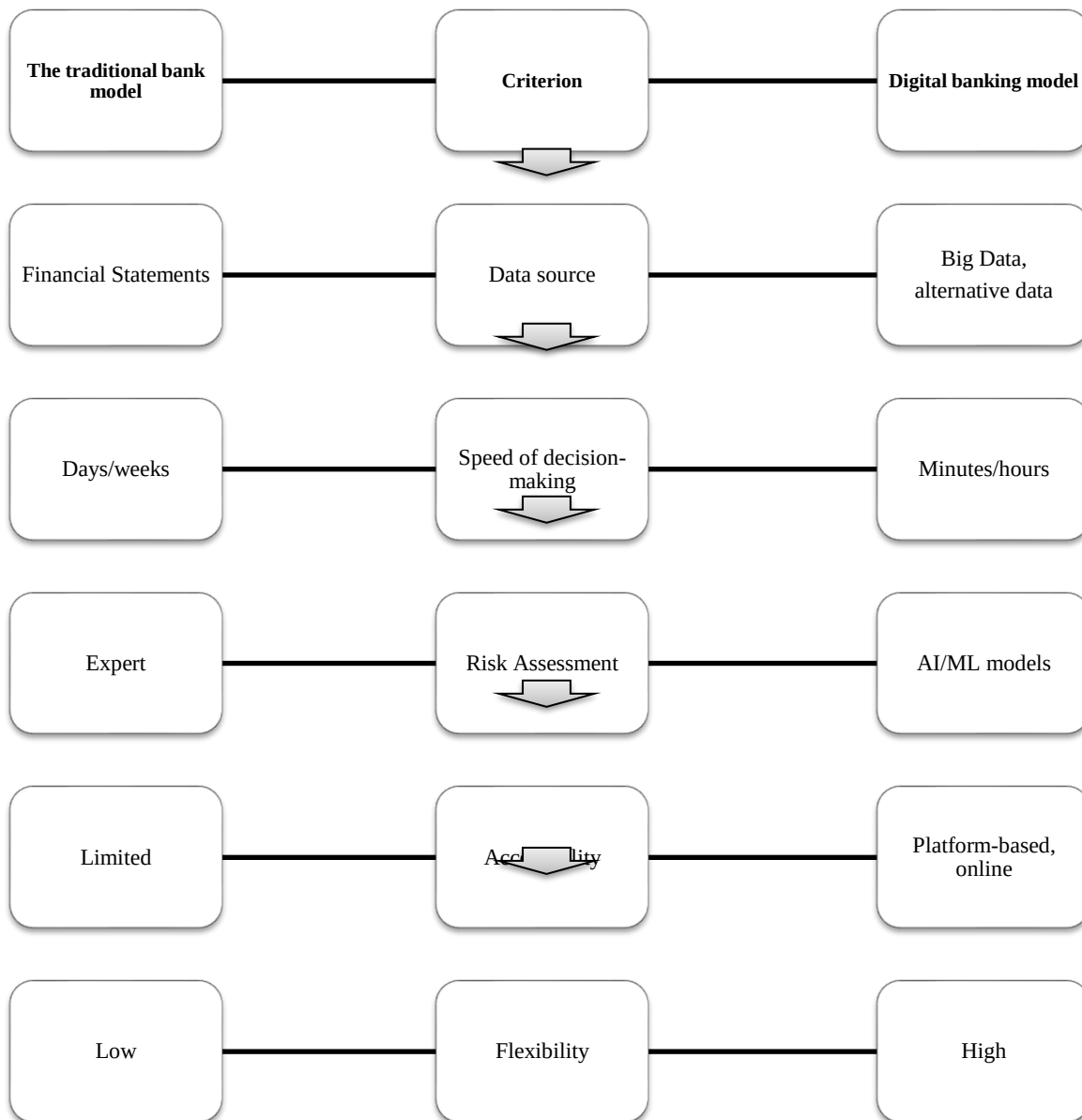


Fig. 2. Comparison of digital and traditional models of corporate banking

Source: developed by the authors on the basis of Glushchenko & Shportyuk (2025), Tymots (2025)

A comparison of digital and traditional models of corporate lending reveals not merely an evolution of processes, but a shift in the logic of how banks interact with businesses from a paper-based, expert-driven approach to an automated one. The main differences between the models can be summarized as follows:

- 1) The traditional model is based on classic banking analysis, which relies on financial statements, collateral, and expert creditworthiness assessments. The analysis processes are conducted primarily offline.
- 2) The digital model is based on the use of big data, API integrations, automated scoring, and artificial intelligence and machine learning technologies.

Each model has its own advantages and disadvantages. The advantages of the traditional model include in-depth qualitative analysis of the borrower, reliability in large and complex transactions, and consideration of non-financial factors (reputation, industry).

The advantages of the digital model include high speed and scalability, cost reduction, expanded financial inclusion, and the possibility of embedded finance. The main disadvantages of traditional bank lending to corporate clients are the slow pace, high operational costs, and limited access to SMEs. For digital lending, these include the risk of algorithmic errors, reliance on data quality, cyber risks and security issues, and limited interpretability of models (black-box) (Ivanov et al., 2025).

Innovative forms of digital banking lending to corporate clients are currently emerging at the intersection of fintech, data analytics, and the platform-based economy. The key technologies driving digital lending are shown in Fig. 3. These include Big Data, artificial intelligence, and machine learning; Big Data, Blockchain, and smart contracts; and open banking.

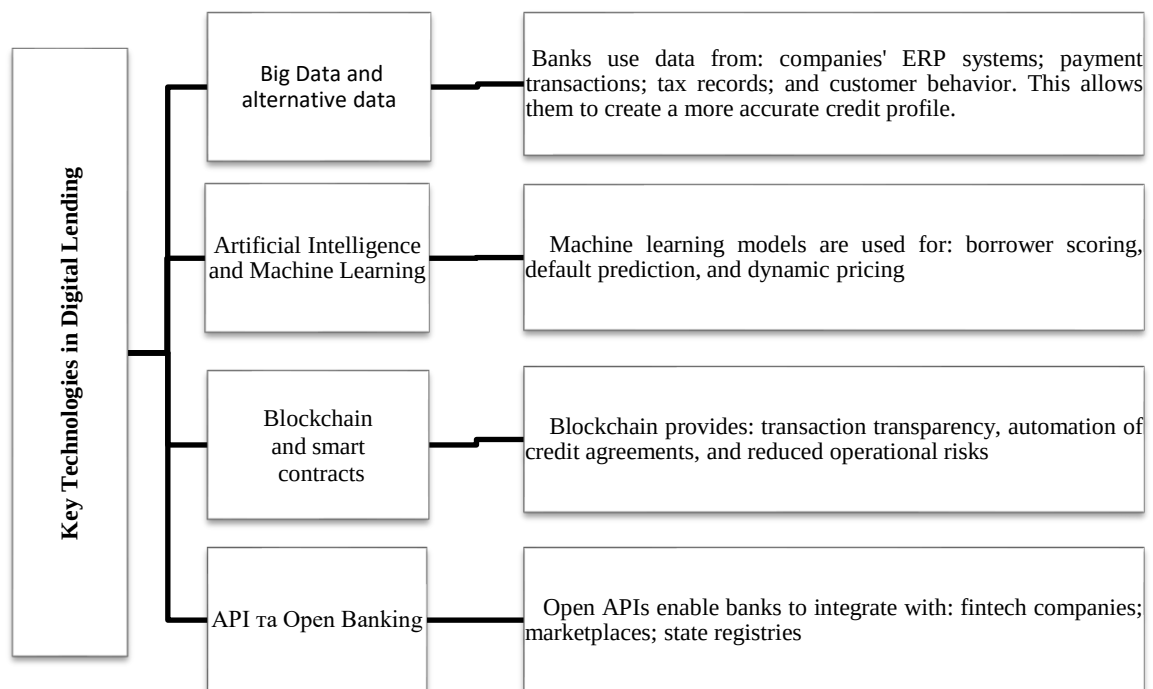


Fig. 3. Key technologies for digital lending to the corporate sector

The use of the technologies shown in Fig. 3 enables banks to develop new forms of corporate lending that meet the banks' requirements for compliance with lending conditions and are convenient and accessible to customers. The main types of innovative loans offered by leading global banks to customers are listed in Table 1.

Modern, innovative forms of digital lending to corporate clients are characterized by automation (AI, Big Data), platform-based solutions (embedded finance, APIs), decentralization (P2P, blockchain), and personalization (cash-flow and data-driven lending). They are transforming the traditional banking model from



a “product-based” one into an ecosystem-based and service-oriented one. The most widespread form of corporate lending innovation today is end-to-end digital lending, a fully digital process from application to disbursement and servicing, with the entire credit cycle automated and conducted online.

Table 1. Innovative forms of digital bank lending to corporate clients

Nº	Types of lending	Essence	Key Technologies	Advantages for the bank	Advantages for business	Examples of use
1	Online Lending (Digital Lending)	A totally digital loan application process	AI, scoring, process automation	Cost reduction, increased processing speed	Rapid access to funding	JPMorgan Chase, HSBC
2	Embedded Finance	Lending embedded in business platforms	AI, integration, Big Data	Expanding sales channels	A credit when you need it	Amazon, Shopify
3	AI-driven lending	Data-driven lending	AI, ML, Big Data	Exact risk assessment	Access to unsecured financing	Fintech and banking AI platforms
4	Open Banking Lending	Use of open banking data	Open Banking, API	New products and partnerships	Simplifying access to credit	Fintech apps and EU banks
5	P2P / Marketplace lending	Lending through platforms	Platform technologies	Income diversification	Alternative sources of funding	Funding Circle, Lending Club
6	Supply Chain Finance	Supply Chain Financing	ERP integration, analytics	Growth of commission income	Improving liquidity	SAP Ariba, banking SCF platforms
7	Cash Flow Lending	Cash-flow-based valuation	Data analytics, API	Reducing credit risk	Collateral-free loans	SME digital lending platforms
8	Neobank lending	Lending by digital banks	Mobile technologies, AI	Low operating costs	Simplicity and speed	Revolut, N26
9	Blockchain lending	Lending through distribution accounts	Blockchain, smart contracts	Transparency and security	Reducing transaction costs	DeFi and banking pilots
10	ESG / Green lending	ESG-rated lending	ESG Analytics, Big Data	Compliance with regulations	Access to green financing	EU banks, international institutions

Source: developed by the author based on Glushchenko & Shportyuk, (2025), Ahelegbey & Giudici (2023), Ivashchenko & Gonta (2023), Cuadros Carrión et al. (2024)

Unlike the traditional model, end-to-end digital lending eliminates paper-based document flow; algorithms make decisions, and the manager’s involvement in the process is kept to a minimum. The credit cycle is illustrated in the diagram (Fig. 4).

According to a study by McKinsey & Company (2025), end-to-end digital lending is considered the most widespread innovation in business lending, as decision-making time is reduced from 3–5 weeks to 5–10 minutes, funds are disbursed in less than 24 hours instead of months, operating costs are reduced by up to 40% in terms of cost-to-serve, and margins can increase by 50% due to speed and conversion rates. More than 60 banks in the Eurozone and other parts of the world have transitioned to end-to-end digital lending.

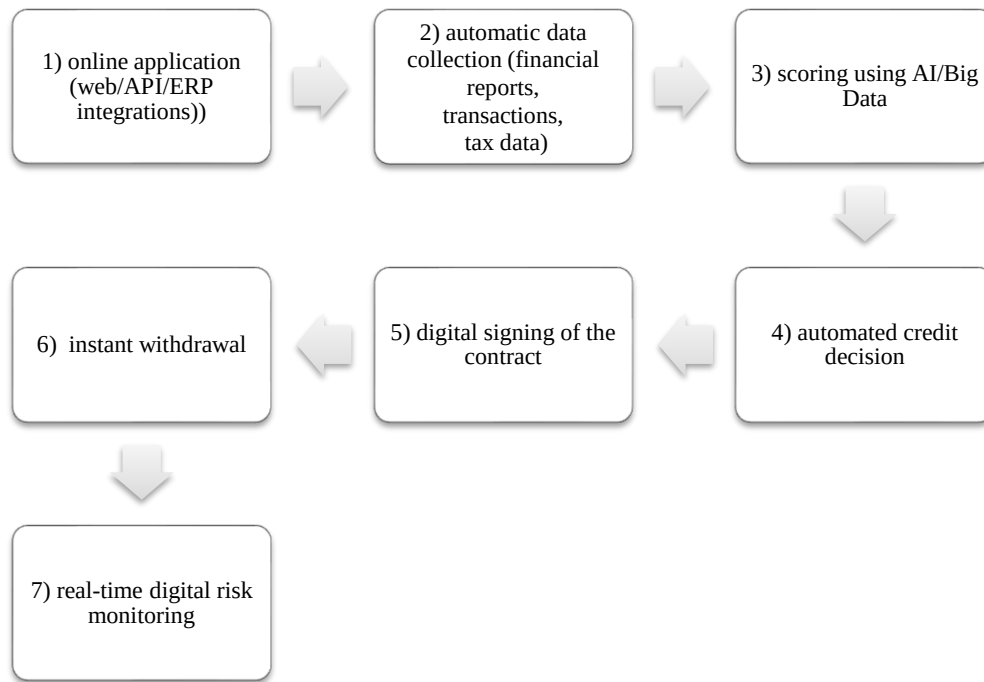


Fig. 4. Key elements of end-to-end digital lending

Source: prepared by the authors based on Glushchenko and Shportyuk (2025)

Table 2 summarizes the parameters of end-to-end digital lending to the corporate sector in major banks based on current international practices.

Table 2. Banks and parameters of digital lending to corporate clients

Bank/ platform	Digital lending model	Level of automation	Scale (clients/portfolio)	Features
ING Group	End-to-End digital lending (SME) through fintech partnerships	Up to 90 – 95%	Europe, global bank	Partnership model with a fintech company (Kabbage)
BBVA	Digital SME lending + API banking	high	Europe, Latin America	Integration with accounting systems
Revolut	Embedded + end-to-end digital lending (Revolut Business)	Almost fully automated	>750,000 business customers	Ecosystem (payments + loans)
OnDeck	Platform-based SME lending	Up to 90%	USA, partnerships with banks	Used by banks (BBVA Compass)
Kabbage	Cash-flow lending (automated)	Up to 90%	SMB segment	Fully digital scoring
GoldmanSachs (Marcus)	Digital lending platform	high	USA, EU	Scalable lending platform
StarlingBank	Embedded SME lending	high	UK SME	Embedded lending within ecosystems
AllicaBank	Digital SME lending	high	SME UK	Focus on fast-growing businesses

Source: prepared by the authors based on Ministry of Finance of Ukraine. (2025)

Thus, the global leaders in end-to-end digital lending in the corporate sector are banks (ING, BBVA), neobanks (Revolut), and fintech companies (OnDeck, Kabbage); the main segment is SMEs. Despite their prevalence, large corporate loans still require expert analysis; they entail model risks and high demands on data and IT infrastructure.

End-to-end digital business lending is not only the most common model for lending to corporate clients worldwide; it is also the most promising and innovative form of bank lending, as it is the fastest-growing segment of the banking industry.

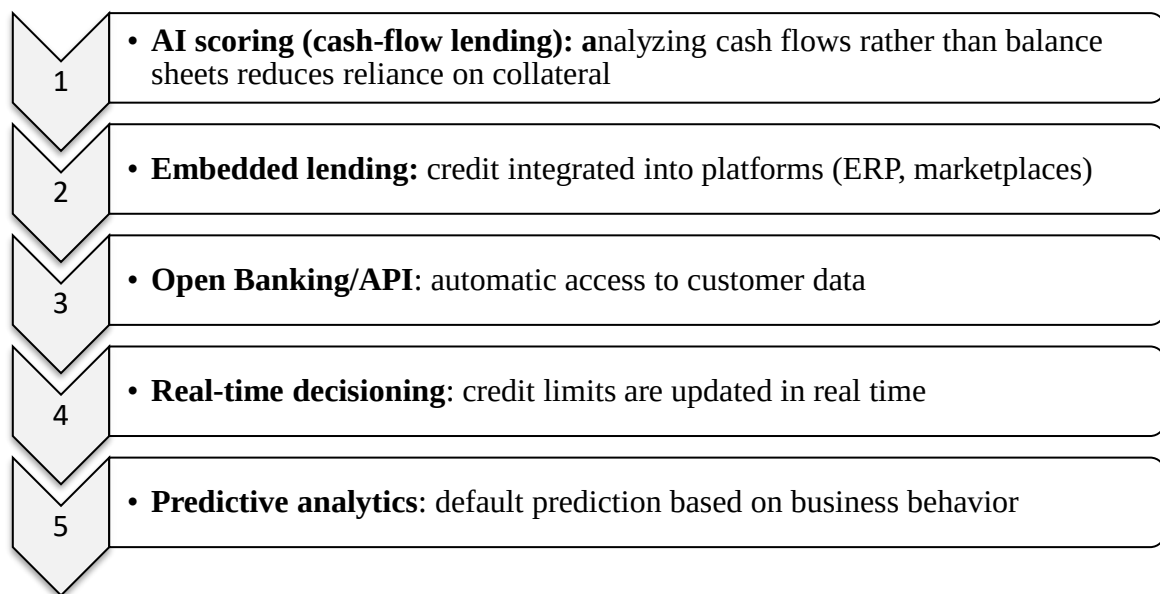


Fig. 5. Key innovations within the End-to-End digital lending model

The development of innovative forms of corporate banking in Ukraine at the present stage (during the 2022–2026 war period) is characterized by a combination of the recovery of lending activity following the crisis, the digitization of processes, and the active role of the state and international institutions. This is illustrated by the following data from the National Bank of Ukraine: in 2025, the hryvnia-denominated business loan portfolio grew by 28.4%, indicating a recovery in lending activity; over 53% of banks reported this growth. This was also facilitated by a reduction in the NBU's discount rate from 25% in 2022 to 15% in 2025.

At this stage, a hybrid, innovative model of corporate lending is taking shape in Ukraine, combining digital technologies (data-driven lending), state-guarantee mechanisms, and international financing. A key feature is that innovations in Ukraine are not merely technological but institutional-digital; they are based on the interaction among banks, the state, and fintech. Table 3 presents data on innovative credit products for the corporate sector provided by Ukrainian banks during 2024–2025.

**Table 3.** Ukrainian banks and innovative loan products, corporate segment, 2024–2026

Bank	An innovative lending model	Key digital tools	Sample product/solution	Source
PrivatBank	PrivatBank End-to-End Digital Lending	API, Big Data, online business dashboard	Credits for SMEs via Privat24 Business	Leader in digital banking
Oschadbank	State-guaranteed lending	Integration with state registries	“5–7–9%” + state guarantees	State support
Ukreximbank	Trade Finance + international programs	SWIFT, digital platforms	Export Financing + EBRD	
Raiffeisen Bank	Data-driven lending	cash-flow-based scoring	SME loans without traditional collateral	The European model
FUIB	Ecosystem-based lending	CRM + online banking	online working capital financing	Private banking + SME
UkrSibbank	ESG and green lending	ESG- scoring	energy efficiency loans	EU standards
Sense Bank	Digital-first lending	mobile banking, AI	SME loans via a mobile app	
TAScombank	Embedded lending	integration with business platforms	credits through partner services	fintech integrations
A-Bank	Urgent digital lending	online scoring	loans for small businesses	retail → SME
OTP Bank	Agricultural lending with data analysis	satellite data, agricultural analytics	credits to the agricultural sector	specialization
Credit Agricole Bank	Supply-chain finance	digital supply chains	financing for agriculture and retail	French model
monobank	Neobank + embedded finance	mobile app	credit products for sole proprietors	fully digital
MTB Bank	Trade finance digitalization	online document management	foreign trade financing	niche-b

Source: prepared by the author based on data from the National Bank of Ukraine (2025), Bank for International Settlements. (2025)

Therefore, based on Table 3, the main innovations in corporate banking in Ukraine over the past two years have been:

- End-to-end lending (PrivatBank, Sens Bank)
- Cash-flow lending (Raiffeisen, PUMB)
- Embedded finance (TAScombank, monobank)
- ESG lending (UkrSibbank).

The following are key trends for banks in this sector of the banking industry for 2025–2026.

1. Full digitalization of the credit cycle (end-to-end lending).
2. AI scoring and Big Data.
3. Expansion of public-private partnership programs.
4. Embedded lending (integration of lending into business services).
5. Focus on SMEs and economic recovery.

The comparative analysis conducted in this study of the development of innovative business lending by Ukrainian banks against leading banking innovations worldwide led to the conclusion that global banks have already transitioned to a platform-based lending model founded on AI, Big Data, and embedded finance, while Ukraine is in the stage of institutional and digital transformation, where innovation is combined with state



support. This forms a hybrid development model that is adaptable to wartime conditions but simultaneously opens up opportunities for rapid technological convergence with global practices.

The main problems in developing innovative forms of lending to corporate clients by Ukrainian banks can be reduced to the following:

- high cost of loans: even after the NBU rate reduction, loans remain expensive;
- insufficient depth of lending: long-term decline in the indicator of loans to GDP;
- military risks: limitation of long-term lending;
- insufficient digital maturity of part of the business.

Ukraine compensates for market weaknesses with institutional mechanisms. Ukraine's uniqueness lies in the fact that a state-supported digital lending model is taking shape within its banking system—a model that is absent in developed economies. Ukraine is moving in line with global trends: digital lending, AI scoring, and embedded finance. The banking system has an opportunity to “leapfrog” certain stages of development. The further development of innovative forms of corporate lending in Ukraine should be viewed as a transition from a “hybrid (state + digital)” model to a full-fledged platform-based lending ecosystem, adapted to post-war reconstruction and integration with the EU. The key drivers will be the implementation of artificial intelligence, the development of embedded finance, and the expansion of public-private partnership mechanisms in financing economic reconstruction. This will enable the development of a competitive lending model that adapts to global financial innovations and prioritizes leadership qualities when selecting managers for corporate business operations (Korolchuk et al., 2021).

For example, it considers the innovative corporate lending model developed for VST-Bank JSC—VostokSmartFlowLending—which is based on the key concept that loans are automatically granted based on actual business turnover and operational activity. Thus, VostokSmartFlowLending is a hybrid model that combines cash-flow lending (based on cash flows), embedded finance, AI scoring, and state guarantees/risk-sharing. The innovative elements of the product are:

1. Dynamic lending: the loan adjusts in line with the client's turnover.
2. Invisible Credit: the client does not submit an application; the loan is offered automatically.
3. Embedded Credit: access to the loan directly within the CRM, accounting system, or marketplace.
4. Risk-sharing: a portion of the portfolio is backed by state guarantees or international programs.

The financial model for the product is presented in Table 4.

Table 4. Financial model for an innovative form of corporate lending at VST-Bank JSC – VostokSmartFlowLending

Parameter	Features	Parameter	Features
Credit type	revolving credit line	Term	up to 12 months (revolving)
Limit	10%–30% annual revenue	Decision	5–30 minutes
Rate	risk-based (individual)	Repayment	automatically from cash flow
Provision	unsecured / partially secured	-	-

Source: prepared by the author based on data from VST-Bank JSC (2025)



Next, calculate the economic impact on the bank from implementing the model using data on VST-Bank's actual SME lending in 2025. The data used for the calculation are presented in Table 5.

Table 5. Data for calculating the economic impact of implementing the innovative corporate lending model (VostokSmartFlowLending) at JSC "VST-Bank"

Indicator	Traditional model	VSFL
Loan portfolio	5 billion UAH	6,5 billion UAH (+30%)
Average rate (i)	18%	20% (risk-based)
PD	8%	5% (AI- scoring)
LGD	60%	40% (data + warranties)
Cost-to-income	45%	30%
Operating expenses	400 million UAH	300 million UAH

Source: prepared by the author based on data from VST-Bank JSC (2025)

Table 6 shows the calculation of the economic benefits resulting from the implementation of the VostokSmartFlowLending system.

Table 6. Calculation of the economic impact of implementing VostokSmartFlowLending

Indicator	Formula	Traditional model	VSFL	Effect
Expected losses	$EL = PD \times LGD \times EAD$	$EL_{trad} = 0.08 \times 0.6 \times 5 = 0.24$ billion UAH	$EL_{VSFL} = 0.05 \times 0.4 \times 6.5 = 0.13$ billion UAH	Reduction in expected losses by UAH 110 million
Interest income	$Income = i \times EAD$	$0.18 \times 5 = 0.90$ billion UAH	$0.20 \times 6.5 = 1.30$ billion UAH	Increase in revenue by UAH 400 million
Net financial result	$Profit = Income - EL - Costs$	$0.90 - 0.24 - 0.40 = 0.26$ billion UAH	$1.30 - 0.13 - 0.30 = 0.87$ billion UAH	Significant improvement in profitability
Overall economic impact	$\Delta Profit = Profit_{VSFL} - Profit_{trad}$	-	$0.87 - 0.26 = 0.61$ billion UAH	Approximately UAH 610 million in additional profit
Performance metric (RAROC) (economic capital = 10% of portfolio value)	$RAROC = \frac{\text{net income}}{\text{economic capital}}$	$RAROC = 0.50.26 = 52\%$	$RAROC = 0.650.87 = 134\%$	Approximately 2.5-fold increase in efficiency

Source: prepared by the authors

The sources of economic impact are:

1. Portfolio growth (+30%): fast lending, accessibility for SMEs
2. Risk reduction: AI scoring, cash flow analysis



3. Cost reduction: automation, reduced staffing

4. Margin improvement: risk-based pricing

The data in Table 6 suggest that implementing the VostokSmartFlowLending model delivers significant economic benefits by simultaneously improving profitability, reducing risk, and enhancing operational efficiency. Calculations show a potential increase in the bank's profit of approximately ≈ 600 million UAH per year, a reduction in credit losses by nearly 45%, and a more than twofold increase in risk-adjusted profitability. This confirms the feasibility of transitioning to adaptive digital lending models for the corporate sector.

The proposed VostokSmartFlowLending model transforms corporate lending by integrating artificial intelligence, digital platforms, and risk-sharing mechanisms. Its implementation will improve access to financing for businesses, reduce credit risks, and establish a competitive banking model adapted to the conditions of the digital economy and Ukraine's post-war reconstruction.

DISCUSSION

The results of this study indicate that the digital transformation of the banking sector is changing traditional bank lending practices. Unlike traditional corporate lending models, which rely on lengthy credit approval procedures, automated models enable faster decision-making and lower transaction costs. Digital lending integrates all stages of the lending process from application submission to loan monitoring into a single digital ecosystem. This is consistent with international studies that highlight the growing role of fintech solutions, artificial intelligence, and big data in banking. At the same time, unlike in developed countries, where digital lending has already become the norm, the implementation of such technologies in Ukraine remains fragmented. Therefore, hybrid lending models that combine traditional banking approaches with digital tools are the most effective for Ukrainian banks. This approach minimizes the risks associated with full automation while increasing the speed and accessibility of lending for corporate clients. At the same time, the implementation of innovative lending models is accompanied by several constraints, including high investment costs, the need to transform banks' organizational cultures, and insufficient digital maturity among corporate clients. This is particularly relevant for countries with economies in transition, where digital infrastructure is still at an early stage of development.

Thus, the study's findings confirm the advisability of further developing digital corporate lending models in banks; however, their effectiveness depends on a careful consideration of technological, economic, and institutional factors. Further research should focus on developing adaptive lending models that account for the specifics of national markets and the integration of banks into fintech ecosystems.

CONCLUSION

Globally, the growth rate of corporate lending by banks has declined over the past 10 years. One reason for this trend is the shift of customers from banks to non-bank lenders. Traditional lending models, based on financial statements and lengthy analysis procedures, are giving way to digital solutions that utilize big data,



artificial intelligence, and platform-based ecosystems. To remain competitive, banks are forced to incorporate innovative forms of corporate lending into their operations. These innovative forms of corporate lending involve modern approaches to business financing, leveraging digital technologies, alternative data sources, and new business models. They differ significantly from traditional lending in terms of speed, automation, and flexibility. Big Data, artificial intelligence and machine learning, blockchain and smart contracts, and open banking these are the key digital technologies on which new forms of lending are based.

Banks around the world use various innovative methods to provide business loans, the most widespread and promising of which is online lending—end-to-end digital lending: a fully automated lending process, from application to loan disbursement. Digital end-to-end lending has become dominant because it is simultaneously cheaper for the bank, faster for the customer, less risky, scalable, and compatible with the digital economy. This is not just an innovation—it is a new fundamental lending model. The global leaders in digital end-to-end lending are banks (ING, BBVA), neobanks (Revolut), and fintech companies (OnDeck, Kabbage); the primary segment is SMEs. In terms of innovations in corporate banking lending in Ukraine, end-to-end lending prevails, along with cash-flow lending, embedded finance, ESG lending, and several others. While global banks have already transitioned to a platform-based lending model built on AI, Big Data, and embedded finance, Ukraine is at an early stage of institutional and digital transformation, where innovation is combined with state support. The further development of innovative forms of corporate lending in Ukraine is seen as a transition from a “hybrid” model to a fully-fledged lending platform ecosystem, adapted to post-war reconstruction and integration with the EU.

This study recommends implementing an innovative corporate lending model for VST-Bank JSC (VostokSmartFlowLending), in which loans are automatically granted based on actual business turnover and operational activity. The feasibility of this model stems from VST-Bank's focus on corporate clients and sole proprietors; the bank has a strong presence in the trade and logistics sectors, and partner ecosystems (acquiring, POS, SME services) are in place. Calculations show that implementing this model delivers significant economic benefits by simultaneously improving profitability, reducing risk, and enhancing operational efficiency. Its implementation will increase the availability of financing for businesses, reduce credit risks, and establish a competitive banking model adapted to the conditions of the digital economy and Ukraine's post-war reconstruction.

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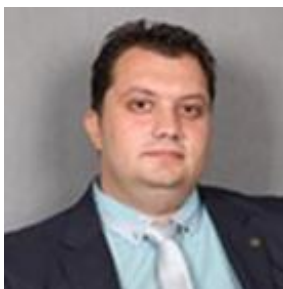
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