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Generative AI in Retail Lending

Insights from a Celent Survey on the Strategies, Priorities, Implementation, and IT Spending for Generative AI

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A part of GlobalData

The Winning GenAI Formula:
Fast Action + Smart Selection

Adam Kleinman
Head of Product
Zest AI

The financial services industry is experiencing a generative AI (GenAI) revolution, but success requires more than jumping on the bandwagon. With regulatory expectations evolving and customer demands intensifying, the window for competitive advantage through GenAI adoption is narrowing. Leading institutions are moving beyond proof-of-concept phases to integrate GenAI across core business functions: risk management, regulatory compliance, client relationship management, and operational efficiency.

According to a new study from Celent of U.S. retail lenders, the majority of lenders are increasing their GenAI budgets, and they know the technology shows tremendous promise. However, the path forward demands careful strategy and due diligence.

There is a compelling case for GenAI adoption, and the technology is moving from experimental to mainstream with clear benefits in customer experience enhancement and operational cost reduction. But, the most successful lenders aren't just adopting GenAI—they are adopting it with a clear strategy and purpose. With 80% increasing overall IT budgets in 2026, the question isn't whether to invest, but how to invest wisely. The survey shows that while the technology is hot and helpful, the institutions gaining a competitive advantage are those that:

1. Understand their specific use cases (internal copilots, BI dashboard improvements, and personalized recommendations rank highest).
2. Address integration challenges proactively rather than treating them as afterthoughts.
3. Balance innovation with risk management in an increasingly regulated environment.

The bottom line

GenAI in consumer lending isn't just an opportunity—it's becoming a competitive necessity. But early movers don't automatically become winners, and financial institutions must be incredibly educated about their choices. The difference between GenAI success and failure often comes down to selecting solutions that integrate seamlessly, are purpose-built for the specific operational needs of lenders, address real business challenges, and scale effectively. The time for "wait and see" is over, but the time for careful evaluation and strategic implementation has never been more critical.

ABOUT ZEST AI

A pioneer in the field, Zest AI has been innovating and perfecting AI lending technology since 2009.

Connect with us to learn more.
Visit us at zest.ai or email hello@zest.ai.

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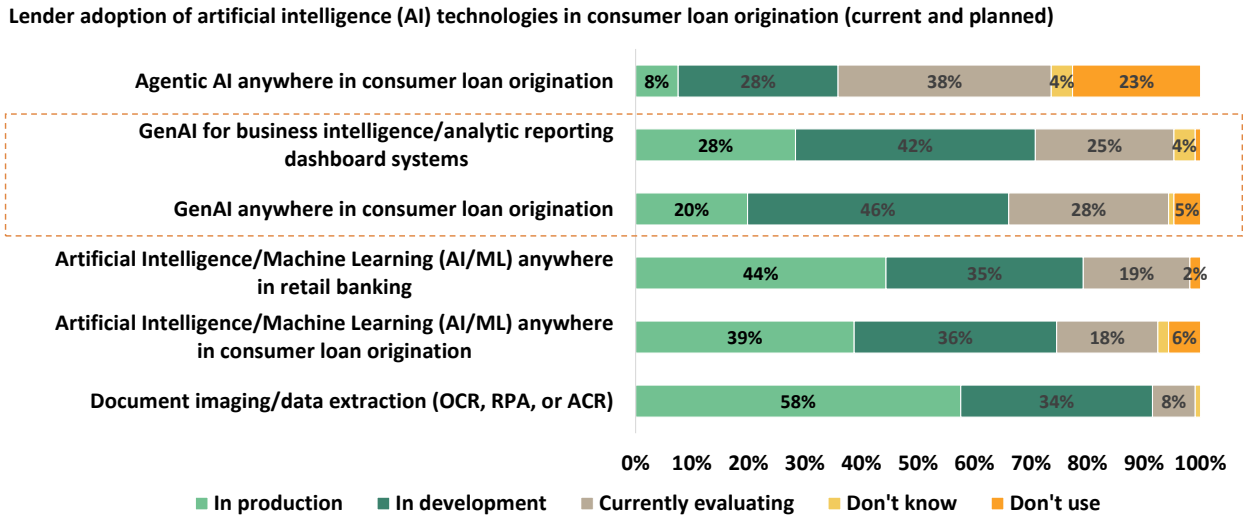
Executive Summary

For many years machine learning (AI/ML) and robotic process automation (RPA) were the next big things in artificial intelligence and automation. Within the past two years generative AI (GenAI) has became the next big thing and agentic AI emerged in late 2024. For retail lending institutions, its not a question of whether or not to invest in AI, it is how much to invest, where to invest, and how fast to adopt all AI technologies to keep up with or stay ahead of the competition.

Virtually all financial institutions have experimented with, adopted, or are now testing various forms of AI. What differs between/among them is how comprehensive their long-term business and technology plans are, their approach to identifying use cases, how they implement, and how well they are measuring results.

Celent's ***Top Insights for Generative AI in Lending Survey*** highlights a strong appetite for GenAI adoption, although security and compliance remain hurdles that are being overcome.

Figure 1: GenAI is Growing Quickly, With Two-thirds of Lenders in Production or Development



Base: US financial institutions consumer lending (sample: 106)
Q3r1: Document imaging/data extraction (OCR, RPA, or ACR) - Where do you use artificial intelligence (AI) technologies in your consumer loan origination business today?
Source: Celent Top Insights for Generative AI in Lending Survey, September 2025

The survey findings confirmed Celent's view that lenders are further along in their understanding of AI than previously known. Celent's survey reveals that:

- The speed at which GenAI technology is moving through the five technology adoption stages in lending is much faster than for AI/ML and other breakthrough technologies such as online lending (1990s), mobile lending (2000s), and statistical regression based automated underwriting (1990s).
- *Eighty-three percent (83%) of lenders are increasing consumer lending GenAI IT budgets in 2026*. Forty-one percent (41%) are increasing GenAI budgets by more than 5%. Two-thirds will have completed or will be implementing GenAI strategies by 2026, making it more mainstream.
- Security and/or risk concerns are the biggest barrier to GenAI adoption, with 19% indicating those as the top concern. Another 20% note those as their second biggest concern. Other priorities was the second biggest barrier to GenAI adoption, with 15% noting it as the top concern.
- Lenders use multiple business intelligence (BI)/analytic reporting solutions. Unfortunately, Microsoft Excel spreadsheets and basic loan origination system reports are the most used solutions. Fortunately, GenAI BI/analytic reporting system adoption is growing quickly, with two-thirds of lenders in production or development with GenAI apps. GenAI will eventually replace the most common systems.
- Some lenders (19%) are already using GenAI BI/analytic reporting dashboards to replace existing reporting, and an addition 44% are developing them.
- Only 11% of lenders felt they were ahead of the competition in GenAI development and usage. This means many lenders still have an opportunity to create competitive advantage from GenAI.
- Lenders see the greatest competitive advantage from GenAI with employee copilots, compliance and regulatory reporting, and improving BI/analytic reporting.

Definitions

The following definitions are meant to create a consistent baseline of understanding *in a retail loan origination context* for all survey participants.

Artificial Intelligence / Machine Learning (AI/ML): A combination of AI and its subset ML, where ML refers to systems that learn from data without being explicitly programmed.

Generative AI (GenAI): A type of AI that creates new content—like text, images, or audio—based on patterns it has learned from data and language (including prompts provided by a human).

Agentic AI: AI systems that can operate autonomously with goals, long-term memory, and decision-making capabilities with minimal human input. Agentic AI takes proactive, multistep actions to complete tasks.

Document imaging/data extraction: Optical character recognition (OCR), RPA, or automatic content recognition (ACR) in loan document processing refers to the use of technology to automatically identify and extract information from documents.

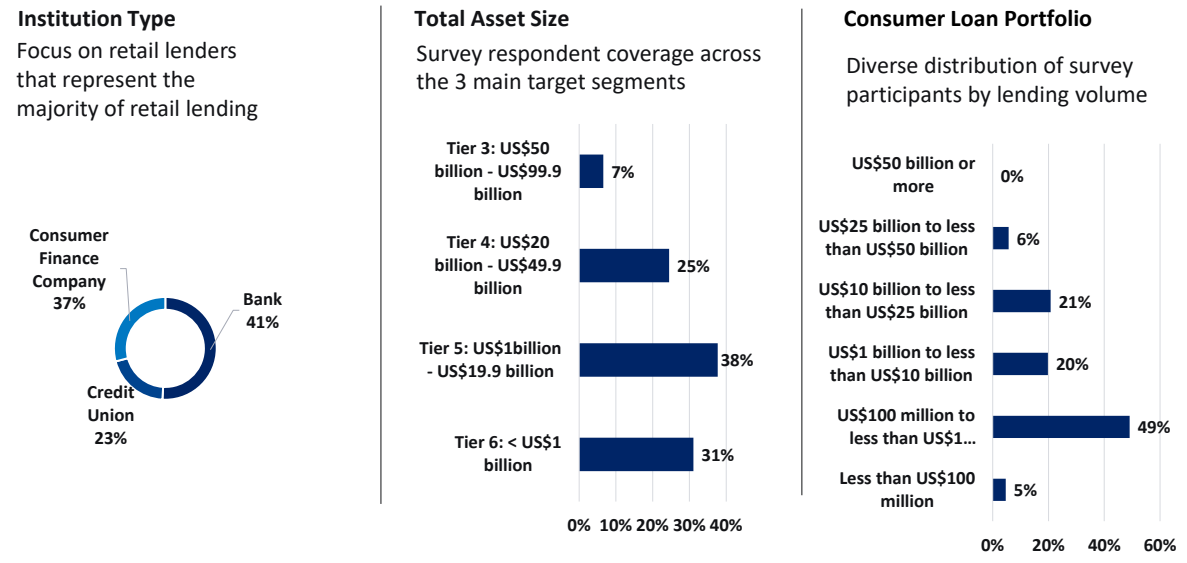
Survey Demographics and AI Adoption

In financial services, understanding the industry adoption rate and investment priority for emerging technologies is crucial. The IT budgets and inhouse expertise to implement new technology projects varies significantly by institution size. They may also vary by institution type, for example, credit unions are typically smaller and thought of as being less sophisticated technologically (which isn't always true), and non-bank lenders are often digital only lenders. For these reasons, Celent surveyed financial institutions (FIs) of many types and sizes. We also present technology adoption lifecycle analysis to consider while reading this report and planning AI technology investments.

All Types and Sizes of Lenders Are Adopting AI/ML and Generative AI

Celent (in partnership with GlobalData Surveys) surveyed 106 US lenders in August 2025. Figure 2 shows that there was a broad distribution of survey respondents by institution type, asset size distribution, and consumer loan portfolio distribution.

Figure 2: Diverse Survey Participants by Institution Type, Asset Size, and Consumer Loan Portfolio Size

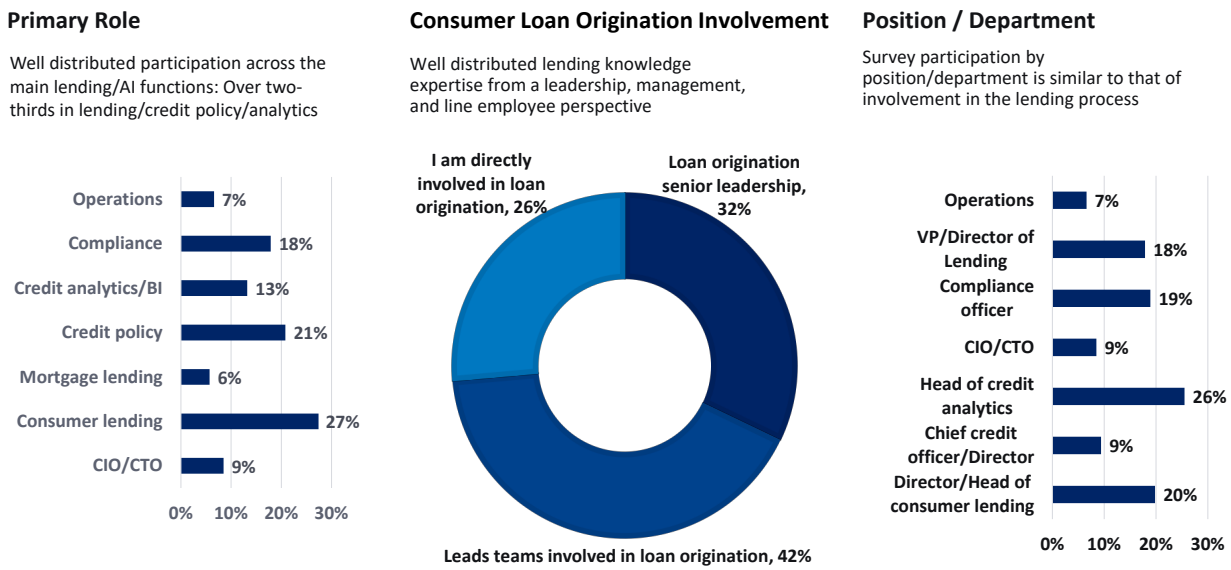


Base: US financial institutions in consumer lending (sample: 106)
Questions: SQ1: How would you classify your institution? (Select one)
SQ7. Which of the following total asset size segment does your institution fit into?
SQ8. Which of the following total consumer loan portfolio does your institution fit into?
Source: Celent Top Insights for Generative AI in Lending Survey, September 2025

Banks and credit unions compete within digital and physical geographic markets, while consumer finance companies may be national fintech lenders or local specialty lenders (e.g., used auto lenders). The survey focused on lenders with under $100 billion in total assets, which represents over 98% of the total US financial institution market. The survey demographics also indicate the size of each institution's consumer loan portfolio. This is helpful for FIs to compare their own portfolio size and vendor's who often target FIs and price software based on portfolio size and new loan volume.

Figure 3 depicts the different survey respondents by survey respondent role, position, and level of involvement in consumer loan origination.

Figure 3: Survey Respondent Roles, Seniority, and Position/Department



Base: US financial institutions in consumer lending (sample: 106)
Questions: SQ3. Which of the following functions does your role primarily align to?
SQ4. Would you say you have a high degree of visibility into the management, technology and/or product strategy for loan originations?
SQ5. Which statement best reflects your level of involvement with the consumer loan origination at your institution?
Source: Celent

There are many individual roles involved in planning and implementing AI-driven lending initiatives. We therefore surveyed employees from a variety of roles, departments, and involvement to present the diverse experiences that shape the use of AI in loan origination. Respondents' roles primarily included consumer lending, credit policy, credit analytics, and compliance, with a mix of senior leadership and team leads to ensure diverse perspectives.

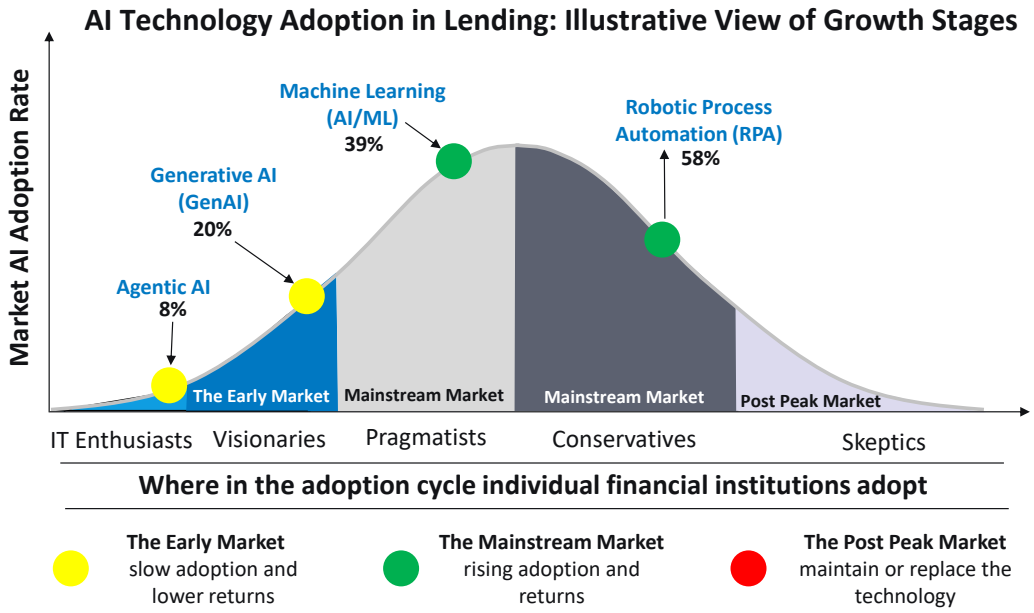
Technology Adoption Cycle by Types of Artificial Intelligence

When analyzing technology adoption, it is useful to use a technology adoption lifecycle framework.

Figure 4 shows:

1. The general adoption curve of when different types of firms adopt new technology during a technology cycle adoption
2. Celent's estimate of what that adoption rate of AI technologies is in the lending industries currently

Figure 4: The Current Wave of AI Technology Adoption Will Be More Impactful Than the First



Note: The percentages indicate the percent of survey respondents that are using the AI technology in a consumer lending production environment.
Source: Celent analysis, Geoffrey Moore, *Crossing The Chasm*.

Figure 4 also shows Celent estimates of the technology adoption growth stage for each type of AI in lending. These estimated are based on the survey results. For example, 39% have adopted machine learning (AI/ML) for loan decisioning in consumer lending. For more information on the myriad of AL/ML use case, please see the Celent report, The New Era of AI-driven Analytics in Lending, which includes a case study of First Hawaiian Bank.

Types of Technology Adopters

IT Enthusiasts: Innovators that are passionate about new technology are the most risk-taking and are the first to buy a new product.

Visionaries: Early adopters that see the strategic potential in new technology and are willing to take a risk to be among the first to benefit from it.

Pragmatists: The early majority that adopts new technology after it has been proven successful.

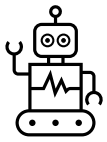
Conservatives: The later majority of firms (or consumers) that adopt a new technology after it becomes the established standard and is easier and safer to adopt.

Skeptics: Lag every else and adopt new technology out of necessity (e.g., competition, business survival, obsolescence of legacy technology).

GenAI adoption is very strong considering its recent introduction into banking. Twenty percent (20%) have implemented it already in a consumer loan production environment, and many more are planning to do so. Agentic AI is the newest AI technology, but 8% are already using it in loan production and 28% are planning to do so.

> GenAI testing, implementation, and adoption is the next AI being adopted within lending organizations, with many moving quickly on the technology adoption curve, suggesting significant future benefits for lenders and growth opportunities for vendors.
>
> Celent

It is also worthy to note robotic process automation (RPA). Fifty-eight percent (58%) are using RPA in loan production. RPA by itself is not considered AI; it automates predefined, rule-based tasks by mimicking human actions, while AI technologies enable systems to learn and make complex decisions. However, many modern RPA platforms are now incorporating AI capabilities to create intelligent document automation (IDA), which combines rule-based automation with cognitive technologies to handle more complex, less predictable tasks. This explains why another 34% are developing and implementing RPA.



Lenders need to think of AI not only as a standalone technology but one that works with existing technologies to improve them.

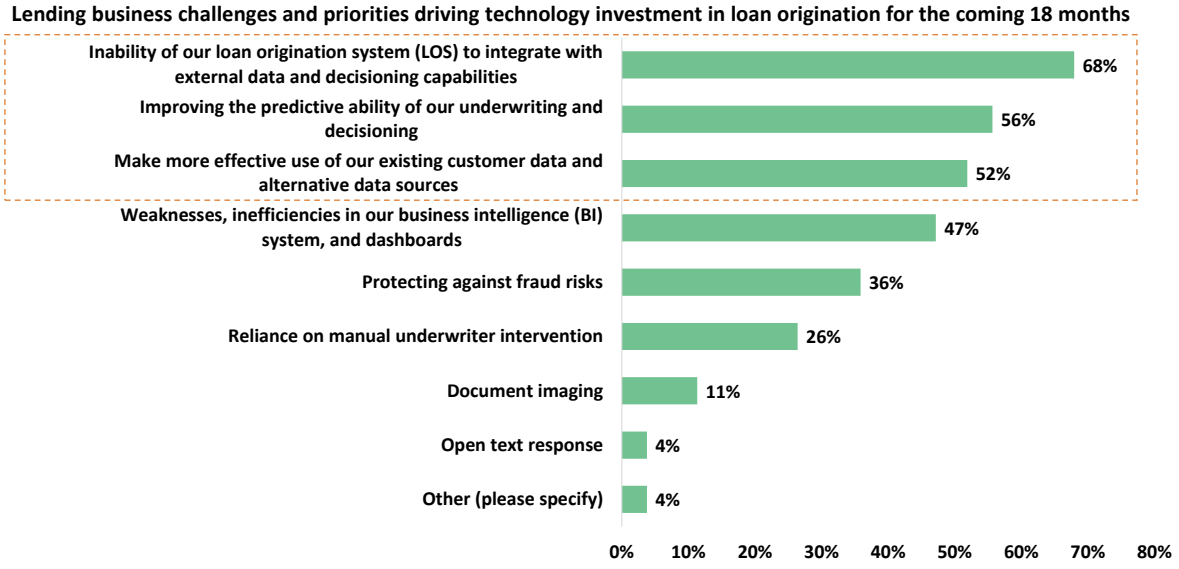
Business Challenges and Priorities For AI Adoption

Artificial intelligence (AI) is the tip of the spear in loan origination processing, decisioning, and customer engagement. It relies on curated and normalized data sets, modeling techniques, integration, and software to deliver value to the point of need. AI also addresses a number of business challenges and pain points in loan origination that relate to people, processes, and technology. We therefore asked questions about specific challenges to identify their level of importance.

Improvements Needed for Integrating AI/GenAI with Origination Systems

Figure 5 shows how respondents ranked nine business challenges and priorities across four categories (i.e., data management, decisioning, integration, and risk management) for the coming 18 months.

Figure 5: Priorities: Integrate External Data with the LOS, Improve Decisioning, and Leverage Data



Base: US financial institutions in consumer lending (sample: 106)
Question: Q1: What are the lending business challenges and priorities driving your technology investment in loan origination for the coming 18 months?
Source: Celent Top Insights for Generative AI in Lending Survey, September 2025

The top concern was a back office technical issue: the inability of loan origination systems (LOS) to integrate with *external data sources* and decisioning systems. Many LOS are older client-server systems, have weak database management capabilities (e.g., difficult to add new data fields), and do not easily integrate with data the way a cloud-native LOS does.

After the LOS integration challenge is overcome, lenders can then solve for the second most important issue: using data and AI to improve underwriting and other loan decisioning (such as loan pricing and fraud). Third, utilizing *existing internal customer data* is important (especially in combination with external data) in AI models.

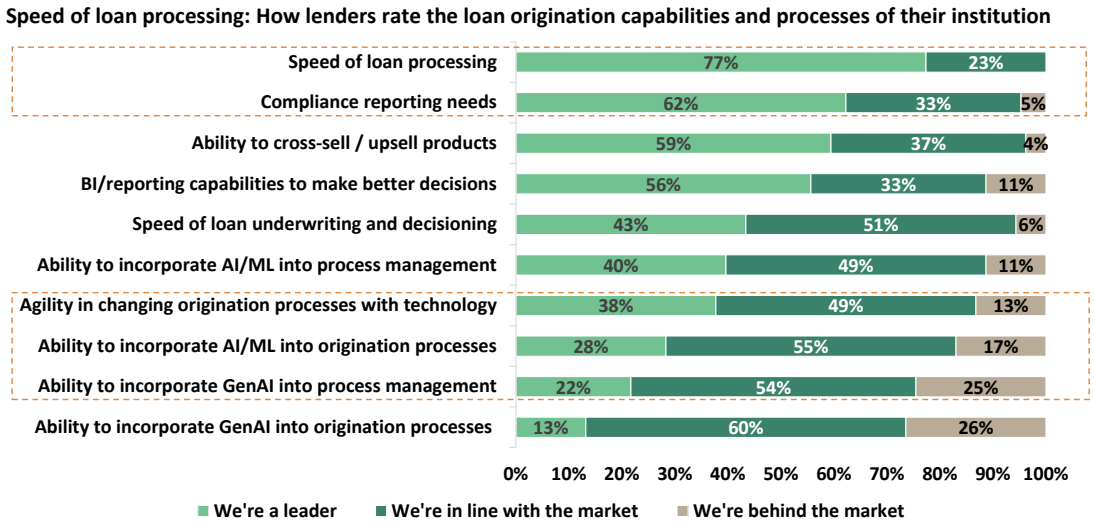
Also of note are weaknesses and inefficiencies in BI systems and dashboards. These systems support many types of decisions in the loan origination process. The section on GenAI adoption will show that lenders use a cluttered mess of technologies for BI/analytic reporting.

Most Lenders Lag Behind with Integrating GenAI into Loan Origination

Digital lending has increase loan processing speed and quality from loan application submission to contract signing and onboarding, but opportunities remain for further improvement. Given the difficulties collecting and normalizing loan origination process timeline data across institution types and sizes, we asked participants to provide their view (based on their knowledge of their company and their competitors) on whether they are leaders or laggards in loan origination capabilities and processing.

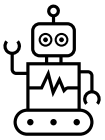
Figure 6 reveals that 77% of respondents believe that they are leaders in loan processing and compliance, i.e., most loan processing challenges are running smoothly.

Figure 6: Over Two-Thirds Believe They Are a Leader in Processing and Compliance, but Less Than Half Believe They Are a Leader in Decisioning



Base: US financial institutions in consumer lending (sample: 106)
Question: Q2. How do you rate the loan origination capabilities and processes of your institution? [Grid question. Response options: We're a leader, We're in line with the market, We're behind the market]
Source: Celent Top Insights for Generative AI in Lending Survey, September 2025

However, less than half believe they are leaders in the speed and quality of loan underwriting and other decisioning. *Moreover, a small minority of lenders believe they are leaders in incorporating AI/ML and GenAI into loan origination processes and operations, and many believe they lag the market*. This means that GenAI has the potential to improve loan processing and decisioning, and GenAI can create competitive advantage for lenders adopting it.

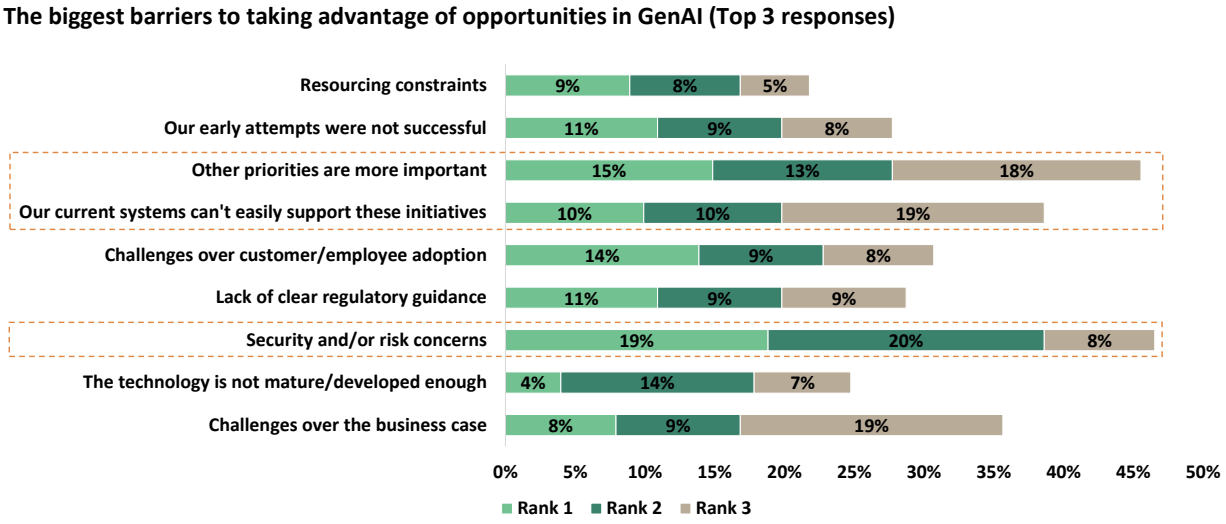


A small minority of lenders believe they are leaders in incorporating AI/ML and GenAI into loan origination processes and operations, and many believe they lag the market.

The Biggest Barrier to GenAI Adoption: Security and/or Risk Concerns

Although many respondents want to take advantage of opportunities in GenAI in loan origination, they see barriers to doing so. Celent asked respondents to rank these barriers, and Figure 7 shows the top 3 rankings for how respondents ranked each barrier. Security and/or risk concerns are the biggest barrier as indicated by the top rank, the second rank, and the combined top 3 rank as highlighted below.

Figure 7: Security and Risk is the Biggest Barrier to GenAI Adoption, Customer/Employee Adoption, and Resource Constraints are Believed to be the Biggest Barriers



Base: US financial institutions consumer lending (sample: 106)
Question: Q9. What do you see as the biggest barriers to taking advantage of the opportunities in GenAI? Please rank top 3 [Randomize]
Source: Celent Top Insights for Generative AI in Lending Survey, September 2025

Interestingly, *addressing other priorities was the second biggest barrier*. Non-discretionary IT spending absorbs approximately two thirds of a financial institution's total IT budget. This includes essential, mandatory costs for a business to operate, and includes salaries for IT personnel, essential cybersecurity

measures, compliance, software maintenance agreements, cloud hosting and data center costs. GenAI is battling with other technologies, including other forms of AI, for discretionary IT budget. Part of this battle is determining the expected benefits from GenAI implementation, which we examine later in the report.

The third biggest barrier is that *current systems can't easily support these initiatives.* The ability of systems to support AI solutions can be limited if they are not composable, cloud-native, and API-first systems. This result is consistent with Figure 5 (Question 1 about business challenges and priorities) that LOS integration is a major business challenge.

GenAI Adoption, Strategies, and Benefits

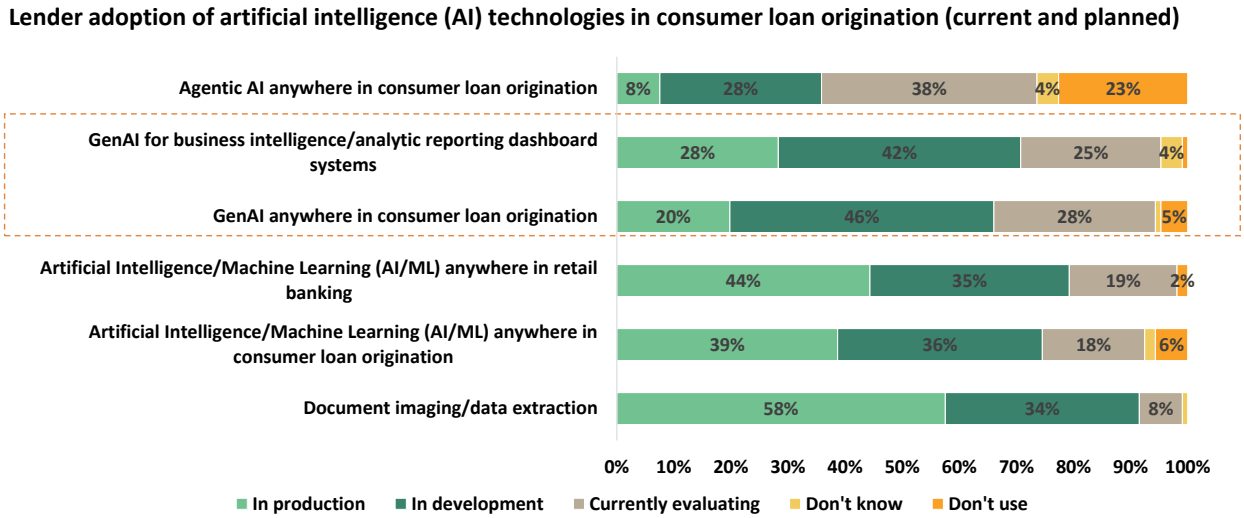
New technologies seem attractive but must have material benefits; have beneficial use cases; and must be evaluated, tested, implemented, and monitored. Consumer lending has many GenAI use cases where lenders can improve efficiency, customer service, and cost control. The key to success is to have a strategy for evaluating viable use cases, determining priority relative to other IT needs, allocating IT/labor resources, and measuring results.

This section examines AI technology adoption to date, the rate at which lenders are developing long-term strategies for GenAI adoption, how GenAI meets the firm's revenue and expense goals, and the growing use of GenAI for BI and analytic reporting.

Generative AI Use and Development Is Growing Quickly

Figure 8 quantifies current and planned adoption of four types of AI. Two-third of lenders are in production or development with GenAI in consumer lending. This data is also used to position RPA, AI/ML, GenAI, and agentic AI on the technology adoption lifecycle diagram in Figure 4.

Figure 8: GenAI is Growing Quickly, With Two-thirds of Lenders in Production or Development



Base: US financial institutions consumer lending (sample: 106)
Q3r1: Document imaging/data extraction (OCR, RPA, or ACR) - Where do you use artificial intelligence (AI) technologies in your consumer loan origination business today?
Source: Celent Top Insights for Generative AI in Lending Survey, September 2025

Interestingly, 70% percent surveyed are or will soon be using GenAI to create BI/analytic reporting dashboard systems. This adoption rate is higher than for consumer lending use cases in general.

AI Evolution in Banking

RPA: during the early 2000s a way to use screen scraping technology to extract data and automate rules-based tasks (e.g., data entry and account setup.

AI/ML: first introduced in the 1980s, but growth started in the 1990s–2000s when computing power and data availability increased. (e.g., risk management modeling and decisioning.

GenAI: in 2022/2023 (e.g., software coding, market research, and fund performance summaries.

Agentic AI: in late 2024/early 2025. Autonomous, multi-step actions with minimal human input.

Traditional BI dashboards are static "read-only reports" with descriptive visualizations and rely on predefined metrics, filters, and data segmentation paths. Users must interpret charts themselves and can only create new views by requesting them from programmers, which is costly and slows down decision making.

Technically, GenAI enhances BI dashboards by layering natural-language understanding, summarization, and reasoning on top of lending data. It is an interactive, conversational decision assistant. It uses natural-language querying where users ask questions in plain language such as "show me month-over-month change in credit card loan approval rates".

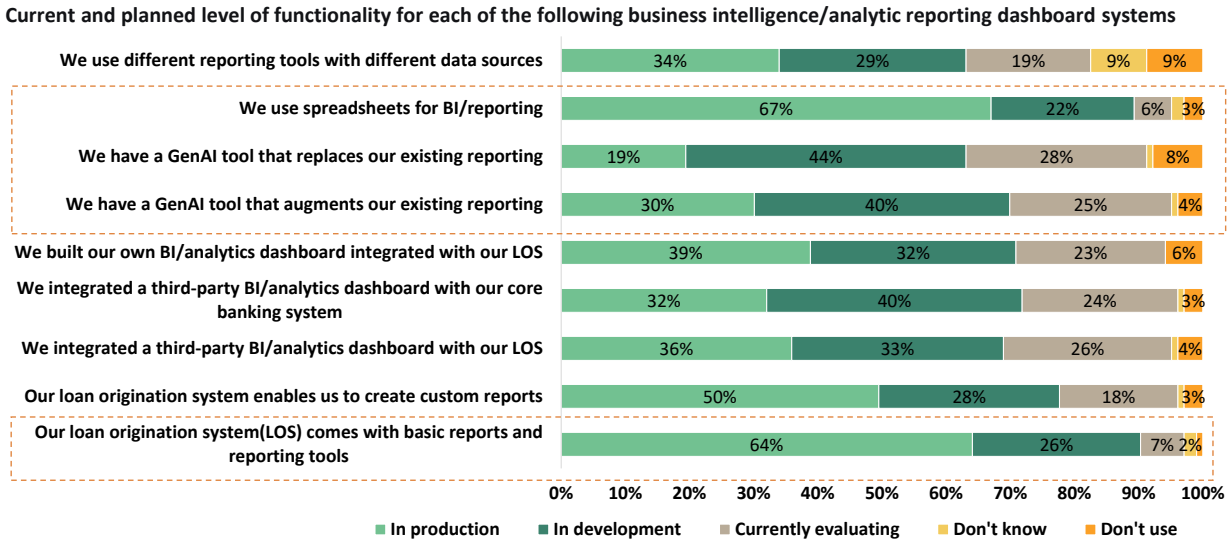
Managerially, GenAI makes BI dashboards more flexible via self-service (can create reports on the fly), provides faster answers (in seconds, not days), is more actionable (recommendations and alerts, and is more integrated. GenAI links structured metrics with unstructured data (notes and attachments), and provides more personalized, custom dashboards by role (underwriter, branch manager, compliance officer).

Gen AI creates narrative summaries, automates insight generation, performs "what-if" and scenario analysis, and generates proactive alerts and recommendations.

Lenders Must Consolidate Fragmented BI/Reporting with GenAI

Figure 9 provides detail on the many technologies lenders use for analytic reporting. The first main insight is that lenders use a wide variety of third-party and internal reporting technologies of various maturities. It can be difficult and costly to manage so many different systems.

Figure 9: Excel Spreadsheets and Basic Reporting are the Most used BI/Reporting Tools



Base: US financial institutions consumer lending (sample: 106)
Question: Q10. Regarding business intelligence/analytic reporting dashboard system(s) ("BI/reporting") supporting your consumer loan operations, what is the current and planned level of functionality for each of the following BI/reporting systems?
Source: Celent Top Insights for Generative AI in Lending Survey, September 2025

Second, spreadsheets are the most often used system, with basic LOS reports second. These are the least flexible of reporting systems. Moreover, although half of lenders have an LOS that enables custom report creation, lenders must create an increasing number of custom reports to create different views of the data, which is time consuming and costly.

Third, some lenders are already using GenAI tools to augment or replace existing reporting. Many more are developing GenAI systems. Over time, Celent expects lenders to consolidate reporting onto fewer and fewer reporting tools over time.

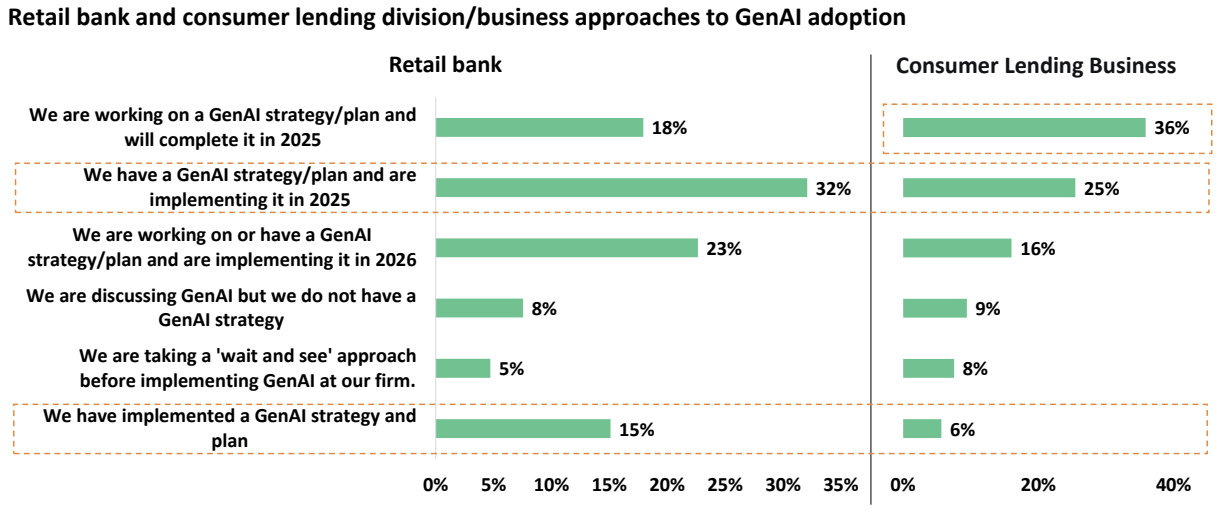
GenAI Strategies: The Bank is Slightly Ahead of the Lending Division

Figure 8 and Figure 9 showed that the consumer lending division of financial institutions is making positive strides with AI in general and GenAI specifically. But how are they keeping up with the broader retail banking enterprise? It is important to determine not only where financial institutions are within the lending division, but also is the lending division ahead of or behind the overall retail banking market.

Benchmarking the consumer lending division against the broader retail bank in terms of GenAI strategy development and implementation yielded interesting results. Figure 10 shows that only 15% have

indicated that the broader retail bank–which typically has many more customers and transaction accounts than the lending division–has implemented a GenAI strategy. In addition, 32% more are planning to implement a strategy in 2025. In contrast, only 6% of consumer lending divisions have a GenAI strategy and only 25% are implementing it in 2025. Fortunately, 36% are working on a GenAI strategy, will complete it in 2025, and will implement it in 2026.

Figure 10: Consumer Lending GenAI Strategy Development Will Catch Up With the Retail Bank in 2026



Base: US financial institutions consumer lending (sample: 106)
Question Q4c1: For the retail bank - What is your approach to GenAI for the retail bank in general and for consumer lending specifically?
Q4c2: For our consumer lending business - What is your approach to GenAI for the retail bank in general and for consumer lending specifically?
Source: Celent Top Insights for Generative AI in Lending Survey, September 2025, n=106.

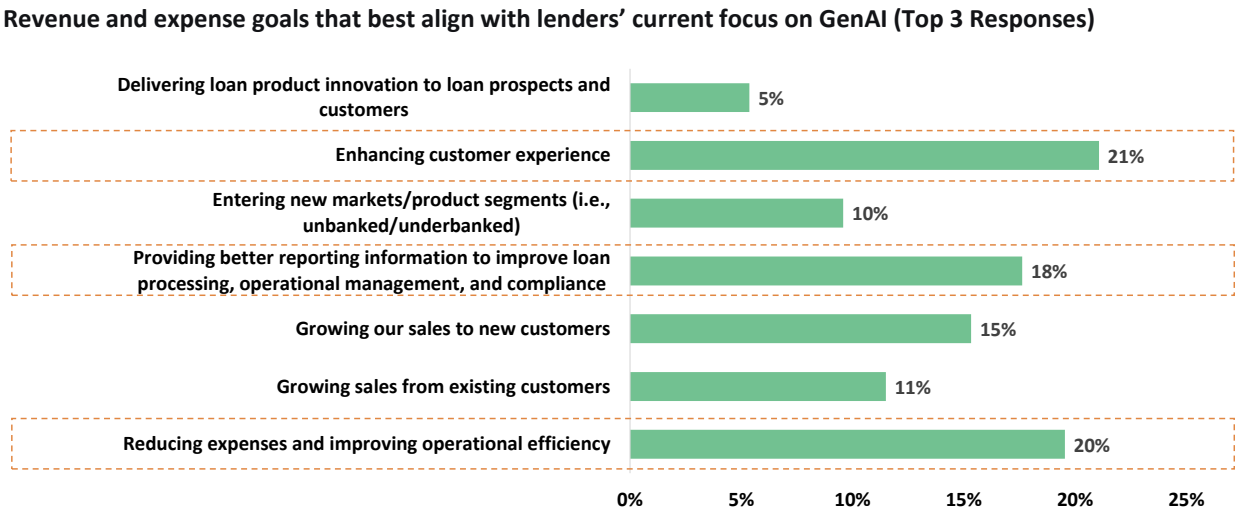
In summary, the consumer lending division is adopting GenAI rapidly. As of September 2025, it was slightly behind the retail bank (which often drives IT option strategy and spending relative to the consumer lending division). However, by year-end 2025, 67% of lenders will have implemented and completed GenAI plans compared to 65% for the retail bank.

Customer Experience and Reducing Expenses Drive GenAI Investment

The most important question in our survey is why a financial institution should invest in GenAI? Which business objectives and benefits drive GenAI IT spending?

Figure 11 answers this question by asking lenders about seven revenue and expense goals related to customer, product, sales, and expenses. Enhancing customer experience is the leading goal.

Figure 11: Lenders Implement GenAI To Improve the Customer Experience and Reduce Costs



Source: Celent Top Insights for Generative AI in Lending Survey, September 2025, n=106.
Question Q5: Which of the following revenue and expense goals best align with your current focus on GenAI? (Top 3 Responses)
Source: Celent Top Insights for Generative AI in Lending Survey, September 2025, n=106.

Customer experience includes: speed and ease of completing a transaction, receiving answers to questions and good advice during the process. GenAI does this with chatbots that answer consumer questions, provide supporting data (both in real time and before/after call) to loan officers and contact center agents, and management answers using reporting dashboard queries.

Reducing expenses and improving operational efficiency: GenAI tools for employees reduce customer-facing and middle-office employee time, and some of these tools also improve customer service simultaneously. The third most important goal is providing better management reporting information. This result is consistent with the strong lender adoption of GenAI for BI/analytic dashboards and the need to consolidate less-efficient reporting technology described earlier.

> GenAI is easier for financial institutions to adopt relative to AI/ML because it can be deployed in a human-in-the-loop fashion — augmenting employees without replacing judgment or control systems.
>
> Celent

GenAI Adoption and Benefits Relative to AI/ML and Agentic AI

GenAI has an easier, incremental adoption path for financial institutions to adopt relative to AI/ML and agentic AI because it can be deployed in a human-in-the-loop fashion — augmenting employees *without replacing judgment or control systems*.

In contrast with GenAI, machine learning may replace judgment or control systems and directly impact consumer protection regulation. Agentic AI must integrate with these systems, which is complicated for more complex transactions such as loan origination. These AI tools introduce greater transformational potential but also greater risk, require tighter governance, explainability, and trust frameworks before they can operate autonomously in highly regulated environments like banking. Lenders should pick smaller use cases and processes to experiment, observe, and gain governance experience.

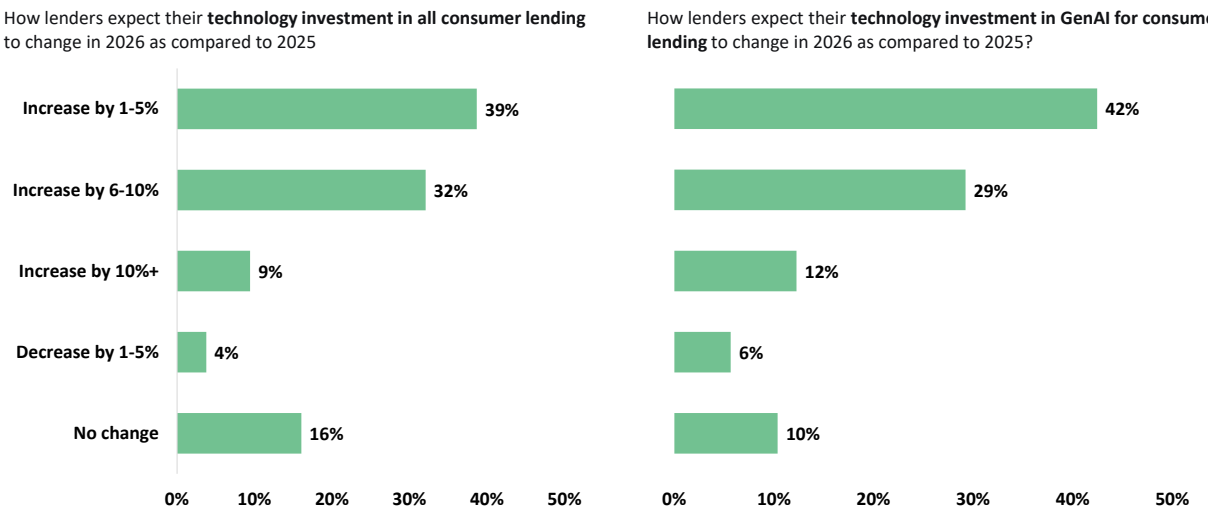
IT Investment Priorities and Spending

This survey has shown that many lender business challenges and pain points in loan origination can be solved with GenAI; that many lenders have GenAI strategies; that GenAI also supports business challenges in loan decisioning, operational management, and customer engagement; and that GenAI implementation has competitive advantages. We now examine whether and how lender IT spending plans align with their business plans for GenAI.

GenAI IT Spending Higher Than Overall Consumer Lending IT Spend

Figure 12 clearly indicates that a vast majority of lenders are investing in GenAI to improve their business operations and customer engagement. Eighty percent (80%) are increasing IT spending specifically for consumer loan origination. One-third (32%) are increasing by a strong 6-10%, which is above average for expected banking IT spending based on Celent's 2025 Dimensions survey. Another 9% plan to increase consumer lending budgets by more than 10% in 2026.

Figure 12: Eighty percent are increasing consumer lending IT budgets in 2026, while 83% are increasing GenAI consumer lending IT budgets



Base: US financial institutions consumer lending (sample: 106)
Question: Q7: How do you expect your technology investment in consumer lending to change in 2026 as compared to 2025?
Source: Celent Top Insights for Generative AI in Lending Survey, September 2025

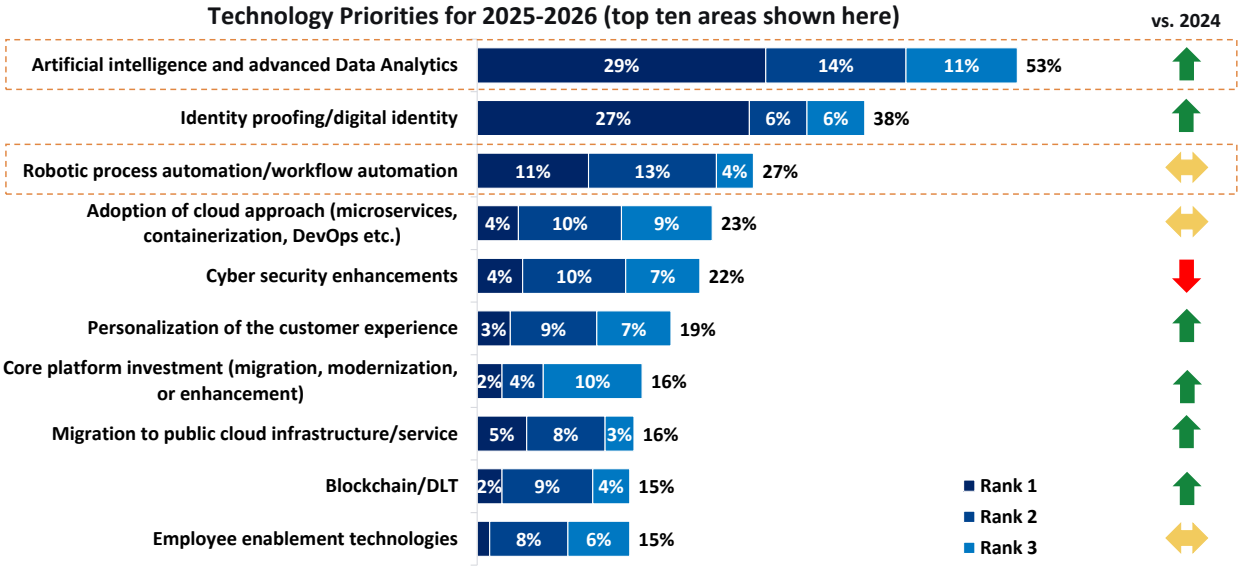
Figure 12 also shows that lenders are spending more for GenAI technology that for their overall consumer loan origination IT spending plans for 2026 and next 18 months. Moreover, 41% are increasing IT spend by at least 5-10%.

> Eighty-three percent (83%) of lenders are increasing consumer lending GenAI IT budgets in 2026. In addition, two-thirds will have completed or will be implementing GenAI strategies by 2026.
>
> - Celent Top Insights for Generative AI in Lending Survey, September 2025

AI/Data Analytics Is the top IT Spending Priority in Retail Banking

AI technology spending priorities and increases are consistent with other Celent research. Figure 13 `analyzes 2025 technology priorities from the Celent Dimensions Survey 2025 published during H1 2025. AI and advanced data analytics are the highest technology priority through H1 2026. AI is the highest priority overall (top 3 priorities) and among FIs indicating their number one priority.

Figure 13: AI/Advanced Data Analytics is the Top Tech Priority for 2025-2026, and has Increased in Focus Since 2024



Base: All retail banking respondents (sample: 245)
Question: Which of the following are your leading technology/process investment priorities in the next 18 months?
Source: Celent Dimensions Survey 2025

It's clear that the industry will continue to prioritize investments in AI and advanced data analytics technologies in 2025. This will support a range of different use cases, not least many of the planned enhancements to the digital channels. This will doubtless include further investment in GenAI across a

range of use cases. Both areas have increased in focus since 2024, while the emphasis placed on investments in cybersecurity has fallen back.

New capabilities intensify competition and demand for better technology as FIs seek to improve internal performance and gain external competitive advantage against incumbents and non-traditional fintech competitors, including challenger banks and big tech/payments platform providers.

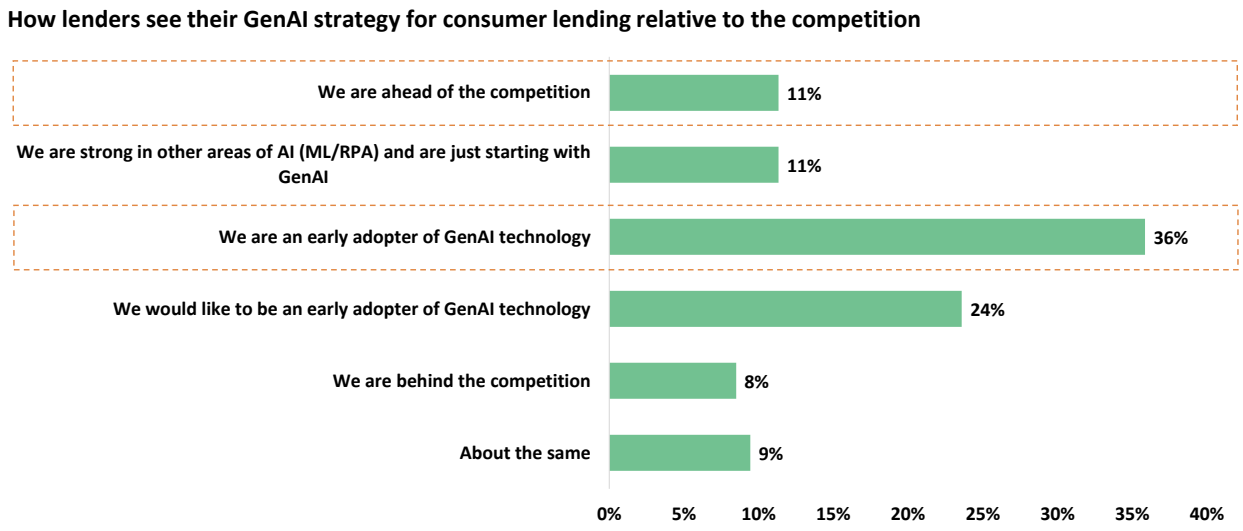
A Competitive Advantage from GenAI

Celent's survey shows that GenAI can improve customer engagement, operations, and BI/analytic management reporting. Can it also create competitive advantage in retail lending markets? If so, this bolsters the case for increased IT investment in GenAI beyond internal business benefits. Competitive advantage is the major business driver of the AI revolution.

Financial Institutions are Differentiating Themselves with GenAI

Figure 14 reveals that only 11% of lenders felt they were ahead of the competition in GenAI development and usage. This means lenders have to create a competitive advantage or catch up if they lag the market. In addition, a deeper review of the data shows that lenders who are strong in other AI areas (11%) are more likely to be an early adopter of GenAI and ahead of the competition.

Figure 14: Over One-Third Are Early Adopters of GenAI, but Only 11% Are Ahead of the Competition



Base: US financial institutions consumer lending (sample: 106)
Question: Q12: How do you see your firm with respect to GenAI strategy for consumer lending in your market?
Source: Celent Top Insights for Generative AI in Lending Survey, September 2025

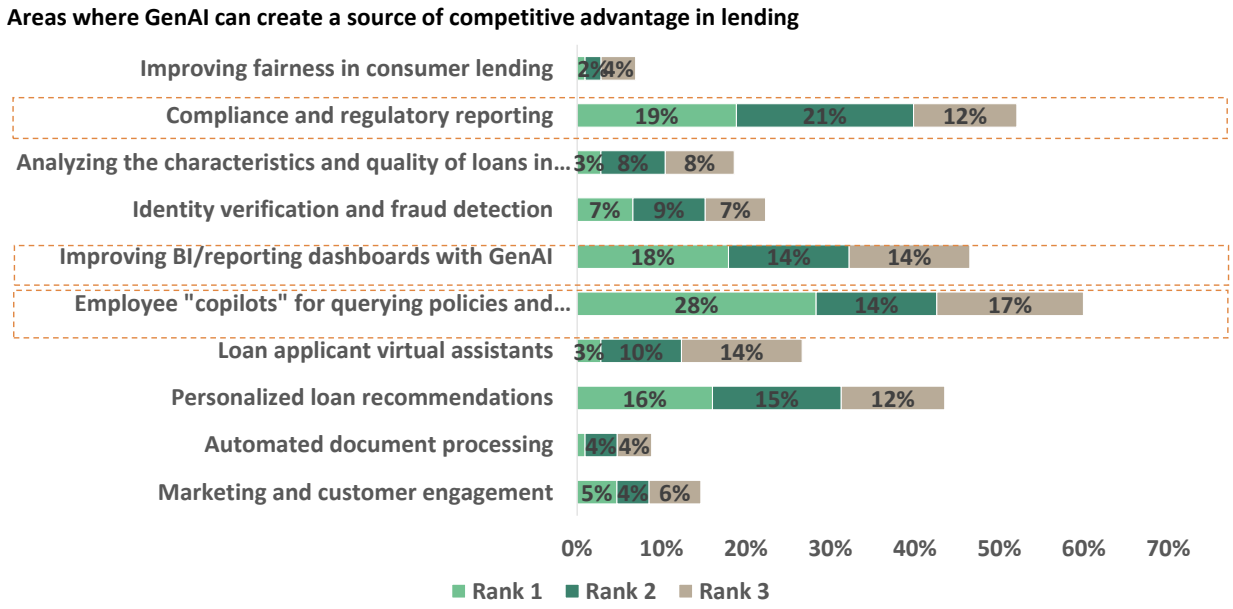
Over one-third (36%) of firms view themselves as early adopters of GenAI technology. This relatively large market of IT enthusiasts and visionaries also encourages development of third-party solutions to help lenders implement GenAI faster and in a more organized manner in the long term. Within this group, 25% of lenders that don't consider themselves strong in other areas of AI are also GenAI early

adopters. This may be because GenAI is easier to adopt than AI/ML and has more immediate benefits than investing in data science and ML analytics for analytic decisioning.

Where Lenders See the Greatest Competitive Advantage From GenAI

Figure 15 shows the top 3 rankings for the areas where lenders believe GenAI can create a source of competitive advantage. Employee copilots are a strong source of competitive advantage as indicated by the top rank and the combined top 3 rank as highlighted below.

Figure 15: Internal Co-pilots, Improving BI/Dashboards with GenAI, and Personalized Loan Recommendations



Base: US financial institutions consumer lending (sample: 106)
Question: Q11: which of these areas do you think GenAI can create a source of competitive advantage in your lending business?
Source: Celent Top Insights for Generative AI in Lending Survey, September 2025

Compliance and regulatory reporting is ranked second, perhaps because many lenders feel that the compliance burden is a relatively equal and strong burden on the entire industry, and because lenders often rely on the same third-party compliance reporting solutions.

Improving BI/analytic reporting also stands out as a source of competitive advantage from GenAI, ranking third. The reason for this may be similar to the compliance burden, that is, these are middle office, operational, and vendor system issues that lenders don't overtly compete on, but that are major annoyances. Although BI/analytic reporting is an operational tool, it is for monitoring loan origination processes and decisions about loan approval, loan pricing, and process improvement that contribute to the bottom line.

Path Forward

The ability to lend efficiently, process quickly, and satisfy customers is the heart of successful lending operations. In today's high-rate lending environment, financial institutions must focus on cost efficiency, processing speed, risk assessment, and operating margins to maintain and grow profitability. Technology innovation and competition mandates continued investment in AI technologies because lending is the primary revenue source for retail financial institutions. A sound GenAI strategy and technology investment will help lenders achieve these goals.

Celent's *Top Insights for Generative AI in Lending Survey* shows a strong appetite by lenders for investing in GenAI strategy, use case development, testing, and adoption. Security and compliance are key hurdles but are not insurmountable. In summary:

- The survey findings confirm Celent's view that lenders are further along in their understanding of AI than previously known.
- This knowledge mandates that lenders invest, monitor, and recalibrate GenAI strategy and IT investment on a regular basis.
- For financial institutions this means increasing investment to stay ahead/abreast of the competition.
- For software vendors, IT services, and outsourcing providers, this means increased research and development investment, product marketing, to emphasize immediate value and strategic implementation.

Outlook For AI in Lending

If lenders fully implement ML, GenAI, and agentic AI into loan origination, servicing, and collections during the next 5-10 years, the consumer and mortgage lending industries will be dramatically transformed:

- Lenders will experience improvement in customer engagement and satisfaction; employee efficiency and satisfaction; and loan pull-through rates and revenues.
- At the industry level, technologically innovative lenders will offer AI-first consumer loan products with better speed, service, and digital lending interfaces.
- The compliance function will improve because AI systems will generate compliance documentation, flag potential compliance violations, and assist in loan file quality control reviews.

- Lenders using AI/ML in loan decisioning will use GenAI to make AI models more explainable, transparent, and aligned with fair lending laws.

Figure 16 summarizes Celent's current list of use cases for AI/ML, GenAI, and agentic AI in retail lending. Since agentic AI is more focused on autonomous workflow, it may operate across different loan origination segments. Use cases for AI/ML and GenAI are segmented by lending process.

Figure 16: Lenders Will Use GenAI For Specific Use Cases and Employee/Client Interaction; Agentic AI Will Then Tie Together GenAI and AI/ML Decisioning to Core Lending Systems

Loan Origination Solutions – AI, GenAI, and Agentic AI Use Cases

	Sales and Marketing	Loan Application and Processing	Loan Underwriting	Loan Contracting and Funding	Loan Onboarding and Quality Control
AI/ML **Modeling Decisioning**		• **Pre-qualification analysis and offers**	• **Credit** decisioning • **Fraud** assessment • **Collateral** valuation • **Loan pricing** and price elasticity modeling		• Quality control analytic checks
GenAI **Content Generation & Management**	• **Create personalized emails, ads**, and landing pages • **Conversational AI assistant** (chatbots and virtual agents) • **Loan officer virtual agents** • Pre-qualification offers	• Chatbot-based document upload help • **Verifications:** extracts and standardize identity, income, asset, and employment document data	• **Decision support for human underwriters:** summarize credit files; explain credit decisions • **Compliance:** draft compliant, customized adverse action notices based on decision logic; help underwriters interpret regulations/policy updates • BI/analytic dashboards		• BI/analytic dashboards
Agentic AI **(Autonomous workflow)**	• **Agentic AI augments AI/ML and GenAI** across the loan origination lifecycle by taking proactive, multistep actions to complete tasks, provide cross-functional decision support, and perform compliance/audit monitoring. • **End-to-end loan assistant:** guides a borrower through the entire loan journey, from pre-qualification to closing, by asking clarifying questions, recommending next steps, requesting and reviewing documents, and working across channels (web, mobile, call center) • **Loan officer co-pilot**: a real-time assistant to human loan officers; recommends personalized products for each loan applicant; drafts and explains decision letters; and manages reminders, re-verification tasks, and deadlines autonomously • **Dynamic application management:** monitors loan application progress and initiates contact with the borrower for missing documents; notifies processors, underwriters and fraud teams; and schedules follow-ups or recommends alternatives with staff if there is a problem • **Autonomous document review and workflow co-ordination:** reviews and accepts uploaded documents, extracts and verifies information, and routes documents to the appropriate staff person or system.				

Source: Celent

IT services and solution providers can use it not only for their current GenAI app development focus, but also for identifying adjacent product markets. For example, credit, fraud, and pricing decisions and support are often interlinked, which invites a bundled solution design.

Recommendations for Financial Institutions and Solution Providers

Lenders can use Figure 18 as an IT roadmap for GenAI use case development and for planning their overall lending AI strategy.

In-House Solutions vs. Third-Party Providers. While financial institutions should test and build some GenAI tools in-house, maintaining, integrating, and scaling these solutions can become more costly and complex over time as the number of applications increase. The long-term AI roadmap should allow for this and ask: How many use cases will become apps during the next two to three years? What will that cost? Can apps be shared across use cases and lines of business? Who will inventory, update, and revalidate these apps over time? What IT architecture changes will be required to support GenAI apps (and other AI apps) long term?

Large financial institutions. have more options than community-based institutions:

- It may be more cost effective to manage in-house, but the decision to build a platform or license one and customize heavily is ever present, as is the decision to manage a platform internally or outsource it.
- Rearchitecting banking IT architecture is a large, long-term project that necessitates third-party IT services, platform software, and project management.

Smaller community-based financial institutions (CFIs) also have some internal resource to create their own GenAI applications in the near term. The strategic question for the long term are: Will they have sufficient financial and labor resources to document, manage, and add a growing number of apps? Related Celent research indicates that some lenders can build apps that are 80% complete relatively quickly, but fully productizing them can be difficult and time consuming.

Core banking system providers can be a source of support, along with smaller *IT services providers*. When evaluating *third-party AI solution providers* for new apps, CFIs should prioritize those with an established focus on the CFI segment (e.g., community bank or credit union), bundled AI/ML and GenAI offerings (or an IT roadmap to offer bundles), and the ability to manage AI apps on a platform in a similar way that API platforms manage APIs.

IT Services, Software, and Outsourcing Firms. First, lenders are looking to integrate AI solutions more broadly across their lending businesses, suggesting that bundling multiple AI offerings (e.g., GenAI, AI/ML, and/or agentic AI) could be beneficial to address lenders' need for more efficient lending operations. Second, bundling across similar loan origination use cases (e.g., AI/ML or GenAI for credit and fraud decisioning and decision support) is also attractive. Finally, IT services, software, and outsourcing firms should help their prospects or current clients overcome the challenges around employee knowledge/adoption and challenges in developing the business case.

***

The Celent research outlined in the Appendix provides further guidance on lending technology, AI in lending, and AI case studies.

Appendix: Survey Instrument

The aim of this interview is to understand the current and future state of AI like machine learning (ML) and generative AI (GenAI) technology adoption in Consumer Loan Origination. GenAI use cases can include loan origination, business operations/customer service, fraud detection, cross-sell / upsell, management reporting needs, operational improvement, and compliance. Lenders want to know objections, pain points being addressed / business challenges, technology challenges, adoption, and IT spend.

Definitions

The following definitions are meant to create a consistent baseline of understanding *in a retail loan origination context* for all survey participants. Please refer to these when reading the questions and deciding on your responses.

Artificial Intelligence / Machine Learning (AI/ML): A combination of AI and its subset ML, where ML refers to systems that learn from data without being explicitly programmed. *AI/ML is most often used in loan origination for credit, fraud, and loan pricing decisioning analytics.*

Generative AI (GenAI): A type of AI that creates new content—like text, images, or audio—based on patterns it has learned from data. *GenAI is used in loan origination for loan applicant virtual assistants, BI reporting/dashboards, and internal "copilots" for loan officers, processors, and underwriters to query policies and loan documents conversationally.*

Agentic AI: AI systems that can operate autonomously with goals, memory, and decision-making capabilities with minimal human input. Unlike traditional AI and static generative AI, agentic AI takes proactive, multistep actions to complete tasks such as end-to-end loan assistant (AI Loan Agent), loan officer co-pilot, dynamic application management, cross-functional decision support, and compliance/audit monitoring.

Document imaging/data extraction: optical character recognition (OCR), RPA), or automatic content recognition (ACR) *in loan document processing refers to the use of technology to automatically identify and extract information from documents*.

Business Challenges/Pain Points (people, process, cost, technology)

Q1. What are the lending business challenges and priorities driving your technology investment in loan origination for the coming 18 months? Please select your Top 3]**.**

1. Make more effective use of our existing customer data and alternative data sources
2. Protecting against fraud risks
3. Improving the predictive ability of our underwriting and decisioning
4. Inability of our loan origination system (LOS) to integrate with external data and decisioning capabilities
5. Weaknesses, inefficiencies in our business intelligence (BI) system, and dashboards
6. Reliance on manual underwriter intervention
7. Document imaging
8. Other?

Q2. How do you rate the loan origination capabilities and processes of your institution?
[Grid question. Response options: We're a leader, We're in line with the market, We're behind the market]

1. Speed of loan processing
2. Speed of loan underwriting and decisioning
3. Agility in updating/changing our loan origination processes (loan terms, pricing, and policies) with technology
4. Business intelligence/ reporting capabilities to make better management decisions
5. Ability to incorporate AI/ML into our loan origination processes (loan terms, pricing, and policies)
6. Ability to incorporate GenAI into our loan origination processes (loan terms, pricing, and policies)
7. Ability to incorporate AI/ML into loan process/operations management
8. Ability to incorporate GenAI into loan process/operations management
9. Ability to cross-sell / upsell products
10. Compliance reporting needs

Q3. Where do you use artificial intelligence (AI) technologies in your consumer loan origination business today?
[Grid question. Response options: in production, in development, currently evaluating, don't use, don't know]

1. Document imaging/data extraction (OCR, RPA, or ACR)
2. Artificial Intelligence/Machine Learning (AI/ML) anywhere in consumer loan origination
3. Artificial Intelligence/Machine Learning (AI/ML) anywhere in retail banking
4. GenAI anywhere in consumer loan origination

5. GenAI for business intelligence*/analytic reporting dashboard systems*
6. Agentic AI anywhere in consumer loan origination
7. Other_____ (please state)

Q4. What is your approach to GenAI for the retail bank in general and for consumer lending specifically? Please select one.

[Grid question. Response options: for the retail bank, for our consumer lending business]
[Select one answer]

1. We are taking a 'wait and see' approach before implementing GenAI at our firm.
2. We are discussing GenAI but we do not have a GenAI strategy
3. We are working on a GenAI strategy/plan and will complete it in 2025
4. We have a GenAI strategy/plan and are implementing it in 2025
5. We are working on or have a GenAI strategy/plan and are implementing it in 2026
6. We have implemented a GenAI strategy and plan
7. Other _____ [Please state]

Q5. Which of the following [revenue and expense] goals best align with your current focus on GenAI? Please select all that apply.
[If response to Q4 is 1 or 2, skip Q5 and Q6.]
[Select top three responses]

1. Reducing expenses and improving operational efficiency
2. Growing sales from existing customers
3. Growing our sales to new customers
4. Providing better reporting information to improve loan processing, operational management, and compliance
5. Entering new markets/product segments (i.e., unbanked/underbanked)
6. Enhancing customer experience
7. Delivering loan product innovation to loan prospects and customers

Q6. Where do you see the greatest potential for GenAI in lending? Select all that apply.
[If response to Q4 is 1 or 2, skip Q5 and Q6.]

*[*GRID COLUMNS: in production, in development, currently evaluating, don't use, don't know]
[Select top three responses]

1. Marketing and customer engagement
2. Personalized loan recommendations

3. Loan applicant virtual assistants
4. Internal "copilots" for loan officers, processors, and underwriters to query policies and loan documents conversationally.
5. Identity verification and fraud detection
6. Business intelligence / reporting dashboards
7. Compliance and regulatory reporting
8. Automated document processing

Technology Investment Priorities and Spending

Q7. How do you expect your technology investment *in consumer lending* to change in 2026 as compared to 2025? Please select one response.

1. Increase by 10%+
2. Increase by 5-10%
3. Increase by 1-5%
4. No change
5. Decrease by 1-5%
6. Decrease by 5-10%
7. Decrease by 10%+

Q8. How do you expect your technology investment *in GenAI* for consumer lending to change in 2026 as compared to 2025? Please select one response.

1. Increase by 10%+
2. Increase by 5-10%
3. Increase by 1-5%
4. No change
5. Decrease by 1-5%
6. Decrease by 5-10%
7. Decrease by 10%+

Q9. What do you see as the biggest barriers to taking advantage of the opportunities in GenAI? Please rank top 3 [Randomize]

[Select top 3]

1. Challenges over the business case
2. The technology is not mature/developed enough

3. Security and/or risk concerns
4. Lack of clear regulatory guidance
5. Challenges over customer/employee adoption
6. Our current systems can't easily support these initiatives
7. Other priorities are more important
8. Our early attempts were not successful
9. Resourcing constraints
10. We don't see the benefits at the moment

Q10. Regarding business intelligence*/analytic reporting dashboard system(s)* ("BI/reporting") supporting your consumer loan operations, what is the current and planned level of functionality for each of the following BI/reporting systems?
[GRID COLUMNS: in production, in development, currently evaluating, don't use, don't know]
Aim: Demand for GenAI relative to AI, and assess weakness of current BI dashboards.
[Select one for each row]

1. Our loan origination system (LOS) comes with basic reports and reporting tools
2. Our loan origination system enables us to create custom reports
3. We integrated a third-party BI/analytics dashboard with our LOS
4. We integrated a third-party BI/analytics dashboard with our core banking system
5. We built our own BI/analytics dashboard integrated with our LOS
6. We have a GenAI tool that augments our existing reporting
7. We have a GenAI tool that replaces our existing reporting
8. We use spreadsheets for BI/reporting
9. We use different reporting tools with different data sources
10. We don't have a reporting tool to gain insights quickly from our vast databases.

Competition Advantage from GenAI

Q11. In which of these areas do you think GenAI can create a source of competitive advantage in your lending business?
[Rank 1, 2, or 3.]

1. Marketing and customer engagement
2. Personalized loan recommendations
3. Loan applicant virtual assistants
4. Internal "copilots" for loan officers, processors, and underwriters to query policies and loan documents conversationally.
5. Improving BI/reporting dashboards with GenAI
6. Identity verification and fraud detection
7. Analyzing the characteristics and quality of loans in my loan pipeline.
8. Compliance and regulatory reporting
9. Improving fairness in consumer lending
10. Automated document processing

Q12. How do you see your firm with respect to GenAI strategy for consumer lending in your market?

[Select one]

1. We are strong in other areas of AI (ML/RPA) and are just starting with GenAI
2. We are an early adopter of GenAI technology
3. We would like to be an early adopter of GenAI technology
4. We are behind the competition
5. About the same
6. We are ahead of the competition
7. Don't know

Leveraging Celent's Expertise

If you found this report valuable, you might consider engaging with Celent for custom analysis and research. Our collective experience and the knowledge we gained while working on this report can help you streamline the creation, refinement, or execution of your strategies.

Support for Financial Institutions

Typical projects we support include:
Vendor short listing and selection. We perform discovery specific to you and your business to better understand your unique needs. We then create and administer a custom RFI to selected vendors to assist you in making rapid and accurate vendor choices.
Business practice evaluations. We spend time evaluating your business processes and requirements. Based on our knowledge of the market, we identify potential process or technology constraints and provide clear insights that will help you implement industry best practices.
IT and business strategy creation. We collect perspectives from your executive team, your front line business and IT staff, and your customers. We then analyze your current position, institutional capabilities, and technology against your goals. If necessary, we help you reformulate your technology and business plans to address short-term and long-term needs.

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We provide services that help you refine your product and service offerings. Examples include:
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About Celent Custom Surveys

Talk with us! We can share best practices, learnings, and case studies that can help tailor your technology investments and sales strategies to your customers' increasing preference for digital banking.

In addition, based on Celent's research and advisory work with financial institutions outside North America, financial institutions and solution providers are likely to find areas of commonality with their local country markets.

Secondly, the survey participant composition enabled Celent to segment responses based on institution type and total asset size. (See the Appendix for details.) The response base of the survey enabled us to present more detailed rigorous crosstabs based on panelist demographics.

Note: Celent expects the insights contained herein are a good yardstick for the attitudes and activities of North American financial institutions based on the survey participants.

Celent's Survey Projects

This custom survey research project is one of Celent's research survey capabilities. Our Dimensions Survey is an annual, global survey of 200 – 300 financial institutions. Custom surveys are focused on specific client needs and also appeal to Celent's broader client base.

Panelists were recruited from Celent clients and non-clients alike. For more information on custom survey-based research, contact your relationship manager or analyst(s).

Related Celent Research

Digital Transformation Across the Retail Lending Lifecycle: Componentization Enables Customization With Integrated Customer Engagement
August 2025

The New Era of AI-driven Analytics in Lending: Infusing AI/ML, Generative AI, and Agentic AI into Retail Lending Decisioning Processes
August 2025

First Hawaiian Bank: Boosting Revenue and Reducing Risk and Bias with AI in Loan Decisioning
June 2025

ICICI Bank: Analytics-Led Decision-Making for SME Lending
June 2025

It's All About the Data! - Improving Decision Intelligence Models in Banking
May 2025

Dimensions: Retail Banking IT Pressures & Priorities 2025
March 2025

Next-Generation Intelligent Decisioning Platforms – Shifting to the Enterprise and Cloud to Modernize Front and Back Office Retail Loan Decisioning
January 2025

The Pulse of Retail Debt Collections, 2025: Insights from a US Industry Survey: Challenges and Opportunities for Data Acquisition, Enhancing Consumer Engagement, and Increasing Automation
November 2024

Top Technology Trends Previsory: Retail Banking, 2025 Edition
November 2024

Digital Sovereignty: The Impact on Data, AI, and Next-Gen Banking Solutions
August 2024

AI and Data Governance: A New Era for Banks
July 2024

Next-Generation Retail Loan Origination Systems – Shifting to the Enterprise and Cloud to Modernize Front and Back Office Systems
April 2024

Detangling Data: The Art and Science of Managing Banking Data
June 2023

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