JUNIPER RESEARCH

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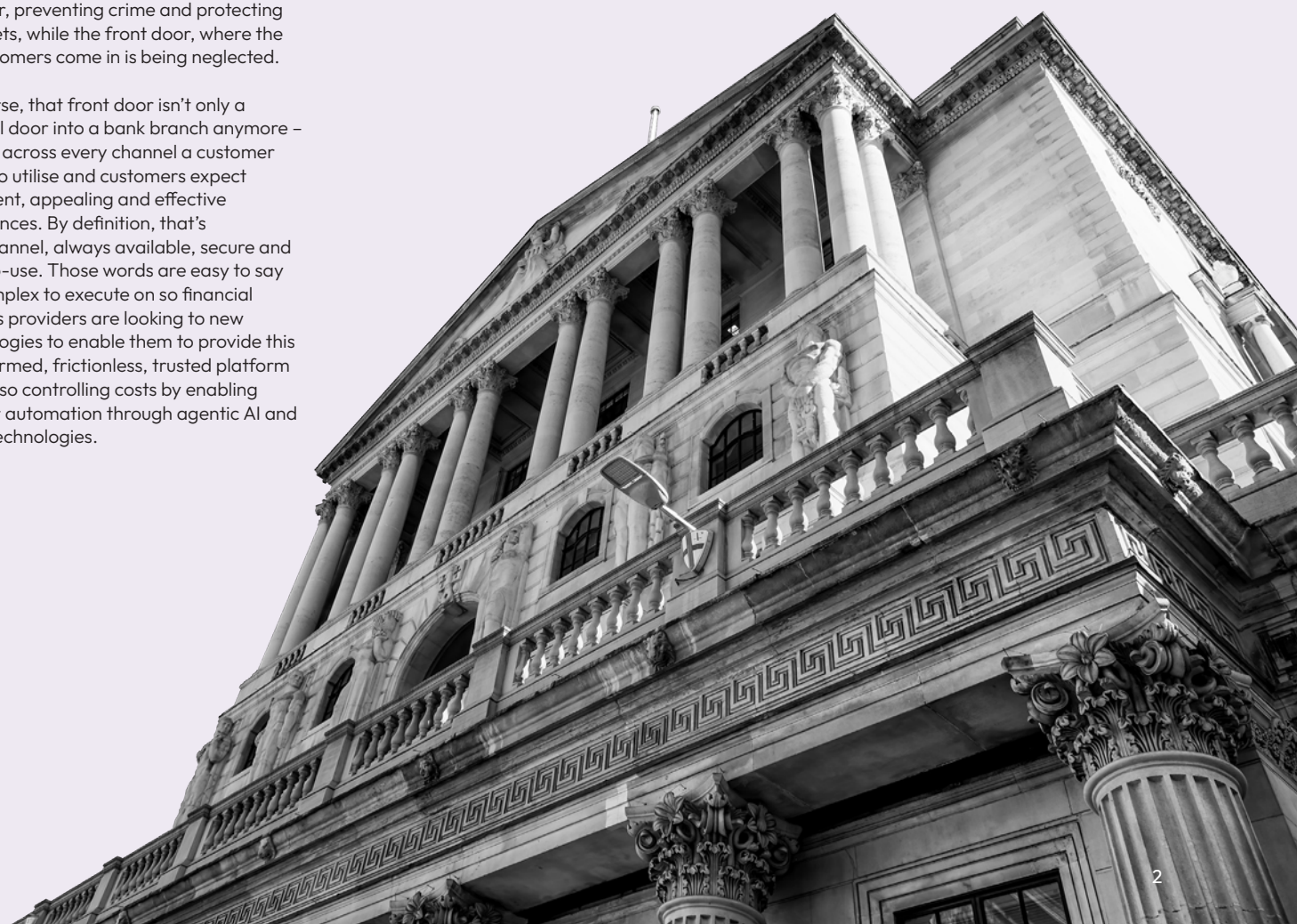
How banks can pivot from fragmented data to agentic AI and optimised CX

Executive summary

Financial institutions across the globe are faced with a series of fundamental challenges. From an IT perspective, these involve everything from compliance to cybersecurity, intense competition and fragmented data. There are three key issues that are at the heart of the fintech industry's transformation for the new era:

- First, there's an **increasing expectation among customers** to be able to interact whenever and wherever they want and they'll leave if they can't. Challenger banks offer this and place increasing pressure on traditional banks to match the flexibility and simplicity their CX offers.
- Next, financial institutions are **hampered by their legacy systems** which hog resources and impede innovation. The need to access data from systems that can be decades old can make it much more challenging to bring rich, technology-led offerings to market.
- Finally, the **massive increase in fraud and cybercrime** means IT resources and attention is focused on the back door, preventing crime and protecting assets, while the front door, where the customers come in is being neglected.

Of course, that front door isn't only a physical door into a bank branch anymore – it exists across every channel a customer wants to utilise and customers expect consistent, appealing and effective experiences. By definition, that's omnichannel, always available, secure and easy-to-use. Those words are easy to say but complex to execute on so financial services providers are looking to new technologies to enable them to provide this transformed, frictionless, trusted platform while also controlling costs by enabling greater automation through agentic AI and other technologies.



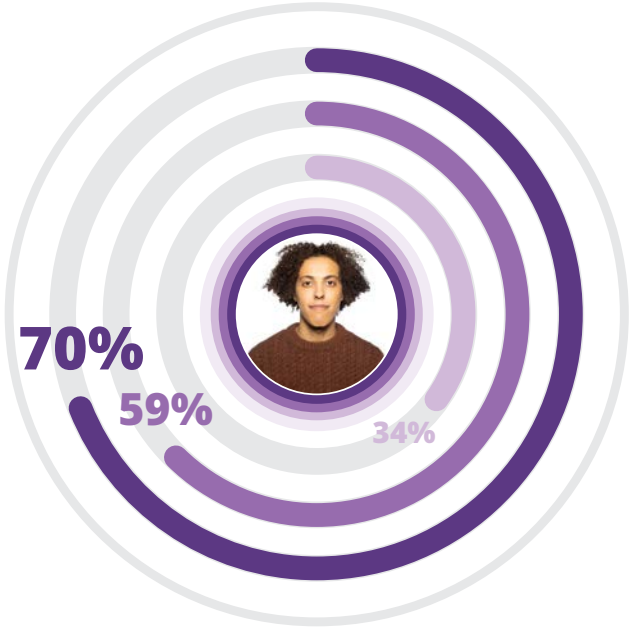
Agents of change

Agentic AI underpins innovation, enabling systems to learn and co-ordinate so tasks can be performed autonomously, delivering the secure always-available customer experience that is demanded while achieving compliance, eliminating fraud and reducing operational costs. Taking routine tasks away from humans saves costs and delivers smoother experiences to customers and this Handbook explores how the technology can be used most appropriately in the financial services sector without alienating customers.

At the same time, brands in general are under pressure not to over-communicate as shown in **Figure 1**. In financial services, the stakes are higher as customers are more protective over their money and therefore AI needs to be utilised with caution to ensure consumer trust is preserved.

The scale of the transformation needed to create the modern financial services IT environment is substantial and multi-faceted but the rewards are potentially enormous. If banks can execute on layered systems that combine AI and humans they will need to ensure they can access the full picture of customer data, regardless of the legacy and siloes involved. Layered systems demand comprehensive access to all the required data to ensure smooth automation – and that's the ultimate prize: IT that fuels precise, tailored and efficient actions regardless of how they are initiated.

Figure 1: Consumer attitudes to brands over-communicating



CSG commissioned a consumer study, which found:

70%
of consumers feel brands send so many messages, they don't care what brands are saying anymore.

59%
have deleted critical messages, mistaking them for marketing.

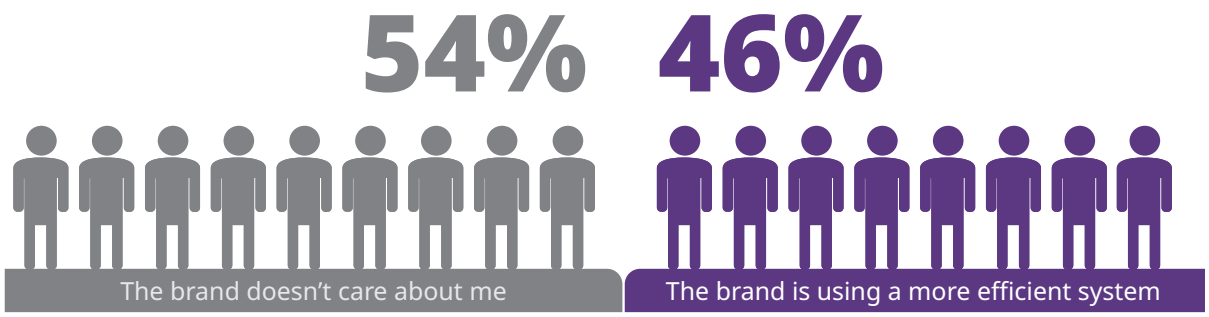
34%
have stopped buying altogether from brands due to excessive outreach.

Mind the expectation gap

Customer preferences are developing quickly across the financial services arena and this shift is creating a gap between customer expectations and what legacy systems are capable of providing. This expectation gap is forcing banks to upgrade their core banking systems and modernise their operations but not all customers want the same things from their banks.

CSG's **'2026 State of the Customer Experience'** survey found that Gen Z is the only generation in which the majority finds chatbots more effective than humans, attitudes to AI split along generational lines. The survey uncovered that, when a brand routes a customer to an AI agent/chatbot or automated system for support 54% feel that the brand doesn't care about them while 46% recognise the brand is using a more efficient system. Overall, 56% are uncomfortable with letting AI take actions on their behalf while 81% of the boomer generation feel this way.

Figure 2: When a brand routes them to an AI agent/chatbot or automated system for support, which feeling do consumers more likely have?



Trust in AI needs to be carefully fostered and the survey respondents said that confidence in automated customer support will increase if the three conditions set out in **Figure 3** are met. Brands are now in a different world where loyalty has eroded and customers will simply move to an alternate provider if they are not happy with their experience.

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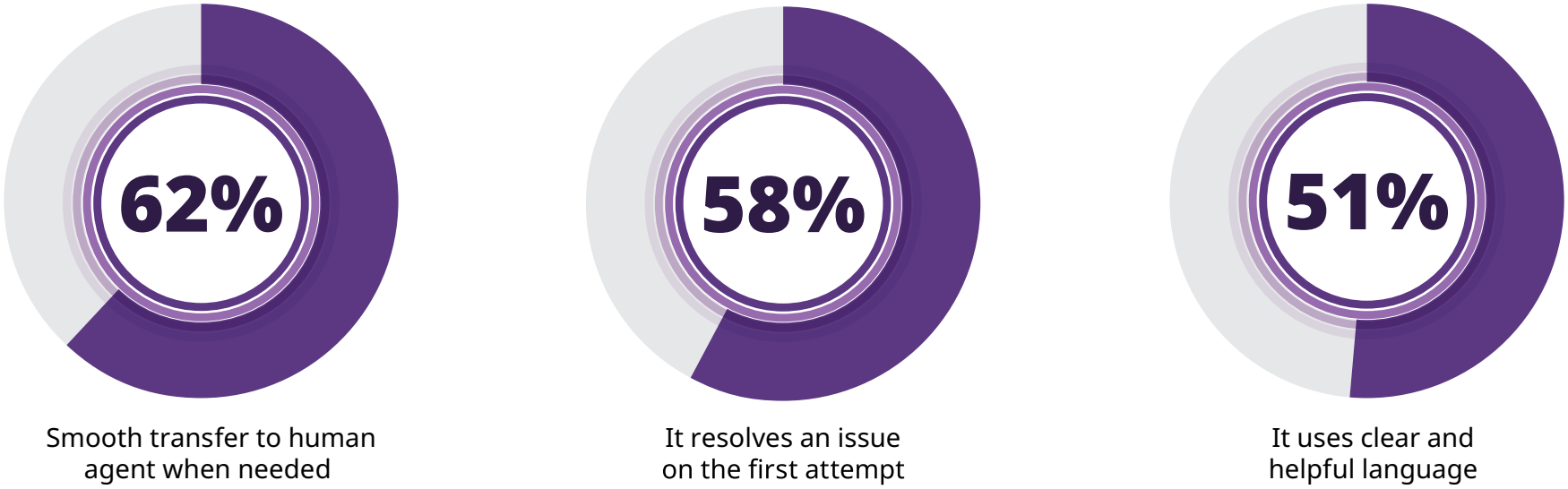
Figure 3: Conditions for fostering trust in AI

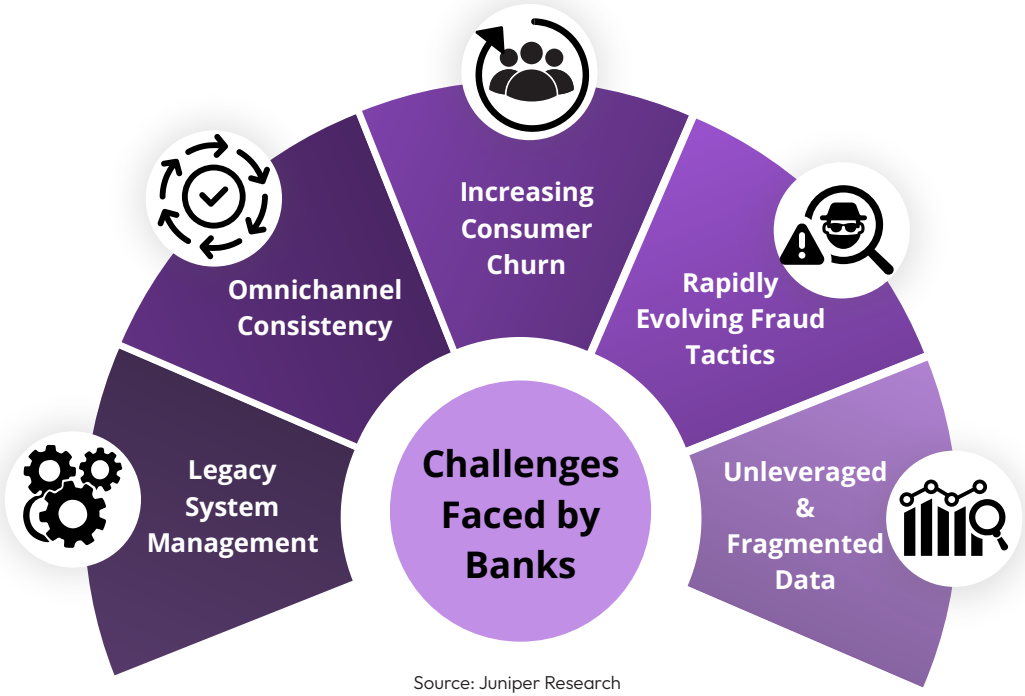


Increased engagement, reduced churn

Financial institutions see the challenges detailed in **Figure 4** and are moving to new approaches to customer engagement, risk management and operational agility. Central to these challenges is the issue of consumer churn, which is rising at an unprecedented rate across both business and personal accounts. For example, in the UK, a survey revealed that 17% of adults switched their bank account in the past year, and 45% of 18- to 45-year-olds had switched in the past year[i], displaying that this trend will only intensify over time.

17% of adults switched their bank account in the past year

Figure 4: Challenges faced by service providers



Source: Juniper Research

Cash incentives, competitive interest rates, improved digital services and experiencing poor customer service are among the push and pull factors driving customers to change providers more often. This is consistent with the CSG survey which revealed that poor customer service and difficulty with resolving issues are the top reasons cited for churn, selected by 45% and 44% of respondents respectively.

Core systems must now handle a far higher volume of data due to increased customer churn. Even when customers close their accounts, financial institutions are required to retain data for anti-money laundering compliance purposes, as well as providing a seamless experience if customers decide to return.

Consistent omnichannel experiences

Customer preferences for how they engage with their banks have become more diverse than ever before. Different demographics of customers show a wide and ever-diverging range of expectations, and these preferences often vary depending on the specific service a customer is seeking. The traditional divide between 'in-person' and 'digital-only' banking - once broadly associated with age - no longer holds true.

Customers could start the process of opening an account via one channel and finish it via another without disruption or repeated information

Today, consumers often combine digital and in-person interactions throughout their banking journey. For instance, a customer might prefer to open an account online for convenience but still visit a branch to receive advice on savings or credit card options. Despite the decline in brand visits overall, the physical location of a branch remains an important factor when customers choose where to bank.

However, younger generations do tend to lean towards digital experiences, making it vital to streamline these interactions. Currently, 53% of bankers believe that their banks' legacy tech is a major hindrance to serving younger generations such as Gen Z[ii]. By adopting modern APIs to create a digital-first experience, banks could better meet the expectations of these customers.

As switching banks is more common than ever before and banks are experiencing increased customer churn, onboarding becomes a crucial moment to create a seamless omnichannel experience. Customers could start the process of opening an account via one channel and finish it via another without disruption or repeated information. As onboarding is a particularly expensive part of the customer journey from the bank's point of view, investing into streamlining this while keeping down costs will positively impact banks as customer churn rises. Strategies to improve this involve real-time data sharing and the implementation of cross-channel communication standards.

Outdated technology impedes innovation

This rapidly changing customer landscape presents significant challenges, particularly for banks still reliant on outdated infrastructure. As a result, providers are pushed to constantly innovate to remain competitive. A crucial department that requires investment and innovation is IT, which has previously been viewed as a cost centre but can now function as a value driver. Modernising this is becoming a key component of strategy for financial institutions, especially as dealing with legacy systems becomes more costly over time.

Outdated core software, antiquated programming language and aging applications continue to underpin the banking industry. Many of these legacy systems were developed more than 30 years ago but must be maintained as they are the backbone of daily operations. These systems are resource intensive but provide few innovative capabilities. As a result, banks that do not invest in upgrades must continue to maintain their legacy in spite of the high costs and inefficiencies involved.

The heavy reliance on legacy infrastructure places a considerable strain on IT budgets. On average, banks allocate approximately 70% of their IT budget to maintaining legacy systems[iii], leaving limited room for innovation or strategic investment. This creates an opportunity cost where budgets are directed towards mitigating risks on aging systems instead of driving innovation.

Outdated core software, antiquated programming language and aging applications continue to underpin the banking industry

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Legacy costs swamp new investment

The scale of this problem is considerable; in the UK, a survey of 150 banking executives found that UK banks are set to spend over £3.3 billion (US$4.36 billion) in 2026 maintaining legacy banking systems[iv]. The majority of this expenditure goes towards outsourcing and vendor services, deepening banks' dependence on external providers.

Despite this significant investiture, downtime and outages remain a persistent problem, with over half of executives reporting cases where digital channels were taken offline[i]. This can cause transaction failures, delayed customer transaction notifications, lost transaction data, high recovery IT costs to fix system failures and even regulatory warnings for failing uptime requirements.

Customer data is more valuable than ever before, particularly within the context of turning raw data into actionable insights for customer support. Beyond improving services, harnessing data provides another avenue for classifying high-risk customers and transactions, helping banks avoid fraud chargebacks and regulatory fines later.

Fragmented and unstructured data

However, many banks struggle to unlock the full potential of their data due to fragmentation and siloed systems. Financial institutions hold vast amounts of data, but it remains scattered across departments and platforms. This is compounded by unstructured data, which makes it difficult to gain a comprehensive view of all information assets within an organisation. Without a unified approach to data management, banks risk operating with incomplete or outdated information, hindering decision making.

The growing volume and variety of data only intensifies these challenges. Banks are now dealing with information from multiple sources, including digital channels and external providers. Managing this influx effectively requires integrated systems and advanced analytics.

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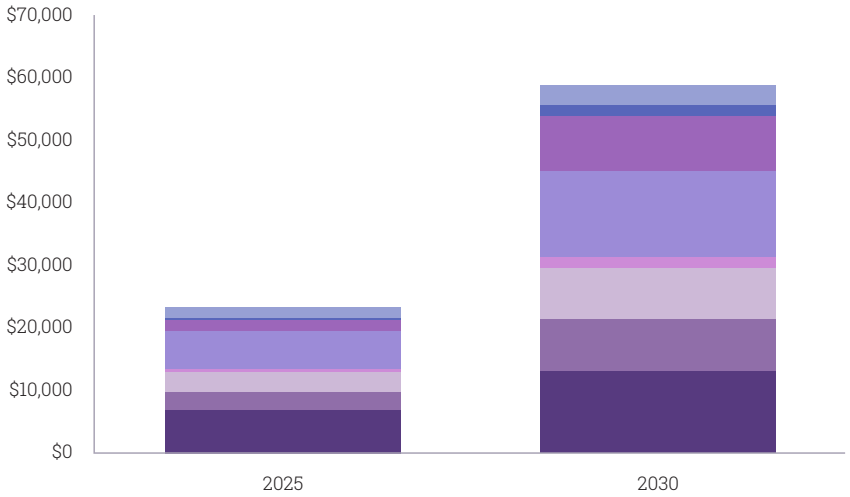
Trusted technology against an expanded threat surface

Across the world, regulators are cracking down on money laundering operations; banks that have gaps in their anti-money laundering (AML) and know your customer (KYC) technology stacks are getting fined in record-high amounts. Financial service providers across many sectors have been hit by these fines, from traditional providers like TB Bank and Barclays to digital challenger banks like Monzo.

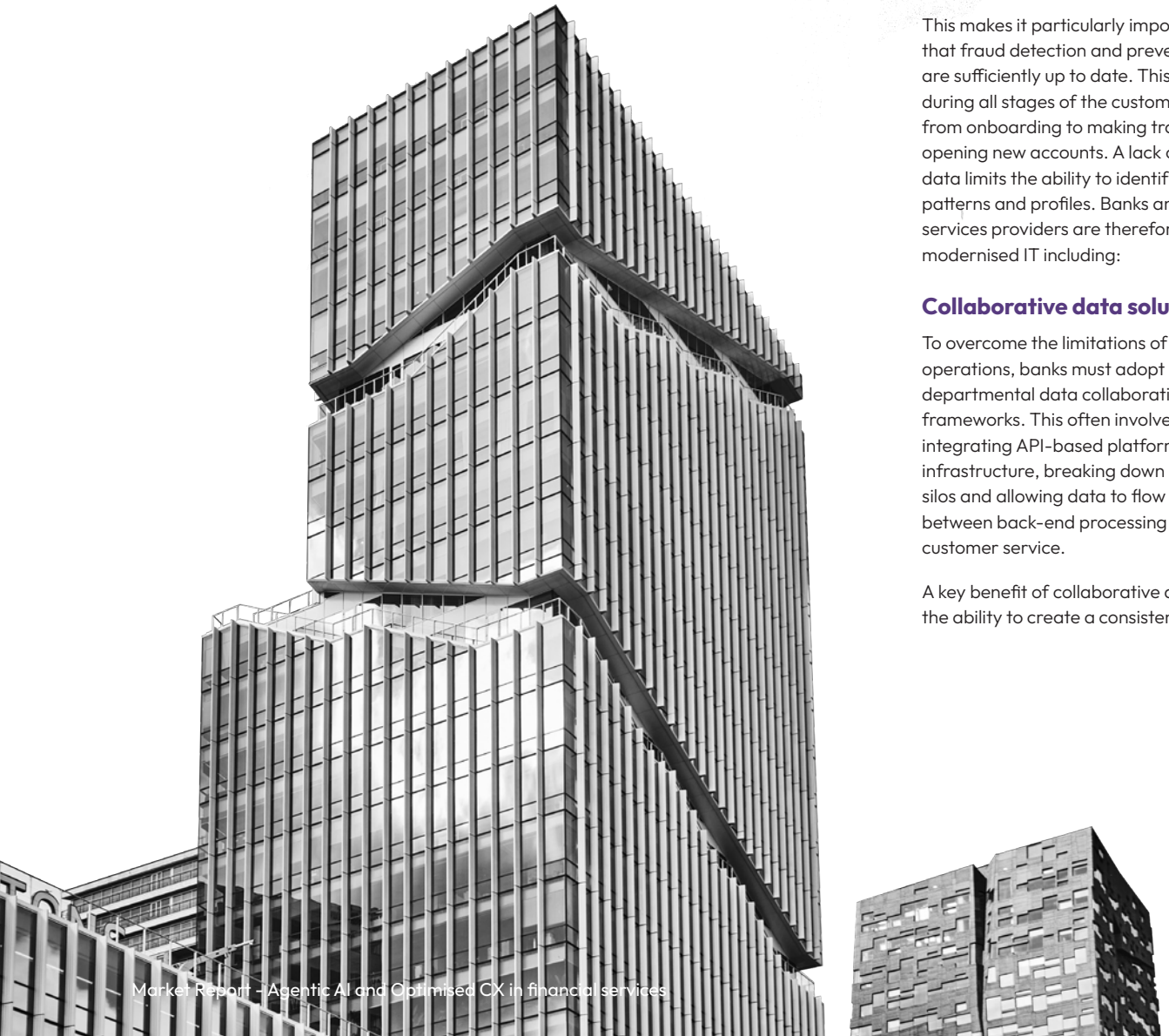
This problem is only set to worsen. Juniper Research forecasts an increase in the value of fraudulent transactions in banking and money transfer to reach US$58.3 billion by 2030, a 153% increase from its current value of US$23.8 billion. This is due to evolving fraud tactics, such as creating synthetic 'Frankenstein' identities, which mix fake with real identities to pass traditional onboarding identity checks and open accounts for money laundering or other fraudulent purposes.

Financial service providers across many sectors have been hit by these fines, from traditional providers

Figure 5: Total transaction value of fraudulent banking and money transfer ($m), 2025 & 2030



Source: Juniper Research



This makes it particularly important to ensure that fraud detection and prevention systems are sufficiently up to date. This is essential during all stages of the customer journey, from onboarding to making transactions and opening new accounts. A lack of integrated data limits the ability to identify fraudulent patterns and profiles. Banks and financial services providers are therefore turning to modernised IT including:

Collaborative data solutions

To overcome the limitations of siloed operations, banks must adopt cross-departmental data collaboration frameworks. This often involves integrating API-based platforms and cloud infrastructure, breaking down information silos and allowing data to flow seamlessly between back-end processing to front-office customer service.

A key benefit of collaborative data solutions is the ability to create a consistent, personalised customer experience. By unifying information from all touchpoints, both online and offline, banks can develop comprehensive customer profiles. This allows customer service teams to provide more targeted support, anticipate customer needs, and deliver a seamless experience regardless of the channel. Relationship managers can also gain real-time visibility into customer activity, improving engagement and support.

Collaboration is not limited to internal data sources. Banks can incorporate external data sources, such as anonymised consortium data on fraud patterns, to create multi-dimensional risk models. Instead of reacting to fraud, this helps banks act proactively to pause transactions and prevent fraud from occurring without incurring false positives that frustrate customer journeys. Real-time data sharing through APIs ensures that these insights are applied immediately, minimising false positives and protecting the customer journey.

Beyond fraud prevention and customer support, the rich data delivered by collaborative data allows executives to make data-driven decisions on how to allocate resources and develop products. Overall, investing in collaborative data frameworks delivers significant return on investment. Banks benefit from reduced operational costs, improved efficiency, enhanced risk management, and the ability to deliver consistently high-quality customer experiences across all channels.

Agentic AI implementation

Typically, classic AI models are rules-based systems used for single domains, such as evaluating credit scores. They have low autonomy and generally produces scores or text, which a human would then act on. The next stage in autonomous systems involves large language models (LLMs) and copilots that use in-context learning, can hold multidomain conversations, and can hold a short-term conversation history across sessions.

Agentic AI systems are the next stage of automation, which is quickly gaining traction within the financial services industry. These systems can learn and coordinate, set itself subtasks and carry out plans until a given goal is met. Agentic AI adapts in a continuous learning loop and can orchestrate actions across workflows.

In banking, agentic AI is developing as a tool not just to directly assist customers, but to aid sales associates with personalising their recommendations and working proactively to alert customers to relevant offers based on their transactions and data.

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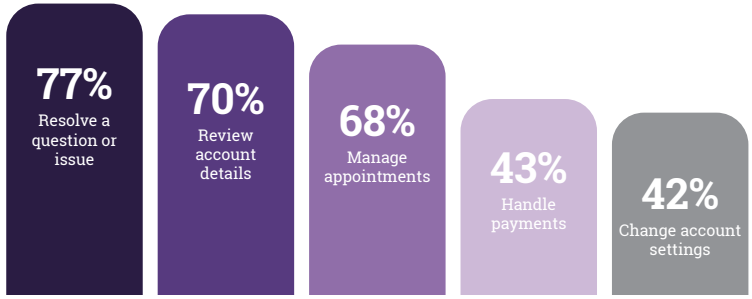
It can also aid in back-office functions. For example, JP Morgan Chase has introduced a flagship LLM suite based on language models that helps the bank's legal team process legal documents, credit professionals compare covenants, and sales professionals to distil information[vi]. This has been considerably popular within the bank, with just under half of JPMorgan employees using this since its introduction in 2024. While this solution currently runs mainly on Gen AI solutions, deploying agentic AI is next on its internal road map[vii], setting a precedent for other banks to technologically innovate to remain competitive.

Another key use case for AI is within the realm of compliance. While traditional AI bots are already capable of flagging potential AML cases using existing human-defined, rules-based systems, agentic AI can manage these processes more dynamically. It is especially suited to areas where banks are currently struggling with a manual bottleneck. For example, when Monzo was fined for lacking sufficient AML procedures, backlogs of two-to-three weeks had developed because cases were flagged faster than teams could process them. Agentic AI has the potential to reduce such bottlenecks by automating triage and follow-up actions.

Even so, consumers remain uncomfortable with AI being utilised for their most sensitive use cases.

Another key use case for AI is within the realm of compliance

Figure 6: Most-cited tasks consumers are comfortable with AI handling
(Most often ranked by respondents as top three)



Source: CSG

In banking, orchestration can address long-standing pain points such as disjointed onboarding and inefficient fraud management

Journey orchestration

Orchestration solutions create a framework that connects with all the systems necessary to manage user journeys from end-to-end, giving the bank complete visibility and control. By integrating data and processes across departments, orchestration creates a more coordinated and unified customer experience.

Layering solutions with an orchestrated approach allows intelligence to be shared across the bank, allowing both humans and AI to make decisions with a full picture of customer data. This simplifies operational procedures, as it avoids duplicate profiles of customers, reduces manual processing and reduces tech expenditure. By combining multiple data sources into one, each customer can be presented with a digital experience that is unique to them, creating a consistent experience regardless of channel.

In banking, orchestration can address long-standing pain points such as disjointed onboarding and inefficient fraud management. For example, in fraud risk scoring, combining analysis of the transaction itself with scores from behavioural biometrics can provide faster and more accurate decisions. Orchestration can also ensure that communication and messaging is targeting and personalised, delivering a crafted experience based on their behaviour and stage in the banking journey.

Case study: Inside NatWest's IT modernisation

NatWest is a British traditional financial services provider serving more than 19 million customers. Despite its heritage as a traditional bank, NatWest has successfully built high levels of digital engagement amongst its customer base, as well as achieving strong growth in the youth segment.

Like many established financial institutions, NatWest faced the challenge of modernising its legacy IT infrastructure to support a more agile, data-driven model. Its long-term goals include:

- Consolidating various data streams into a single, bank-wide data platform, enabled by AI.
- Providing a more cohesive experience for customers, including faster onboarding through digital verification.
- Integrating data and analytics into every customer interaction
- Improved operational performance through automation.

To achieve these goals, NatWest partnered with AWS and Accenture to innovate and digitise its services. AI was embedded throughout the organisation, including into its chatbot Cora. In 2024, Cora handled 11.2 million retail banking customer conversations, delivering 24/7 support. Now, 79% of its retail customers bank entirely digitally.

NatWest also began implementing journey orchestration and agentic AI across the organisation. This approach aims to personalise every customer interaction and optimise internal operations through intelligent automation.

Innovation is continuing through the creation of new partnerships; NatWest is working with OpenAI to build on the success of its existing virtual assistants like Cora+ and AskArchie+. This will utilise AI to help consumers with complex tasks like the identification, reporting and resolution of frauds and scams.

How CSG helps to build modern banking on stronger connections

Modernisation in financial services is more than a technology upgrade. It is about closing the gaps between customers, data and systems. Banks cannot deliver trust or value when information is fragmented or outdated. Real progress happens when every team works from the same view of the customer and can act on it in real-time.

CSG offers customer engagement solutions that help financial institutions connect data, decisions and communications across the business. By unifying systems for transactions and customer interactions, CSG enables banks to reduce fraud risk, simplify compliance and deliver more relevant experiences that strengthen trust and loyalty.

Modernisation is ultimately about earning confidence through clarity and consistency. CSG helps banks achieve this by transforming complex operations into connected experiences that drive long-term growth.

CSG offers customer engagement solutions that help financial institutions connect data, decisions and communications across the business

Conclusion

Banks are not unarmed as they face the IT modernisation challenges outlined here. In fact, the technologies they need to modernise are widely available and proven at scale. If they can shift their legacy technology burden from old, fragmented systems that are not able to support modern operations, they will be able to divert significant funds to invest in next generation technologies.

This is not to suggest an unprepared rush into business-wide AI adoption but to carefully target where and when to deploy agentic AI. By doing so, banks will be able to take customers with them on the journey to enhanced automation, enabling customers to use AI where they choose and still interact with humans for more complex tasks or where they feel uncomfortable trusting AI.

The foundations for this considered deployment of AI need to be solid and depend on investment in eradicating legacy data fragmentation at the same times as deploying collaborative data solutions. With this data infrastructure in place, banks will be in a strong position to optimise their deployments of agentic AI and ensure they are able to orchestrate customer journeys and deliver the CX that provides them with competitive differentiation and operational advantage over their rivals.

To find out how CSG can help you accelerate your IT modernisation, visit:
https://www.csgi.com/industry/financial-services/retail-banking/

i Less than a fifth of people have switched bank account in past year – survey | The Independent
ii UK and EU banks believe that yes, they can properly serve Gen Z (emarketer.com)
iii Banks spending 70% of their IT budget maintaining legacy system
iv UK banks to spend £3.3bn on legacy systems in 2026 - The Banker
v ibid
vi JPMorgan Chase's Derek Waldron on AI and banking | McKinsey
vii JPMorgan Chase blueprint to become first fully AI-powered megabank