# Banking on technology

How rapid technology adoption could create a fairer, simpler and more compliant banking landscape.

**In partnership with Coleman Parkes, SAS commissioned research to discover how the behaviour of both traditional and challenger banks has changed as a result of the COVID-19 pandemic, and how this would impact the industry over the next five years.**

After a year of severe disruption, where banking customers were instructed to remain indoors and bank branches were intermittently closed, the banking industry was forced to adapt. The response from both challenger and traditional banks has been emphatic. In just 12 months, the vast majority (89 per cent) accelerated their digital adoption by five years.

A similar majority (84 per cent) of respondents, who are IT decision makers from a mix of traditional and challenger banks, agreed that traditional banks would not revert back to their old ways once the pandemic subsides.

Moving forward, the key differentiator will be how they decide to use the data they have at their disposal.

Across the industry, each bank's ability to use data to create a simpler, fairer and more rewarding experience for their customers will determine their success.

---

**About the research**
In partnership with Coleman Parkes, SAS commissioned research at the end of 2020. Respondents are IT decision makers from a mix of traditional and challenger banks, making up approximately 80-90 per cent of the UK addressable market.

# Index

## Banking on technology

Chapter 1

# / A shift in the balance of power?

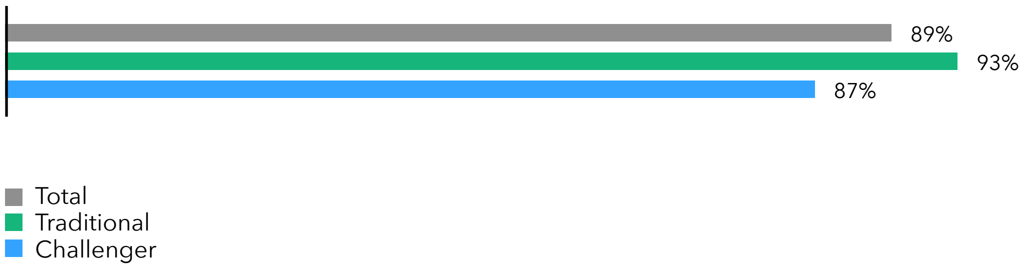
**For a long time, the key differentiator between traditional banks and challenger banks has been their respective readiness to adopt new technologies.**

Challenger banks have typically been more open and able to deploy new technology, enabling them to create frictionless journeys and more effectively personalise the customer experience. For example, they were ahead of most traditional banks in providing customers with instant notifications when they spent money and to offer a saving scheme which rounds purchases up to the nearest pound and puts the difference into a savings account. Meanwhile, hampered by legacy tech stacks, traditional banks have been slower in their uptake of technology, leaving customers to bank in a much more manual way.

However, when the pandemic took hold in 2020, banking – along with almost everything else – had to move entirely online. For large parts of the year branches were forced to close, meaning customers had to rely on banking apps and online banking to manage their finances, resulting in a 200 per cent rise in new mobile banking registrations in April 2020.

In response to the disruption, both traditional and challenger banks accelerated their digital adoption processes. In the space of just 12 months, almost all banks (89 per cent) accelerated their digital adoption by five years. This was particularly true for traditional banks, with 93 per cent accelerating their digital adoption within this timeframe. This trend is irreversible as evidenced by the number of branch closures – by May of this year more than 500 branches had closed since the start of the pandemic with a further 300 expected.

Q: Do you agree with the following statement: COVID-19 accelerated the implementation of new technology for the banking sector by 5 years.



Banks have rapidly accelerated their digital adoption due to COVID-19

**97%**

**Agree** that COVID-19 has meant more people are using online banking and other online services

**61% strongly agree**

**89%**

**Agree** that COVID-19 accelerated the implementation of new technology for the banking sector by 5 years

**87%**

**Agree** changes driven by COVID-19 have made traditional banks far more competive through the use of technology

**66%**

**Agree** tradional banks have learned what is possible using innovation during the COVID-19 crisis

**Stronger agreement amongst challenger banks**

Both traditional and challenger banks saw this shift as inevitable when the pandemic started. Almost all respondents (97 per cent) agreed that, as a result of COVID-19, more people are now using online banking and other online services, with 61 per cent strongly agreeing that this is true. Over four-fifths (87 per cent) of respondents were also in agreement that traditional banks are now more competitive, following their accelerated period of digital adoption.

These new technologies could help traditional banks provide their customers with a more complete and reliable online banking service if implemented correctly. However, this is an area where traditional banks need to make improvements. To this day, we still see online banking apps suffer from outages, leaving customers without convenient access to their bank accounts. In addition, there are still too many banking processes that are a halfway house between automated and manual.

This has also been recognised by 'digitisation' versus 'digitalisation'. The former is where banks convert a paper application form to a version that can be completed online. The questions the form asks remain the same, as does the way the information it contains is processed. The process remains manual despite taking place online rather than in-branch for example.

However, 'digitalisation' moves beyond digitisation and is far more ground-breaking. It involves rethinking financial products and services from inception to delivery, based on an understanding of what modern technology can enable alongside what customers actually need and want. Rather than delivering existing products and services via new channels and automating decades-old processes, digitalisation means giving customers financial services they enjoy using in a streamlined and frictionless way. It means using technology to redesign processes, reimagine business models, rethink engagement processes and improve all interactions with customers.

**92%**

Disagree that challenger banks now need to find a new platform from wich to compete as COVID-19 has created a more technologically based level playing field

**Stronger disagreement amongst challenger banks**

**84%**

Disagree traditional banks will revert to type once the pandemic is over

**Stronger disagreement amongst traditional banks**

## Customer case study:

CIMB Bank adopted advanced analytics to gain a 360-degree view of customers so they could make the real-time offers at 'magical moments' when they were most receptive. Time spent finding the right data also dropped from 80 to 20 per cent.

The good news is that traditional banks may now have recognised how technology can help them to address these pain points. Two-thirds (66 per cent) of respondents feel that traditional banks have now truly recognised the benefits of innovation during the pandemic. As a result, the vast majority (84 per cent) feel that traditional banks will press ahead with digital adoption and will not revert to type once the pandemic subsides.

The question this raises for challenger banks is: How will they now differentiate themselves from traditional banks? Well, neither challenger nor traditional banks see this as a problem. Nine-in-10 respondents (92 per cent) disagreed with the notion that challenger banks would now need to find a new platform from which to compete with traditional banks. Instead, challenger banks will continue to leverage technology, helping them to automate large parts of the customer journey and reduce costs.

"

*For traditional banks, the pandemic really highlighted how truncated their online banking experience can be. For example, when applying for a mortgage holiday, online banking would only take you so far before you had to speak to someone on the phone.*

*With modern technology, these processes have the potential to be entirely digitalised. Customers should be able to log into their online banking, complete the required information, upload the necessary documentation, with AI helping guide them through the process with clear next steps and advice. That is the precedent challenger banks are setting for banking. Traditional banks must meet that standard.*

**Johnny Steele,**
Head of Banking,
SAS UK & Ireland

# 84%

**While 84% of respondents believe traditional banks will continue to make strides forward.**

# 92%

**92% don't believe that challenger banks will need to find a new platform to compete with them.**

As a result, challenger banks that took part in the research have set themselves an ambitious target of achieving a cost-to-income ratio of 35 per cent by 2023. In comparison, traditional banks will be targeting a ratio of 47 per cent. In short, challenger banks plan to maintain a low cost to serve in order to compete. With higher running costs, this is currently more challenging for traditional banks, who must find ways to reduce costs and increase profit per customer.

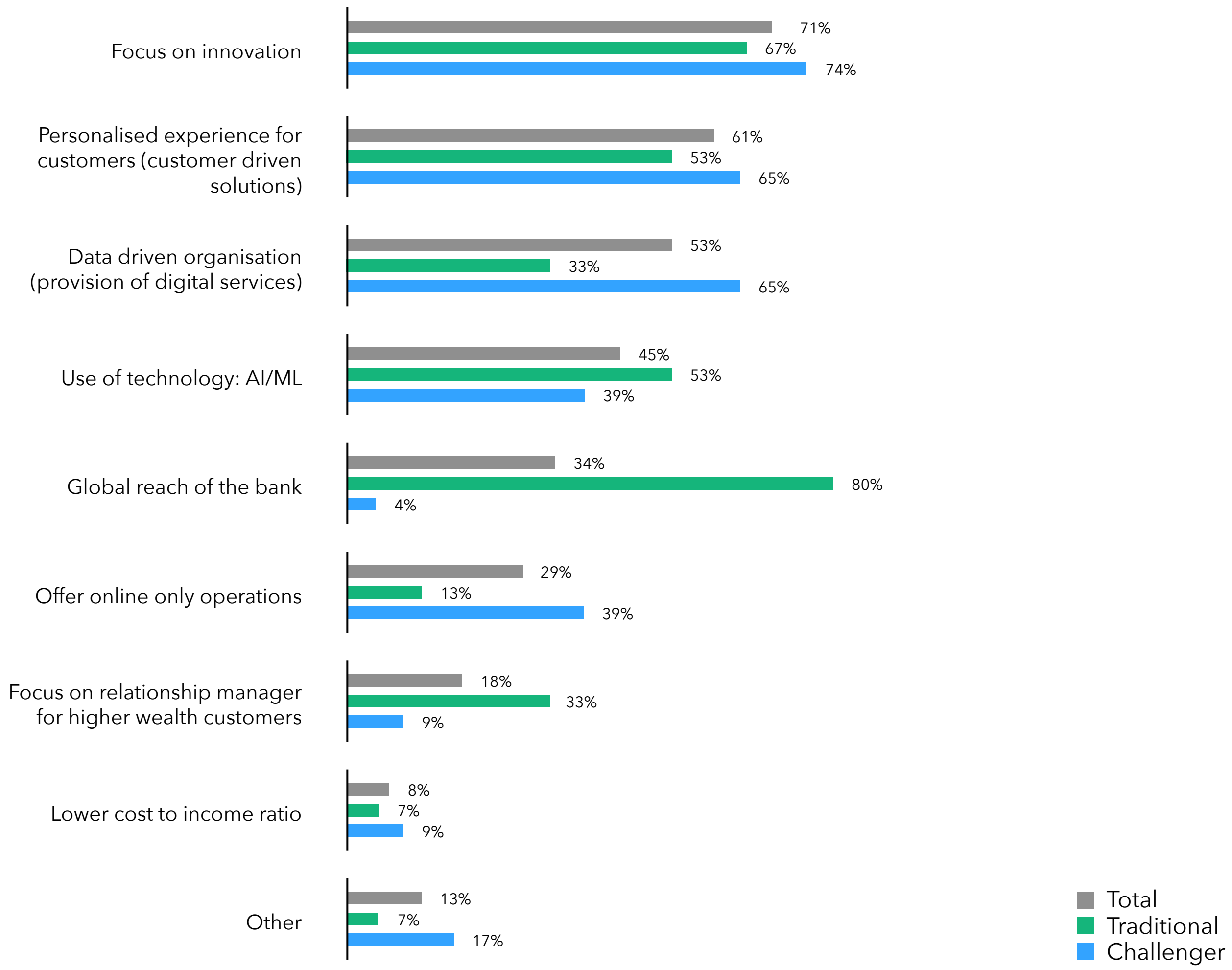
Chapter 2

# / Same technology, different priorities

**Challenger banks and traditional banks may now be using similar technology, but their priorities and how they intend to use the technology differ from one another.**

Challenger banks see high value in using technology to offer their customers a more personalised service. Two-thirds (65 per cent) saw that as a key point of differentiation, compared to just half (53 per cent) of traditional banks. The customer-centric approach of challenger banks is emphasised even further by how the two types of bank prioritise being a data-driven organisation. Two-thirds (65 per cent) of challenger banks saw being a data-driven bank as a competitive advantage, compared to just a third (33 per cent)

Q: How would you say the business differentiates itself from other competing banking businesses?



of traditional banks. This is despite traditional banks holding more data about their customers than nearly all other organisations. The ability to act upon the insights contained within this data - and to inject that intelligence into every interaction – represents a massive (missed) opportunity.

Comparatively, traditional banks are focused on providing a geographically wide-reaching service. Four-fifths (80 per cent) of traditional banks saw global reach as an important differentiator. This is compared to just four per cent of challenger banks.

Over half (53 per cent) of traditional banks also labelled 'use of technology: AI/ML' as an area where they can get a competitive advantage, compared to 39 per cent of challenger banks. This will help banks to more effectively tackle fraud and money laundering.

The technology can also be used to analyse customer data, helping traditional banks to provide a more tailored customer experience. It's interesting how the AI/ML split between traditional/challenger banks compares to that for being 'data-driven' in the previous paragraph – they are almost a reverse of each other yet the two things go hand in hand, perhaps revealing how some banks may not be fully joined up in their thinking.

**80%**

**Of traditional banks saw global reachas an important differentiator**

**65%**

**of challenger banks saw being data-driven as a competitive advantage**

## Customer case study:

Nationwide detects and prevents fraudulent activity with advanced analytics, helping boost accuracy of fraud prediction and prevention, while reducing false positives and meeting regulatory requirements.

Outside of regulatory compliance processes, banks also labelled fraud monitoring/investigations (66 per cent), risk governance (47 per cent) and collections/debt management (39 per cent) as important areas in the next three-to-five years. These are all processes where automation, AI and machine learning can be leveraged to make improvements to speed, accuracy and cost.

"

*Regulators continue to crack down on money laundering, with banks again seeing and feeling the financial impacts of this. If banks are to avoid regulatory fines moving forward, they must continue to review and improve their anti-money laundering detection.*

*The use now of AI and machine learning are key to improve the accuracy, effectiveness and efficiency of AML detection and prevention. Empowering banks to quickly uncover emerging and complex money laundering and terrorist financing threats, via techniques such as network and entity generation processes, means they can automatically build network diagrams to reveal new and hidden relationships with critical insights. AML scenario simulations can be run in fast succession to rapidly validate and optimise various monitoring strategies so they can be deployed quickly.*

*The use of advanced analytics rationalises multiple data sources and references to customers. Most financial institutions have invested heavily in their transaction monitoring platforms over recent years, and while analytics provides end-to-end AML capability, it can also support optimising existing solutions by incorporating sophisticated analytics tools, increasing the effectiveness and efficiency of existing AML monitoring programmes. This reduces false positives and streamlines investigations. Therefore, if implemented effectively, the technology will help banks to identify financial crime faster and with greater accuracy, protecting the banks' customers while avoiding future regulatory fines.*

**Glenn Smith,**
EMEA Manager Financial Crimes & Compliance, SAS

One area where traditional and challenger banks are on the same page is regulatory compliance. Three-quarters (74 per cent) of all banks said that regulatory compliance processes, such as stress testing, will play an important role in supporting the core banking system in the next three years. In fact, such is the concern around regulatory compliance, 45 per cent of banks labelled 'meeting regulations' as a key challenge to implementing IT.

**45%**

**of all banks said meeting regulations is a key challenge to implementing IT**

The truth is, though, meeting regulations should be a reason to implement the best new technologies, not a barrier. For example, AI and machine learning can be used to more effectively identify money laundering. This is an area where banks have struggled of late, with NatWest now facing the prospect of a fine of up to £320m following the bank's admission of guilt in relation to three charges of money laundering.

Very often the concern for banks, however, is finding a technology provider that also has the necessary industry expertise when it comes to regulations and day-to-day operations. This is how they can bridge the gap between understanding not only how technology can be used to ensure compliance, but how it can be applied to get a holistic view of all the risks across the enterprise and how they correlate with each other.

For example, with analytical agility comes the ability to change and deploy risk and scenario models rapidly. However, it's important to emphasise that an ability to rapidly build models covering multiple scenarios is one thing but deployment is usually much more challenging and this applies across sectors. According to IDC, only 35 per cent of organisations indicate that analytical models are fully deployed in production. So it's important to have model lifecycles and good model governance, to help speed time from data to decisions and easily change and deploy different models. And even then, some models require regulatory approval which takes time.

However, with this capability in place, scenario-based analysis allows firms to quickly and efficiently measure the impacts of multiple macroeconomic and business scenarios on their portfolios. When a particular asset suffers adversely during a likely scenario, it serves as an early warning indicator. Instead of suffering unnecessary losses if the event comes to pass, the bank has the time and insight to act to mitigate losses.

This helps banks stay compliant and have a deeper understanding of their business so they remain in control of their liquidity, capital management and people management.

Underpinning all of these technologies, though, is data analytics. Banks have recognised this and, as a result, all banks are looking to invest in data analytics in the next three-to-five years, with 84 per cent planning to invest significantly.

*Whether banks want to improve their customer service, meet regulations or reduce their cost-to-serve, data analytics will be essential. Combined with technologies such as AI and machine learning, it can analyse huge swathes of data at great speed and accuracy to generate insights which can help your bank operate in a way that is fairer, simpler to use for your customers and consistently compliant. The advent of cloud delivers unparalleled scale and agility, enabling the insight held within banks' data to be unlocked and acted upon in real-time.*

**Johnny Steele,**
Head of Banking,
SAS UK & Ireland

Chapter 3

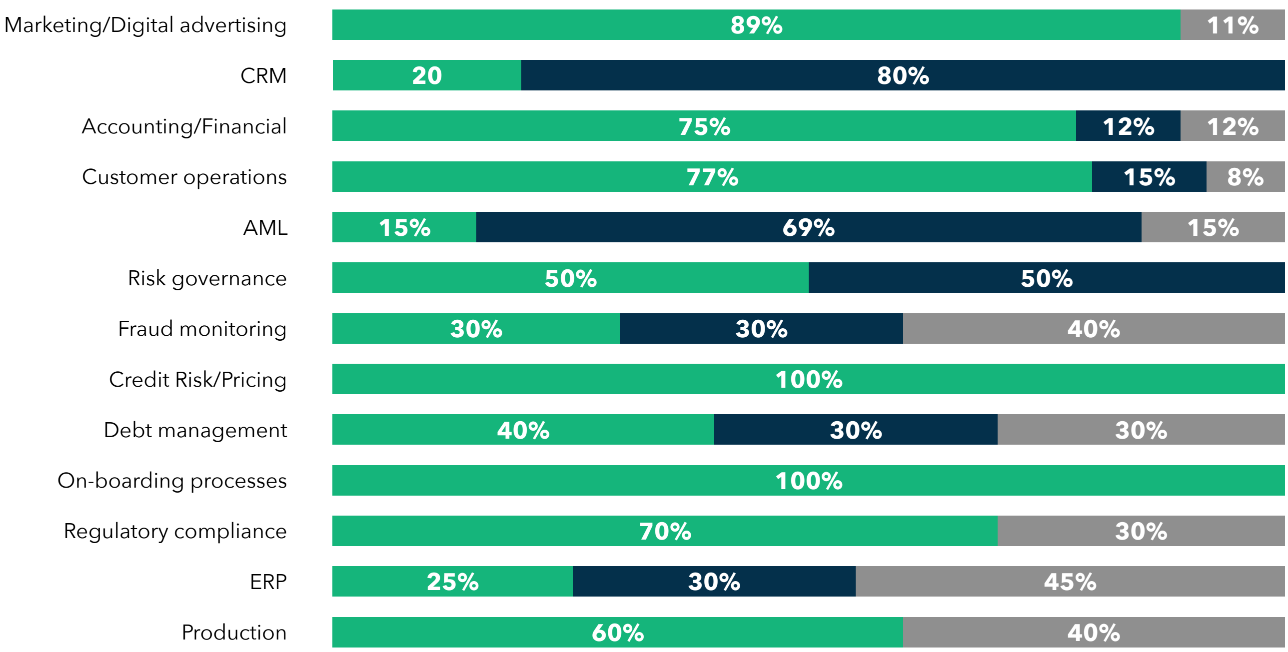
# Reaching out for a helping hand

**Having the appropriate technology in place is only half the battle for banks. Fortunately, owing to the rapid acceleration of digital adoption during the pandemic, it's a battle they're winning. However, careful consideration of how they manage these technologies and the processes they are applied to is the next step. Failure to do so will result in the technology being used ineffectively or, even worse, dangerously.**

While some banks may have the resources to manage these processes internally, for most it would be a huge challenge and deriving full value from their investment could prove difficult. Banks have recognised this and are becoming increasingly comfortable with outsourcing functions to third-party providers For example, 63 per cent of banks are now either fully or partially outsourcing their customer relationship processes (CRP) to third parties. This is expected to rise to 87 per cent in the next three years. Meanwhile, 84 per cent are already doing the same for their anti-money laundering processes. Overall, nine in 10 banks (89 per cent) plan to focus on more third-party solutions to drive innovation once the pandemic subsides.

Balance of office functions internally and externally

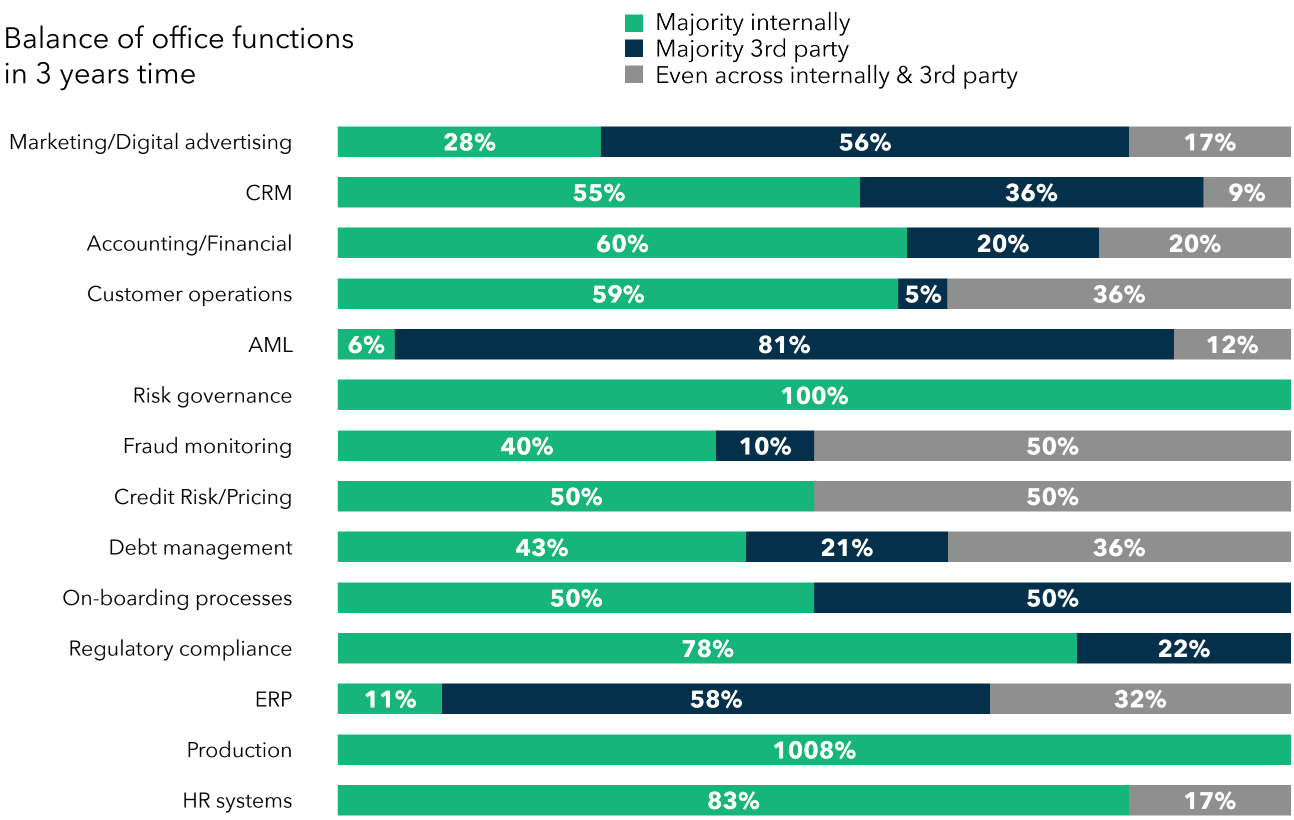
Majority internally
Majority 3rd party
Even across internally & 3rd party



Security has been put forward as a reason why banks are increasingly outsourcing to third party providers to manage their technology and data storage infrastructure. Yet despite the drive to manage data workloads in the cloud, three-fifths (61 per cent) cite security and compliance concerns as key inhibitors to cloud adoption. This isn't without reason. Whether banks are using technology to shore up their anti-money laundering defences or to provide a more personalised online banking experience for their customers, these applications are dealing with huge amounts of very sensitive data. If that data was stolen or lost, banks could be hit with regulatory fines in the millions and could lose the trust of their customers. That's why information security is so important. It helps banks to identify areas of weakness in their processes, which could cause them to fail compliance tests. Banks can then address these areas, ensuring they remain compliant.

Traditional banks face a particularly difficult challenge when it comes to cloud adoption. Almost all (87 per cent) of traditional banks cited legacy system integration as a barrier to cloud adoption, compared to zero challenger banks. This is something traditional banks will have to address if they're to make full use of the technology they have adopted and create a smoother banking experience for their customers.

For challenger banks, the greatest barrier to cloud adoption, outside of security and compliance concerns, was cost. More than half (57 per cent) cited cost as a key roadblock to cloud adoption. To protect against duplicated and mounting costs, banks should leverage the agility that cloud technologies provide. This means they can start small with a Minimum Viable Product (MVP), for example, and can deliver initial use cases quickly at low cost. Incremental - although with some pace - cloud adoption can then be encouraged across an increasingly wider set of use cases. Banks shouldn't wait for a big bang cloud roll out of everything they have today all at once and in fact should avoid falling into a 'lift and shift' trap of just moving all workloads to cloud.



Careful assessment of incumbent workloads is key to ensure that only the required workloads are migrated according to business priority, and that the right decision is made as to whether they are just moved, refactored or optimised for the target cloud architecture. This approach will keep costs manageable and quickly release business value at each step.

Despite this cost barrier to cloud adoption, 91 per cent of challenger banks selected technology innovation as the most important factor when selecting applications to support the core banking system, followed by improved security and better data management. For traditional banks the results were similar, but improved security and better data management were ranked slightly higher than technology innovation. But there is broad agreement these are three key areas.

**Both traditional and challenger banks believe:**

**80% technology innovation**

**71% improved security**

**61% better data management**

**are the most important factors when selecting applications to support the core banking system**

The findings suggest that for technologies like AI and machine learning to be fully effective, there needs to be an innovative approach to adoption and better data management, which can also impact security. This becomes difficult when a bank's data is siloed across various different environments and can lead to critical data being overlooked. As banks increasingly look to use technology for compliance reasons, this cannot be allowed to happen.

Ultimately, for both challenger and traditional banks, the key to gaining full value from advanced analytics is to understand the business challenges and how technology can best address those. Once this has been done banks can quickly leverage cloud-based analytics to empower business-wide decision making, which is both fast and accurate. Whether your bank's priority is a more personalised customer experience, stronger anti-money laundering systems or more efficient backend processes, analytics technologies will lift your bank to a level above the competition. And, while fears remain over security, compliance and cost, banks can tackle these effectively using a third party able to draw on domain expertise to drive the most effective AI/ML solution.

> *When it comes to analytics adoption, every industry has different regulatory and logistical challenges. To unlock the immediate value analytics can offer and avoid delays in adoption, banks must have visibility of these challenges before they become roadblocks. The right experts, with industry specialisation, can help with this. They will be aware of the industry regulations from the get-go, ensuring your bank's transition to a more digital approach is compliant, safe and efficient, allowing your bank to get immediate value from technology.*
>
> **Johnny Steele,**
> Head of Banking,
> SAS UK & Ireland

# / Conclusion

**There's no doubt that the COVID-19 pandemic has caused the digital banking landscape to shift significantly and permanently. Both challenger and traditional banks alike have had to heavily invest in technology and yet under strain they have advanced their digital adoption timeline by five years. This happened due to the solid digital bank foundations already in place - imagine the consequences of the pandemic occurring 10 years earlier?**

And as we slowly emerge from the disruption of the last two years, we must look at the lessons learned and how banks will be able to operate with agility and resilience in anticipation of the next shock event – whether that's political, economic, or due to climate change.

Banks should be proud of how they responded to the lockdowns, and perhaps amazed at how quickly they got things done. The pandemic in some ways levelled the playing field and in most cases the need to act outweighed the change bureaucracy that can hold back traditional banks.

To get full value from their investment, banks must similarly bring forward their timeline on cloud adoption.

By operating across a connected platform, banks can ensure technology such as AI and data analytics is learning from the full complement of customer and company data and is adaptive enough to changes, threats and all new requirements. This will result in insights which are always both fast and accurate. When it comes to satisfying customers evolving needs and remaining compliant (as regulations change and evolve especially with potential new regulations around climate change) this speed and accuracy is not a differentiator, it is an essential.

> Ultimately, the aim is to make banking fairer and simpler.

Fairer in the sense that digitalisation will enable more open and transparent adherence to banking regulations, and help banks stay compliant and in control of their liquidity, capital management and people management. It will also enable banks to fully understand their analytical models and help ensure they remain free from bias.

And simpler by transforming legacy processes so they can enable faster, smarter decisions which elevate the customer experience. Simpler processes will be easy to automate, and this will generate cost reduction throughout every part of a bank. Expanding the use of real-time insights and analytics to identify changing consumer behaviours and the economic landscape will put banks in the best place to respond to unexpected demands.

The key for banks is in overcoming the security and cost concerns they currently see as barriers to cloud adoption. These concerns can be successfully quashed by partnering with the right supplier: one that understands the banking industry inside out; that understands cloud adoption is not just a technology programme; and one that has undertaken similar tasks for companies that are now reaping the benefits. With that expert guidance, banks can confidently welcome in the new, smarter era of banking.

To contact your local SAS office, please visit:
www.sas.com/offices