

Future of Cloud in Banking Report

How leading banks accelerate
digital transformation with cloud

In collaboration with

 Google Cloud

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Introduction

Publicis Sapient, in collaboration with Google Cloud, surveyed 250 senior banking leaders around the globe to better understand where they are on their cloud and business transformation journey.

The results reveal a major ambition across Retail and Commercial Banks to triple the use of cloud by 2025 and migrate more client-facing applications and data.

Banks can be divided into three groups: **Cloud Leaders**, **Cloud Followers** and **Cloud Conservatives**. The ambition to triple the usage of the cloud is uniform across all three groups. However, **Cloud Leaders** place much greater weight on the business benefits of cloud-enabled transformation than **Cloud Conservatives**.

This includes the enhanced ability to innovate at speed, apply advanced analytics (including AI and Machine Learning), transform operating and business models and embed partners easily. Cloud Leaders and Cloud Conservatives agree on the benefit of cloud to lower IT costs and increase automation, but for Cloud Conservatives, reducing cost has been the primary focus driven by finance and technology teams.

We found that an ambition and execution gap are the two major obstacles to achieving cloud's full potential. First, over half of the executives and non-executives still undervalue the cloud's transformative potential, thus limiting the business transformation ambition with the cloud. Second, participants believe they lack execution speed and don't fully benefit from existing investments due to security concerns and a lack of skilled people to drive implementation.

To fully benefit from the potential of cloud-enabled business transformation at speed, a comprehensive, cloud-based transformation program needs to do four things well:

1. **Align to business transformation goals**, including the value case and roadmap
2. **Build enduring capabilities**, including engineering, agile-at-scale, people, governance and regulatory compliance
3. **Rationalize, migrate and modernize applications/data and business**
4. **Develop and scale enabling platforms**, including cloud, data, API/Integration and Identity and access management.



Levels of cloud adoption and ambition



Levels of cloud adoption and ambition

Levels of cloud adoption

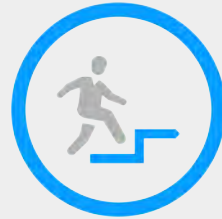
We identified three distinct groups among the banks based on their existing level of cloud adoption. There are just as many banks pulling ahead as falling behind, but most fall somewhere in between.

27%
of banks



Cloud Conservatives

45%
of banks



Cloud Followers

28%
of banks



Cloud Leaders

Cloud Conservatives have at most 10 percent of their applications in the cloud. Cloud Followers have between 11 and 30 percent of their applications in the cloud. Cloud Leaders have more than 30 percent of their applications in the cloud.

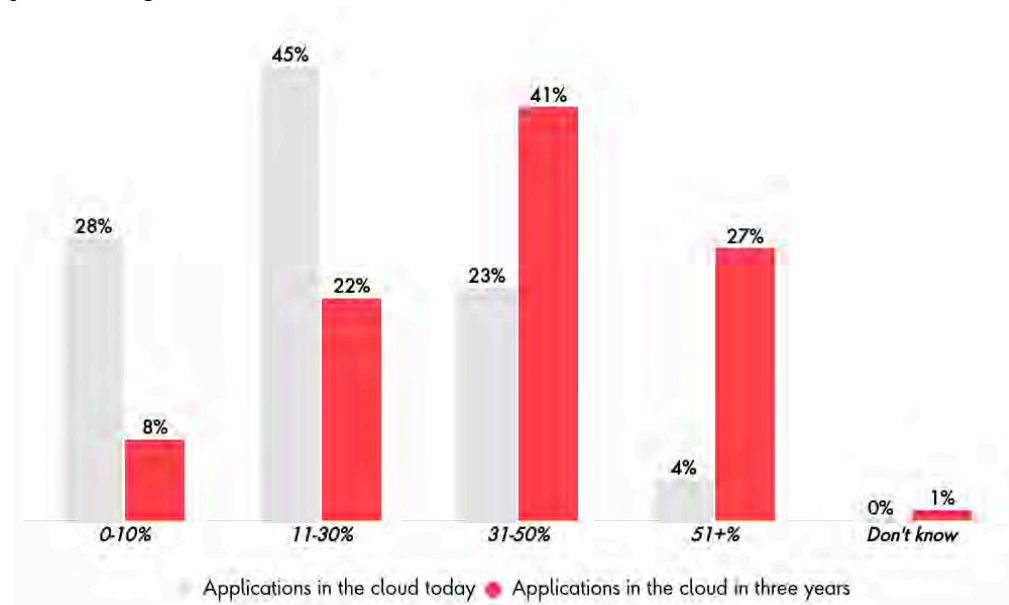
Though levels of cloud adoption vary widely, most firms want to at least double—with many wanting to quadruple—their use of cloud across their technology estates in the next three years.



Cloud ambition – triple in three years

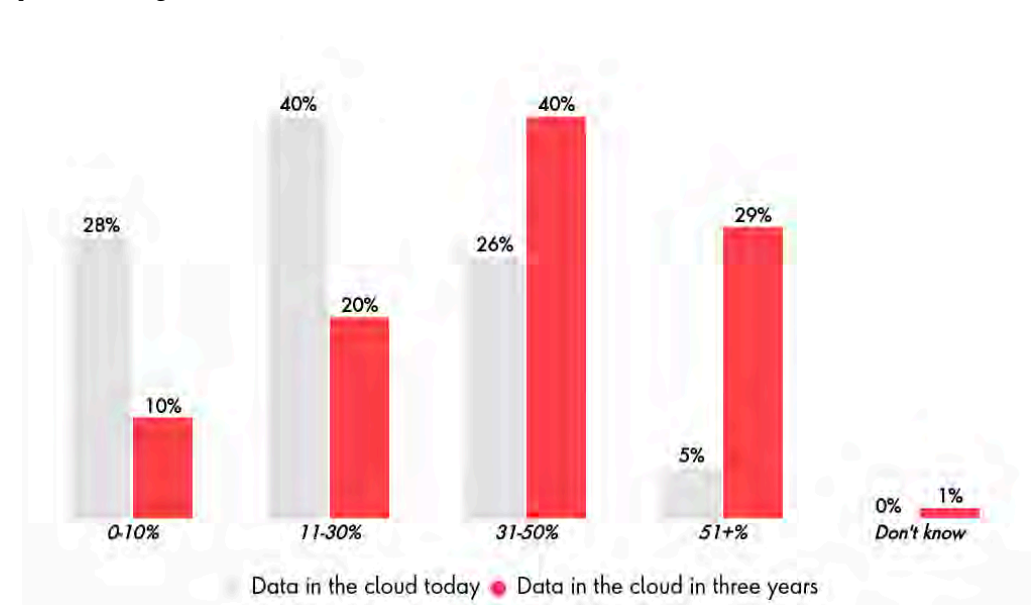
Retail and Commercial Banks have big ambitions over the next three years to increase the share of their applications and data that are hosted in the cloud, signaling a major acceleration compared with their pace of adoption over recent years.

Q: What percentage of your bank's applications are currently in the cloud? And what percentage would you like to be in the cloud in three years? (Figure 1)



Over two thirds of banks want at least 30 percent of their applications and data to be in the cloud in three years' time, close to triple the number of banks who have achieved that today.

Q: What percentage of your bank's data is currently in the cloud? And what percentage would you like to be in the cloud in three years? (Figure 2)



Cloud becomes customer facing

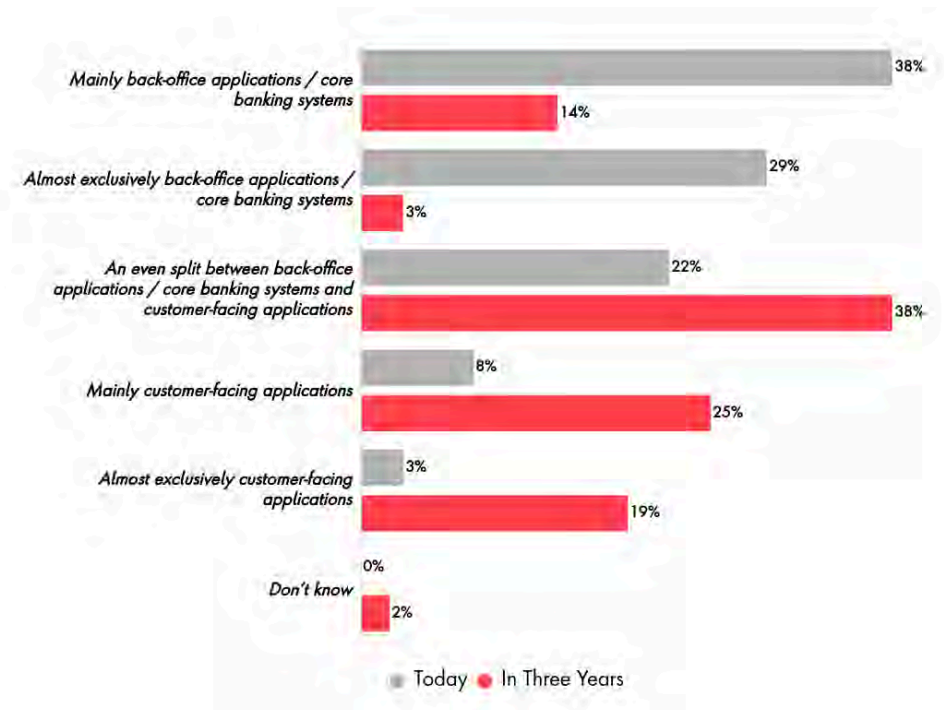
Seeing cloud's value in business transformation means shifting the focus on cloud from what goes on behind the scenes to what customers can see.



Many banks are preparing to shift their cloud investment from back-office applications and core banking systems to customer-facing applications.

Indeed, almost half (44 percent) of banks would like their cloud-based applications to be mainly or almost exclusively customer-facing in three years. That's ambitious given that today just 11 percent of banks' cloud applications are deployed for this purpose.

Q: Are your bank's cloud-based applications mainly customer-facing applications or back-office applications / core banking systems? Today and in three years. (Figure 3)





Cloud leaders want to
transform their businesses
with cloud

Cloud leaders want to transform their businesses with cloud

Target state for cloud-transformed banks

It's important for financial professionals to keep in mind the dream state for their bank after cloud-based transformation. The ideal cloud-enabled bank will have the following enabled by the cloud:

- **Customer Focused Products & Services** - Enhancing the ability to develop new products and services at speed
- **Data** - Improving quality and use of data (e.g., personalization, pricing, risk assessment)
- **Automation** - Automating and redesigning key processes to reduce operational costs
- **Partners** - Working in an ecosystem model with capability and channel partners
- **IT** - Lowering the cost of managing IT and improving IT resilience

But what do banks today perceive to be the benefits of adopting the cloud?

Q: Which of the following do you consider to be the main benefits to your bank of adopting cloud? (Figure 4)

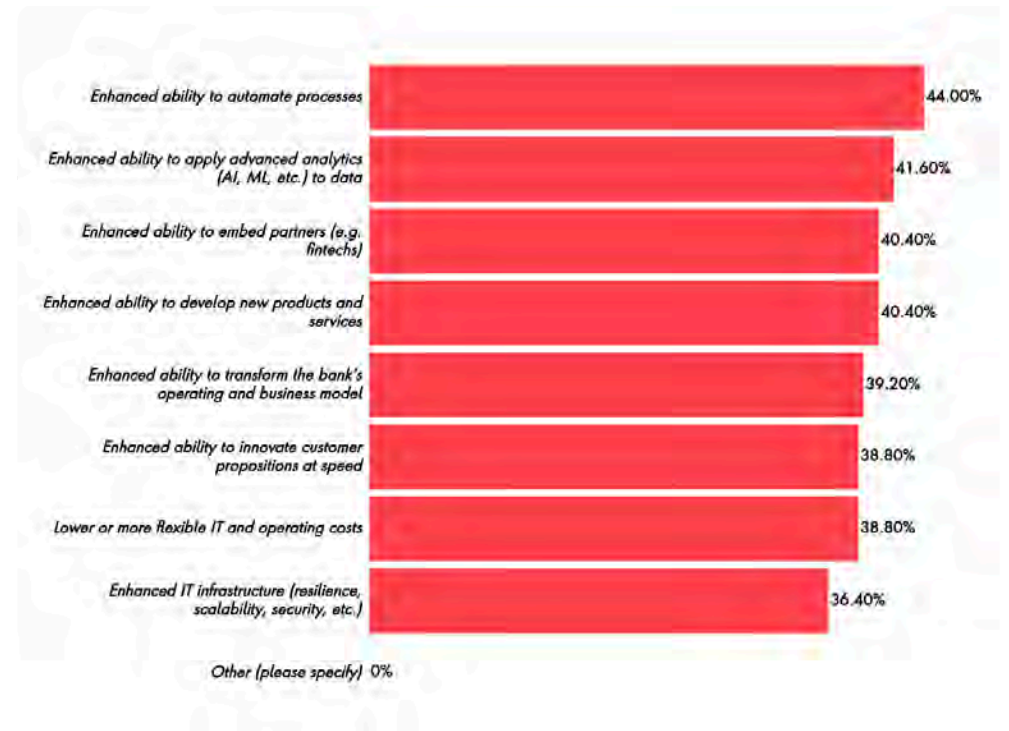
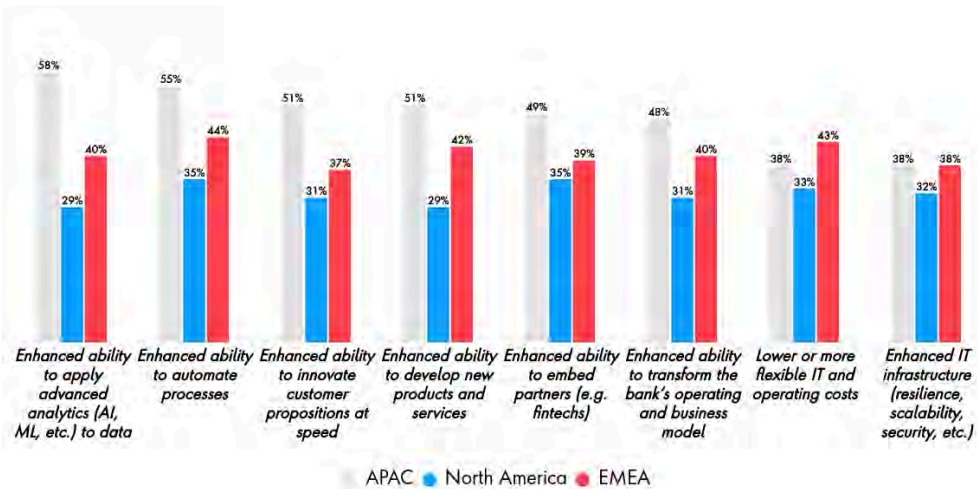


Figure 4 shows that globally banks perceive the enhanced ability to automate processes (44 percent) as the greatest benefit of cloud, followed by ability to apply advanced analytics (41 percent) and embed partners and develop new products (40 percent).

Looking at regional differences, banks in Asia-Pacific are more enthusiastic about the cloud-enabled business transformation benefits—in particular, the benefit brought by (I) advanced analytics (AI/ML), (II) process automation, (III) new products/services at speed and (IV) embedded partners. By comparison, banks in EMEA perceive more traditional use cases for cloud to be of greater benefit by focusing on the enhanced ability to automate processes being the primary benefit (44 percent).

By region APAC, North America, EMEA

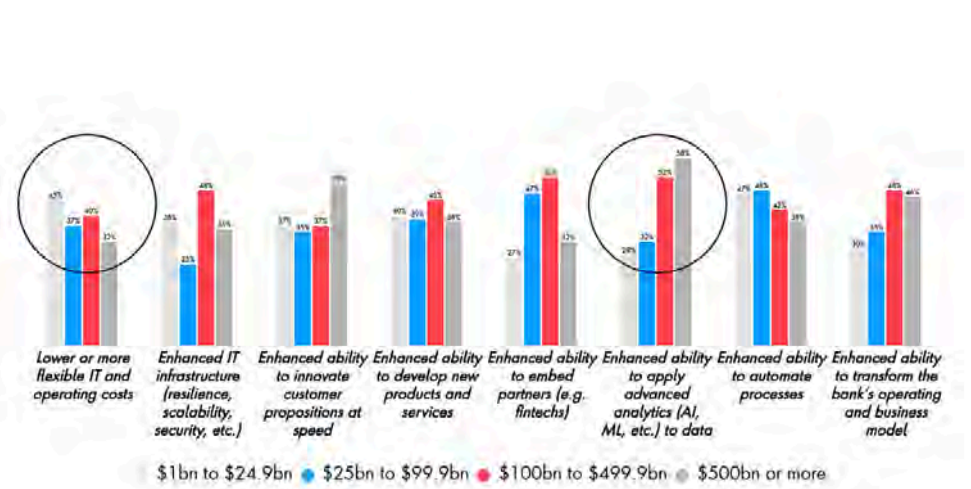
Q: Which of the following do you consider to be the main benefits to your bank of adopting cloud? (Figure 5)



Larger banks are attracted to cloud's potential to transform their operating and business models. They are looking for benefits from an enhanced ability to apply advanced analytics (AI/ML) and innovation at speed, while focusing less on lowering IT costs. In contrast, smaller banks are attracted to benefits associated with process automation and cost reduction.

By company size based on assets

Q: Which of the following do you consider to be the main benefits to your bank of adopting cloud? (Figure 6)



Cloud is a vital enabler of the wider business transformation

The survey data show that most banks undergoing transformation programs understand the importance of cloud. Among those that plan to transform their bank, over 80 percent say these plans depend on cloud migration “to a significant/moderate extent”, and less than 20 percent think cloud contributes to a limited extent.

Nevertheless, just because an institution understands that something is important doesn't mean they know *why* it's important or how to tap into its transformative potential.



Q: To what extent is cloud vital to the bank's business and transformation plans? (Just posed to those who say they are seeking to transform their bank) (Figure 7)

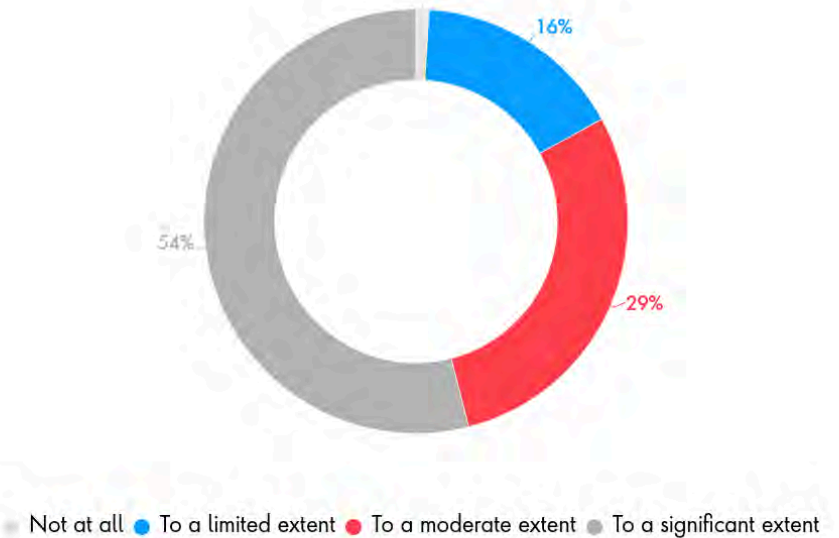
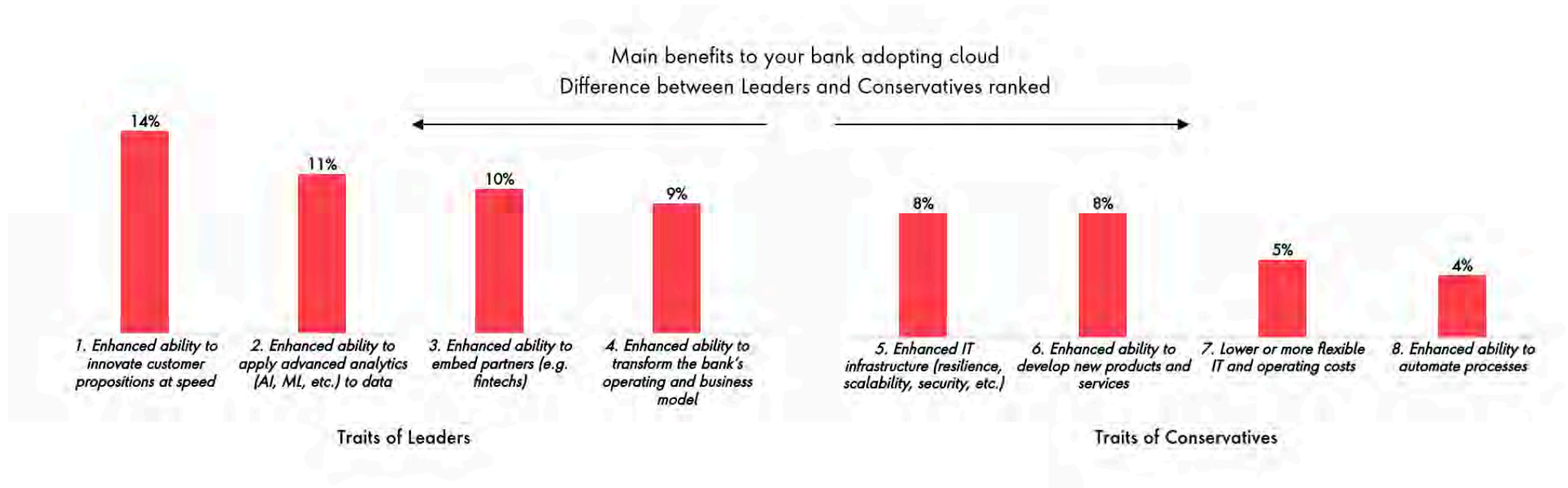


Figure 8 shows **Cloud Leaders** place much greater weight on the business benefits of cloud-enabled transformation than **Cloud Conservatives**. This includes the ability to innovate at speed, apply advanced analytics (including AI/ML), transform operating/business models and embed partners. **Cloud Leaders** and **Cloud Conservatives** agree on the benefit in lowering IT costs and increasing automation.

While in relative terms, **Cloud Conservatives** are much more focused on benefits related to IT cost reductions and increased automation (see Figure 8).

This limited understanding of cloud's potential stymies growth and transformation. The more advanced banks are in their migration, the more they see the cloud as an enabler of business—rather than technology—transformation.

Q: Which of the following do you consider to be the main benefits to your bank of adopting cloud? Difference between Leaders and Conservatives ranked in order (Figure 8)





The ambition and execution gap

The ambition and execution gap

We found that an ambition and execution gap are the two major obstacles to achieving cloud's full potential. First, over half of the executives and non-executives still undervalue the cloud's transformative potential, thus limiting the business transformation ambition with the cloud. Second, our participants believe they lack execution speed and don't fully benefit from existing investments due to security concerns and a lack of skilled people.



The executive ambition gap

Only 44 percent of participants said their business leaders understand the business-related possibilities and opportunities of cloud, and just 34 percent said the same about their non-executive board.

When asked about the benefits they believe cloud can deliver, business stakeholders—including CEOs and those that work in strategy, digital, or transformation—see a much narrower range of benefits than those in the IT or finance team. For example, 51 percent of respondents that work in the IT function see the ability to automate processes as a primary benefit of cloud, compared with just 36 percent of business stakeholders. In addition, 45 percent of finance function leaders consider cloud’s ability to transform business and operating models as a main benefit, compared with just 33 percent of business leaders.



There is a huge opportunity for bank leaders to drive innovation across the bank by gaining a greater understanding of the full potential of cloud technologies to support innovation for their customers whilst managing risk.

Georgina Bulkeley, Director of EMEA Financial Services Solutions, Google Cloud

This disconnect needs to be resolved. If senior leadership at a bank is invested in cloud transformation, it will spread to teams throughout the organization. It is crucial for people working on cloud migration to get clear support from business leaders, especially in the early stages of transformation.

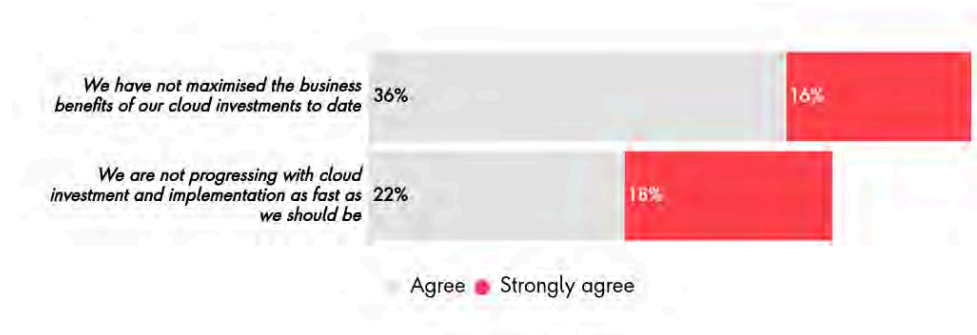
Q: To what extent do business/strategy leaders and the non-exec board at your bank understand the business-related possibilities and opportunities of cloud? (Figure 9)



The execution gap

More than half (52 percent) of banks admit that they have not maximized the business benefits of their cloud investments to date and a sizeable minority (40 percent) admit that they are not progressing as fast as they should be.

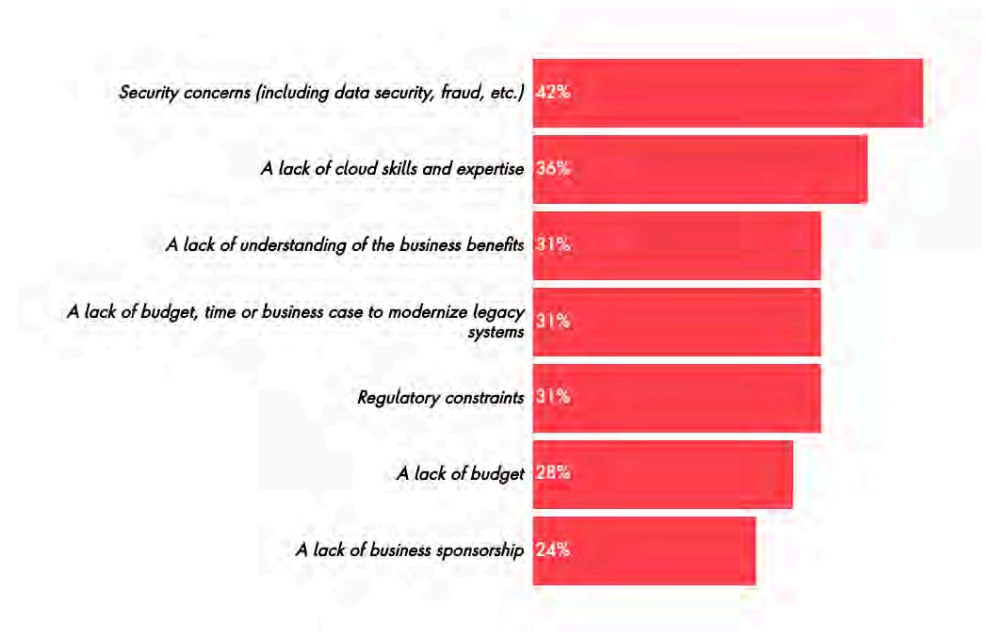
Q: To what extent do you agree with the following statements regarding cloud strategy, investment and implementation at your bank? Rating only (Figure 10)



Our research shows that the major obstacles to banks' cloud adoption include concerns over data security and fraud, difficulties in hiring people with the right skills, and limited understanding of the business benefits to making this shift.

All these hurdles can be overcome.

Q: Which of the following, if any, are significant obstacles to adopting cloud at your bank? Ranked in order (Figure 11)



Security concerns



Banks identify security concerns, including data security and fraud, as the most significant obstacle to adopting cloud (see Figure 11).

In general, the base security of cloud is stronger than most on-premise infrastructures. But it's not clear cut. On-prem environments can reach the default level of cloud security through lots of know-how and effort. And weak cloud configurations without the proper expertise can expose vulnerabilities. This is especially true when data is transferred to the cloud. It's important for banks to partner with a cloud provider that prioritizes security at the design stage and has security engineers working around the clock. Google Cloud, for instance, takes advantage of industry megatrends—such as increasing deployment velocity and economies of scale—to compound the advantages of cloud security [source: [Megatrends drive cloud adoption - and improve security for all, 2022](#)]. They also apply the same security levels as Alphabet allowing customers the benefits of data encryption at rest, in transit and in use.

In addition to the obvious—such as engaging with regulators to understand how their thinking on cloud is developing—banks should pay attention to how their counterparts in other countries have succeeded or failed in different regulatory environments. Banks in the United States, for instance, have a great deal to learn about navigating the perils and promises of [open banking](#) from British financial services firms. It's important to adapt one's long-term approach strategy for security and compliance to burgeoning regulatory frameworks.

Lack of cloud skills



Banks identify a lack of cloud expertise as their second greatest obstacle to adopting cloud. To plug this shortfall, IT teams need to work with their HR departments to determine the specific skills they need and the optimal balance between recruiting new employees, consulting with external experts and training existing team members. The technology skills that organizations need are constantly changing. It is important for banks not to rely too heavily on external hires to fill talent gaps. As technology changes, those new hires will develop skills gaps of their own. Banks need to keep training and upskilling their existing employees to ensure the entire organization is moving in the right direction.

As Publicis Sapient CEO Nigel Vaz points out, replacing talent is costly, and making decisions based on short-term challenges can slow organizations down.



The answer lies with continually reskilling and upskilling your existing talent. Curiously, given the importance and potential impact of addressing the technology skills gap, many businesses are slow to respond.

Nigel Vaz, CEO, Publicis Sapient

Lack of understanding



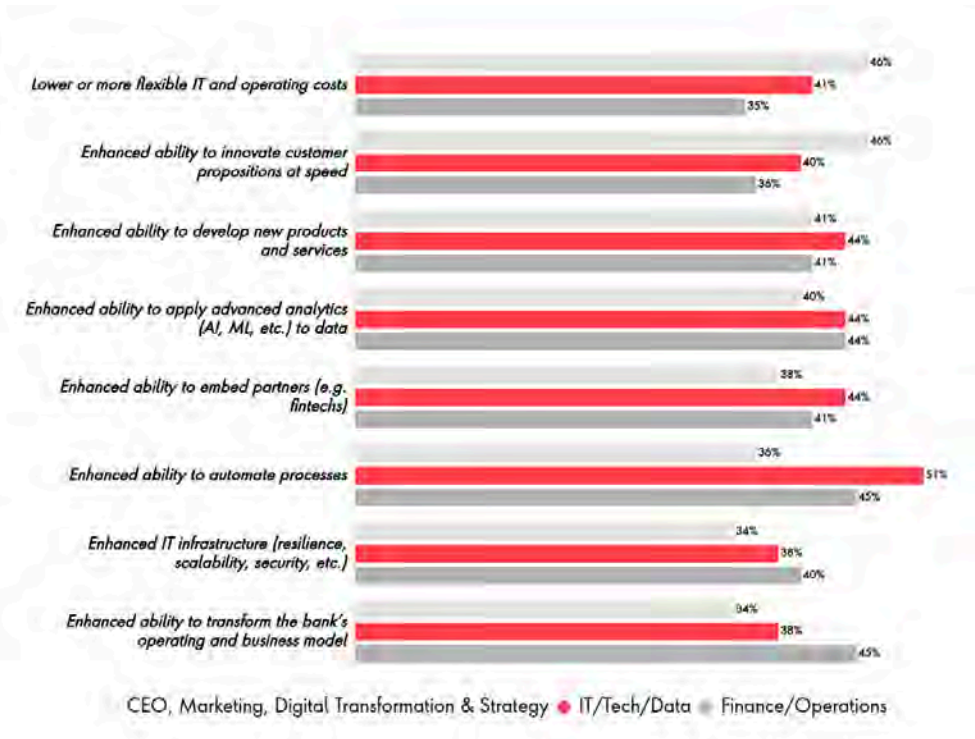
There are also important disagreements between groups within banks over the benefits of accelerating cloud adoption, often related to the differing levels of understanding. Business leaders in particular have less appreciation for the more transformative possibilities of cloud adoption and focus instead on cost reduction.


This points to the business side's general lack of understanding when it comes to the longer-term benefits of cloud migration and business transformation as opposed to simply technology and process transformation. Addressing these knowledge gaps on the business side is vital if the truly transformative benefits of cloud adoption are to be captured.

The aforementioned gulf between technology heads (among whom two-thirds understand the business benefits of cloud adoption) and business leadership (among whom just one-third share that understanding) partly explains the gap between the ambition to capture the benefits of cloud migration and the extent to which it's achieved.

IT leaders need to devote time to explaining the potential business benefits that cloud can deliver. In return, they will be rewarded with increased executive sponsorship and ultimately more investment budget.

Q: Which of the following do you consider to be the main benefits to your bank of adopting cloud? By function (Figure 12)



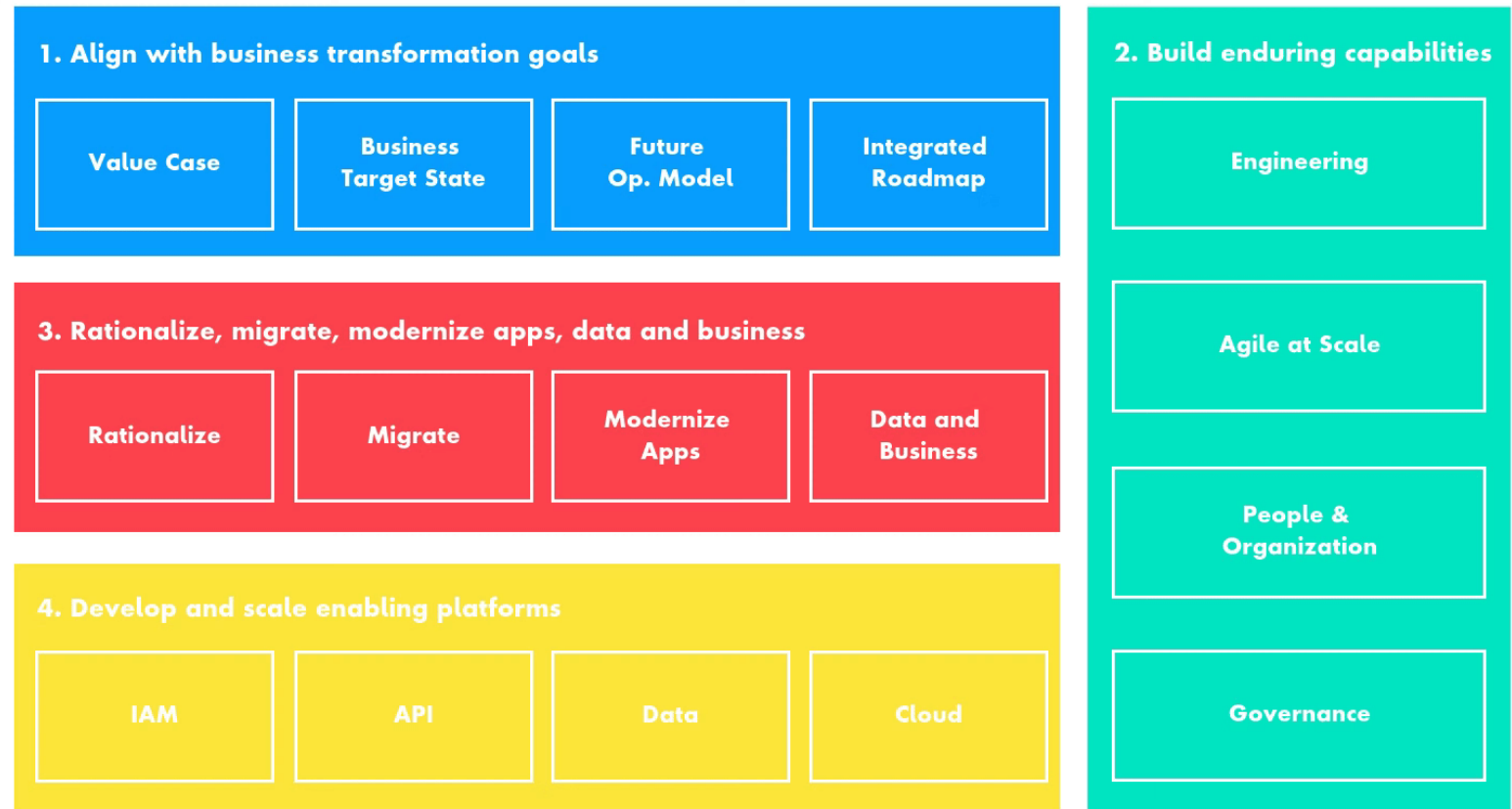


The four imperatives
of successful cloud-based
transformation

The four imperatives of successful cloud-based transformation

The true potential of cloud unlocks all of this and more: business transformation, cost reduction and new sources of revenue, etc. But a comprehensive, cloud-based transformation program needs to do four things well to be successful.

The four imperatives of successful cloud-based transformation (Figure 1.3)



1. Align with business on transformation goals

Alignment with the business on cloud-enabled transformation goals starts with a clear understanding of the value case, the contribution to the business target state and the future operating model. Then it's time to define the integrated (business and technology) roadmap including transformation goals.

Value case - Too often, the initial value case is purely focused on the direct technology cost. Though the commonly quoted 20 to 30 percent savings potential on IT cost is interesting, the business-wide benefits are multiple times higher and more strategic (e.g., speed of innovation).

Strategic business-led transformation initiatives are both a blessing and a curse for cloud adoption. If the timing is right, the business-led transformation will become a key value case and accelerate the cloud adoption and business benefits. If the business transformation initiative has progressed materially without the cloud, it might create an extra hurdle in the years to come, until the investments have been fully depreciated.

The value case will need to look at three benefit lenses:

1. **Enhanced performance** - examples include a faster speed of technology change and the potential of improved security
2. **Lower and variable cost** - examples include a lower IT run/change cost, increased automation of manual customer and operations processes, improved risk assessment by using unified data (and AI/ML) and more variable cost by shifting from capex to opex
3. **Revenue generation** - examples include data-led customization of pricing/experiences, offering new products/services and reaching more clients with partner-channels



2. Build enduring capabilities

Cloud-enabled business transformation requires a step change in four key capability areas: (1) modern engineering, (2) agile at scale, (3) people & organization and (4) governance.

Modern engineering - It is paramount that the more traditional engineering approaches are replaced with modern engineering principles and tooling. Key elements include end-to-end automation, self-services within guardrails, focus on speed/quality/value and end-to-end responsibilities. [Read the deep dive on the following page.](#)

Agile at scale - We have seen multiple challenges when adopting agile in organizations that need to be resolved to reap the agile-at-scale benefits. The most common challenges include being agile in name only, the complexity in scaling agility to hundreds of teams and the disconnect between senior executives and the rest of the organization.

People & Organization - Many banks have realized that they not only need to upskill existing staff but also need to expand the number of engineers and data technologists. The scale of the challenge is immense for many banks. Things are complicated by the fact that upskilling people is more than certifying people; they also need to learn the new platforms/languages, and how to work in a different way with agile at scale and modern engineering approaches.

Governance - Many banks struggle with deciding whether the business transformation should be governed within or outside the existing company. Separating out the new build might be preferable because it brings in new approaches and ideas while avoiding business-as-usual beliefs that conflict with longer-term transformation.



Modern engineering deep dive

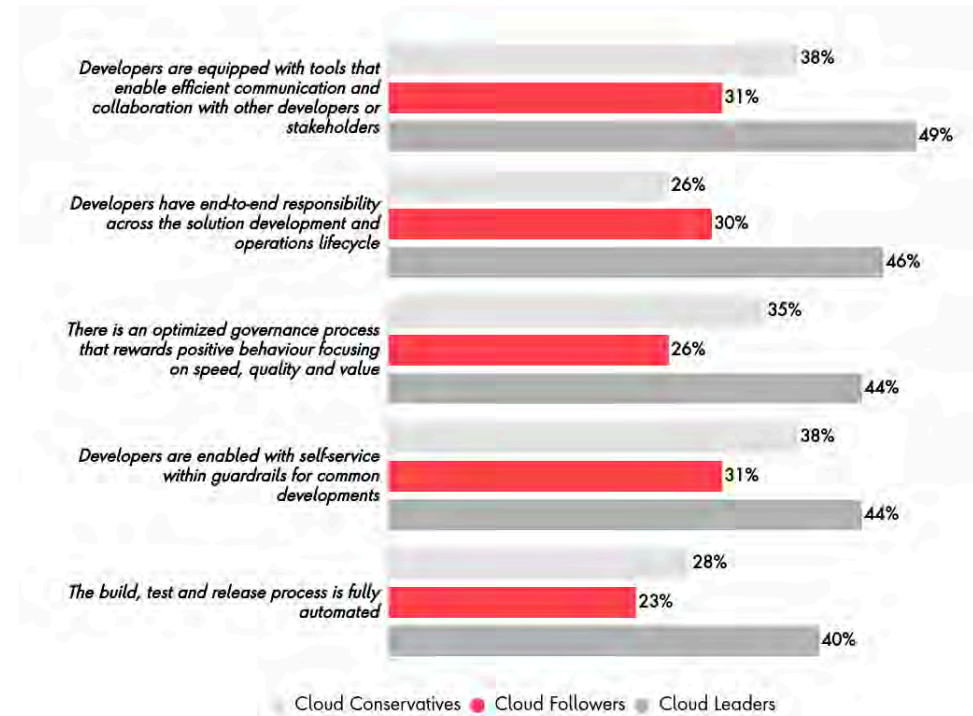
Banks that have made the greatest progress in migrating applications to the cloud are more likely to "strongly agree" that they have implemented modern engineering approaches. Migrating applications to the cloud gives banks a particular advantage in giving developers end-to-end responsibility across the solution development and operations lifecycle.

Figure 14 shows that **Cloud Leaders**—banks that have made the greatest progress in migrating applications to the cloud—are more likely to “strongly agree” that they have implemented modern engineering approaches. Migrating applications to the cloud gives banks a particular advantage in giving developers end-to-end responsibility across the solution development and operations lifecycle.



Migrating applications to the cloud gives banks a particular advantage in giving developers end-to-end responsibility across the solution development and operations lifecycle.

Q: To what extent do you agree with the following statements regarding the product and application development process at your bank? A. Strongly agree. Answers segmented by % of applications in the cloud today. (Figure 14)



3. Rationalize, migrate and modernize apps, data and business

To modernize the applications and associated data, we see four key building blocks, including target architecture, 6R (or any treatment strategy), integration hub and migration hub.

Defining the **target architecture** starts with the alignment to the future business and operating model. A key first step in complex businesses like banks is the creation of logical domains, utilizing domain driven design principles. It sidesteps many legacy boundaries that could complicate the future modernization efforts, bringing technical and business design together and creating a common language for collaboration.

Next, we need to agree on what needs to happen with the existing applications and data stores. Common methodologies include the **6R*** or **TIME**** strategies. The cost of a full modernization is most often prohibitive, hence smart choices on the application treatment strategies and roadmap are required to balance the investments with the benefits. In all instances, it is key to build a plan with a clear and recognizable short term business benefit.



As the modernization gets underway, the bank will need to create both an integration hub and a migration hub to support a gradual and controlled migration and support a multi-year effort.

The **integration hub** connects the new applications with the existing applications/feeds, enabling a gradual modernization of various applications, including the ability to roll back to using the legacy system. The **migration hub** enables the migration of data to the new architecture with guardrails for data quality, reconciliation and security compliance—and with repeatable/reusable assets to simplify migration efforts.

*6R: Rehosting, Replatforming, Re-Architecting, Retire, Retain, Repurchasing. Source: [Gartner](#)

**TIME: Tolerate, Innovate, Migrate, Eliminate. Source: [Gartner](#)

4. Develop and scale enabling platforms

As part of the new technology stack that supports the productization of the back-end systems, there will be a strong need to create enabling platforms. Examples include the IAM (identification & authentication management) platform, API/integration platform, unified data platform and cloud platform.

The benefits of the enabling platforms lie in the simplification for the customer-facing engineers, who need to create products and customer experiences, and the economies of scale in technology, control and compliance on the back-end.

Customer-facing engineers no longer will be held up by cumbersome control processes, delaying and complicating their work.

Instead, they can use standard patterns, and as long as they operate within the guardrails, they can operate at speed.

The challenge is to embed a customer centric product mindset in the back-end/platform systems—offering maximum self-service through automation, while ensuring compliance by design. Typically, during the transition to a unified platform, there is a need to rationalize existing solutions and untangle these solutions from customer-facing solutions (e.g., many banks have multiple, poorly connected data platforms, some of which are hardwired with solutions that all need to move to a unified data platform).



About the research



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The findings in this report are based on a survey of 250 executives of retail and commercial banks conducted and analyzed in September and October 2021. Survey participants were located in EMEA (44 percent), North America (30 percent) and APAC (26 percent). All participating banks had more than \$1bn in assets, and 36 percent had more than \$100bn. Bank leaders working in a range of business functions participated, including those in finance, operations, IT, strategy, transformation, and marketing.



About Publicis Sapient

Publicis Sapient is a digital transformation company. We partner with global organizations to help them create and sustain competitive advantage in a world that is increasingly digital. We operate through our expert SPEED capabilities: Strategy and Consulting, Product, Experience, Engineering and Data, which combined with our culture of curiosity and deep industry knowledge, enables us to deliver meaningful impact to our clients' businesses through reimagining the products and experiences their customers truly value. Our agile, data-driven approach equips our clients' businesses for change, making digital the core of how they think and what they do. Publicis Sapient is the digital business transformation hub of Publicis Groupe with 20,000 people and over 50 offices worldwide. For more information, visit publicissapient.com

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About Google Cloud

Google Cloud accelerates every organization's ability to digitally transform its business. We deliver enterprise-grade solutions that leverage Google's cutting-edge technology - all on the cleanest cloud in the industry. Customers in more than 200 countries and territories turn to Google Cloud as their trusted partner to enable growth and solve their most critical business problems.

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