#bankingtechvision2021

Accenture Banking Technology Vision 2021

Leaders Wanted

Masters of Change at a Moment of Truth

Voices of **Change**

From insights to action, the path to extraordinary value starts here.

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Amid the challenges of 2020, many banks embraced the axiom that every business is a technology business. Through the application of that technology they made material progress in reshaping both the customer experience of banking and their own internal operations.

In the post-pandemic world, some customers will inevitably revert to non-digital channels, but we will undoubtedly look back on the last 18 months as an inflexion point that permanently changed the banking industry. From this point forward, technological maturity will be a key determinant of financial performance in the banking industry. Choosing to be a follower—even a fast one—rather than a leader will be an increasingly risky strategy. We are also seeing societal and environmental impact being included, along with simple financials, as the key measures of success. What will separate the winners from the laggards in the banking industry over the next decade will be the ability to use the COVID pandemic as a springboard—and a critical component of that springboard will be how banks embrace and utilize leading-edge technology to evolve and transform their business.

For years, banks were optimistic in their self-assessments of their digital readiness, thinking they were further along in their cloud and digital transformations than they really were.

For many the COVID-19 crisis shattered those rose-tinted glasses, bringing into sharp focus the reality of inflexible work arrangements, highly manual operations, and customer sales and service processes that were certainly not end-to-end digital.

The leaders pivoted quickly. They accelerated their product and technology roadmaps, and improvised solutions in ways that transformed how they worked and served their customers. Technology was a saving grace in a period of immense uncertainty. Banks around the world generally had a 'good crisis' in that they effectively channeled unprecedented levels of public sector stimulus, displayed welcome flexibility on payments holidays and short-term credit, and developed innovative remote communication solutions to make up for the lack of face-to-face interactions.

Having been forced during 2020 to make years' worth of technology and business model changes in a matter of months, banks are now asking how they can sustain that spirit of innovation beyond the pandemic and make that level of responsiveness part of their DNA. Having shed those rose-tinted spectacles, many executive teams are now focused on compressing what had been decade-long transformation agendas into two-to-three-year sprints, putting them on the right side of the digital achievement gap.

The journey of reinvention, however, has only just begun. The COVID crisis radically accelerated changes that banks knew were coming but didn't expect to see so soon. Major shifts that were predicted to materialize years from now are happening today: industry convergence, mass virtualization, rapid product innovation, and incessantly changing customer expectations.

A recent study revealed that digital leaders (the top 10% of companies leading technology innovation) achieve double to triple the revenue growth of their competitors—a widening divide that Accenture calls 'the digital achievement gap'.[1]

The single biggest reinvention of the banking industry in recent memory has been ignited by COVID. The winners of the next decade are looking beyond today's triage effort to build what comes next. Those that are tempted to let things revert to the good old days of 2019 will find that they fall further behind and that the new competitive dynamics of the industry undermine their business models.

Those that continue to have a clear-eyed perspective and a sharp focus on accelerating their digital transformations—reimagining everything from the role of their people, to data, technical architectures, and ecosystems—will emerge as the leaders of the future. In this future, banks will also be equipped to have an outsized impact on the world around them—and financial success will be only one measure of their leadership.

We are experiencing a unique moment when we can think about rebuilding the world better than it was before the pandemic. That means expanding our definition of value to include the extent to which people thrive, the impact made on the environment, the expansion of inclusivity and more. Will you be a bank that watches the world change around you? Or a bank that leads that change?

99% of banking executives report the COVID-19 pandemic created an unprecedented stress test for their organization.

Q. Which aspects of your organization experienced the greatest stress test?

33%

Technology architecture

23%

Workforce

26%

Strategy

16%

Processes
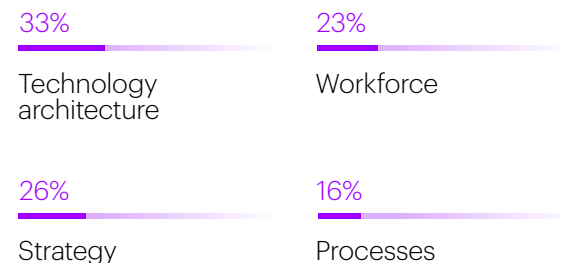
Accelerating transformation

68%

of banking executives say the pace of their organization's digital transformation is accelerating

Renewed purpose

93%

agree that organizations are operating with a renewed sense of purpose

2021 Tech Trends

The Technology Vision is Accenture's annual review of the emerging technology trends that hold the greatest potential to disrupt business models and industries. The survey sample this year included some 700 banking IT and business executives from around the world.

In this report, we look at five Tech Vision trends and how they are likely to impact the banking industry.

1. **Stack Strategically: Architecting a better future**
2. **Mirrored World: The power of massive, intelligent, digital datasets**
3. **I, Technologist: The democratization of technology**
4. **Anywhere, Everywhere: Bring your own environment**
5. **From Me to We: A multiparty system's path through chaos**

Trend 1

Stack Strategically

Architecting a better future

We are entering a period when banks will compete not only on product features, risk appetite and pricing, but also on the basis of their technology architecture.

Execution of corporate strategy will, to an unprecedented degree, be enabled (or constrained) by tech architectures. But building and wielding the most competitive technology stack means thinking differently about the role technology plays in the banking business. We are beginning to see business and technology strategies becoming symbiotic, and technology leadership becoming a necessary (although not sufficient) criterion for financial and competitive success.

Unifying tech and strategy

83%

of banking executives agree that their organization's business and technology strategies are becoming inseparable—even indistinguishable

Deep in the cloud

94%

project that at least half of their organization's business will be in the cloud within three years

Competing on architecture

89%

agree that their organization's ability to generate business value will increasingly be based on the limitations and opportunities of their technology architecture

Considerations for banks

- The diversity of technology capabilities across the stack will lead to an unprecedented diversity of business solutions. Banks can gain an edge by determining which combinations of technologies enable them to develop one-of-a-kind offerings either for themselves or working collaboratively with ecosystem partners.

- Building a competitive technology stack starts with accumulating technical wealth, within which cloud strategies and microservices are key components. The bank of the future needs an adaptive technology foundation and cannot afford to be weighed down by legacy systems that are monolithic and inflexible.

- The first time a customer uses a new technology may be through a bank's channels, products, or services. This requires building trust—not just in the modes of interacting and the services they provide but also in the underlying technologies that deliver them.

The trend in action

Banco Santander has moved 200 servers to the cloud every working day for the past two years, migrating 60% of its IT infrastructure to the cloud with a 2023 deadline to complete the transformation. This cloud-enabled technology stack helped the bank serve 148 million customers in Europe and the Americas and support 100,000 staff working from home through the pandemic.[2]

Minna Bank, a new digital bank in Japan, has created a next-generation core banking system running entirely on the public Google Cloud. Its API-driven architecture will not only run the bank's retail operations, but will also be made available to third parties who wish to leverage the highly flexible system to power discrete embedded finance offerings or even run own-brand banking services.[3]

Decision Points

Is your business ready to be a technology leader?

- Assess whether your technology vision enables and supports a winning business strategy in an increasingly unbundled and componentized banking industry. Where is your business strategy being undermined by technical debt and what is the risk of accepting rather than addressing those limitations?

- Evaluate your current digital transformation efforts against those of your competitors, both traditional banks and the best fintechs and bigtechs encroaching on the industry. Are you able to match their speed of innovation or is the gap continually widening?

- Identify new opportunities for digitally driven products, services, and customer experiences that leverage growing technology capabilities and use those business cases to justify investments.

How are you creating a competitive edge with your technology choices?

- Focus on building technical wealth, taking advantage of cloud capabilities, microservices, and the flexibility they unlock to increase the metabolism of product and partnership innovation.

- Begin piloting or scaling efforts and investments in next-generation technologies like distributed ledgers or AI that will be the foundation for the next generation of winning products and customer experiences.

How will your relationship with your customers be reshaped by next-generation technology?

- Conduct design thinking and strategic foresight exercises to evaluate how the bank will be brought closer to the customer in unexpected ways. Trust in traditional banks rose during the COVID pandemic; don't squander it in the post-pandemic world.

- Make trust a core design principle of new technology strategies. Prioritize data privacy, ethical design, and continuous governance as you build.

Trend 2

Mirrored World

The power of massive, intelligent, digital datasets

Growing investments in data and AI technologies are giving rise to new ways to view the real world through a technology lens: the 'mirrored world'. By weaving together data from different sources, banks are able to create living models of product lifecycles, customer journeys, operational processes, market scenarios and more.

As an increasing share of the physical world is represented in digital space, the mirrored world will unlock immense opportunities to anticipate, assess, and meet customer needs in ways that will surprise and delight customers who are used to thinking about banking as reactive and bureaucratic. The mirrored world also allows leaders to view their own internal processes in a holistic way to identify improvement opportunities. Banking leaders will be able to bring data and intelligence together on an unprecedented scale; ask and answer big-picture questions critical to their survival; and reimagine how they operate, collaborate, and innovate.

Experimenting with twins

23%

of banking executives report their organization is experimenting with digital twins this year; 16% are scaling up digital twins

Central intelligence

89%

believe their organization requires a central intelligence hub to model its processes, people and assets

Increasing investments

65%

expect their organization's investment in intelligent digital twins to increase over the next three years

Considerations for banks

- Mirrored-world simulations will give banks the freedom to explore new ideas and ask limitless 'what if' questions in a risk-free digital environment. Leaders will use this capability to transform their innovation process and improve their own internal operations.

- To reap the benefits of the mirrored world, banks will build comprehensive and trusted data practices. However, using incomplete or bad data will do more harm than good.

- The mirrored world promises big-picture visibility, but accessing it means going beyond the enterprise's four walls. Banks will work toward a future of seamless data-driven collaboration across ecosystems.

The trend in action

A multinational financial services institution used digital twins in its commercial lending business to model end-to-end processes across multiple touchpoints and disparate systems. This mirrored-world simulation yielded insights into when and why some processes experienced delays, highlighted opportunities for automation, and identified ways to improve transparency. Following an analysis of this data, the firm was able to take a variety of actions that decreased the processing time for business loans from 13 days to two days.[4]

Digital twins, drawing on massive, intelligent, digital datasets, can also offer banks the ability to simulate virtual cyber-attack scenarios from which their AI can learn. Instead of hiring hackers to continuously try to breach the defenses of an IT system, a bank could instead simulate its technology environment and run different cyber-attack scenarios to test resilience and evaluate outcomes.[5]

Decision Points

Is your bank prepared for the mirrored world?

- Audit your data practices. Evaluate what tools and technologies are being used and where data is being warehoused to understand and break down data silos. Consider how data privacy and protection regulations may impact how you share and leverage data, particularly personal, identifiable information.

- Prioritize building and streaming analytics capabilities to strengthen the 'information supply chain'. Invest in solutions that deliver rapid ingestion, preparation, and analysis of data and which are capable of scaling and reacting in real time.

How can the mirrored world transform your innovation process?

- Understand where you are losing the competitive battle, and use this insight to develop a list of key use cases that will generate the most impact for your enterprise. Where will a digital-twin understanding of processes and customer interactions provide the most performance uplift?

- Integrate AI capabilities with digital-twin efforts so that the outcomes are both descriptive and prescriptive, and so that you don't end up just admiring the problems rather than fixing them.

How will your enterprise engage wider data ecosystems?

- Design data plays with the intent to connect them to third-party ecosystems. Include external (or open) sources of data in the data model and consider constructing APIs for key datasets even if external use cases don't yet exist.

- Have ecosystem-scale thinking lead your strategies. Augment bank data with new data, including firmographics, web crawling data, wallet share insights, customer satisfaction, and more to create a comprehensive view of customer behavior rather than a letter-box view defined by the bank's interactions with that customer.

- Short-list potential data-driven partnerships. This could entail collaboratively building data plays or tapping into an already established network. Identify, debate and resolve issues of revenue cannibalization and channel conflict with a focus on maximizing overall market share and value creation.

Trend 3

I, Technologist

The democratization of technology

A shift is underway in technology development. Natural language processing, low-code platforms, robotic process automation, and more are putting powerful capabilities into the hands of people all across the bank. This phenomenon adds a grassroots layer to banks' innovation strategies and breaks down the traditional barrier between business and IT.

While the IT function will still handle major implementations and work with the most advanced technologies, the people closest to day-to-day business problems are increasingly empowered to create technology-driven solutions themselves. With democratized technology, every employee can be an innovator, optimizing their own workflow, fixing pain points, and keeping the business in lockstep with changing needs.

Igniting innovation

88%

of banking executives believe that technology democratization is becoming critical to their ability to ignite innovation across their organization

Developing technologists

87%

agree their bank must train their people to think like technologists—to use and customize technology solutions at the individual level, but without highly technical skills

Data governance

91%

agree that banks need to ensure that training strategies for technology democratization should include a focus on security and data governance

Considerations for banks

- Democratized technology can help close the skills gap. While highly technical skillsets remain in demand, leaders can use democratized technology to cultivate much of what they need within their current workforce.

- To activate a grassroots layer of innovation, banks are training their people to think like technologists. These programs cover how to use various democratized tools as well as overall technology literacy.

- Democratization is breaking down traditional divisions between technology and business. Leaders are rethinking the roles of their IT and non-IT workers and reimagining how they can collaborate.

The trend in action

Like many financial institutions, Allied Irish Bank wanted to make AI an integral part of its decision-making process. To combat bad data or model designs that generate bias against some customers, the company built an algorithmic bias tool. Data scientists and business users alike can use the tool to evaluate proposed models for any bias or unfairness—an example of the power of democratizing technology.[6]

DBS Bank in Singapore has committed to training 7,200 employees in new skillsets across a range of emerging technologies—AI and machine learning, design thinking and data analytics—to better equip the workforce for a technology-first future.[7] This will effectively turn thousands of employees into technologists and innovators.

Decision Points

Is your bank poised to take advantage of technology's growing democratization?

- Pick one area to begin experimenting with democratized technology. For instance, give bank employees the ability to reconfigure and automate workflows so that they can take their own knowledge of workarounds and best practices and institutionalize them.

- Assess which additional investments need to be made to power grassroots innovation and whether the biggest bang for those investments comes from narrow technical training or a broader-based upgrading of technology skills.

How are you training your workforce to think like technologists?

- Invest in technology literacy and training programs across your organization.

- Leverage self-selection and AI to find not only the skills gaps but also hidden aptitudes and skills within the bank.

- Teach employees to understand the costs of scaling and maintaining solutions, how security gaps create enterprise risk, and how to avoid creating institutional friction like incompatibility and data silos.

How can democratized technologies make IT groups more effective—and vice versa?

- Establish teams to support and guide the use of democratized technologies across your organization and measure the impact through self-directed assessments.

- Update IT policies to give employees the flexibility to explore new technologies, but have IT play a role in establishing guardrails.

- Try using tech like low-code—a software development approach that requires little to no coding to build applications and processes—to bridge the gap between the business and technical sides of your organization during prototyping and design.

During the height of the pandemic, banks ignited the biggest workforce shift in living memory by sending people home and doubling down on technology solutions to keep them productive. In doing so, they have made work possible not just from home, but from anywhere. Rather than undermining performance, many banks found that productivity actually increased in this new way of working.

Now, leading banks are considering how to transform remote work from an accommodation to an advantage, and in the process are challenging many preconceptions about culture building, oversight and talent management.

Opportunities abound for banks that are ready to rethink what they can achieve with a more virtualized workforce model, from accessing talent in new geographies to moving away from a traditional full-time versus part-time model to more of an on-demand model. But simply extending pandemic

policies won't be enough. Leaders are developing 'bring your own environment' (BYOE) strategies that address the cultural and security ramifications of remote work as well as the evolving purpose of physical branches and office space.

Shifting to BYOE

74%

of banking executives project 10 - 40% of their workforce will be working remotely in one year

New behaviors

81%

agree their organization's employees just faced the largest and fastest human behavioral change in history due to COVID-19

Opening talent markets

86%

believe the remote workforce opens up the market for difficult-to-find talent and expands the competition for talent among organizations

Considerations for banks

- During the pandemic banks focused on making BYOE work technologically possible; now they need to make it more seamless. Pain points that are left unaddressed will rapidly grow.

- With a BYOE strategy comes the opportunity to reimagine the enterprise's operating models. From increasing human-robot collaboration to accessing a truly global talent pool, the potential benefits are vast.

- As banks shift to a BYOE strategy, their culture must evolve too. This will be an ongoing process, but quick wins today include rethinking how employees communicate and working to ensure remote and in-person employees are recognized equally.

The trend in action

HSBC has abolished the entire executive floor of its London skyscraper as part of a radical plan to cut 40% from global head office costs. CEO Noel Quinn says he will lead by example by frequently working remotely and by cutting his business travel by half. Credit Suisse and Deutsche Bank are among the other banks adopting hybrid remote work strategies as Europe emerges from the worst of the COVID-19 crisis.

Yet accommodating flexible working with BYOE strategies may be more difficult than catering for universal homeworking. One UK executive told the Financial Times: "We know how to run a business with people in the office, we know how to run it with people at home. But this hybrid model, with significant numbers in and significant numbers at home, is going to prove to be harder than all-in or all-out."[8,9]

Decision Points

How is your bank making remote work sustainable, seamless, and secure?

- Identify where you made rapid digital transformations and prioritize addressing outstanding security concerns as remote working moves from being an accommodation to normal practice.

- Re-evaluate your technology strategy to ensure the benefits of remote work are being maximized rather than just lifting and shifting traditional office-work practices.

- Create a pipeline for employees to introduce new collaborative solutions to the organization.

How are your people responding to remote work?

- Invest in workplace analytics tools and develop a set of KPIs to better understand how employees are responding to remote work.

- Survey your people to understand what benefits (or challenges) they are facing with remote work.

- Partner with your workforce to understand the new demands they face as their home becomes their office.

Moving forward, how are you thinking about the purpose of place?

- Reimagine how your physical space is utilized. Plan for optimizing branches and offices to account for a growing remote contingent.

- Revise recruiting and talent strategies to take advantage of talent pools outside your typical geographic markets, within regulatory constraints.

- Ensure that the informal advantages of workplaces are virtualized as well, by means of team-building efforts and 'water cooler' conversations.

From Me to We

A multiparty system's path through chaos

The global disruption of COVID-19 ignited a scramble for banks to reimagine their partnerships.

The sudden demand for contact tracing, frictionless payments, and new ways of building trust brought into sharp focus what had been left undone with banks' existing ecosystems. Now, the leaders are preparing for rapid change in customer needs, regulation, and more over the next three years.

As the number of third-party providers in the banking ecosystem multiplies, banks will rethink how they operate in the context of multiparty systems, Open Banking regulation and open data. Those that get it right can gain greater resilience and adaptability, unlock new ways to approach the market, and set new, ecosystem-forward standards for the industry.

Scaling and experimenting

24%

of banking executives report their organization is experimenting with multiparty systems this year; 36% are scaling up multiparty systems

Forging resilience

91%

agree multiparty systems will enable their ecosystems to forge a more resilient, adaptable foundation and create new value with partners

Fast forwarding with cloud

90%

say that to be agile and resilient, their bank needs to fast-forward its digital transformation with cloud at its core

Considerations for banks

- To build greater resilience, leading banks will become more proactive in pursuing digitally-led partnerships through Open Banking and open data strategies. This starts with thinking beyond traditional boundaries and investing in technologies that enable banks to participate in an ecosystem economy.

- Multiparty systems are rapidly growing in adoption and have the power to radically transform partnerships. But banking leaders need to understand the right business case for leveraging them. In particular, they need to identify where they should attempt to lead the customer interaction and experience versus the areas where they should be a product or service provider to a third party.

- Boundaries between industries are blurring, and competition could come from any company with a large pool of consumer data—we already see Chinese 'super apps' such as WeChat and Alipay aggregating mobile payments, shopping, investing, savings, budgeting and crypto capabilities. Choosing with whom to partner, and how, will be key to success in the emerging open data economy.

The trend in action

Eleven large US financial institutions are working together through the Akoya Data Access Network, an API-based network enabling access to consumer financial data. This multiparty network facilitates API connections by providing a single point of integration for data providers (financial institutions) and data recipients (aggregators and fintechs).[10]

Goldman Sachs has released cloud-based software that allows business clients to embed banking services into their own products, opening a new front for ecosystem partnerships. The aim is to disrupt the $32 billion a year global cash management industry with a new approach to corporate bank accounts and cross-border payments. Developers can use Goldman's public APIs to integrate payments in their companies' services.[11]

In Singapore, the introduction of the SGFinDex (Singapore Financial Data Exchange), the world's first public-private Open Banking initiative, brings financial institutions together to provide an efficient, standardized, secure and centralized gateway for efficient data sharing based on common data and API standards to support data-driven digital innovation.[12]

Decision Points

How are digitally-led partnerships driving value for your enterprise?

- Assess the progress of your Open Banking strategy. Is it innovation theatre or is it actually making a difference to the shape of your income statement and balance sheet?

- Take advantage of industry-focused cloud solutions and have a strategy for using these solutions to enhance ecosystem collaboration.

- Find partners with a shared set of customers and explore collaborating to build unique digital products. Explore embedding your banking services in other industries and offerings, even if that means competing with your own proprietary channels.

Is your business ready to participate in multiparty systems?

- Think beyond Open Banking. Scan the environment to assess which multiparty systems to partner with and which are a potential competitive threat.

- Open data could enable new business practices and models. Evaluate the business cases that will drive your participation in multiparty systems.

Which business relationships will be transformed by the growth of multiparty systems?

- Work closely with potential partners to understand their businesses, the data sources they offer or wish to access, and the integration challenges they may face.

- Consider joining industry consortiums or establishing a working group of inter-enterprise partners to set standards.

About the Accenture Technology Vision

For more than 20 years, Accenture has developed the Technology Vision report as a systematic review across the enterprise landscape to identify emerging technology trends that will have the greatest impact on companies, government agencies and other organizations in the coming years. These trends have significant impact across industries and are actionable for businesses today.

Accenture Labs and Accenture Research collaborate on the annual research process, which includes:

• Input from the Technology Vision External Advisory Board, a group of more than two dozen experienced individuals from the public and private sectors, academia, venture capital and entrepreneurial companies. In addition, the Technology Vision team conducts interviews with technology luminaries and industry experts, as well as nearly 100 Accenture business leaders from across the organization.

• A global survey of business and IT executives to understand their perspectives on the adoption and impact of technologies in their organizations. This year, Accenture Research conducted a global survey of 6,241 business and IT executives—including some 685 banking executives—to capture insights into the adoption and use of emerging technologies.

As a shortlist of themes emerges from the research process, the Technology Vision team works to validate and refine the set of trends. The themes are weighed for their relevance to real-world business challenges. The Technology Vision team concentrates on the themes that will soon start to appear on the C-level agendas of most enterprises.

References

Introduction

Trend 1: Stack Strategically

Trend 2: Mirrored World

Trend 3: I, Technologist

Trend 4: Anywhere, Everywhere

Trend 5: From Me to We

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