



AVANADE DIGITAL BANKING

Cashing in on Digital Disruption:

How to keep up in the banking sector

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This report explores

The seismic shifts in the banking landscape caused by technology

The complex challenges and rich rewards of modernizing legacy IT systems

The urgent need to optimize operations through technology and skills investment

The rising pressure to reimagine the customer experience in the face of changing customer demands and competitive threats

Executive Summary

The disrupted banking landscape threatens the existence of banks. That's the overarching message from 280 senior IT and digital decision makers from retail or commercial banking organizations across numerous countries.

Avanade commissioned independent technology market research specialist Vanson Bourne to investigate the changing landscape of the banking industry. The research further explores the challenges and priorities for the IT decision makers.

Disruptive digital competition is fundamentally altering the competitive landscape in the banking industry. For existing banks, the solution is threefold: modernize legacy IT systems, optimize operations and reimagine the customer experience

Change is here – it's time to reimagine banking...

This study reveals that senior IT and digital decision makers acknowledge the competitive lethal threat - they need to change but do they have the business support, strategy and technology to make the leap? Digital disruption triggers a snowball effect, causing many traditional banks to consider drastic actions such as closing branches in the race to better serve (and retain) their customers digitally. However, most are tied up in maintaining legacy systems that swallow up large parts of their IT budget. In turn, this limits their capacity to invest in new technologies and innovations.

The future...

The continued rise of FinTech represents a significant threat to future success and existence; many respondents admit that these new entrants are more innovative, more agile and more cost effective than their own organization.

For those who make the change to modernize, there are big benefits to be had...

Major revenue gains and significant cost saving efficiencies are among the most enticing rewards for organizations that move to modernize their IT systems. With such technologies forming the foundation of their operations, they can step up to fight back and compete against the new digital wave.

Three things to do to get there...

For traditional banks, a checklist emerges to focus in on in order to embrace this new, dynamic digital environment:

- Modernize IT systems to reduce the legacy technology burden and unlock more time, money and resources to dedicate to business innovation
- Optimize operations through investment in new technologies and skills that drive efficiency and productivity improvements
- Reimagine the customer experience to increase customer satisfaction and counter the disruptive threat

Avanade commissioned independent technology market research specialist Vanson Bourne to undertake the research upon which this report is based.

Key takeaways

The global banking landscape is facing significant disruption...

- Disruption: Most (87%) respondents say that traditional methods of banking are being overtaken by disruptive competition as a result of dynamic changes in technology
- Customer behaviors: Nine in ten (90%) report that customer behaviors and expectations are changing, rendering traditional banking services obsolete
- Physical branches: A third (33%) of respondents' organizations plan to close many or all physical branches over the next 10 years and move to being more digital
- Human interaction: The majority (61%) believe that human interaction will not be necessary within retail banking in the next 10 years

Modernizing legacy IT systems is key and can lead to significant gains...

- Necessity to invest: Almost all (94%) respondents agree that modernizing their organization's IT systems to keep pace with emerging digital requirements would increase annual global revenue – by 14% on average or \$409m
- Too much spending: Most believe that their organization is currently spending more on maintaining legacy IT systems than other

traditional banking organizations (55%) and disruptive competition (65%)

- Cost of legacy technologies: The most commonly reported infrastructure issues experienced by IT departments according to respondents are that legacy technologies cost too much to maintain (47%) and that IT is too focused on maintenance (40%)

Optimizing operations through new technology investment...

- Current investments: Cloud (68%), modern computer hardware (58%) and analytics (55%) are the most common technologies currently being invested in
- New investments: Of those not currently doing so, the most likely technologies planned for investment are cognitive automation (66%), machine learning (61%) and robotic process automation (60%)
- The need for third party support: Almost all (99%) see advantages in using a third party to assist in implementing new technologies, such as improved flexibility (58%), optimizing operations (57%), access to greater expertise (50%) and prioritizing innovation (50%)

The urgent need to reimagine the customer experience in the face of disruptive competition...

- Personalization: The majority (89%) of respondents believe that their organization could improve at personalizing the customer experience
- Seamless experience: Over seven in ten (71%) say that providing a seamless experience is something that their organization really struggles with
- FinTech disruption: Eight in ten (80%) report that their organization is concerned about the impact that disruptive competition such as FinTech start-ups are going to have on the banking sector
- Increased customer experience spending: Most (91%) believe that in order to compete against disruptive businesses such as Fintech start-ups, their organization will need to increase spending on the customer experience

Changing banking landscape alters bankers' behavior

The present: disruptive competition is on the rise

There's no escaping it. The clear majority (87%) of senior IT and digital decision makers we spoke to believe that traditional methods of banking are being overtaken by disruptive competition, fueled by dynamic changes in technology.

Over the next 12 months, ahead of increasing profitability (41%) and improving security (34%) – two more traditional barometers of any successful bank – around half (48%) of decision makers state that embracing new technologies is their organization's key strategic priority.

Key strategic priorities – next 12 months



Figure 1: 'What are your organization's key strategic priorities over the next 12 months?', combination of responses ranked first, second and third, asked to all respondents (280)

A digital arms race has enveloped the banking sector and is redrawing its competitive landscape. Close to

...61% believe that human interaction will not be necessary in retail banking in the next 10 years...

nine in ten (86%) respondents agree that emerging financial start-ups are growing fast and attracting customers at a faster pace than ever before and in turn, most (90%) admit that customer behaviors and expectations are changing, rendering traditional banking services obsolete.

Main current challenges



Figure 2: 'What are the main challenges that your organization is currently experiencing?', combination of responses ranked first, second and third, asked to all respondents (280)

Country Insights

- All (100%) respondents in Italy, Switzerland and Japan agree that traditional methods of banking are being overtaken by disruptive competition
- Respondents' organizations in Germany (75%) and Australia (67%) are most likely to list embracing new technologies as a key strategic priority
- Respondents from the US are most likely to report plans to close all branches (28%)

Six in ten (60%) respondents report that customers now expect a more innovative and personalized digital experience. Today's digitally empowered consumer increasingly demands the same quality of user experience everywhere, from the bank to the boutique. Around half (48%) observe greater competition from FinTech start-ups and digital competitors with a non-financial services background. Almost eight in ten (79%) see big brands, such as Google, Amazon and Apple entering the banking space and threatening traditional banks' market share and profitability.

The future: digital will wipe out offline operations

To retool for the digital age over the next ten years, the most common (47%) plans that respondents report for their organization's physical branches are to invest in digital technologies that can be linked up with online services.

One in five (20%) respondents' organizations have plans to close many physical branches in the move to becoming more digital whilst just over one in ten (12%) plan to close all physical branches and go fully digital.

Most acknowledge technology's central role in the sector. The reason? The majority (61%) believe that human interaction will not be necessary in retail banking in the next 10 years.

So where to start? For banks seeking to become more adaptive, more agile and more competitive in their quest to becoming digital – the answer lies within.

Modernizing legacy IT systems is necessary to free up investment

Legacy system constraints slow down digital change

Significant amounts of investment remains tied up in maintaining such systems, with respondents reporting that on average 19% of the IT budget is spent in this area each year.

What's more, for many organizations this figure is even higher – four in ten (40%) spend 20% or more of their annual IT budget on legacy maintenance.

In comparison to their industry peers, just over half (55%) of respondents believe that their organization spends more on legacy than other traditional banks do and this figure rises to almost two thirds (65%) when respondents compare against disruptive competition such as FinTech start-ups.

Modernization drives revenue increase and cost savings

The clear majority (94%) of respondents believe that modernizing their organization's IT systems to keep pace with emerging digital requirements will increase annual global revenue. On average, these respondents believe that it has the potential to create an increase of 14%, or in money terms: \$409m per year. And it's not just on the revenue side, 86% also believe modernization can decrease business operating costs, again by a similar degree of 13% on average.

...19% of the IT budget is spend on legacy system maintenance each year, on average...

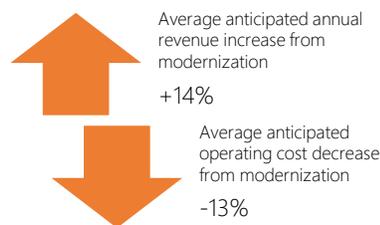


Figure 3: Analysis of the average potential impact on annual revenue and business operating costs from modernized IT systems, based on respondents who agree that modernized IT systems can increase annual revenue (262)/decrease business operating costs (241)

Business demands are driving a modern software approach

Some of the most commonly heard business demands are a need to reduce downtime (70%) or a belief that embedding innovation could be easier (62%). A similar proportion (65%) report that stakeholders want to move to the cloud quicker. Therefore, most organizations are embracing modern software engineering (MSE) techniques to support and enhance their ability to deliver.

Over four in ten have employed DevOps teams (44%) or a cloud-first approach (41%). Just over a third (35%) have already deployed agile application development. The most likely techniques planned for employment are both centered around DevOps automation – continuous delivery (63%) and test/QA automation (63%).

Infrastructure and application challenges stand in the way of cloud Infrastructure

With respondents' organizations spending significant amounts of the IT budget on maintaining their legacy systems, maintenance and legacy technology dominate the issues reported regarding technology infrastructure.

Just under half (47%) say that legacy technologies cost too much to maintain, while two-fifths (40%) believe that their IT department is too focused on maintenance. Consequently, many (28%) simply do not have time to innovate. This is a worry for organizations operationally constrained and unable to dedicate sufficient time and resource for development.

What's more, around a third of respondents admit that new technologies are not being adopted by their organization (35%) or that they do not have the skills required in their IT department to implement infrastructure changes (35%). Adding to this, around a quarter (27%) face issues in cloud integration or adoption.

Most respondents report that the bulk (69%) of their organization's infrastructure remains on premise, in data centers. Only the minority is deployed to private (19%) or public (12%) cloud at present. It takes a leap of faith for the business to support them.

Infrastructure challenges

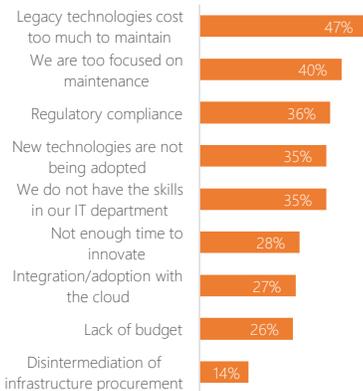


Figure 4: 'What are the main issues that the IT department in your organization is experiencing in regard to its technology infrastructure?', asked to all respondents (280)

Applications

A similar story emerges for applications. The overwhelming majority (97%) of respondents report difficulties in regards to its management. Again, cloud challenges play a significant role – just over half (52%) say that the move towards the cloud has caused difficulties. Many struggle with the volume of data they hold for each application (55%), keeping applications up to date, secure and reliable (54%) or ensuring application compliance with regulations (33%).

Cloud remains the minority proposition due to security, migration, regulatory and reliability concerns. On average, 72% of the application portfolio remains in on premise data centers, with 18% in private cloud and just 10% in public cloud.

And yet, with three in ten (30%) having difficulties ensuring applications can cope with changes in use/demand, the agility and scalability benefits of cloud deployment are where organizations could find vast benefit.

Country Insights

- Respondents' organizations in Switzerland (23%) and France (21%) report the highest average proportion of IT budget being spent on legacy systems
- US respondents anticipate the highest average increase in annual revenue from modernization on average (17%)
- Respondents in the UK (66%) and Switzerland (65%) are most likely to believe that legacy systems cost too much to maintain
- Respondents' organizations in Australia (60%), France (60%), Italy (60%) and Switzerland (60%) are most likely to report moving to the cloud as a difficulty for their app portfolios

Optimizing operations drives productivity and innovation

New technology investments are driven by cloud

In addition to the speed, ease and reliability requirements we have already seen, even more frequently heard are the need to create operational efficiency (81%) and to improve productivity (79%) in order to save costs and boost revenues. With the aim to optimize operations, cloud (68%) is the most common new technology that respondents' organizations are investing. Beyond that, half or more are investing across the business in modern computer hardware (58%) and analytics (55%).

In the future, attention will increasingly shift to more complex, artificial intelligence driven capabilities such as cognitive automation (66%), machine learning (61%) and robotic process automation (60%). All of these capabilities are seen by the clear majority of respondents as providing competitive advantages to help them stand out (89%, 84% and 86% respectively).

Many (53%) respondents also envisage improved workplace efficiency as a positive consequence of new technology investment, along with increased revenues (44%) and reduced operating costs (44%).

Benefits of new technologies

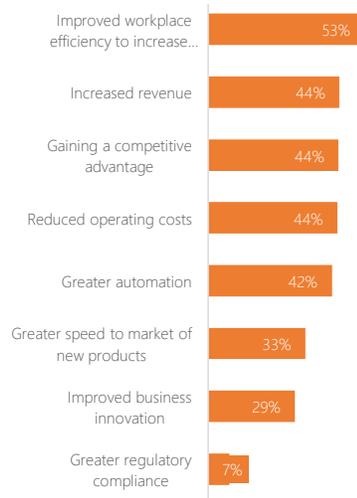


Figure 5: 'What benefits do you envisage for your organization from investing in new technologies?', combination of responses ranked first, second and third, asked to all respondents (280)

Third party support is a must
Can the use of external expertise help them on their way? In short, yes. Almost all (99%) respondents believe that there are advantages to using third party service providers when implementing and utilizing new technologies.

Most believe that they can deliver improved flexibility (58%) or that operations can be optimized (57%). Addressing their common skills and maintenance challenges, many feel that third parties can bring greater levels of expertise (50%) and in turn, that innovation can be prioritized (50%).

But where to use such providers? What are the priorities? It is then perhaps to be expected that cloud (71%) is the most common area amongst all respondents' organizations for third party service providers to be currently used.

Around half plan to use external help to implement and better utilize robotic process automation (52%), cognitive automation (49%) and machine learning (46%) in the future. Modernizing legacy IT, optimizing operations and investing in new technology and expertise are all vital components but the customer is key.

Country Insights

- Respondents' organizations in the US are most likely to be currently investing in cloud (86%), Japan are the least (32%)
- Swiss respondents are most likely to consider greater expertise as a key advantage of third party service providers (70%)

Reimagining the customer experience is key to survival

Customer experience drives customer satisfaction

Whether a bank can offer a full range of services and products remains the most common (55%) factor influencing customer satisfaction according to respondents.

However, looking beyond that is where things start to get interesting and technology increasingly enters the fray. Around four in ten (43%) view the ability to utilize the latest technologies to keep customer personal details safe as a top three influence on satisfaction.

A similar proportion select engaging digital interfaces (39%) and the performance of various communications channels when interacting (38%).

Just over a third (34%) believe that whether the customer experience is personalized is a main factor. Incredibly, these digital demands feature more highly than the level of trust (30%) in terms of their perceived importance.

...89% believe that their organization could improve at personalizing the customer experience...

Improvement relies on technology transformation

Therefore, technology is a dominant theme to deliver a better customer experience. Over half (51%) of respondents place providing a seamless and personalized experience across multiple channels as a top priority.

As a support to this goal, a similar proportion are looking to focus on improving the performance of applications (49%) and gaining a better understanding of customer needs through analytics (47%). Perhaps one of the few remaining advantages that traditional banks retain is the enormous amount of customer data that they already hold. The ability to harness this data and put it to use it effectively through analytics will help to support their quest for improvement.

Almost nine in ten (89%) believe that their organization could improve at personalizing the customer experience and around seven in ten (71%) concede that providing a seamless experience is a struggle. This openness to accept faults is both surprising and refreshing.

Customer experience focus areas



Figure 6: 'What are the main areas that your organization needs to focus on in order to improve its customer experience?', combination of responses ranked first, second and third, asked to all respondents (280)

Another frequently heard technology demand is the need to streamline processes through greater task automation (78%), and almost all (99%) respondents want automation across the business. Improvements in applications include understanding the customer through data analysis (69%), personalizing the customer experience (56%) and focusing on the foundations through application modernization (54%).

...96% admit that the disruptive competition they face possesses characteristics that their organization does not...

FinTech stokes fear of demise

Let's look now at the competition. Asked to measure themselves up against the market, most (70%) respondents believe that their organization's customer experience is superior to that of other traditional banking organizations.

Not a surprise perhaps, however when making the same comparison against disruptive competition, far fewer (55%) feel confident in saying they are superior. This lack of confidence emerges from the wider business too, with seven in ten (70%) respondents frequently hearing the complaint from stakeholders that competitors are delivering better customer experiences.

So what is driving this uncertainty, this fear of FinTech? For most, it is a question of characteristics. Almost all (96%) believe that disruptive competition such as FinTech start-ups possess certain capabilities that their organization does not.

Most common are the ability to be innovative (56%), cost-effective (54%) and agile (44%). What's more, around a third believe that FinTech organizations better address two of the key challenges we have just explored, possessing better capabilities to personalize (36%) and engage (32%). Both areas that are among the main influences on customer satisfaction today.

To compete, the clear majority (91%) of respondents believe that their organization will need to increase spending on the customer experience. On average, only 15% of the annual IT budget goes towards enhancing this area versus 19% on maintaining legacy infrastructure. Most organizations need to adjust those numbers.

It's not all doom and gloom however. Although most (80%) agree that their organization is concerned about the impact that disruptive competition is going to have on the banking sector, many are also embracing the potential opportunities within the challenge. Around nine in ten (89%) report that their organization is aware of or tracking the developments of disruptive competition while three quarters (75%) are looking to exploit their methods when the time is right.

...91% believe that in order to compete against disruptive competition, their organization needs to increase its spending on the customer experience...

Country Insights

- Respondents in Japan (96%) and Switzerland (95%) are most likely to admit that their organization struggles to provide a seamless experience
- Respondents in the US (19%) and UK (16%) report the highest average proportion of the IT budget spent on the customer experience, Germany the least (10%)
- Respondents in Singapore (93%) and Switzerland (90%) are most likely to agree that their organization is concerned about the impact that disruptive competition will have on the banking sector

Conclusion

Existing banks must adapt quickly in order not only to thrive, but also simply to survive.

Encouragingly, most decision maker respondents acknowledge what is happening and recognize a need for their organization to act pushed by competition and customers.

However, significant challenges do exist to turn plans into concrete actions and perhaps none greater than the need to modernize legacy systems and reduce maintenance costs.

To optimize operations for the digital age, new technology investments are focused on cloud and artificial intelligence but most respondents admit the need to bring in third party assistance to effectively implement and utilize such capabilities to their fullest degree.

Let us not forget the customer of course. They expect more from the organizations that they interact with and banks are no different. The customer demands a personalized and seamless experience from their bank and this is proving a struggle for many organizations.

What is clear is that organizations must embrace this change and focus on IT modernization to evolve their customer offering and lead the way.

Scope and methodology

Avanade commissioned independent technology market research specialist Vanson Bourne to undertake the research on which this report is based. From across the globe, 280 senior IT and digital decision makers from retail or commercial banking organizations were interviewed in June to July 2017. All came from organizations with \$100 million or greater annual revenues and 100 or more employees.

The research was conducted in ten countries, with interviews split accordingly:

Country	Number of interviews
US	50
UK	35
France.....	30
Spain.....	30
Singapore	30
Italy.....	25
Japan	25
Germany.....	20
Switzerland.....	20
Australia	15
Total	280

Interviews were conducted using a mixture of online and telephone interviewing. All were undertaken using a rigorous multi-level screening process to ensure that only suitable candidates were given the opportunity to participate. Unless otherwise indicated, the results discussed in this report are based on the total sample.

Recommendations

Avanade helps transform its banking clients to not only exist in this digital world, but to exceed customer expectations and differentiate themselves from their competitors.

We can help IT create a new model of technology in 3 key areas to give you the advantage you need in this digital, cloud-first world:

1. Modernize your Legacy IT

- Address banks' legacy challenge, by quickly and cost-effectively, delivering core IT transformation through application modernization and a move to the cloud

2. Optimizing your operations

- Cut costs, while improving organizational effectiveness and client service, by leveraging machine learning capabilities, predictive models and robotic process automation

3. Reimagine customer experience

- Create cost-effective, unique and fast-to-market digital experiences for customers, powered by analytics



About Vanson Bourne

Vanson Bourne is an independent specialist in market research for the technology sector. Their reputation for robust and credible research-based analysis is founded upon rigorous research principles and their ability to seek the opinions of senior decision makers across technical and business functions, in all business sectors and all major markets. For more information, visit www.vansonbourne.com.

This report was originally produced and designed in English by Avanade. It has been translated using approved language translation partners to ensure the highest quality, however please be aware that content may differ from the original English version in some areas



About Avanade

Avanade is the leading provider of innovative digital and cloud-enabling services, business solutions and design-led experiences, delivered through the power of people and the Microsoft ecosystem.

Majority owned by Accenture, Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation and has 30,000 professionals in 24 countries.

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