
How to be a truly digital bank



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Abstract Consumers today are experiencing accelerated digital lives, supported in particular by rapid internet penetration, increasing smartphone adoption and an ever expanding network of networks. In this atmosphere, banks face a fundamental challenge: how to sustain and grow their business in the face of increasing digital disruption and new customer demands. Research indicates, however, that close to 70 per cent of banks around the world do not have a systematic digital strategy. This article proposes that for banks to sustain and thrive, they will need to re-imagine banking and embrace a truly digital persona, a concept which is itself unclear to many. The article explores what exactly constitutes truly digital and proposes a roadmap for banks to achieve the same.

KEYWORDS: digital, digital banking, blockchain, banking analytics, banking transformation, core banking, omnichannel

THE DIGITAL DISRUPTION— OWNERSHIP IS IRRELEVANT

Digital customers, it turns out, do not choose their taxis based on who has the largest fleet. Or their accommodation providers on the basis of owned real estate. They don't care if their retailers don't make any products, or if their content publishers don't create original content.

These customers choose their product and service providers based on which firm gives them the most accessible, simple, convenient, cheap and safe consumption experience. In the digital age, asset ownership has little or

no relevance to customer metrics of choice and value. With the essential traditional entry barrier of asset ownership no longer an issue, digital technology companies are now disrupting entire industries by getting straight to the point of delivering what customers really want.

This is creating a digital revolution that is already disrupting and transforming many traditional industries. A study from last year¹ found that the five sectors at the greatest risk of digital disruption were hospitality and travel, retail, media and entertainment, financial services, and CPG and manufacturing.

IMPLICATIONS FOR BANKS

The disruption of the financial services industry is well underway. The universal banking model is being systematically unbundled by technology-led players. FinTech innovators are focused on breaking the banking business down to its most profitable building blocks and then delivering innovative solutions that solve specific consumer problems within specific banking functions. This approach gives customers more choice and control by allowing them to curate a personalised basket of best-of-breed services that best serves their unique financial needs.

A strategy of selective digitalisation will do little to help incumbent banks respond to this new wave of customer-centric FinTech innovation. Rather than reengineering existing banking functions around new digital technologies, conventional banks would need to come up with a holistic and systematic strategy that reinvents banking for a truly digital culture. And yet, our own research indicates that fewer than one in three banks have a systematic strategy for enabling a truly digital banking experience for their customers.

BEING TRULY DIGITAL

But before one can define what a truly digital banking strategy entails, it is important to define what it does not. Truly digital is not about enhancing the traditional banking model with new digital channels. It is not about giving legacy processes a new lease of life with a digital facelift. Truly digital banking is about changing a bank from the inside. And therefore, we believe that a bank would need to acquire the following foundational characteristics before it can be called truly digital.

1. **The customer is the focal point:** Today's digitally empowered customers do not want "financial services providers"; they want partners who can help them take

control of their finances as well as achieve their financial aspirations. But even as banks adapt their business models to this requirement, they should cater to their customers' basic expectations of convenience, speed and personalisation. It would be fair to say that the truly digital banking experience will be as much about user experience and process design as it will be about helping customers get to their financial goals. FinTech startup Digit, for instance, was able to reinvent the savings account experience by launching a service that analysed activity in a customer's checking account to regularly and automatically transfer appropriate amounts to a flexible fixed deposit. Squirrel, a financial well-being platform that was originally part of the Barclays Accelerator program, empowers employees to save, budget and manage their bills by linking directly to their employer's payroll.

So it follows that the conventional approach of optimising products and services to address the needs of those with shared characteristics—or identical individuality—will no longer be effective. Banks would need to take ownership of individual relationships and deliver solutions that are relevant to individual customers' financial life stage and needs. In fact, *this*—contextually relevant solutions and experiences—is the promise underlying the FinTech revolution. The rise of open application programming interfaces (APIs) and regulatory developments like Payment Services Directive (PSD2) will require that customer ownership shift to service providers who deliver the best combination of experience and value.

With customer experience becoming the essential lever for achieving sustainable top- and bottom-line growth, incumbent banks will have to focus on designing experiences that enhance, strengthen and expand customer relationships.

Many banks are already innovating with their mainstream products and processes to make the usage experience more customer-specific. For instance, the Commonwealth Bank of Australia's property guide app not only delivers a unified, streamlined mortgage experience for customers but also enables the bank to start engaging with prospective home buyers at an early stage. Then there's Russia's Alfa-Bank, which is taking personalisation to the next level by using fitness trackers to link customers' savings account interest rates to their individual fitness regimens.

Some banks, like CaixaBank, are even inviting customers to design their own banking experiences. This Spanish bank has launched a community platform for its customers as well as domain experts to contribute ideas to enhance the functionality of existing applications and to develop new customer-specific innovations. Hackathons are also emerging as a quick and cost-effective tool for driving innovation. BBVA's inaugural hackathon in 2013, for instance, yielded 144 apps representing €2.9 million in development time.²

So unless other banks integrate the value of context into their business strategies, their ability to deliver a 'segment of one' experience will be severely limited.

2. ***The ecosystem comes before the bank:*** If current trends in hospitality, transportation and retail are any indication, the banking environment will also get distributed, decentralised and disintermediated by disruptive digital forces. In fact, this transformation is already visible in the payments space. In such a scenario, not even the largest banks in the world would be able to put together a portfolio of products and services, incorporate features and functionality within them, and enable the experience and engagement that can collectively be everything to everyone.

Digital will therefore force the reinvention of the concept of universal banking. In the truly digital banking model, universal banking will be delivered not by a 'single' monolithic bank, but through a diverse and aggregated ecosystem of products and services that are relevant to the customer. Truly digital banks will rely on collaboration and co-opetition, with financial and non-financial service partners both, to create new interfaces that will help enhance the basic functionality and reach of existing services as well as enable the addition of new offerings and competencies. TD Bank, for instance, has entered into a partnership with app-based financial wellness service Moven to offer its customers Moven's Personal Financial Management front end.

API-driven collaboration strategies will enable truly digital banks to quickly capitalise on new technology opportunities, like wearables and Internet of Things (IoT), and accelerate innovation at the edge of the enterprise. It will also give them the agility to move into new markets and the flexibility to reach out to customer segments that were until now too expensive to serve.

Truly digital banks will lead the way into an era of open banking by leveraging APIs, apps and developer/partner ecosystems to reimagine the concept of universal banking from the perspective of customer needs and customer value. Fidor Bank is a classic example of the open future of banking. It is one of the first banks in the world³ to open up its APIs to third parties such as FinTechs, financial service providers and software developers. This approach enables Fidor to curate a comprehensive ecosystem of banking and non-banking services that are relevant to its customers.

With many governments and regulators around the world looking at an open banking model to spur innovation in

financial services, success will go to those with the ability to continuously collaborate and co-create.

3. **Ubiquitous automation:** Thus far, automation in the banking industry has predominantly focused on back-end processes. In today's environment where transaction volumes are increasing exponentially, automation can play a bigger role to streamline operations and reduce costs and at the same time improve productivity, efficiency and accuracy across the enterprise. Large-scale automation, driven by business rules, algorithms and machine learning, can also enable banks to standardise repetitive tasks and refocus valuable human resources on more value generating activities.

But in the truly digital banking model, automation will become critical to delivering a personalised experience for customers at the front-end. Large-scale automation across all front-end and back-end systems and processes would enable banks to deliver a differentiated no-break service experience. For example, digital customers expect full banking functionality, starting with account origination, from their mobile financial services apps. In this context, banks that are able to deliver an automated and streamlined account origination experience⁴, with zero manual intervention, will be able to attract more digital natives and turbocharge their customer acquisition processes.

Even as we speak, intelligent and automated investment platforms like Wealthfront are replacing traditional wealth managers to take investment decisions on behalf of their clients. Many traditional banks are also experimenting with everything from robots to cognitive computing to automate and streamline the digital banking experience aimed at comprehensive process automation. USAA Bank, for instance, has a voice recognition service called Nina that responds to a

range of customer requirements including requests to transfer funds or deliver spending updates.

That being said, it is the brand new world of autonomous businesses, smart connected devices and the Internet of Everything that provides the strongest argument for comprehensive end-to-end automation in the banking industry. We are already witnessing the potential implications that autonomous cars will have for a bank's motor loans business. In a totally connected world, it will take a significant degree of automation to ensure that banking services are able to efficiently and productively engage with a range of smart entities.

4. **Insights ahead of everything:** Access to banking customer data is one of the biggest challenges facing most FinTech start-ups. Contrast that with conventional banks, which are being deluged by a rising tide of digital transactional and behavioural data. This wealth of information presents a huge opportunity to incumbents to bridge the divide between the merely digitally-enabled and the truly digital state.

Advanced analytics technologies can enable banks to convert data into granular, real-time customer insights that they can leverage to personalise the banking experience to individual financial needs and circumstances, rather than approximate based on aggregated demographics. As more and more customers go online to discuss their opinions and preferences, banks will be able to use insights derived from these conversations to drive continuous product and service improvements. They can even leverage sentiment analysis to map customer perception about the competition and use that knowledge to design more targeted and productive acquisition strategies.

Actually, advanced analytics can drive opportunity and value in almost every

banking function. A leading US bank, for example, leveraged the power of analytics to boost marketing return on investment (ROI) by 600 per cent while simultaneously reducing costs by 20 per cent.⁵ The increasing complexity of reporting norms amidst a zero-tolerance approach to non-compliance will make analytics a practically indispensable part of risk and compliance management. These technologies also allow banks to adopt an insight-led approach to monitoring, analysing and managing application and infrastructure usage as well as performance issues across the technology landscape. This can yield benefits ranging from capacity optimisation to higher returns on technology investments and strengthen business outcomes and innovations.

But the potential of analytics can only be leveraged fully when it permeates the banking enterprise. This means empowering every stakeholder across the banking value chain with the power of analytics. Axis Bank was able to increase its sales productivity fivefold by giving every employee access to detailed transactional and behavioural information about their customers.⁶ The focus has to be on deploying analytics platforms that offer easy-to-use visualisation tools and built-in prediction technologies to enable employees to quickly convert complex data patterns into actionable intelligence. Cloud-based, open source technologies will play a central role in creating the next generation of analytics-enabled, truly digital banks.

5. ***Security determines trust and experience:*** Cyber-security threats are the unpleasant by-product of increasing digitalisation. As the digital banking ecosystem expands across devices, touchpoints, partnerships and services, the threat situation will only get worse.

Though security remains a top concern among digital banking customers, it is highly unlikely that it will suppress their

appetite for more innovative digital banking experiences. Instead, a bank's digital security credentials will soon become an essential metric in the way customers evaluate the 'trustworthiness' of financial services providers.

Banks will have to gear up to address this challenge by deploying robust threat protection technologies that instil trust but do not dilute experience. Banks that are able to master the art of balancing digital security and experience may even be able to parlay that expertise as a competitive differentiator. From Halifax UK's heart rate-based authentication to Barclay's voice-biometrics systems to the fingerprint-based ATM authentication model from Banco Bradesco Cartoes, security innovations in banking are experimenting with a range of technologies that can enhance the digital banking experience rather than disrupt it. The potential of blockchain to improve the security of digital transactions is also getting a well-deserved look-in from most major banks.

So, security will be a critical component of any successful truly digital banking model. Digital banking innovations that ignore security for the sake of experience, or vice versa, will not be sustainable.

THE PATH TO BECOMING TRULY DIGITAL

The above suggestions could help incumbent banks formulate a holistic and systematic digital strategy that allows them to manage the transition towards a truly digital end state. But since most banks are at different stages of the digitalisation process and since different banks have different compulsions and challenges on their agenda, there cannot be a one-size-fits-all transformation strategy. In order to define the phases and the strategic priorities in each, in a bank's evolutionary journey towards a truly digital model, we

have adapted BCG's Strategy Palette to map different types of banks to different stages along a digital continuum.

According to our model (see Figure 1), all banks can be mapped using five different positions⁷ on the continuum based not only on their degree of digitalisation but also on the extent to which they reflect the basic principles of 'truly digital'.

Renewal Banks: Be viable. The focus on digitalisation is largely incremental and peripheral. The strategic agenda is still defined by a principal focus on product and/or Line of Business (LoB).

Classical Banks: Be big. There is a well-defined omnichannel architecture and strategy in place. Analytics is an essential part of culture but its utility is still restricted to data from internal LoB applications and processes.

Adaptive Banks: Be fast. Customer experience is the overarching objective and these banks have the digital architectures and analytics systems in place to achieve that goal. Some progress has also been made to extend internal business processes to intermediary networks.

Shaping Banks: Be the orchestrators. All essential processes at these banks are completely digitalised. The strategic focus is on delivering a range of granular services

for customers using a combination of specialisation and collaboration.

Visionary Banks: Be first. These are banks that are poised to deliver a next generation customer experience. All business processes are run in a shared services mode on a bedrock of sophisticated prescriptive analytics.

Let us now contrast some of the essential characteristics of three evolutionary phases—Renewal, Adaptive and Visionary—in the digital continuum. Banks in the other two stages, namely Classical and Shaping, may be thought of as being on the cusp, with characteristics that fall somewhere in between.

Typical Product Profile

Renewal Banks: These banks follow a 'Cafeteria Banking' model, that is, they offer a set menu augmented by "menu of the day" style promotions for customers to choose from. The focus is on delivering existing services through digital channels that support fundamental digital features and a functional digital experience. Customers are expected to "pull" information as renewal banks do not have the analytics in place to preempt their needs.

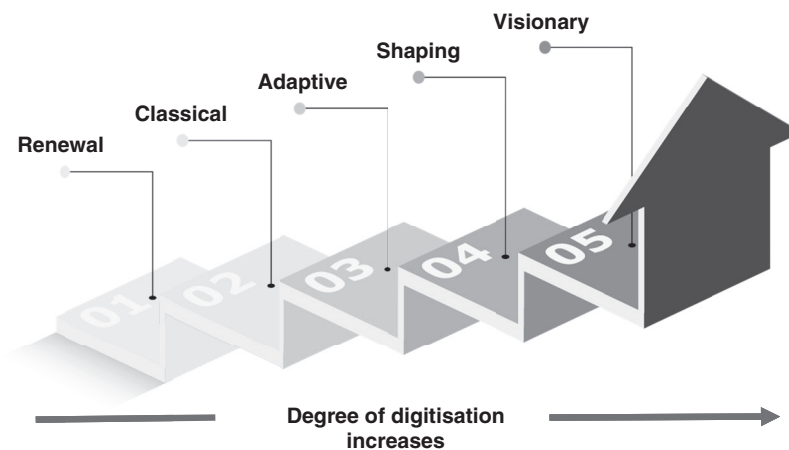


Figure 1: The five positions for banks on a continuum to becoming truly digital

Adaptive Banks: This is the middle ground with banks in this phase offering a ‘Burger Banking’ model that allows customers a degree of customisation freedom in terms of tenor, channel, repayment options, etc. This model involves extensive digitalisation supported by some basic initiatives to reengineer products and services for the digital paradigm. Adaptive banks will have enough analytics firepower to adopt a more push-based approach to customer engagement and serve up products that are relevant to customers’ contextual needs.

Visionary Banks: This is a truly digital banking model that does not involve any pre-packaged products whatsoever. Visionary banks are disruptive by definition and will offer highly individualised products that are tailor-made to the financial needs and goals of individual customers. Their highly sophisticated digital and analytical capabilities enable visionary banks to first predict and proactively respond to customer needs. For instance, these banks would be able to proactively serve up a travel package, customised to a customer’s lifestyle, spend pattern, income, etc based solely on the interest shown towards a particular holiday destination in online conversations.

Typical Customer Profile

Renewal Banks:- The average renewal bank customer is a late adopter of technology, laggard with few expectations around digital channels and services. These customers are likely to be cost-conscious and risk-averse and therefore might expect their banks to provide not just risk-free/low-risk products but even absorb any risks that arise. Given their high cost-sensitivity, renewal bank customers will be quick to shift their loyalties to any competitor who offers low cost products.

Adaptive Banks: These banks will attract mainstream customers who expect banking to at least match other sectors

in digitalisation. They will be risk-aware, rather than risk-averse, and will expect their financial partners to manage risk proactively and transparently. These value-conscious customers will measure each banking engagement by the value yardstick.

Visionary Banks: This is where the avant garde customers are—the early adopters and experimenters with a healthy appetite for risk as well as innovation. They will expect their banking partners to be industry-leading innovators who consistently deliver new digital services and experiences.

Typical Service Profile

Renewal Banks: These banks have to provide free service, free warranty and free support to their customers simply because their service model is pull based and reactive. The service model is largely dependent on manual intervention with only the most basic automation in place.

Adaptive Banks:- These middle ground banks will pursue an extremely proactive service strategy with an emphasis on anytime, anywhere support. They will preemptively identify potential customer pain points and provide timely, high quality service. They will also leverage high-tech concepts like natural language programming, artificial intelligence, M2M, etc to streamline service delivery.

Visionary Banks: The service model here will be truly digital and hence service-free, support-free, warranty-free and people-free. The primary aim would be to make service redundant by creating processes that support full self-service without the need for any human intervention whatsoever.

Typical Customer Satisfaction Parameters

Renewal Banks: These banks will continue to rely on traditional sampling and research methods to arrive at customer satisfaction and Net Promoter Scores.

Adaptive Banks: These banks will leverage their partnerships, with telecoms and retailers for example, to measure customer satisfaction. Telecom partnerships would be especially important for tracking customer movements across the digital ecosystem. The metrics of evaluation would also be significantly different with additional focus on parameters like ease of use and experience.

Visionary Banks: Customer trust, both emotional and rational, will lead the rating process at disruptive banks. Customers' willingness to share data about all aspects of their lives will serve as a leading indicator in this trust-based rating system, which being two-way, will also enable them to rate all service providers in the ecosystem.

Once banks successfully map their existing digital capabilities based on this model, they would be able to develop a custom transformation strategy for transitioning to a truly digital state. It, however, has to be emphasised here that not many banks will fall neatly into one position or the other. This is primarily because different functions and businesses within the same bank could be in different stages of digitalisation. For instance, a large conventional bank that is broadly in renewal mode may well have a highly digitalised channel architecture that is already in the adaptive phase.

APPROACH FOR A TRULY DIGITAL BANKING TRANSFORMATION

Once banks have generated a profile of their existing digital capabilities, we

recommend they consider a five-step digital transformation strategy to take them to a truly digital state, as shown in Figure 2.

1. Measurement: Gaining deep insights into applications and technology

The first step should be to understand the consumption and performance of the existing technology and applications landscape. This will not only enable banks to identify operational inefficiencies and cost leakages but also help them determine the gaps between their current technological capabilities and enterprise objectives.

Today, advanced and automated IT operations analytics platforms can help banks proactively monitor and manage the technology ecosystem across the enterprise. Apart from enabling early detection of application performance issues, these platforms can also generate insights that can be leveraged to optimise technology spends. Take infrastructure, for example, which in the average bank is optimised for peak traffic at the beginning of the month, resulting in the infrastructure being underutilised at other times. With richer insights into usage and performance, banks can now optimise their infrastructure ROI by leveraging techniques like cloud bursting to dynamically manage peak loads. Going forward, insight-based management of infrastructure, systems and applications would need to become the norm.

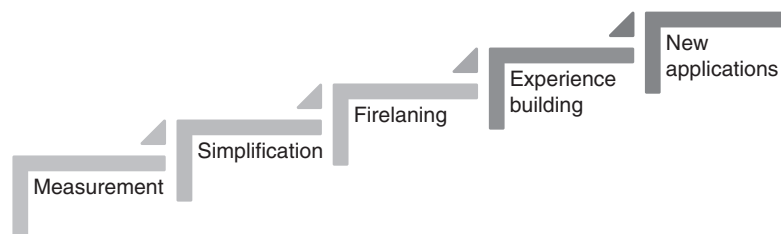


Figure 2: The recommended approach for truly digital banking transformation

2. Simplification: Insight-led approach to simplify infrastructure, applications and processes

According to one estimate, a deeper understanding of technology usage and performance can help banks simplify their technology ecosystem to reduce application and infrastructure costs as well as overall IT spend, by up to 50 and 30 per cent respectively.

When simplifying the technology ecosystem, there are three essential areas that banks need to focus on:

Simplify infrastructure: Leveraging cloud technologies to introduce elastic consumption is the easiest way for banks to optimise infrastructure investments and enhance operational efficiencies. Multiple regulatory challenges and data privacy concerns, however, need to be addressed before the cloud enters the mainstream of banking technology. But banks need to have a strategy that will gradually transition them to the cloud. An ideal starting point would be to leverage the cloud's dynamic scaling capabilities to transition less mission critical activities such as development and testing.

Simplify applications: The technology landscape in most large banks is characterised by a long tail of redundant, duplicated and rarely used applications that increase operational cost and complexity, and impede performance and agility. Banks now have the opportunity to leverage enterprise-class components to rationalise such applications. A componentised approach enables them to centralise and simplify business operations across product lines and boost operational efficiencies. It could also help them reduce technology management costs by phasing away redundant or duplicate systems. Enterprise-class components also allow banks to plot a customised path to simplification by picking and choosing components based on their business priorities.

Simplify processes: Many traditional banking processes would need to be completely reinvented in order to function in a truly digital banking model. Banks must also have the agility and flexibility to redesign their processes to deliver new experiences for their customers and preempt technological or competitive shifts in the marketplace. The deployment of components and API-based solutions would not only give them the flexibility to redesign processes but also create new and unique customer experiences. End-to-end automation can also help streamline banking processes by eliminating manual intervention and minimising duplication.

An insight-led simplification program can yield some powerful results in terms of cost efficiencies, productivity and performance. We recently partnered with a leading US direct bank with a complex legacy IT environment that was supporting more than 100 discrete services. The bank experimented with a simplification and modernisation programme focused solely on deposit products. As a result of that programme, the bank was able to realise an amazing 65 per cent reduction in account servicing costs. We were also able to enhance productivity levels significantly by reducing the number of steps required for account opening from 20 to six, reducing agent-customer service interfaces from 20 to one and reducing the number of clicks required to process customer requests by 40 per cent.

3. 'Firelaning': Accelerating innovation through componentised platforms

Front-end technologies, such as mobile and wearables, are evolving at a breakneck speed, amidst unprecedented innovation and disruption. In this scenario, decoupling back-end capabilities from the front-end can help banks accelerate innovation in customer-facing technologies. Banking operations have to shift from monolithic

applications to componentised modern platforms that will allow them to build and deploy new processes and models to keep pace with customer expectations.

For instance, we followed a componentisation model to modernise the deposits business of one of our partners, a global financial powerhouse. This made it possible for us to deploy a flexible deposit solution in a legacy mainframe environment with zero schedule or cost variation. Following the deployment, the bank became the first to launch a new regulator-mandated product and book multi-million dollar deposits on the new offerings.

Componentised platforms with an expanding set of exposed APIs will also play a critical role in transitioning banking systems into the API economy. Open APIs enable banks to reuse, share and monetise their basic services while focusing on developing completely new services, processes and business models that open up new revenue streams. They also accelerate innovation cycles by opening up banking systems to external developer networks. Banks will be able to pick and choose components and APIs based on their individual business priorities and preferred pace of modernisation.

4. Experience building: Designing experience-oriented processes and applications

The first three phases of the transformation strategy create the foundation required to design experience-oriented processes and applications that leverage mobile front-ends, analytical front-ends and sensor access front-ends. The design strategy for banking processes and applications should focus on experience and stand on a deep understanding of customer usage and behaviour patterns. Banks must leverage the power of customer insights to continually renew services at the front-end without having to disrupt the back-end.

Banks need to invest in enterprise-ready analytics platforms that can accelerate the

journey from big data to big insight. Open source data analytics platforms can help simplify and streamline big data adoption by delivering enterprise-class solutions with built-in access to easy-to-use development tools. By deploying platforms that come integrated with banking-specific data models and use cases, banks will be able to quickly operationalise data assets for designing insight-based experience-oriented processes and applications.

5. New intelligent applications: Building new applications that support new business models, product offerings and distribution channels

In the final phase, banks must focus on building new and intelligent banking applications that not only enable new engagement models and revenue streams but also deliver first mover advantage. The strategy must be to build truly unique systems of engagement that deliver exciting new experiences catering to both old and new customer needs and segments. Consider the youth segment for instance. In order to engage with these digital natives effectively, banks need to offer solutions that are tailored to their unique financial needs and lifestyles. Or even consider the case of small and medium enterprises (SMEs). In this digital age, an online presence is an essential tool in every SME's business development kit. There is a huge opportunity for banks to look beyond delivering financial services to actually empowering SME customers with solutions that simplify the process of creating and operating a fully integrated online marketplace.

Building innovative and intelligent applications will enable them to engage with new customer segments and create new revenue streams. This approach would also allow them to increase their technology ROI by leveraging investments in existing systems to open up additional revenue streams and markets.

CONCLUSION

Selective and superficial digitalisation will not help conventional banks to match the heightened expectations of today's savvy digital customers or address the rising challenge from digitally accomplished FinTech innovators. Banks need a holistic and systematic strategy to reimagine and reinvent their business around the capabilities of digital technologies to emerge as truly digital entities.

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