

Top Trends in Retail Banking: 2020



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Introduction



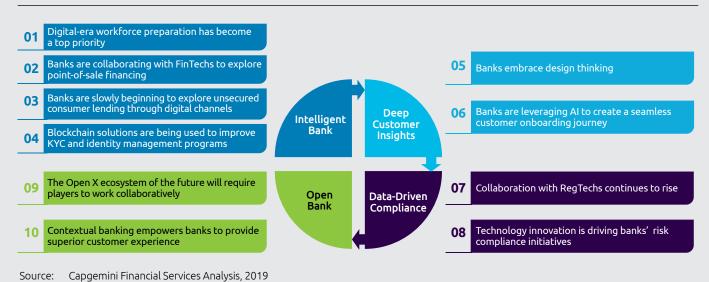
The banking industry is undergoing a paradigm shift in which traditional players are struggling to stay relevant in terms of product offerings, future-ready innovations, seamless, and individualized customer experience at every touchpoint, and service engagement. Competition from BigTechs and challenger banks is adding complexity and encouraging banks to move beyond traditional products to meet hanging customer needs.

A new ecosystem has emerged - **Open X**, that is characterized by more effective and open collaboration with new industry players such as FinTechs facilitated by API application programming interface) standardization and shared customer data insights. Therefore, banks are exploring partnerships, new business models, avenues for growth, and ways to personalize offerings. Incumbents are exploring point of sale financing and unsecured consumer lending, and also enhancing their digital channels expertise to reach a broader customer base.

The growing influence of BigTechs, such as Google, Amazon, Facebook, and Apple, and other high-tech players has raised the bar for customer service and seamless user experience. Increasingly, banks are turning to design thinking methodology to understand the customer journey, extract deep insights, and develop a user experience across the customer lifecycle.

Advancements in technology also have created a gap between the existing skill sets of the incumbent workforce and capabilities needed to implement those technologies. Awareness is growing about the importance of building a future-ready workforce to retain ongoing relevance. To foster a digital mindset among bank employees, training programs are being designed and implemented. The intelligent bank of the future is on executives' strategic radar screen.

Exhibit 1: Top trends in retail banking – 2020



Today's cutting-edge technologies offer banks the opportunity to innovate existing processes to meet growing customer expectations. Banks are exploring machine learning (ML) and artificial intelligence (AI) to create a seamless customer journey across various bank-customer interactions. Know Your Customer (KYC) identity validation is a growing blockchain-enabled trend being explored industry-wide by major banks.

Investment in technology to meet regulatory compliance is a growing industrywide requirement encouraging established banks to collaborate with RegTechs. The goal is to realize the full potential of technology to meet guidelines and also to create a competitive advantage. Consortia of banks, RegTechs, and regulators are developing collaborative stakeholder ecosystems. Banks are investing in development programs both within and outside of the bank to meet changing market forces.

Top Trends in Retail Banking: 2020 aims to explore, understand, and analyze developments expected to drive the retail banking ecosystem this year and beyond.



Trend 01: Digital-era workforce preparation has become a top priority

Retail banks are equipping employees with digital competencies to cope with rapid technology disruption in the industry.

Background



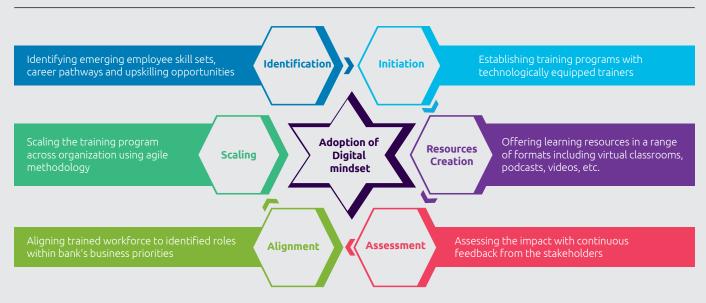
- The banking industry is undergoing rapid digital disruption. Technological advancements have kept the entire banking business ecosystem in a state of continuous flux.
- Within this dynamic ecosystem, employees' legacy competencies are quickly becoming obsolete.
- Traditional training cannot meet changing business priorities and the ever-shifting demand for capabilities required to cope in this digital space.
- Bank staff require skills in ML to derive insights about customers, and in AI to automate processes and improve customer experience.

Key Drivers



- Banks now compete with FinTechs and GAFA tech giants (Google, Amazon, Facebook, and Apple) for the most technologically skilled employees.
 - Moreover, banks' lack of talent development makes it increasingly challenging to attract digitally skilled staff.
- Bank employees need a digital mindset to deliver work faster, be more flexible and agile, work with less certainty around outcomes, and at the same time work effectively in teams.
- A digitally skilled workforce will enable banks to build more suitable digital services for customers and remain competitive.

Exhibit 2: Creating a digital mindset program



Source: Capgemini Financial Services Analysis, 2019

- Banks are investing heavily in developing workforce skills in emerging technologies and creating upskilling opportunities with internal career mobility.
 - In early 2019, JP Morgan Chase announced a five-year, US\$350 million global investment in a future-ready workforce by developing and piloting innovative new education and training programs aligned with high-demand digital and technical skills.¹
- Banks are bringing innovation to training programs to transform their employees into a digital workforce.
 - DBS bank invested nearly US\$14.5 million in a five-year program to upskill its 10,000
 Singapore-based employees in digital banking and emerging technologies to help them to thrive in the digital economy and adapt to the future of work.²
- In-house data training has become a priority that focuses on data science, data architecture, data engineering, and performance insight.
 - UK retail and commercial bank NatWest invested US\$1.3 million in a data academy that aims to take advantage of emerging technologies, including AI and ML, to meet organizational goals.³
- Banks are using virtual reality (VR) to simulate customer engagement via virtual retail banks. Simulations include a range of situations, from advising customers about products to preparing for more unlikely situations such as emergencies, criminal activity, or even a terrorist attack.
 - Dallas-based Comerica Bank paired its internal innovation team with San Francisco startup Mursion to simulate customer engagement scenarios through VR retail banking promise centers.⁴

- Traditional banks must future-proof their workforce to compete with new-age digital financial institutions.
- With a tech-savvy workforce, banks will be able to build services for a demanding customer base to compete with challenger banks and other new entrants.
- The use of virtual classrooms, video articles, and podcasts is an elegant way to train employees without investing a lot of resources and time.
- Banks will update the core skills of staff even more. Increasingly, employees with a technical background will be hired, which will further change the cultural dynamics of incumbent banks.





¹ JP Morgan Chase, "JPMorgan Chase makes \$350 global investment in the Future of work," March 18, 2019, https://www.jpmorganchase.com/corporate/news/pr/jpmorgan-chase-global-investment-in-the-future-of-work.htm.

² DBS, "DBS to invest SGD20 million over five years to transform employees into digital workforce," August 2017, https://www.dbs.com/newsroom/DBS to invest SGD20 million over five years to transform employees into digital workforce in support of Singapores aim to be smart financial centre.

³ Business Insider, "Natwest is investing \$ 1.3 million in in-house training for employees to better understand data," February 1, 2019, https://www.businessinsider.com/natwest-employee-data-skill-training-2019-2?IR=T.

⁴ wbresearch.com, "Virtual Reality is Becoming a Banking Reality and Comerica Bank is Embracing the opportunity," February 10, 2019, https://futurebrancheseast.wbresearch.com/comrica-bank-vr-strategy-ty-u.

Trend 02: Banks are collaborating with FinTechs to explore point-of-sale financing

Point-of-sale financing appeals to consumers who want more flexibility than traditional credit purchases allow.

Background



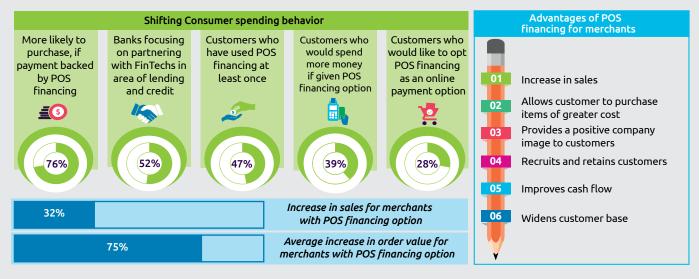
- Technology-backed point-of-sale (PoS) financing that provides short-term consumer loans is disrupting millennials' use of credit cards and traditional loans.
- The amount of paperwork, time, and additional fees required to get traditional loan approvals is spurring interest in fast, execution-driven PoS financing in the consumer financing space.
- FinTechs identified technology-enabled PoS financing as a way to provide today's shoppers with the digital user experience they expect.
- As banks fall behind in advanced mobile-first financing solutions, FinTechs are devising innovative, hassle-free ways to serve customers.



Key Drivers

- PoS financing offers vast market potential currently estimated at US\$391 billion and is gaining more traction among online shoppers.⁵
- Banks cannot ignore the shift in consumer spending behavior toward PoS financing and miss the opportunity to tap into this growing market.

Exhibit 3: Impact of point-of-sale financing



Source: Capgemini Financial Services Analysis, 2019; The Financial Brand," Growth of POS Financing Is Both Threat and Opportunity in Retail Banking," Steve Cocheo, June 19, 2019; Payments Journal, "7 Reasons Companies Should Consider Third-Party POS Financing," Miron Lulic, September 26, 2018.

⁵ The Financial Brand, "Growth of POS Financing Is Both Threat and Opportunity in Retail Banking," June 19, 2019, https://thefinancialbrand.com/84711/point-of-sale-pos-lending-finance-fintechs-banks/

- Banks were losing the race to FinTechs as FinTech firms have established a PoS lending ecosystem, which includes players from large e-commerce, traditional retailers, to even payments companies.
- Banks are exploring opportunities to collaborate with FinTechs to move into the PoS financing market. Banks see lending and credit as focus areas for FinTech partnerships.⁶
- 28% of shoppers now prefer to buy from retailers with PoS financing options, according to a Payments Journal study.⁹

- Firms moving to PoS financing range from mainstream banks to small and large retailers and merchants, and from credit card payments companies to major e-commerce players.
- Banks are realizing that FinTechs can help them to bridge the gap between consumers and retailers when it comes to PoS financing.
 - SunTrust, BMO Harris Bank NA, and Fifth Third Bancorp have partnered with Atlantabased FinTech Greensky, to solidify their PoS lending business.⁷
 - Greensky's platform connects consumers, merchants, and banks and has funded more than US\$12 billion loans, helping banks reach over 1.7 million new customers.8
- Banks in collaboration with FinTechs, are enhancing their solutions to also cater to customers across various demographics.
 - San Francisco-based FinTech Affirm, in collaboration with Cross River Bank, partnered with Walmart in 2019 to offer PoS financing online for nearly 4,000 US Walmart Supercenters. Approved shoppers select a repayment term of three, six, or 12 monthly installments and know their exact monthly repayment amount.¹⁰
- Major banks are launching consumer lending and PoS arms as they realize the market opportunity.
 - JP Morgan Chase launched My Chase Plan in 2019 to allow card customers to select from past purchases of more than US\$500 and finance them over an extended period with monthly fees, rather than interest-based repayments.¹¹

- Despite being the largest lenders, banks still require FinTech technology and talent to drive PoS financing and to capture the growing unsecured consumer market.
- Banks can use their robust network, customer base, and existing back-end services while leveraging a FinTech next-gen user experience to create a winning combination.
- As technology advancements simplify adoption of PoS financing platforms, more and more merchants and retailers are likely to get onboard.
- A bank/FinTech platform will benefit both consumers and merchants. PoS loans can help
 clients increase buying power as merchants drive sales by offering customers instant loan
 approvals at no extra cost.





- ⁶ Forbes, "Bank/Fintech Partnerships Will Be A Huge Disappointment In 2019," January 7, 2019, https://www.forbes.com/sites/ronshevlin/2019/01/07/bankfintech-partnerships-will-be-a-huge-disappointment-in-2019/#736227cc37ba
- ⁷ Forbes, "A Fintech Billionaire's Consumer Loans Come Under Fire In Alabama," July 25, 2019, https://www.forbes.com/sites/nathanvardi/2019/07/25/a-billionaires-consumer-loans-come-under-fire-in-alabama/#32edb77925d7.
- ⁸ Daily Forex Report, "GreenSky is Winning with Customers and Businesses," August 31, 2018, https://www.dailyforexreport.com/greensky-winning-customers-businesses.
- PaymentJournal, "Does the Answer to POS Consumer Financing Lie in Bank-Fintech Collaboration?" February 15, 2019, https://www.paymentsjournal.com/PoS-consumer-financing-bank-fintech-collaboration/.
- ¹⁰ Walmart, "Affirm and Walmart Announce Omnichannel Partnership," February 27, 2019, https://corporate.walmart.com/newsroom/2019/02/27/affirm-and-walmart-announce-omnichannel-partnership.
- ¹¹ Forbes, "JPMorgan Chase Enters A Hot Fintech Space: Point-Of-Sale (PoS) Financing," Ron Shevlin, March 4, 2019, https://www.forbes.com/sites/ronshevlin/2019/03/04/jpmorgan-chase-enters-a-hot-fintech-space-point-of-sale-pos-financing/#4aa72474f158.

Trend 03: Banks are slowly beginning to explore unsecured consumer lending through digital channels

The digital unsecured lending market is a new business source that many institutions have yet to exploit.

Background



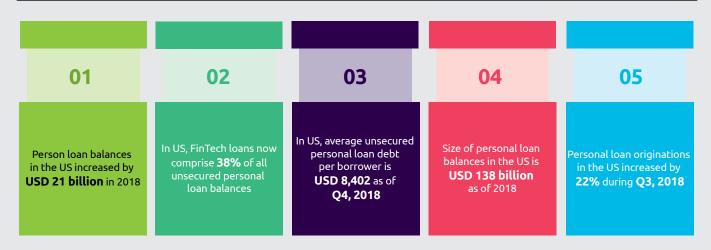
- Traditional banks have not maximized opportunities in unsecured consumer lending even though technological advancements enable better outreach, accessibility, and faster time to market to meet growing demand.
- Customers want the same ease of doing business as they have with online retailers, and merchants and FinTechs are providing it.
- At a time when bad corporate loans burden many banks, unsecured loans can open new revenue streams with limited and distributed individual exposures of risk.

Key Drivers



- Millennials, looking for instant financing through digital means, are drawn to digital unsecured lending.
- The adoption of digital technologies by both customers and other service providers makes digital distribution channels a profitable operating model for banks.
- Non-bank players and FinTechs have identified digital channel opportunities and have created seamless user experience lending platforms.
- Traditional banks threatened by FinTech competition for unsecured lending business seek to attract millennials to remain relevant.

Exhibit 4: Future growth opportunity in unsecured lending



Source: Capgemini Financial Services Analysis, 2019; TransUnion, 'FinTechs Continue to Drive Personal Loan Growth,' February 21, 2019.

- Banks are exploring the unsecured consumer lending business because it has become a fast-moving marketplace with steady growth.
 - The market size of unsecured personal loans in the United States is estimated to reach US\$156.3 billion by the end of 2019.¹²
- In response to the growing appeal of unsecured consumer lending, major banks are extending their lending services in collaboration with digital tech platforms.
 - HSBC began using Amount, a tech platform from online lender Avant, to process and lend to consumers digitally. Easy-to-use Amount offers consumers a streamlined and swift experience and processes loans within a day.¹³
- With the use of analytics, digital onboarding, and digital loan disbursement, banks are improving operational efficiency.
 - Mumbai-based HDFC bank began sourcing loans through digital channels in 2015, which helped improve cost to income from 33% to 28% within two years.¹⁴
- Traditional lender banks are revamping their legacy processes and policies to compete with FinTechs' favorable terms, greater transparency, and faster approval and funding processes.
 - Goldman Sachs launched Marcus, a consumer lending platform.¹⁵
 - Barclays also offers US consumers a low-cost, digital-only bank to compete with Goldman Sachs's Marcus.¹⁶

- Banks must embrace agile methodology to offer digital unsecured lending and keep pace with FinTech counterparts.
- Traditional banks may collaborate with FinTechs to build relationships around the customer lifecycle journey via digital offerings and enhanced experience.
- To streamline and make loan processing quicker, banks need to move away from legacy
 operating structure and use data analytics to ensure credit risk and fraud detection teams
 are working collaboratively, not in silos.
- To accelerate growth, banks must automate the underwriting process and use analytics to identify borrowers and customers with credit card balances to increase conversion opportunities.





¹² TransUnion, "2019 Predictions: Consumer Credit, Balance and Delinquency Rates," January 14, 2019, https://www.transunion.com/blog/consumer-credit-balance-delinquency-rates-2019-predictions.

¹³ Bloomberg, "HSBC U.S. Partners With Web-Based Avant to Offer Personal Loans," October 23, 2018, https://www.bloomberg.com/news/articles/2018-10-22/hsbc-u-s-partners-with-web-based-avant-to-offer-personal-loans.

¹⁴ Economictimes, "E-clicks help HDFC Bank save costs, raise disbursal," April 05, 2017, https://economictimes.indiatimes.com/industry/banking/finance/banking/e-clicks-help-hdfc-bank-save-costs-raise-disbursal/articleshow/58019896.cms.

¹⁵ Goldman Sachs, "Marcus By Goldman Sachs Launches In The UK," September 27, 2018, https://www.goldmansachs.com/media-relations/press-releases/current/marcus-by-goldman-sachs-launches-in-the-uk.html.

¹⁶ PYMNTS, "Barclays Rivals Goldman's Marcus With Digital Bank," October 15, 2018, https://www.pymnts.com/news/digital-banking/2018/barclays-goldman-sachs-marcus-credit-savings-loans/.

Trend 04: Blockchain solutions being used to improve KYC and identity management programs

Banks are looking to blockchain technology to streamline KYC and identity management programs to manage regulatory requirements more effectively.

Background



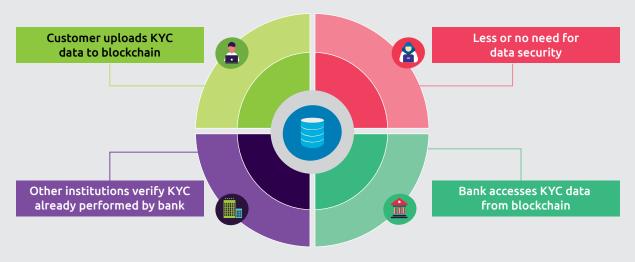
- Stringent, slow, and complex KYC compliance processes can lead to bad customer experiences that affect customer loyalty.
- KYC is an essential element of identity management, and in modern-day banking, it plays a vital role in tracking and preventing fraud, terrorist financing, and money laundering.
- In the aftermath of the 2008 financial crisis, regulators and law enforcement agencies
 required KYC processes and compliance that were often stringent, slow, and complicated,
 which led to less-than-optimal customer experience and sometimes impacted
 customer loyalty.
- The emergence of distributed ledger or blockchain technology has allowed banks to look at KYC from a fresh perspective and drive massive improvements.

Key Drivers



- There is no global standard for KYC practice, as it varies by bank. The result is redundant work that poses challenges when institutions collaborate to verify customers' identities.
- Compliance with changing regulations is labor-intensive and a costly task for banks.
- Banks need to automate real-time inter- and intra-bank data exchanges, third-party data exchange, and cut down on the operational cost of meeting the regulations at the same time.
- Each time data is transferred from customer to server to perform a KYC check, it can be intercepted and hacked, and that poses a threat to banks.

Exhibit 5: Blockchain saves cost, time, and effort



Source: Capgemini Financial Services Analysis, 2019; OpenLedger, "Blockchain and KYC: Know Your Customer Better," Bryan Weinberg, January 16, 2019.

- Banks are exploring distributed ledger technology, or blockchain, to streamline KYC processes.
 - Blockchain provides an architecture to collect information from various sources into a single, cryptographically secure, and unchangeable database.
 - Blockchain creates a system where a user will go through a KYC process only once, and then the platform can be used every other time to confirm their identity without the need for third-party verification.
 - Blockchain's KYC solution can enable banks to address issues around customer on-boarding, cut costs, and overcome digital security risks.
- Banks are forming consortia to study and implement blockchain for KYC.
 - Major Indian banks like SBI, ICICI, and HDFC joined the 37-member BankChain community to explore blockchain for KYC.¹⁷
 - OCBC Bank, HSBC and Mitsubishi UFJ Financial Group (MUFG) successfully completed a proof-of-concept for a Know Your Customer (KYC) blockchain.¹⁸
- FinTechs such as Cambridge Blockchain, KYC-Chain, SelfKey are already working on realworld products related to the use of blockchain technology for KYC, and products are available for trial use for banks.

- Blockchain in KYC is a promising application of distributed technology that can reduce operational cost, save time, and address security risk concerns.
- In contrast to typically complex and repetitive KYC process, blockchain-based solutions enable customers to create and manage their identities, including relevant details, and grant access permission to multiple participants.
- Banks can achieve tighter control, reduce regulatory risk by restricting human input, and drive standardization with blockchain by making updates to a centralized database.
 Blockchain uses encryption that segregates and limits client data to select viewers, which will help banks to comply with data privacy and data transfer regulations.





¹⁷ Livemint, "Banks link up on BankChain to exploit blockchain solutions," June 14, 2018, https://www.livemint.com/Industry/plB1lU0booCDVWylkd8rOM/Banks-link-up-on-BankChain-to-exploit-blockchain-solutions.html.

¹⁸ OCBC website, "OCBC Bank, HSBC and MUFG, together with the Infocomm Media Development Authority, complete proof-of-concept on ASEAN's first industry Know Your Customer blockchain," October 03, 2017, https://www.ocbc.com/group/media/release/2017/ocbc-hsbc-mufg-kyc-blockchain.html.

Trend 05: Banks embrace design thinking

Banks are conducting workshops to gain first-hand insight into customer needs and expectations and then build digital prototypes around the learnings.

Background



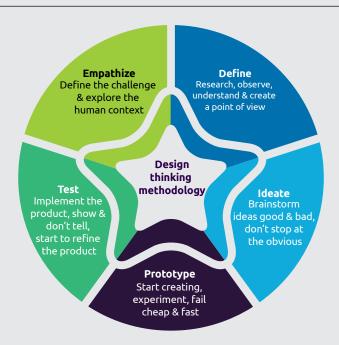
- Design thinking is an iterative process to understand the user, challenge assumptions, and redefine challenges to identify alternative strategies and solutions that might not be immediately apparent. It is gaining momentum across industries, and banks are beginning to embrace design-thinking methodology.
- Customers want the same experience from their banking platforms that they get from digital lifestyle applications offered by BigTech players.
- Digital disruption in financial services is the result of changing consumer preferences, and now, established players must meet the growing needs and expectations of their customers.
- Superior customer experience is now a must for banks, as design-centric technological innovation gains widespread industry acceptance and adoption.

Key Drivers



- People expect a banking experience that fuses with their digital lifestyle.
- As customers shift to digital banking, firms' channels of operations are in flux and branches are closing.
- FinTech players were the first to identify this demand shift and offer customers a digital banking experience.
- Banks must transform their offerings. A customer-centric approach can keep transformation cost-efficient and bolster customer adoption and loyalty.

Exhibit 6: Stages of design thinking



Source: Capgemini Financial Services Analysis, 2019; Medium, "What is Design Thinking? (And What Are The 5 Stages Associated With it?)," Benjamin Hunter Miller, September 5, 2017.

- To survive in the digital age and remain relevant to today's customers, banks need to embrace design thinking. Customers are switching to FinTechs and challenger banks that offer seamless customer experience.
 - A 2018 survey by Oracle found that 69% of respondents (5,200 individuals) from 13 countries) wanted their entire financial lifecycle on digital channels with a seamless experience.¹⁹
- Banks are conducting workshops to understand customer needs, expectations, and goals, and are creating product prototypes to match the digital experiences customers seek.
 - Australian Bankwest conducted design-thinking customer workshops to create a smoother, faster loan application process for small- and medium-sized enterprise customers.²⁰
- Banks are researching customer onboarding pain points and working to resolve issues digitally through personalized solutions that achieve better account open conversion rate.
- Banks are increasing their investment in internal design teams and innovation labs with new
 disciplines and specialists, such as UX designers, visual designers, and digital strategists.²¹
- Customer interactions are moving from branches onto various interactive interfaces, and major banks are embracing the design-thinking interactive approach.
 - Capital One introduced a text-based chatbot assistant, Eno, to help customers manage their money using their mobile phones. Previously, the bank launched an Amazon Alexa app to enable customers to get information about upcoming payments, to check account balances, and pay their credit card bill using their voice.²²

- Design thinking can help banks create customer-centric offerings to eventually build loyalty. Firms can use this methodology in all customer solutions.
- A design-thinking approach at the hub of a bank's digital transformation strategy can bridge the customer-requirements' gap.
- Banks must use a design-thinking approach to develop applications that communicate in a conversational, personal tone. Enhancing customer experience will result in increased customer loyalty.





¹⁹ Oracle, "The New Digital Demand in Retail Banking, 2018," April 11, 2018 https://www.oracle.com/a/ocom/docs/dc/new-digital-demand.pdf.

²⁰ Temenos, "Creating an award-winning, customer-centric innovation strategy," July 12, 2019, https://www.temenos.com/community/success-stories/bankwest/.

²¹ Financial Brand, "7 Financial Institutions Taking Innovation Labs to the Next Level," Steve Cocheo, November 28, 2018, https://thefinancialbrand.com/77058/bank-credit-union-innovation-lab-accelerators/.

²² Pymts.com, "Teaching Chatbots To Speak The Language Of Consumers," March 14, 2017, https://www.pymnts.com/chatbot-tracker/2017/teaching-chatbots-to-speak-the-language-of-consumers/.

Trend 06: Banks are leveraging AI to create a seamless customer onboarding journey

Banks are enhancing relationships by streamlining services that involve customer interactions thanks to AI.



Background

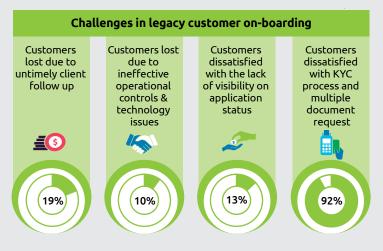
- Current bank onboarding processes involve multiple departments such as the front
 office, operations, risk, compliance, etc., which require time to complete, thus making the
 process complicated.
- Regulatory nuances before every new onboarding make the process more complex and costly.





- With many banks facing customer retention challenges, a less-than-stellar onboarding experience may significantly impact customer loyalty and referrals and bank profitability.
 - Capgemini's research suggests that in the next 12 months, 12.8% of overall respondents are likely to switch their primary bank. Among Gen Y customers 17.4% and 20.6% techsavvy customers are also likely to switch their primary bank.²³
- Faster and more efficient customer onboarding experiences from new-age technology firms such as Facebook and Amazon have changed customers' expectations.
- Banks also face stiff competition from disruptive challenger banks that offer seamless solutions with quicker turnaround time for tech-savvy millennials.

Exhibit 7: Key challenges of current client onboarding process





Source: Capgemini Financial Services Analysis, 2019; Fintech Futures, "The future of client onboarding," September 24, 2018.

²³ Capgemini Voice of Customer Survey, 2019.

- Banks are investing in AI through natural language processing (NLP), biometrics, optical character recognition (OCR), etc., for providing superior customer experience and improving the onboarding process.
- Banks are developing AI capabilities to handle fraudulent activities. Furthermore, NLP is being used to analyze classified documents during onboarding.
 - HSBC invested US\$2.3 billion on a digital platform and AI capability to reach tech-savvy customers. AI capabilities help to handle hundreds and thousands of invoices and trade documents.²⁴
- Banks use AI to personalize solutions by aggregating and categorizing customer activity to provide an integrated view of customer's financial history and design solutions to improve customer satisfaction.
 - Royal Bank of Canada has launched an AI-backed budgeting tool that personally advises customers based on their financial history. Within the first month of its launch, 230,000 budgets were set up, and customers saved a total US\$83 million.²⁵
- Al is also instrumental in helping banks automate their KYC processes to minimize customer onboarding time significantly.
 - Standard Bank South Africa used Workfusion's AI-backed automation cloud solution to reduce customer onboarding time from 20 days to just five minutes.²⁶
- Al adoption is gaining ground with the rise in popularity of digital assistants and chatbots designed to know and serve tech-savvy customers better.
 - More than 32% of financial institutions use AI in voice recognition and predictive analytics, according to the National Business Research Institute.²⁷

- Onboarding customers via AI-powered mobile apps will gain popularity among banks, as these platforms can provide a personalized experience that can readily meet millennials' expectations.
- Al capability to detect patterns in a vast amount of texts is a prime technology to be used in meeting ever-changing regulatory requirements.
- Banks can use AI to enhance customer support services. Gathering data from customer's records, the AI-powered automated application can process the data and provide relevant information.
- Risk assessment through AI will gain traction because AI-powered solutions can analyze the latest transactions and market trends to identify potential risks. This can expedite the loan approval process for banks.





²⁴ South china Morning Post, "HSBC spends US\$2.3b on digital platforms, AI and new technology to reach tech savvy customers," Enoch Yiu, April 06, 2018,

 $[\]underline{https://www.scmp.com/business/banking-finance/article/2140428/hsbc-spends-us23b-digital-platforms-ai-and-new-technology}$

²⁵ Bloomberg, "RBC first bank in Canada to launch a personalized, AI-powered budget solution through award-winning mobile app," April 25, 2019, https://www.bloomberg.com/press-releases/2019-04-25/rbc-first-bank-in-canada-to-launch-a-personalized-ai-powered-budget-solution-through-award-winning-mobile-app.

²⁶ Workfusion, "Digitizing Africa's largest bank with Everyday AI and smarter RPA," June 20, 2019, https://www.workfusion.com/customer-spotlight/standard-bank/.

²⁷ Kore.ai, "Top Use Cases for AI enabled Chatbots in Banking," March 21, 2019, https://blog.kore.ai/top-used-cases-for-ai-enabled-chatbots-in-banking.

Trend 07: Collaboration with RegTechs continues to rise

An increase in the number of regulations and the associated cost of compliance is creating traction for RegTech adoption among banks.

Background



- Technology adoption and the growth of banks' customer and financial data have heightened data management and security risk exponentially.
- Globally, the regulatory environment is becoming increasingly rigorous and complex, and banks' existing compliance and data handling processes are often inefficient in meeting the requirements cost-effectively.
- Financial institutions are in immediate need of in-house expertise in both regulations and technology to drive compliance implementations effectively.
- A new stream of technology firms has risen that uses advanced technologies to automate
 workflows, with better reporting and analytics that provide more in-depth insights on the
 entire compliance process.

Key Drivers



- In the last 10 years, an increase in regulatory changes has resulted in banks spending billions of dollars per year to meet these obligations.
- Not meeting compliance requirements on time is costly for banks. In the United States and the UK alone, fines levied on banks by regulatory authorities will top US\$400 billion by 2020.²⁸
- Banks either have to completely adapt their operations to the new regulations or try to implement these regulations on their existing workflow. The latter will cause the cost to pile up and will negatively impact the bank's profitability.
- Legacy challenges and the lack of technology adoption and in-house technical capabilities
 have created an urgent need for firms to seek external expertise.

Exhibit 8: Drivers for adoption of RegTech solutions by banks



²⁸ Thomson Reuters, "U.S., EU fines on banks' misconduct to top \$400 billion by 2020," September 27, 2017, https://in.reuters.com/article/banks-regulator-fines/u-s-eu-fines-on-banks-misconduct-to-top-400-billion-by-2020-report-idINKCN1C210D.

- Financial institutions are engaging with RegTech firms and outsourcing their compliance functionality to test and scale regulatory solutions faster.
 - A Thomson Reuters' study suggests that 24% of firms are collaborating with RegTechs as part of their compliance strategy.²⁹
- RegTechs are leveraging technology to meet complex regulatory requirements more effectively to strengthen compliance.
 - ING and Commonwealth Bank are working with RegTech Ascent, which uses AI to update clients about regulatory changes and how it impacts their business, including automatically generating audit reports and providing dashboards to help clients manage their compliance activities.³⁰
- HSBC and Wells Fargo are working with Provenir, a risk analytics and decisioning solutions provider to manage their lending compliance.³¹
- Banks and RegTechs, along with regulators, are forming consortia to create an ecosystem of collaboration to manage regulatory compliance better.
 - The RegTech Council, with 90 institutions as members that include 20 regulators, 20 big firms, and 20 technology players, provides a transparent collaboration forum for stakeholders.³²
- Banks are now encouraging each other to increase investments in RegTech firms.
 - Union of Arab Banks has called on financial institutions in the region to increase their investments in RegTech.³³

Implications

- RegTech has become a key factor that enables cost-effective compliance for banks in an environment of increasing regulatory requirements.
- RegTech provides fast implementation of regulatory solutions. Also, it minimizes inaccurate data entry by removing human intervention that cuts overall costs.
- RegTech offers measurable returns, mostly operational, but banks can use this strategic collaboration to serve customers better and adopt the latest technologies to remain relevant as well.





https://legal.thomsonreuters.com/content/dam/ewp-m/documents/legal/en/pdf/reports/cost-of-compliance-special-report-2018.pdf.

²⁹ Thomson Reuters, "Cost of Compliance Report 2018,"

³⁰ Ascent, https://www.ascentregtech.com/about-us/, accessed September 2019.

³¹ Gomedici, "RegTech Companies in the US Driving Down Compliance Costs to Enable Innovation," February 25, 2017, https://gomedici.com/regtech-companies-in-us-driving-down-compliance-costs-innovation.

 $^{^{32}\,}RegTech\,Council,\,\underline{https://jwg-it.eu/regtech-council},\,accessed\,September\,2019.$

³³ Finextra, "Middle East bank chief calls for more regtech spending," March 22, 2019, https://www.finextra.com/newsarticle/33573/middle-east-bank-chief-calls-for-more-regtech-spending.

Trend 08: Technology innovation is driving banks' risk-compliance initiatives

Through technological innovations, banks can meet regulatory requirements and subsequently leverage this to gain a competitive advantage and deliver customer-centric solutions.

Background



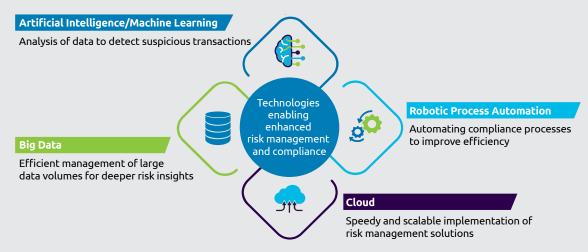
- Digitization across banking functions has resulted in out-of-control data growth in terms of volume and sophistication, which is pushing traditional infrastructure beyond its limit.
- The higher expectation of transparency among banks and regulatory bodies has fueled the need to modernize outdated risk management and compliance systems in banks.
- Risk management functions have also begun to leverage technologies such as AI for the crackdown of unethical transactions, digital collection of taxes, new-age cybersecurity models, and fraud detection.
- Banks are tapping into a wide range of advanced digital competencies to drive compliance innovation and gain a competitive advantage.

Key Drivers



- Data growth has created the need for more effective reporting and drawing of practical operational insights, which traditional risk management and compliance systems find challenging.
- Increasingly complex regulations around anti-money laundering (AML) and KYC are pushing banks to automate onboarding processes.
- Advancements in ML, NLP, RPA (robotic process automation), and advanced data analytics, are providing swift solutions to data and risk management related issues across the financial services industry.
- Risk management in today's complex environment demands effective handling of large volumes of data and a big-data approach can help banks better manage large data sets, where traditional database management systems are too slow.

Exhibit 9: Technologies enabling enhanced risk management and compliance



Source: Capgemini Financial Services Analysis, 2019

- Disruptive technological advancements in the field of risk management and compliance and cybersecurity are guiding financial institutions in their pursuit of managing advanced compliance requirements.
 - People's Bank of China is leveraging AI, big data, and cloud computing capabilities to improve its ability to identify, prevent, and decrease cross-market and cross-sector financial risks.³⁴
- Banks are embracing the potential use of AI/ML tools such as NLP to fight cyber-attacks by analyzing the spending and transactions of customers and detecting suspicious activities.
 - The Financial Stability Board and the Monetary Authority of Singapore (MAS) are exploring the use of NLP to analyze suspicious transactions and identify those that warrant further attention.³⁵
 - Australia's intelligence agency, the Australian Transaction Reports and Analysis Centre (AUSTRAC), leverages AI/ML tools for detecting and deterring suspicious activity.³⁶
- Banks are deploying RPA to automate compliance processes and improve operational efficiency.
 - Royal Bank of Scotland and Mumbai-based multinational bank ICICI have each implemented RPA and cognitive technologies. ICICI reported a 60% reduction in response time and 100% accuracy improvement.³⁷
- Major banks are exploring cloud-based technology solutions to manage their AML risk management system.
 - HSBC, in collaboration with Google Cloud, is launching a cloud-based AML risk management system, which would use ML to inspect the data from the banking behavior of more than 38 million customers.³⁸

- Banks must take advantage of cutting-edge technologies such as automation, cognitive and AI, and update their legacy systems.
- Banks are facing challenges in adopting new technologies (including delays over learning curves, IT and system complexity), but firms that wait may wind up playing catch-up with competitors.
- While technology may appear to be the remedy to compliance challenges, using an internal taskforce is equally essential. Banks must expand budgets to cover workforce training programs or hire employees who are skilled and knowledgeable in compliance.
- Banks are increasingly collaborating with technology partners, such as RegTechs, to create the right framework to help them meet regulatory requirements and create a competitive advantage.





³⁴ Bloomberg, "How Central Banks Are Using Big Data to Help Shape Policy," Jeanette Rodrigues and Alessandro Speciale, December 19, 2017, https://www.bloomberg.com/news/articles/2017-12-18/central-banks-are-turning-to-big-data-to-help-them-craft-policy.

³⁵ Financial Stability Board, "Artificial intelligence and machine learning in financial services," November 1, 2017.

³⁶ Australian Research Council, "Making a difference: Outcomes of ARC supported research 2016–17," June 1, 2018, https://www.arc.gov.au/news-publications/publications/making-difference-outcomes-arc-supported-research-2016-17/new-software-detect-money-laundering.

³⁷ Gieom "INTELLIGENT OPERATIONS IN THE BANKING INDUSTRY," January 1, 2019, https://www.gieom.com/wp-content/uploads/2018/12/Whitepaper_Gieom-Intelligence-Operations-in-Banking.pdf.

³⁸ Business Insider, "HSBC is partnering with Google to improve AML processes," November 30, 2018, https://www.businessinsider.com/hsbc-google-cloud-partner-anti-money-laundering-2018-11?IR=T.

Trend 09: The Open X ecosystem of the future will require players to work collaboratively

Banks are collaborating with ecosystem players and leveraging shared markets to help them establish pivotal roles within the Open X ecosystem.

Background



- Open banking regulations have altered the FS landscape, resulting in new ecosystem
 entrants. Until now, banks have looked at open banking from a compliance-only view
 and have not successfully passed along benefits to customers or effectively capitalized
 on opportunities.
- As customers become aware of the benefits of an open ecosystem, banks, and other
 ecosystem players can leverage the shared marketplace to develop and provide
 targeted products.

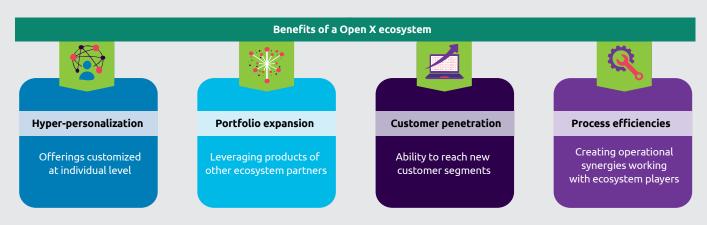
Key Drivers



- Customers expect their primary FS provider to offer solutions for all their financial needs

 proactively. A shared marketplace will empower banks to provide solutions across a
 portfolio of products and services.
- Banks now acknowledge the need to collaborate with ecosystem partners to stay relevant and to compete with BigTechs and challenger banks.
- FinTechs have encountered challenges when attempting to scale up their operations, which is encouraging them to participate in the shared marketplace and leverage other players to complement and scale.
- The emergence of APIs as a data-sharing standard has instilled confidence in players to leverage the shared marketplace more extensively.

Exhibit 10: Open X ecosystem - a future state of open ecosystem will ensure players to work collaboratively



Source: Capgemini Financial Services Analysis, 2019

- As the industry transitions to service rebundling, open banking initiatives can provide short-term operational relief. However, in light of the dynamic industry landscape and ever-changing customer demands, open banking is predicted to evolve into a future-state ecosystem, Open X, that includes incumbents and non-traditional players.
- Within the Open X ecosystem banks will provide personalized products and services by extensively leveraging data, overcoming siloed/legacy mindsets, and collaborating with other ecosystem partners to garner relevant information.
- A collaborative marketplace will allow firms to share data, infrastructure, and other
 resources securely. Banks will develop products and services used by others as each
 ecosystem player focuses on its strengths.
- Banks are already capitalizing on the shared marketplace through initiatives such as the Financial Data Exchange (FDX) which now has 55 members across the FS domain.³⁹
 - HSBC's Connected Money app lets customers view their accounts at up to 21 different banks in one place, and reflects the way banks are beginning to capitalize on the shared marketplace.⁴⁰
 - Wells Fargo recently partnered with data platform Plaid to offer customers the choice of managing their finances in one place using APIs.⁴¹

- Open X is an inevitable future. Banks that share data and information in a standardized and secure manner can benefit in four ways:
 - Hyper-personalization: Banks can access numerous data points to personalize products for individuals versus a population segment.
 - Portfolio expansion: Banks can provide innovative offerings from FinTechs on their platforms to expand the range of products.
 - Customer penetration: Participating in a shared marketplace will help the banks to reach a new segment – the under-penetrated customer base.
 - Process efficiencies: FinTech solutions can significantly boost banks' operational capabilities, helping incumbents become leaner and more cost-effective.
- Open X will drive data-use excellence that fosters a seamless exchange of resources, improved experience for customers, and expedited product innovation.





³⁹ Finextra, "Visa and Mastercard join Financial Data Exchange," August 28, 2019, https://www.finextra.com/pressarticle/79603/visa-and-mastercard-join-financial-data-exchange.

⁴⁰ Finextra, "HSBC launches Connected Money app," May 09, 2018, https://www.finextra.com/newsarticle/32074/hsbc-launches-connected-money-app

⁴¹ Pymnts.com, "Wells Fargo Teams With Plaid On API-Supported Data Exchange," September 19, 2019, https://www.pymnts.com/news/digital-banking/2019/wells-fargo-teams-with-plaid-on-api-supported-data-exchange.

Trend 10: Contextual banking empowers banks to provide superior customer experience

Banks are leveraging new-age technologies to offer a contextual banking experience – a concierge-like service in which customers are offered products at the right place and time.

Background



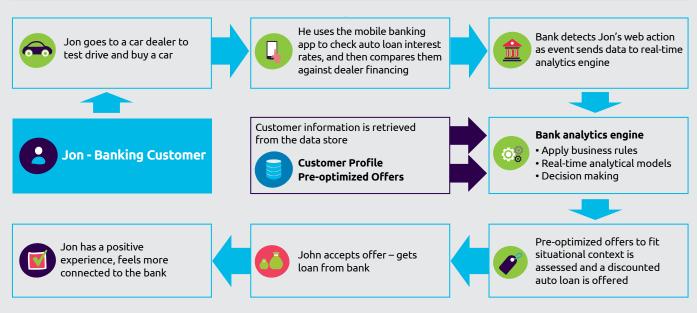
- Attracting and retaining customers is an ongoing challenge for banks. Traditional promotion
 of products and services does not resonate with today's tech-savvy, next-gen customers
 and banks will need to push boundaries and look at the context of how, where, and when to
 engage customers. A contextual data repository can drive highly personalized engagement
 in real time.
- Today's consumers want banks to anticipate their needs and preferences and provide custom and contextualized products. Therefore, the notion of applying context to banking decisions and communications has been gaining popularity and profit potential.

Key Drivers



- The contextualized experiences offered by FinTech and BigTech players and by non-financial entities such as Netflix and Spotify – have set new customer experience standards.
- These days, customers expect banking tasks to be simple, efficient, appropriate to the context, supportive of their financial activities, and as straightforward as possible.
- Advanced analytics, AI, and ML have enabled banks to continuously learn about consumer preferences and create personalized offers and communications that evolve.
- At the same time, mobile and Internet of Things (IoT) technologies are enabling banks to obtain real-time customer data and target their personalization to the customer's present context.

Exhibit 11: Customer journey in contextual banking



Source: Capgemini Financial Services Analysis, 2019

- Banks are now leveraging data and embracing new technologies that will add value within the context of what the customer wants to do.
 - The Commonwealth Bank of Australia (CBA) launched its CommBank App 4.0 update in mid-2019 to offer personalization explicitly tailored to individual customer needs, with personal cash-flow management and smart alerts aimed at keeping more money in customers' wallets. The app leverages data analytics and AI to offer location-based tracking as well as tax return notifications.⁴²
- A contextual banking data repository includes customers' current and historical data points such as time of day, channel preference, location, product usage, payments, web search history, etc.
 - Building a customer data repository will provide banks with an overarching view of who
 their customers are and where they are in their customer journey.
- Banks are embedding Al-driven chatbots and voice assistants into mobile apps to enhance both product delivery and contextual personalization.
 - Singapore-based OCBC bank embedded Clinc's conversational AI in its mobile app giving users voice-enabled instant access to their financial information. The voice assistant is trained to handle specific banking use cases as well as the local vernacular and context.⁴³
 - Chatbots such as TD Bank's TD Clari and Olivia from Emirates NBD's digital bank Liv are focused on making banking more natural, contextual, and woven into customers' everyday life.^{44,45}

- Contextual banking can optimize the execution of every transaction by understanding the intent and context of each interaction between the bank and the customer.
- Banks need to leverage data from all sources and channels to create a contextual data repository that can drive highly personalized engagement in real time.
- Banks need to invest in technologies such as big data, advanced analytics, and AI to build data insights and drive decision making.
- Contextual banking can enable banks to initiate cross-selling of products, offers, or services that customers have yet to discover.
- Banks that achieve contextualization and personalization at scale stand to make significant performance gains, create a powerful barrier to disintermediation, and gain a substantial competitive advantage.





⁴² ZDNet, "CommBank App 4.0 boasts location-based tracking and tax return notifications," Asha Barbaschow, July 31, 2019, https://www.zdnet.com/article/commbank-app-4-0-boasts-location-based-tracking-and-tax-return-notifications/.

⁴³ Finovate, "Clinc's Conversational AI Gives Voice to New App from Singapore's OCBC Bank," David Penn, September 13, 2019, https://finovate.com/clincs-conversational-ai-gives-voice-to-new-app-from-singapores-ocbc-bank/.

 $^{^{44}} Finextra, "TD integrates chatbot into app," January 9, 2019, \\ \underline{https://www.finextra.com/newsarticle/33179/td-integrates-chatbot-into-app, \\$

⁴⁵ Ibsintelligence, "Emirates NBD's digital bank Liv. launches AI chatbot Olivia," April 1, 2019, https://ibsintelligence.com/ibs-journal/emirates-nbds-digital-bank-liv-launches-ai-chatbot-olivia/.

Conclusion

Current business trends indicate that banks are creating an ecosystem where collaboration with FinTechs and RegTechs is becoming the norm to cater to a broader customer base.

As FinTech and BigTech players continue to raise the user experience bar, banks are applying design thinking methodology to create a more seamless experience across all customer lifecycle touchpoints.

Incumbents are working to improve legacy platforms through the power of ML, NLP, OCR, AI, and blockchain. Next-gen technology is helping banks meet regulatory mandates and create processes – such as unified customer onboarding – that boost operational efficiency by streamlining functional silos.

Banks now realize the criticality of a culture in which employees receive future-readiness training with a digital focus. Trends suggests that BigTechs and other tech firms are attracting the most promising talent. Therefore, a bank culture that nurtures future talent is more important than ever.

With customer-centricity as a guiding principle, banks in 2020 and beyond will focus on investing and implementing emerging technology to meet changing consumer preferences. A future-ready workforce with digital mindset are crucial for future success, hence, traditional banks will invest in the transformation of employee training. As FinTechs and challenger banks lead the technology race with superior customer engagement, banks will seek collaborative partnerships to bridge the technology gap. Leveraging real-time context, banks can offer customers personalized offers and enhanced experiences before they even realize the need.

Personalization will pave the road to future relevancy.

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The authors would like to thank the SMEs listed below for their contributions to this paper:

- Erik Van Druten, Principal, Solution Manager Banking
- Ame Stuart, Vice President, Financial Services
- Krithika Venkataraman, Senior Manager, Market Intelligence Group
- Kalpesh Kothari, Portfolio Manager, Market Intelligence Group
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