



# Top Trends in Commercial Banking: 2020

What You Need to Know



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# Introduction



The commercial banking landscape is in flux. A perfect storm of market forces – rising client expectations, mounting operational costs, a groundswell of new technologies, 21st-century risks such as cybercrime, regulations du jour, and competition from tech-savvy newcomers – have indelibly altered the commercial banking playing field.

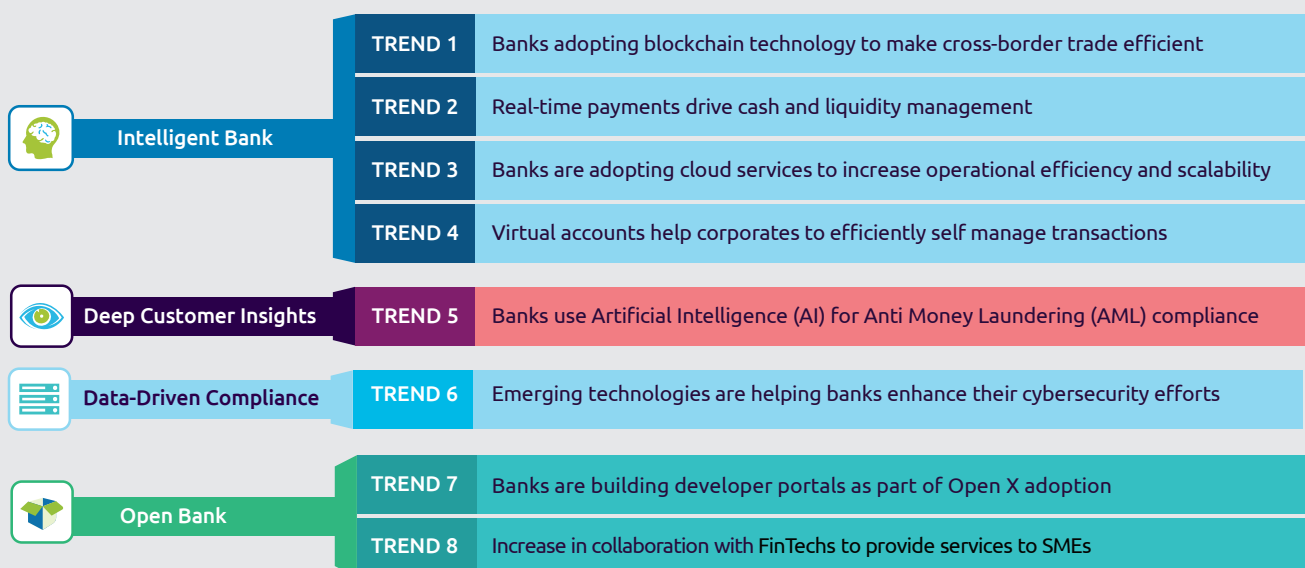
Customers cannot *unsee* the superior experiences they enjoy from online retailers and others, and now demand similar personalized innovation from their corporate banks. The new expectations' bar is set high, with bank clients seeking specialized products and seamless services from know-your-customer (KYC) verification to payment settlements. And because liquidity plays such a critical corporate role, commercial banks must offer clients better access to financing and help them settle payments faster. It is no surprise, then, that banks are exploring blockchain and distributed ledgers as ways to move away from long clearing (ACH) windows.

As corporate client satisfaction continues to wane, virtual accounts offer an opportunity to increase touchpoints and foster positive relationships through the 24/7 convenience of digital banking.

Digital transformation also offers relief as commercial banks contend with escalating margin pressure and the subsequent need to keep operational costs in check. Advanced technologies and cloud services can play an integral part in the shift from labor-intensive manual processes to automation to add productivity, cost efficiency, flexibility, and the potential for future scalability.

To sustain profitability, commercial banks must quickly and accurately profile corporate clients to mitigate the risk of default on financing. Furthermore, as regulatory fines for non-compliance loom, banks are struggling to safeguard against illicit financial activities. The good news is that artificial intelligence and machine learning algorithms are growing smarter, which means effective anti-money laundering solutions will soon be more available. Digital tools and

**Exhibit 1: Top trends in commercial banking - 2020**



Source: Capgemini Financial Services Analysis, 2019.

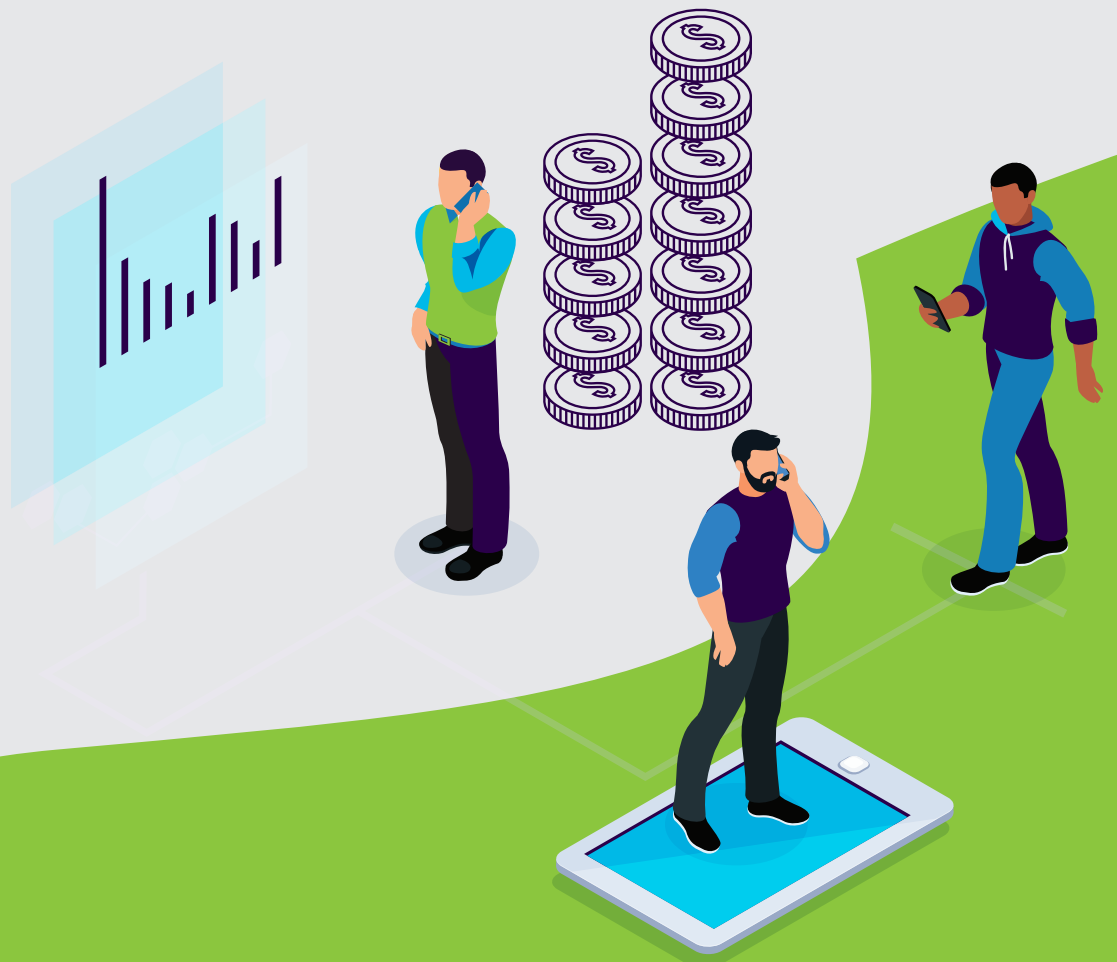
the cloud also offer processing and storage protection as commercial banks generate more and more valuable data. Privacy, virus, and malware breaches add to the criticality of high-performance cybersecurity measures.

Financial regulators worldwide are pushing for operational efficiency throughout the industry while also attempting to spur competition and innovation. Mandates such as PSD2 – in conjunction with the entry of FinTechs and non-conventional players – are challenging the financial services' status quo. All this is driving the commercial banking industry towards an Open X era.

**Open X** is an evolutionary future state for the industry, in which leading industry players leapfrog Open Banking and enter an era characterized by more effective and open collaboration with new industry players facilitated by API (application programming interface) standardization and shared customer data insights. Initially, commercial banks entered into partnerships with new-age players to comply with wide-ranging open banking regulations. But these days, bank/FinTech collaboration is driving new revenue streams – such as better access to middle-market businesses – while protecting and enhancing their core offerings.

The rise of application programming interfaces (APIs) is enabling swifter exchange of information and collaboration between players and encouraging commercial banks to build developer portals for secure sharing with third parties.

*Top Trends in Commercial Banking: 2020* explores and analyzes the various business trends that are expected to shape the commercial banking ecosystem this year and beyond.



# Trend 01: Banks adopting blockchain technology to make cross-border trade efficient

*Blockchain-based solutions simplify complex transnational trade settlement processes and boost operational efficiency for commercial banks.*

## Background



- Traditionally, cross-border trade settlement has been slow, error-prone, and costly because multiple stakeholders are involved. The need to reduce operational costs, increase processing speed, manage liquidity better, and increase transparency is driving commercial banks to adopt blockchain-enabled solutions.
- In addition, there is a growing need to mitigate trade financing risk more efficiently, which would help broaden financial access to more firms.

## Key Drivers



- Advancements in automation technologies such as robotic process automation (RPA), cognitive document processing (CDP), and optical character recognition (OCR) are helping to digitize heavily paper-based trade finance processes.
- Large technology vendors, such as Amazon, IBM, and Microsoft, are addressing the complexities and costs behind developing and operating blockchain networks through cloud-based blockchain services.
- With increasing developments and implementations of proofs of concept, various stakeholders now realize the benefits of blockchain-based solutions in trade finance. The industry has witnessed the formation of multiple consortia for speeding up the testing and deployment process.

## Trend Overview



- Banks are considering blockchain-based platforms for the interoperability of data and real-time communication across various stakeholders.
  - Standard Chartered completed its first cross-border letter of credit blockchain transaction in the oil industry by leveraging the Voltron platform for a seamless exchange of information between players.<sup>1</sup>
  - The Bank of Thailand partnered with the Hong Kong Monetary Authority to explore ways to leverage blockchain technology for interoperability among ledgers to attain cost-efficient cross-border funds transfers.<sup>2</sup>
- Blockchain-based solutions such as digital currencies boost the move to real-time payments in cross-border trade:
  - The Bank of Canada and the Monetary Authority of Singapore are collaborating on the use of distributed ledger technology and central bank digital currencies to make cross-border payments cheaper, faster, and safer. The banks conducted a successful trial for digital currency exchange using blockchain technology in early 2019.<sup>3</sup>

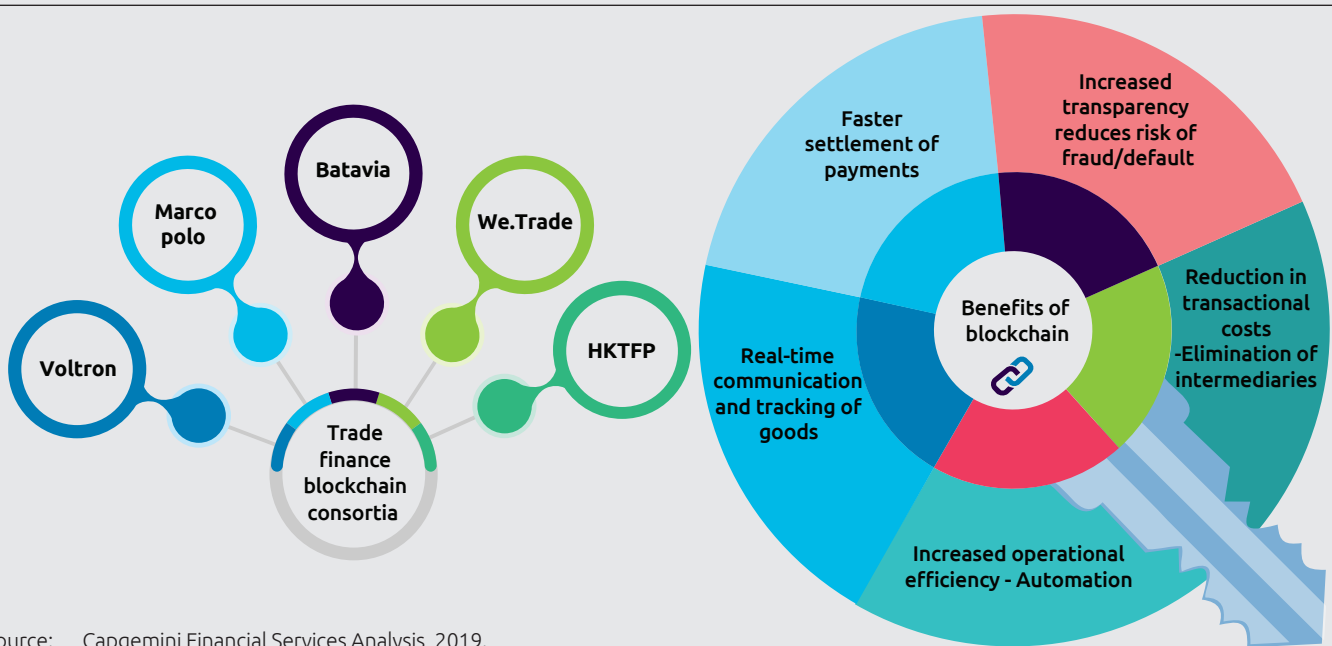
<sup>1</sup> Finextra, "Standard Chartered completes LoC blockchain transaction on Voltron," August 7, 2019, <https://www.finextra.com/newsarticle/34227/standard-chartered-completes-loc-blockchain-transaction-on-voltron>.

<sup>2</sup> Tokenpost, "Bank of Thailand's DLT-focused Project Inthanon advances to Phase III," July 19, 2019, <https://www.tokenpost.com/Bank-of-Thailand's-Project-Inthanon-advances-to-Phase-III-2700>.

<sup>3</sup> Straits Times, "MAS, Bank of Canada use blockchain in cross-border trial," May 3, 2019, <https://www.straitstimes.com/business/banking/mas-bank-of-canada-use-blockchain-in-cross-border-trial>.

- Bank of America (BOA) has filed a patent to use the Ripple Blockchain for facilitating real-time settlements between banks in cross-border transactions.<sup>4</sup>
- Banks are investing in startups that provide blockchain-based trade solutions.
  - New Zealand’s ASB Bank took a stake in early-stage supply chain startup TradeWindow, which uses DLT to create a *single trading* window accessible by all parties involved in a transaction.<sup>5</sup>
  - Barclays invested in startup CrowdZ, which digitizes B2B supply chain transactions through its blockchain-based *Invoice Exchange*. Exchange’s built-in B2B payment gateway accelerates the trade settlement process and its proprietary auction platform helps firms borrow money at low rates.<sup>6</sup>

**Exhibit 2: Blockchain in cross-border trade settlement**



Source: Capgemini Financial Services Analysis, 2019.

**Implications**



- Blockchain, along with automation, would help increase overall efficiency in cross-border trade settlement, and with IoT solutions could enable real-time communication and goods tracking.
- Faster trade settlements will help suppliers improve their liquidity, which will enable small and medium enterprises to compete with large players in cross-border trade.
- As blockchain inherently drives trust and transparency, it would enable commercial banks in accurate risk-profiling for trade financing.
- Blockchain technology deployment is still nascent because existing regulations do not address new concepts such as cryptographic signatures and smart contracts. Therefore, stakeholders must collaborate to create a robust regulatory framework.

<sup>4</sup> Cryptonewz, “Bank of America To Utilize Ripple Blockchain For Interbank Communication Application,” Scott Cook, July 22, 2019, <https://www.cryptonewsz.com/bank-of-america-to-utilize-ripple-blockchain-for-interbank-communication-application/32681/>.

<sup>5</sup> Finextra, “ASB Bank takes stake in distributed ledger startup TradeWindow,” August 12, 2019, <https://www.finextra.com/newsarticle/34240/asb-bank-takes-stake-in-distributed-ledger-startup-tradewindow>.

<sup>6</sup> Finextra, “Barclays invests in blockchain-based invoice exchange startup CrowdZ,” May 29, 2019, <https://www.finextra.com/newsarticle/33891/barclays-invests-in-blockchain-based-invoice-exchange-startup-crowdz>.

# Trend 02: Real-time payments drive cash and liquidity management

*Corporate banks are embracing real-time payments that enable faster payments and efficient cash and liquidity management.*

## Background



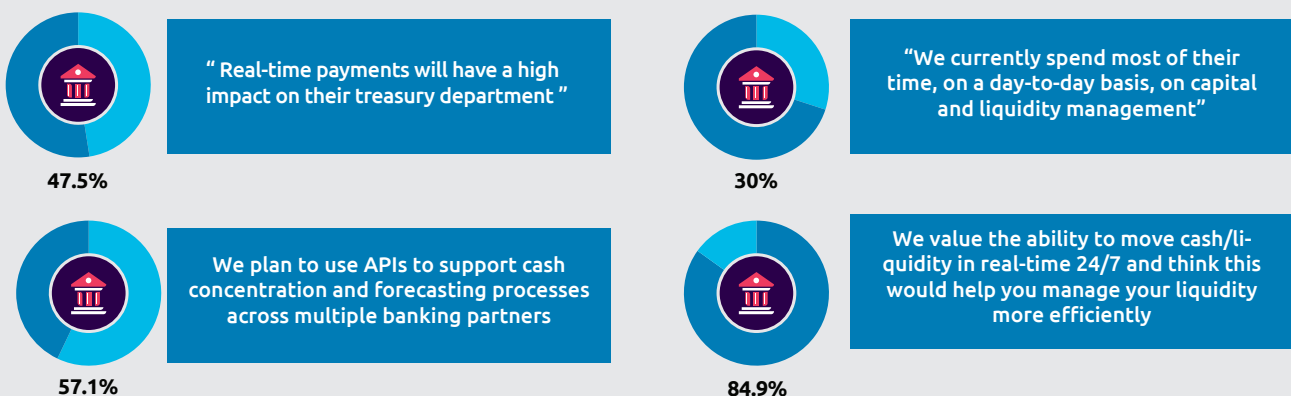
- Challenging market conditions and increased operational complexity have reshaped the corporate treasury space; additionally, cash management and liquidity control have emerged as top priorities for corporate bankers.
- Many banks still depend on manual inputs, spreadsheets, and forecasting to estimate corporate clients' intraday liquidity requirements.
- While traditional corporate payment methods remain reliable, mounting inefficiencies in reusing internal liquidity and the inability to mobilize and manage cash have become a corporate treasurer nightmare.
- Banks now are shifting to real-time payments to meet sustained corporate treasury demands.

## Key Drivers



- The Basel Committee on Banking Supervision (BCBS 248) framework mandates that banks meet intraday liquidity reporting requirements.<sup>7</sup>
  - This framework sets reporting requirements and key metrics that push banks to provide real-time data related to their intraday liquidity positions and reduce systemic risk.
- The present payment methods, such as real-time gross settlement (RTGS) and automated clearing house (ACH) transactions, have longer clearing windows.
- Increased use of APIs, driven in part by PSD2 and open banking initiatives globally, has enabled treasurers to gain an aggregated real-time view of account information and a holistic picture of real-time liquidity across multiple banks.

Exhibit 3: Treasurers' view of the impact of real-time payments <sup>8,9</sup>



Source: Capgemini Financial Services Analysis, 2019.

<sup>7</sup> Swift, “Intraday liquidity reporting – meeting today’s challenges,” August 12, 2019, [https://www.swift.com/news-events/news/intraday-liquidity-reporting-meeting-today\\_s-challenges](https://www.swift.com/news-events/news/intraday-liquidity-reporting-meeting-today_s-challenges).

<sup>8</sup> Euromoney, “Treasury Non-Stop: Excitement builds for real-time,” July 2018,

<https://www.euromoney.com/Media/documents/euromoney/pdf/sponsored/Treasury%20non-stop%20excitement%20builds%20for%20real-time.pdf>.

<sup>9</sup> Treasurers.org, “The Business Of Treasury 2018,” 2018, [https://www.treasurers.org/ACTmedia/Business%20of%20Treasury%202018\\_0.pdf](https://www.treasurers.org/ACTmedia/Business%20of%20Treasury%202018_0.pdf).



## Trend Overview



- Banks are adapting the pan European SEPA Instant Transfer Credit scheme (available since 2017) to enable faster and transparent payments for corporate clients.
  - With clients demanding speed, flexibility, and improved liquidity, French bank Société Générale and US banking giant JP Morgan are rolling out instant payments for their European corporate clients.<sup>10, 11</sup>
  - Deutsche Bank partnered with Serrala, a global B2B FinTech, to launch the first API interface for SEPA instant payments, which transformed its payments processing from scheduled batch payments to real-time processing.<sup>12</sup>
- Real-time payments eliminate long credit windows for cross-border payments and enables refund credits within seconds.
  - Many banks such as BBVA, Deutsche Bank, Natixis, Santander, Sberbank, and UniCredit have joined with international payment network Swift to test real-time GPI cross-border payments in Europe.<sup>13</sup>
  - Six Nordic region banks have agreed to finance the development of a cross-border real-time payment platform operated by Mastercard.<sup>14</sup>
- The time it takes to process money after receiving payments significantly impacts small business liquidity and cash flow, say nearly 66% of small business owners, according to research conducted by QuickBooks.
  - Intuit QuickBooks enables real-time disbursements for small businesses. It uses Visa Direct through Bancorp to provide funds faster and mitigate cash flow issues.<sup>15</sup>
- Banks are entering strategic partnerships with FinTechs to facilitate real-time payments to their corporate clients.
  - Citi partnered with Payoo in Vietnam to promote consumer-to-business collections, through which corporate clients are paid in real-time by their customers for services through Payoo's extensive digital network.<sup>16</sup>

## Implications



- Real-time payments will require banks to invest in both technology and processes.
  - Banks must migrate payments away from legacy systems and enthusiastically invest in back-office process modernization.
- Banks can combine customer data and real-time payments within their channel offerings and provide a fully digital experience. New offerings might include:
  - Predictive balances that can ease corporate clients' liquidity issues
  - Personalized short-term credit offers at tailored price points
- For corporations, improved liquidity management can unlock working capital, reduce inventory, and enable more efficient business practices.

<sup>10</sup> Pymts.com, "Societe Generale Debuts Instant Corporate Payments," September 24, 2019, <https://www.pymnts.com/news/b2b-payments/2019/societe-generale-instant-payments-fis/>.

<sup>11</sup> Finextra, "JP Morgan launches Sepa instant payments in Europe," April 10, 2019, <https://www.finextra.com/newsarticle/33662/jp-morgan-launches-sepa-instant-payments-in-europe>.

<sup>12</sup> CIB Deutsche Bank, "Deutsch Bank and Serrala launch first API interface for SEPA instant payments," Thomas Stosberg, April, 2019, <https://cib.db.com/news-and-events/news/deutsche-bank-and-serrala-launch-first-api-interface-for-sepa-instant-payments.htm>.

<sup>13</sup> Finextra, "Swift to test real-time cross border payments in Europe," May 21, 2019, <https://www.finextra.com/newsarticle/33852/swift-to-test-real-time-cross-border-payments-in-europe>

<sup>14</sup> Finextra, "Nordic banks agree funding for P27 cross-border payments platform," October 10, 2019, <https://www.finextra.com/newsarticle/34553/nordic-banks-agree-funding-for-p27-cross-border-payments-platform>.

<sup>15</sup> Global Banking and Finance Review, "Intuit QuickBooks and Visa Enable Real-Time Access to Funds Anytime, Anywhere for Small Businesses," October 9, 2019, <https://www.globalbankingandfinance.com/category/news/intuit-quickbooks-and-visa-enable-real-time-access-to-funds-anytime-anywhere-for-small-businesses/>.

<sup>16</sup> Citigroup, "Citi Enters Partnership with Vietnam-based FinTech Payoo," April 26, 2019, <https://www.citigroup.com/citi/news/2019/190426a.htm>.

# Trend 03: Cloud services help banks boost operational efficiency and the ability to scale

*Commercial banks are taking a cloud-first digital transformation approach to reduce operational and scalability costs.*



## Background

- Incumbent banks are moving away from legacy infrastructure because developing a new application on top of an existing system can be complicated, time-consuming, and expensive.
- New product distribution via legacy channels often delays time to market – a concern for banks competing to remain relevant.
- Building and maintaining digital infrastructure with in-house resources can be costly, which is affecting banks' ability to achieve their desired scale.
- Cloud infrastructure can help banks create a centralized platform suitable for deployment on any device.



## Key Drivers

- Evolving business priorities require banks to create a global services platform with better customer engagement because legacy infrastructure cannot support such scalability.
- Banks are spending more time managing data infrastructure than analyzing the actual data to understand customer preferences and behavior.
- Cloud services provide agility in implementation and high levels of security, which helps banks to reduce time to market of their services offerings.

## Trend Overview



- Banks are adopting a cloud-first approach to their business and migrating major processes and IT architecture to the cloud to achieve operational efficiency.
  - South Africa's Standard Bank announced plans to migrate its production workloads, including its customer-facing platforms and strategic core banking applications to the cloud via Amazon Web Services. The move will affect all business units, including personal banking, wealth, corporate investment banking, and insurance.<sup>17</sup>
- Cloud-based solutions help banks overcome legacy infrastructure limitations and provide superior computing power to fuel operational efficiency.
  - HSBC moved its global liquidity reporting processes from its proprietary servers to Google Cloud, enabling it to reduce reporting time from 14 hours each day to three hours.<sup>18</sup>
- Banks are adopting cloud technology to offer fast, consistent, frictionless customer journeys.

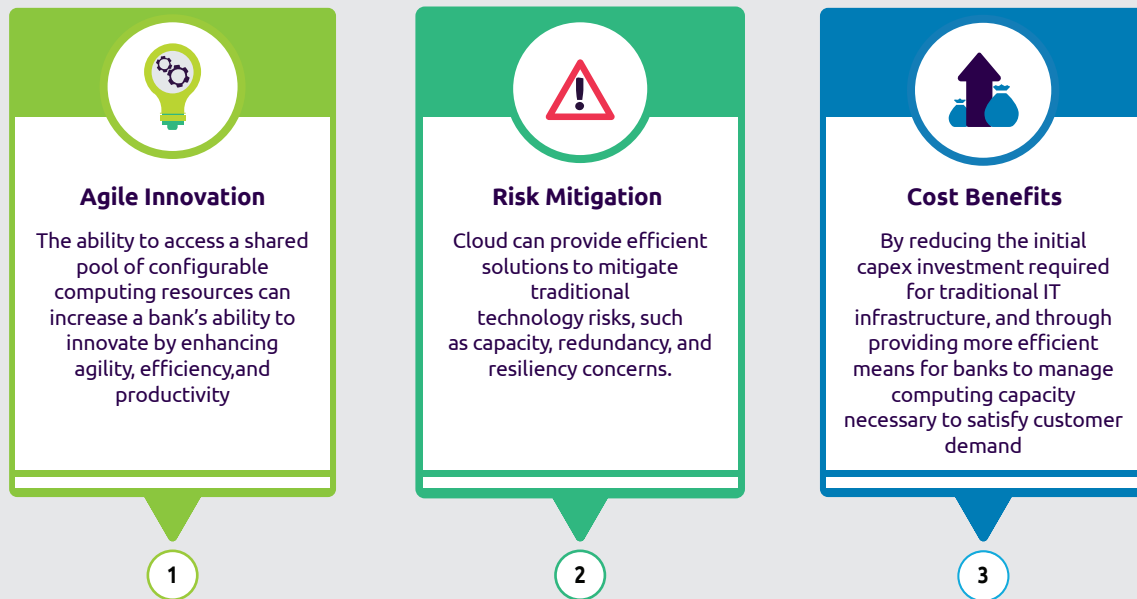
<sup>17</sup> Finextra, "Standard Bank contracts with AWS for mass migration to the cloud," March 27, 2019, <https://www.finextra.com/newsarticle/33592/standard-bank-contracts-with-aws-for-mass-migration-to-the-cloud>.

<sup>18</sup> DIGFIN, "HSBC goes cloud-first," April 2, 2019, <https://www.digfingroup.com/hsbc-cloud/>.

<sup>19</sup> IBSintelligence, "Palestine Islamic Bank selects Temenos Software to power its digital banking transformation," March 6, 2019, <https://ibsintelligence.com/ibs-journal/palestine-islamic-bank-selects-temenos-software-to-power-its-digital-banking-transformation>.

- Palestine Islamic Bank selected Temenos Infinity and Temenos T24 Transact, to increase operational efficiency and offer customers personalized and convenient service.<sup>19</sup>
- Banks are implementing cloud technology to create a centralized platform to digitally self-serve all aspects of their clients' account management activity for their corporate customers.

#### Exhibit 4: Impact of cloud adoption in banks



Source: Capgemini Financial Services Analysis, 2019.

### Implications

- Banks considering migration to the cloud should establish a dedicated team to drive the move and also develop training and certification programs to upskill all employees.
- Migrating APIs to the cloud provides banks with a fully-integrated platform, to launch open banking initiatives and manage a cloud-based open innovation ecosystem.<sup>20</sup>
- The cloud can help banks achieve three significant transformational advantages that support future-readiness.<sup>21</sup>
  - Datacenter modernization: Banks can set up a private cloud by automating what they keep on premises while reducing costs and improving agility and quality.
  - Application modernization: Banks can replace proprietary applications with SaaS, or with managed independent software vendor (ISV) applications on the public cloud, thus increasing productivity, scalability, and performance.
  - Enterprise agility: By integrating applications in the cloud or building cloud-native applications to create new services, banks can reduce time to market, and capture new business opportunities.



<sup>20</sup> AWS Amazon, "Capgemini's Open Banking on Cloud Solution,"

<https://aws.amazon.com/solutionspace/financial-services/solutions/capgemini-open-banking/>, accessed November 2019.

<sup>21</sup> Capgemini, "Cloud Services," <https://www.capgemini.com/service/cloud-services>, accessed October 2019.

# Trend 04: Virtual accounts help corporate clients self-manage transactions efficiently

*Virtual accounts enable real-time cash management for corporations while improving customer experience thanks to the flexibility of paying at a local account.*

## Background



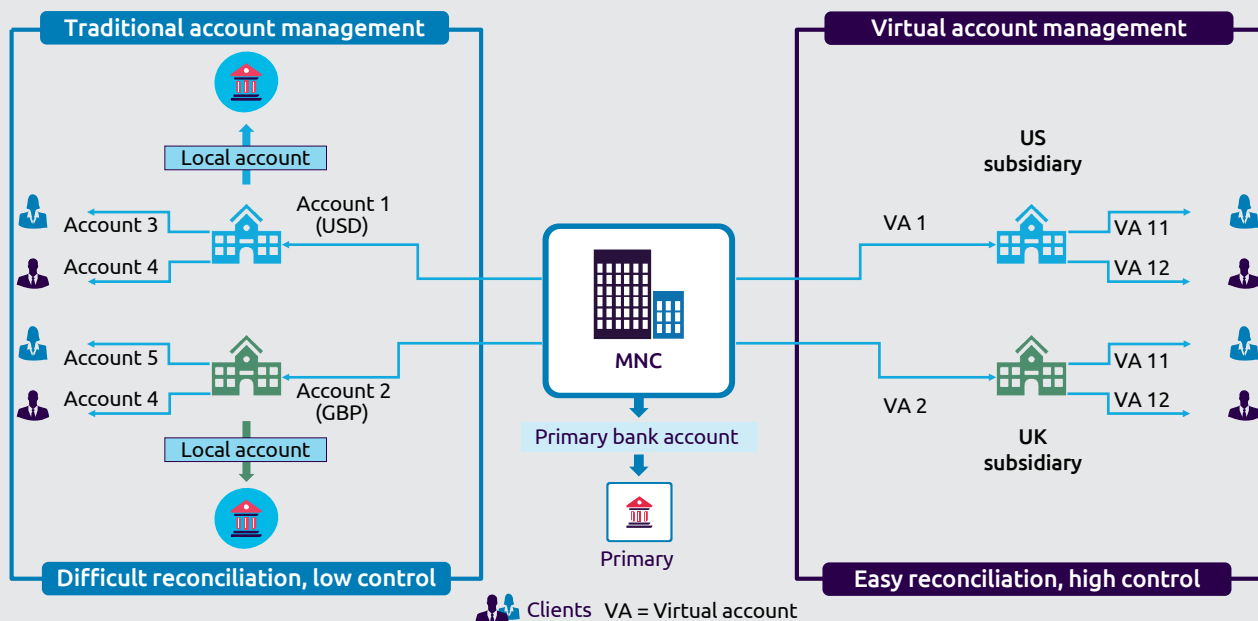
- Corporate treasury and accounting departments struggle with inefficient cash management methods. Most current processes are costly and time-consuming because they require inter- and intra-bank processing.
- Corporate entities have to maintain multiple accounts for each geographic location or business, making it challenging to monitor payments or receivables centrally.
- Manual reconciliation is often rife with exceptions and time-consuming for employees who might otherwise handle more productive and complex tasks.

## Key Drivers



- Corporate clients seek greater control over their money because they want quick access to receivables while extending payables, to increase liquidity.
- From a process and compliance standpoint, it is easier to open a virtual account than a new account. KYC compliance is necessary only once – for the primary account.
- In an experience-driven ecosystem, banks need a differentiating value proposition. Offering effective virtual account services can help banks stand out while also providing potential new revenue sources of income.

Exhibit 5: Traditional vs virtual account management



Source: Capgemini Financial Services Analysis, 2019.

## Trend Overview



- The concept of virtual account is not new but was restricted to reference based reconciliations (monitor receivables) and not to support account rationalization or payments.
- VAM has moved beyond institutional clients to corporations that use it to centralize the treasury function and optimize bank accounts. Benefits range from reduced complexity, optimized working capital, and improved cash visibility.
- Because corporate clients can open a virtual account for each business unit or customer, they have high control over them. They can handle collections-on-behalf-of (COBO) and payments-on-behalf-of (POBO) their business unit/subsidiaries and also overcome foreign exchange transaction challenges.<sup>22</sup>
- Top-tier banks are already enhancing their VAM platform by leveraging technologies, and partnerships. They are developing agile, multi-level shadow account hierarchies, and feature-rich platforms.
  - HSBC launched Next Generation Virtual Accounts in July 2019. A customizable multi-currency system built on top of traditional virtual account solutions, it provides additional benefits by enabling treasurers to centralize receivables and payments across single and multiple-entity structures.<sup>23</sup>
  - NatWest partnered with Tieto, a Nordic software company, to develop a virtual account platform that supports regulated professions – legal, insurance, and accountancy firms – that need to safely and securely segregate client monies to comply with industry regulatory standards.<sup>24</sup>

## Implications



- VAM services act as a source of non-interest income, especially in an era characterized by shrinking interest income. Besides, banks gain access to valuable structured data at a business unit or client level, which they can analyze to generate business insights.
- VAM has shifted from processing at regular intervals to real-time updates. Reconciliations are synced immediately between the bank and the corporate accounting department, helping corporates with higher control and managing their finances efficiently.
- Multinational company (MNC) treasury departments want their subsidiaries to focus on core businesses and centrally control banking operations. Therefore, banks that help MNCs realize this goal will position themselves for preferred partner status, which will help deepen client relationships and potentially generate new business. According to research, 94% of banks said virtual account solutions help them win new customers.<sup>25</sup>

<sup>22</sup> Nucleus Software, "Virtual Accounts – Improving Decision Making Through Better Cash Visibility," Avik Dasgupta, May 28, 2019, <https://www.nucleussoftware.com/blog/digital-finance/virtual-accounts-ensuring-improved-decision-making-with-better-cash-visibility/>.

<sup>23</sup> Finextra, "HSBC launches next-generation virtual accounts for corporate and institutional clients," July 8, 2019, <https://www.finextra.com/pressarticle/79091/hsbc-launches-next-generation-virtual-accounts-for-corporate-and-institutional-clients>.

<sup>24</sup> Finextra, "NatWest to launch virtual accounts for SMEs and corporates," March 19, 2019, <https://www.finextra.com/newsarticle/33552/natwest-to-launch-virtual-accounts-for-smes-and-corporates>.

<sup>25</sup> The Global Treasurer, "Virtual account management and better banking experiences," Tim Martin, August 13, 2018, <https://www.theglobaltreasurer.com/2018/08/13/virtual-account-management-and-better-banking-experiences>.

# Trend 05: Banks use AI for anti-money laundering compliance

*Artificial intelligence solutions can help commercial banks review trade transactions and comply with global AML regulatory requirements.*

## Background



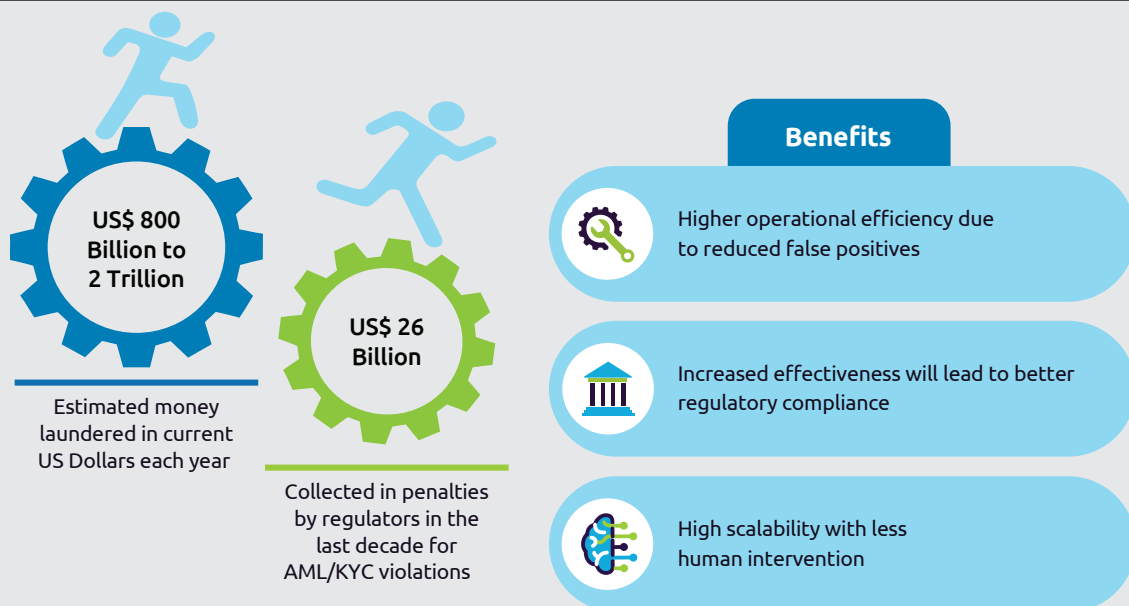
- Money laundering continues to be a major concern for commercial banks. The United Nations Office on Drugs and Crime estimates that 2 to 5% of global GDP (US\$800 billion to \$2 trillion) is laundered each year.<sup>26</sup>
- Present AML detection techniques, such as transaction monitoring and filtering, are time-consuming, error-prone, and require extensive human intervention.
- As AI techniques become more and more sophisticated and robust, more commercial banks are leveraging them to fight money laundering.

## Key Drivers



- High operational workloads in AML compliance are driving banks to look for innovative and cost-efficient solutions.
- More stringent penalties and massive fines are forcing commercial banks to adopt strict AML measures.
  - In the last decade, regulators across the United States, Europe, APAC, and the Middle East collected around \$26 billion in penalties against financial institutions for AML/KYC and sanctions-related violations, according to a 2018 report released by Dublin-based Fenergo, a financial software provider.<sup>27</sup>

Exhibit 6: Growing need for AI in AML solutions



Source: Capgemini Financial Services Analysis, 2019.

<sup>26</sup> UNODC, "Money-Laundering and Globalization,"

<https://www.unodc.org/unodc/en/money-laundering/globalization.html>, accessed October 2019.

<sup>27</sup> Fenergo press release, "Global AML/KYC & Sanction Fines," September 26, 2018, <https://www.fenergo.com/aml-kyc-sanction-fines>.

- A commercial bank's reputation is adversely affected by a breach, and much effort is needed to regain customer trust.
- Regulators are encouraging banks to adopt innovative techniques to beef up AML solutions.
  - In late 2018, four US regulators, together with the Financial Crimes Enforcement Network (Fincen), jointly issued a statement essentially asking commercial banks to “consider, evaluate, and, where appropriate, implement innovative approaches to meet their AML compliance obligations.”<sup>28</sup>

## Trend Overview

- Banks' AML teams are starting to use AI and machine learning techniques to analyze transactions more quickly by reducing false positives and more effectively identifying new risk areas.
  - US-based machine-learning firm Ayasadi used its expertise in AML AI to analyze transactions over 500 data points for Canada's Scotiabank and for Italian banking group Intesa Sanpaolo to reduce false positives. There was also an increase in the number of alerts that needed further review, which led to increased effectiveness.<sup>29</sup>
  - HSBC partnered with Element AI, a Canadian AI software firm, to meet global AML requirements for its Global Banking and Markets clients.<sup>30</sup>
- Trade transaction review is a complex process that requires a lot of human resources. Banks are looking to develop AI-based solutions to assist employees in decision making.
  - Standard Chartered partnered with Silent Eight, a Singapore-based RegTech, to leverage the latter's AI technology to fight against financial crime. The solution works to replicate analyst assessment actions and help analysts make faster decisions during the review process.<sup>31</sup>
  - Citi is developing an AI-based risk analytics scoring engine to assist decision makers in reviewing trade transactions by providing more contextual and usable data. This data is collected by analyzing data points across current and previous transactions.<sup>32</sup>



## Implications

- AI-based mining algorithms, behavioral modeling, risk scoring, and anomaly detection techniques would help commercial banks bolster overall efficiency and effectiveness of AML programs.
- Banks would be able to redirect some human resources to more strategic areas of decision making.
- As AI and ML algorithms get smarter with use, banks would be able to scale and deploy these solutions with ease.
- Banks could protect their bottom line by avoiding massive fines from regulators against breaches.



<sup>28</sup> United States Treasury press release, “Treasury’s FinCEN and Federal Banking Agencies Issue Joint Statement Encouraging Innovative Industry Approaches to AML Compliance,” December 3, 2018,

<https://www.fincen.gov/news/news-releases/treasurys-fincen-and-federal-banking-agencies-issue-joint-statement-encouraging>.

<sup>29</sup> NAVIGANT, “Banks Explore AI to Better Detect Fraud after Go-Ahead from Federal Regulators,” Tim Mueller, March 26, 2019,

<https://www.navigant.com/insights/global-investigations-and-compliance/2019/banks-explore-ai-to-detect-fraud>.

<sup>30</sup> Fintech Futures, “HSBC seeks AI prowess with Element AI partnership,” Henry Vilar, June 10, 2019,

<https://www.fintechfutures.com/2019/06/hsbc-seeks-ai-prowess-with-element-ai-partnership/>.

<sup>31</sup> Standard Chartered, “We’ve partnered with Regulatory Technology firm Silent Eight,” July 09, 2018,

<https://www.sc.com/en/media/press-release/weve-partnered-with-regulatory-technology-firm-silent-eight/>.

<sup>32</sup> Finextra, “Citi to develop AI-based trade finance compliance platform,” April 30, 2019,

<https://www.finextra.com/newsarticle/33745/citi-to-develop-ai-based-trade-finance-compliance-platform>

# Trend 06: Emerging technologies help banks heighten cybersecurity efforts

*Banks are leveraging technologies such as biometrics, blockchain, and artificial intelligence to build greater operational security.*

## Background



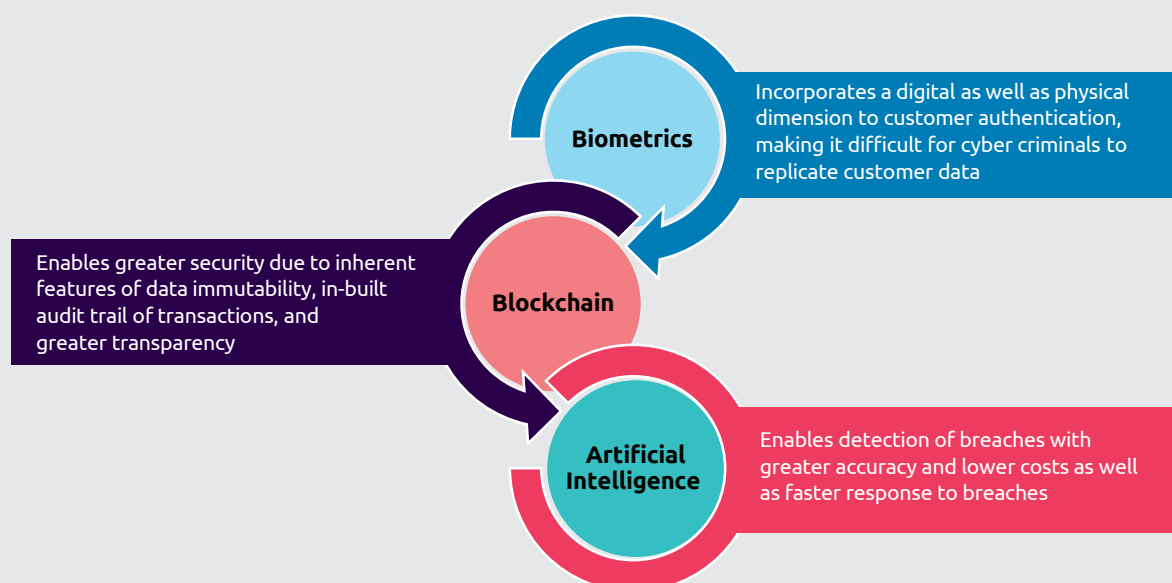
- Cyber-attacks have been growing in frequency and technological sophistication over the last few years.
  - Ransomware attacks against enterprises increased by 195% from Q4 2018 to Q1 2019 and by 500% from Q1 2018 to Q1 2019, according to research from Malwarebytes Labs.<sup>33</sup>
- Banks have already recognized the criticality of cybersecurity and have been investing in upgrading their systems to prevent data breaches better.
- However, as cybercriminals use the latest technologies to find new ways of unauthorized access, banks too are exploring emerging technologies to enhance their cybersecurity measures.

## Key Drivers



- Growth in digital channels and increased volumes of digital data have widened the attack surface for cybercriminals.
- Technological advancements have led to more frequent and elaborate cyberattacks, calling for tighter security measures.
  - The adoption of open banking, connected devices, and cloud technologies are adding new dimensions to customer data security.
- The catastrophic impact of cyberattacks – costly in both tangible and intangible ways – requires urgent response from banks.

Exhibit 7: Emerging technologies enhance banks' cybersecurity efforts



Source: Capgemini Financial Services Analysis, 2019.

<sup>33</sup> Hashedout, "The Top Cyber Security Trends in 2019 (and What to Expect in 2020)," Casey Crane, August 23, 2019, <https://www.thesstore.com/blog/the-top-cyber-security-trends-in-2019-and-what-to-expect-in-2020>.



## Trend Overview



- Emerging technologies such as biometrics, blockchain, and artificial intelligence are enabling improved customer authentication, more secure data storage and transfer, and better detection of suspicious activities.
- Biometrics technology strengthens the customer authentication process by adding a physical dimension and making it difficult for cybercriminals to impersonate a customer remotely.
  - Citi and NatWest Bank have enabled biometric authentication for their mobile apps so that institutional clients can securely access their accounts or make payments through fingerprint or facial recognition.<sup>34, 35</sup>
- Distributed ledger technology allows greater security because of its inherent features of data immutability, a built-in transaction audit trail, and greater transparency through decentralized data storage.
- Banks are increasingly exploring improvements to their blockchain solutions to make them more secure.
  - ING and JPMorgan are exploring zero-knowledge, range-proof technology to enable the transfer of information without actually revealing the exact information in the transaction, thus making blockchain transactions more secure.<sup>36, 37</sup>
  - FinTech startup Cambridge Blockchain and other firms are exploring distributed-ledger solutions for more streamlined digital identity management.<sup>38</sup>
- Artificial intelligence has a high potential to enhance bank cybersecurity by detecting breaches more quickly, with greater accuracy, and at relatively low cost.
  - Some of the top use cases of AI in cybersecurity are fraud intrusion and malware detection, network risk scoring, and user/machine behavioral analysis.<sup>39</sup>
  - Mumbai-headquartered HDFC bank completed a pilot in 2018 for an AI-driven Cyber Security Operations Center designed to monitor insider threats and detect non-signature, behavioral, and heuristics-based anomalies.<sup>40</sup>

## Implications



- Banks can boost brand reputation and client trust by leveraging new technology and innovations to power their cybersecurity initiatives.
- Banks will need to adapt existing technology and processes to integrate with new technologies such as blockchain and biometrics.
- With the emergence of FinTech players providing specialist cybersecurity solutions, banks can explore partnerships to incorporate new solutions quickly.

<sup>34</sup> Finextra, "Citi launches biometric authentication for institutional clients in Latin America," August 21, 2019, <https://www.finextra.com/pressarticle/79559/citi-launches-biometric-authentication-for-institutional-clients-in-latin-america>.

<sup>35</sup> ComputerWeekly.com, "NatWest eases business payments with biometric authentication on mobile," Karl Flinders, April 16, 2019, <https://www.computerweekly.com/news/252461709/NatWest-eases-business-payments-with-biometric-authentication-on-mobile>.

<sup>36</sup> ING, "Blockchain innovation improves data privacy for clients," October 21, 2018, <https://www.ing.com/Newsroom/All-news/Blockchain-innovation-improves-data-privacy-for-clients.htm>.

<sup>37</sup> CoinDesk, "JPMorgan Partners With Zcash on Blockchain Security," Michael del Castillo, May 22, 2017, <https://www.coindesk.com/jpmorgan-partners-zcash-team-add-enterprise-security>.

<sup>38</sup> Cambridge Blockchain, <https://www.cambridge-blockchain.com>, accessed September 2019.

<sup>39</sup> Capgemini Research Institute, "Reinventing Cybersecurity with Artificial Intelligence," July 2019, <https://www.capgemini.com/research/reinventing-cybersecurity-with-artificial-intelligence/>.

<sup>40</sup> Express Computer, "AI Takes Cyber Security To A New Level For HDFC Bank," Abhishek Raval, July 25, 2018, <https://www.expresscomputer.in/magazine/ai-takes-cyber-security-to-a-new-level-for-hdfc-bank/23580>.

# Trend 07: Banks are building developer portals as part of Open X adoption

*More and more banks are building developer portals to support collaborative partnerships and broaden their portfolio of offerings.*

## Background



- Banks in Europe are giving third-party players secure access to customer data through open APIs in response to regulatory requirements such as PSD2.
- However, as banks begin to recognize open banking benefits, they are also exploring ways to tap new innovations through open banking so as to enhance their portfolio of offerings.
- One of the key initiatives in this regard is developer portals that enable third-party developers to access banks' APIs as well as a sandbox environment for the development of new solutions for end customers.

## Key Drivers



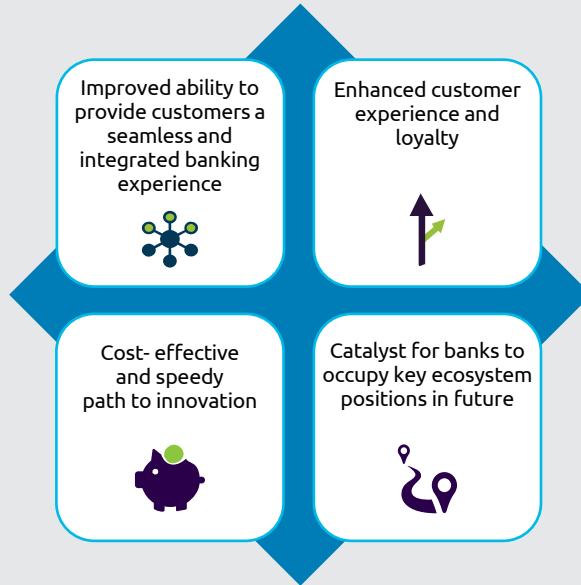
- Future-focused banks are turning regulatory compliance into a strategic competitive advantage that balances compliance costs with new market opportunities and revenue streams.
- Customers expect a more seamless and integrated banking experience, leading banks to explore ways to speedily roll out a greater variety of financial tools and features such as account aggregation.
- As challenger banks and other non-traditional players increasingly capture the customer interface through innovative solutions such as frictionless payments, banks risk losing market share unless they innovate quickly.

## Trend Overview



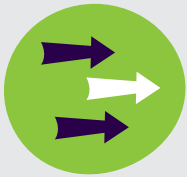
- As part of open banking adoption, banks are building developer portals to provide a platform for third-party developers to access the banks' various APIs and build useful solutions.
- These portals typically offer detailed documentation and guidelines for developers as well as a sandbox environment in which developers can test their solutions on dummy data.
  - Standard Chartered's aXess platform offers developers open access to the bank's open-source code for banking products and its APIs, applications, and libraries. Through this initiative, the bank aims to co-create innovative solutions with third-party developers.<sup>41</sup>
  - In March, HSBC launched its APIs and developer portal to enable third-party payment companies to deploy their solutions for business and consumer customers. The developer sandbox also allows developers to access mock data from HSBC retail and corporate payment accounts in compliance with PSD2.<sup>42</sup>
  - BNP Paribas Fortis launched an open banking portal where developers can access the bank's APIs to develop digital solutions for customers. The portal also provides a sandbox environment with dummy data for developers to test the account information and payment initiation APIs.<sup>43</sup>
- Aside from developer portals, banks are also connecting with third-party developers through FinTech API marketplaces.
  - JPMorgan inked a data-sharing agreement in 2018 with Plaid Technologies, a San Francisco FinTech that links bank accounts with other FinTech apps while giving users greater control over their data. A secure API opens JP Morgan's customer data to Plaid.<sup>44</sup>

## Exhibit 8: Benefits of building developer portals for banks



Source: Capgemini Financial Services Analysis, 2019.

### Implications



- Banks will be able to offer a greater variety of innovative solutions to customers, which in turn will help to enhance customer relationships and help safeguard market share from competitive non-traditional players.
- Seamless and integrated banking experiences will rev up customer stickiness and loyalty.
- As bank platforms continue to serve up innovative FinTech offerings, incumbents will be poised to occupy key positions in the financial ecosystem of the future.

<sup>41</sup> The Paypers, "Standard Chartered boosts open banking capabilities," April 9, 2019, [https://www.thepayers.com/payments-general/standard-chartered-boosts-open-banking-capabilities/778240-27?utm\\_campaign=20190409-automatic-newsletter&utm\\_medium=email&utm\\_source=newsletter&utm\\_content=](https://www.thepayers.com/payments-general/standard-chartered-boosts-open-banking-capabilities/778240-27?utm_campaign=20190409-automatic-newsletter&utm_medium=email&utm_source=newsletter&utm_content=)

<sup>42</sup> Pymnts.com, "HSBC Launches APIs, Developer Portal For PSD2," March 8, 2019, <https://www.pymnts.com/news/b2b-payments/2019/hsbc-banking-data-psd2-api-developer-portal>.

<sup>43</sup> BNP Paribas Fortis, <https://www.bnpparibasfortis.com/newsroom/press-release/bnp-paribas-fortis-invites-fintechs-and-innovators-on-to-its-open-banking-portal>, accessed October 2019.

<sup>44</sup> Business Insider, "JPMorgan has signed a deal with technology firm Plaid," Madeline Shi, October 23, 2018, <https://www.businessinsider.in/JPMorgan-has-signed-a-deal-with-technology-firm-Plaid-for-customer-data-sharing-and-it-represents-a-big-development-for-how-the-largest-US-bank-thinks-about-fintech/articleshow/66325445.cms>.

# Trend 08: Bank/FinTech partnerships pay off in new services for small and medium businesses

*Banks are forging a strategic alliance with FinTechs to roll out products and services for middle-market companies.*

## Background



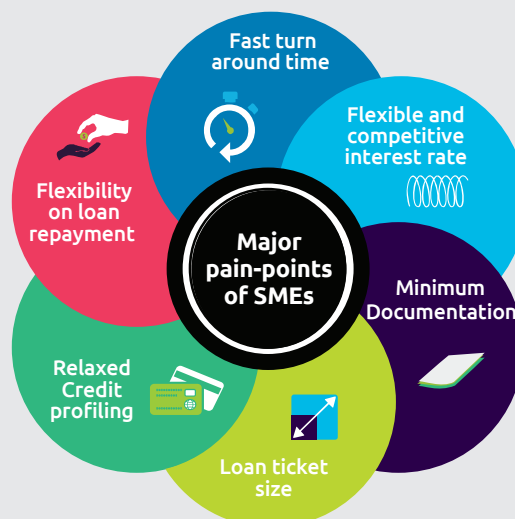
- Small and medium-sized enterprises (SMEs) are on the rise. In the United States, middle-market enterprises employ nearly 21 million people and contribute more than US\$7 trillion in revenue, according to an HSBC survey.<sup>45</sup>
- SMEs form a strong client base that needs continuous working capital and cash management support from banks.
- SMEs do not have easy access to major commercial banks due to lack of physical presence of the multi-national banks in smaller cities.
- Seizing upon this opportunity, FinTech firms are creating platforms designed to improve customer experience for the clients of SMEs.

## Key Drivers



- Legacy distribution network limitations – and in some cases, the absence of a distribution network to reach SMEs – are fueling banks' urgent need to seek external expertise.
- FinTech firms are developing innovative digital-platform solutions in response to the rising demand from middle-market companies.
- Strategic alliances with FinTechs will reduce time to market for banks' rollout of new products and services to SMEs.

### Exhibit 9: FinTechs' solution to SMEs' fund requirement



Source: Capgemini Financial Services Analysis, 2019; Entrepreneur, "6 Reasons Why Business Owners and SMEs should Approach FinTech Lenders for their Fund Requirement," Ritesh Jain, September 16, 2019, <https://www.entrepreneur.com/article/339522>

<sup>45</sup> BusinessWire, "HSBC Partners with FinTech Platform NepFin to Bolster Lending Proposition for Middle Market Businesses," February 26, 2019, <https://www.businesswire.com/news/home/20190226005222/en/HSBC-Partners-FinTech-Platform-NepFin-Bolster-Lending/>.

## Trend Overview



- More and more banks are leveraging FinTech expertise to serve small and medium businesses.
  - BNP Paribas partnered with FinTech startup OneUp to automate cloud banking for 585,000 small business customers in France – offering a complete and automated accounting and financial management platform.<sup>46</sup>
  - Germany’s Commerzbank allied with FinTech firm Raisin to launch a savings platform for corporate clients.<sup>47</sup>
- Banks are partnering with FinTechs to expedite credit risk assessment processes and push quicker loans for SMEs.
  - Deutsche Bank is collaborating with five FinTechs for faster background checks, risk assessment, and early warning signals for loans to SMEs.<sup>48</sup>
- Banks and FinTechs are working together to eliminate SME pain points around customer experience and to help them manage working capital – loyalty boosting initiatives.
  - NatWest collaborated with Australian startup Waddle Loans to pilot Rapid Cash, a digital working capital product that offers a credit limit based on business customers’ unpaid invoices.<sup>49</sup>
- Bank/FinTech partnerships are geographically diverse.
  - Spanish banking group BBVA acquired Finnish startup, Holvi, in 2016 to expand into Ireland, Italy, Belgium, France, and the Netherlands to meet growing demand for small-business current account services. BBVA has already attracted 150,000 microbusiness customers.<sup>50</sup>

## Implications



- Banks realize that FinTech partnerships can help generate new revenue streams by catering to SMEs – a client category that was unexplored previously.
- Collaboration with FinTechs will allow banks to increase cross-selling and up-selling opportunities by iterating and expanding product offerings to middle-market business customers.
- Banks could continue to focus on building their core offerings while simultaneously offering innovative and digital products and services to corporate clients through FinTechs.
- Moreover, by strategically partnering with commercial banks, FinTechs gain access to the global banking marketplace, which could help long-term business scalability efforts.

<sup>46</sup> Forbes, “BNP Paribas Partners With Fintech Startup OneUp To Automate Cloud Banking For Small Businesses,” Jeb Su, July 11, 2019, <https://www.forbes.com/sites/jeanbaptiste/2019/07/11/bnp-paribas-partners-with-fintech-startup-oneup-to-automate-cloud-banking-for-small-businesses/#54b02d3281dd/>.

<sup>47</sup> Raisin, “Fintech Raisin and Commerzbank launch savings platform for corporate clients,” April 16, 2019, <https://www.raisin.com/press/fintech-raisin-and-commerzbank-launch-savings-platform-for-corporate-clients/>.

<sup>48</sup> Livemint, “Deutsche Bank to partner with FinTech firms to push quicker loans for small businesses,” August 21, 2019, <https://www.livemint.com/industry/banking/deutsche-bank-to-partner-with-fintech-firms-to-push-quicker-loans-for-small-businesses-1566356432904.html>.

<sup>49</sup> Finextra, “NatWest rolls out digital working capital product,” July 4, 2019, <https://www.finextra.com/newsarticle/34078/natwest-rolls-out-digital-working-capital-product>.

<sup>50</sup> BBVA, “BBVA-backed Holvi announces plan to expand in Europe,” May 16, 2019, <https://www.bbva.com/en/bbva-backed-holvi-announces-plan-to-expand-in-europe>.

# Conclusion

For commercial banks strategizing a future-proof competitive profitability plan, emerging technologies will be key ingredients in the innovative secret sauce necessary to cook up high-impact, customer-centric products and services.

Now, and in the dynamic years ahead, banks must be agile and prepared to go to market quickly to align with the product and service needs of corporate clients – all this while slashing operational costs and boosting efficiency across the value chain. Adoption of **intelligent solutions**, usage of **deep customer insights**, implementation of **data driven compliance**, and driving a culture that fosters an **open ecosystem** will help commercial banks not only survive, but thrive in the long run.

Our 2020 business trends indicate that many firms realize the commercial banking industry faces unparalleled disruption and they are ready to embark on a digital transformation journey.

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