

PAYMENTS TOP TRENDS 2022

Drivers, opportunities, and risks shaping Financial Services

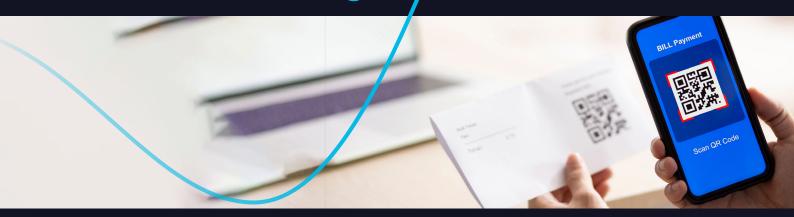


TABLE OF CONTENTS

EXECUTIVE SUMMARY		7
TREND 1	NEXT-GEN PAYMENT METHODS WILL DRIVE GROWTH IN THE PAYMENTS 4.X ERA	6
TREND 2	DIGITAL ID INFRASTRUCTURE WILL BE THE KEY AS PAYMENTS BECOME TRANSPARENT	9
TREND 3	D2C AND OTHER NOVEL PROPOSITIONS FROM NON-BANKS EMPOWER SMBS AND MERCHANTS	12
TREND 4	BIGTECHS FORAY INTO B2B SEGMENT THROUGH PARTNERSHIPS	1!
TREND 5	COST AND OPERATIONAL ADVANTAGES DRIVE BANKS TO EMBRACE OPEN ECOSYSTEMS	10
TREND 6	PAAS AND DATA-BASED API BUSINESS MODELS HELP UNLOCK NEW FRONTIERS	2
TREND 7	CYBERSECURITY IS CRITICAL AS DATA BECOMES NIMBLE IN THE OPEN FINANCE FUTURE	2:
TREND 8	PAYTECHS FOCUS ON MARKET EXPANSION AND M&AS TO IMPROVE PROFITABILITY	2.
TREND 9	CONSOLIDATION REMAINS UNABATED DRIVEN BY NEED FOR ECONOMIES OF SCALE	2
TREND 10	GROWING INTEREST ON CBDCS DEMAND FUTURE-READINESS	3
CONCLUSION		33
ASK THE EXPERTS		34
FOR MORE INFORMATION		3
ACKNOWLEDGMENTS		3

EXECUTIVE SUMMARY

Crossing the threshold!



Still reverberating from the impact of the pandemic, 2021 was a year of transition as we moved toward the new Payments 4.X era.¹ Yes, the industry is undergoing a facelift, sparked by novel approaches from new-age players and fostered by industry consolidation and demand for embedded experiences. As customers embrace **next-gen payment methods**, non-cash transaction volumes rally as the payments instrument mix drifts to digital. What's more, authentication was – and will continue to be – critical in virtual scenarios, which makes **Digital ID infrastructure** a top-of-mind topic.

The B2B segment customers became post-pandemic digital devotees. And PayTechs and industry newcomers were ready to swoop in with novel business models to help **small to medium-sized businesses** (SMBs) with innovative offerings. Even **tech giants** are leveraging merchant and SMB payments as a springboard to the B2B segment.

Needless to say, intense disintermediation is hitting incumbent profits. Declining revenues and escalating costs are a double whammy for executives already grappling with challenges from multidimensional disruption. As incumbents struggle with profits, new-age firms are champing at the bit to take the lead as Payments 4.X winners.

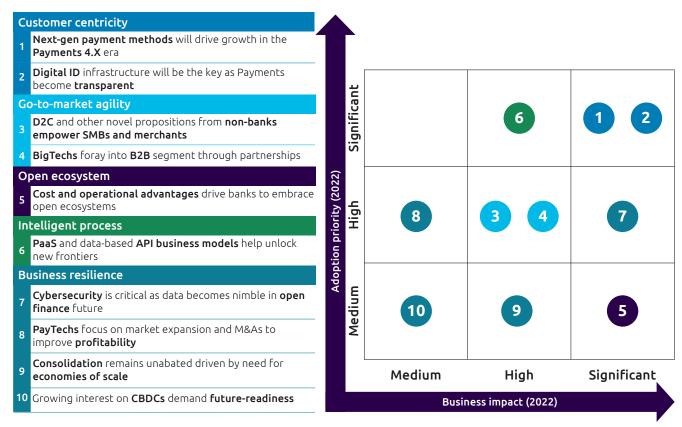
Profitable PayTechs are riding the success of non-card products and services. The new era demands platformification, and firms can unleash full market potential by embracing **open ecosystems**. API maturity, data prowess, and enhanced payment processing capabilities form the foundation of a robust reference architecture. Unfortunately, banks have yet to harness the potential of APIs and data sharing. 2022 will be the year to capitalize on open banking and **data-based API business models** to unlock new frontiers. Buckle up!

As payments players learn to collaborate more effectively, data will become a prized asset and success factor. While data-sharing merits refinement and broader acceptance, underlying safeguards must also be enhanced and maintained. Therefore, expect **cybersecurity** to continue to be a competitive differentiator.

The clock is ticking for banks and traditional payments firms because competitive advantages don't last forever. All this as consolidations loom as industry players seek **economies of scale and cost advantages** and non-banks encroach into newer territories to threaten banks' market share.

While all these 2022 trends are at play, **central bank digital currency** (CBDC) is emerging globally as central authorities explore various use cases and implementation approaches. Although CBDC is nascent, it would be wise for firms to consider a potential new chapter in their payments journey.

¹ Payments 4.X, is a concept introduced in World Payments Report 2021 where Experience is the defining feature. Payments are embedded, invisible, and an enabling function in a collaborative environment to boost customer experience.



Source: Capgemini Financial Analysis, 2021.

Adoption priority refers to the urgency of adopting a particular trend to maximize value creation in 2022. This is a relative rating based on the identified trends for a large to mid-size retail bank operating in the current environment.

Business impact represents the impact of an identified trend on the bank's business in 2022. The impact could be on customer experience, operational excellence, regulatory compliance, or profitability.

The matrix represents the view of Capgemini analysts for banks working in the current operating environment:

- Low-interest rate
- Operational disruption due to COVID-19
- Highly competitive environment and increased focus on customer centricity due to new-age players
- Operational cost overruns and high capital lock-in
- Uncertain regulatory environment.

The matrix will vary for specific banks depending on their business priorities, geographical location, and several other factors. For specific requirements, please contact <u>payments@capgemini.com</u>.

NEXT-GEN PAYMENT METHODS WILL DRIVE GROWTH IN THE PAYMENTS 4.X ERA

Digital payments' hockey-stick growth is altering the traditional payments instruments mix as the adoption of next-gen payment methods proliferates.

Context

- The traditional payments instrument mix (cash, checks, direct debits, and credit transfers) is morphing into a new instrument mix gravitating toward digital payments.
- Traditional instruments' share of payments is either stagnant (cards) or diminishing (cash). Legacy systems are moving out as customers embrace advanced, more convenient payment options.
- Customers are rapidly adopting the new mix which primarily involves instant and e-money payments (related to digital wallets, mobile payments, etc.) replacing traditional options.

Catalysts

- COVID-19 accelerated customer adoption of digital wallets, mobile payments, and virtual/contactless cards as touch-free, fast, and convenient payments became the norm.
- Digital payments are now globally ubiquitous, focusing on a feature-rich, hyper-personalized, end-to-end payment experience.
- E-commerce and m-commerce are now mainstream and prime shopping preferences for customers, making digital solutions the preferred payment method.
- Retail customers' increasing propensity to share their data with non-banks helps create custom-tailored payment propositions.
 - According to our survey, 86% of customers are willing to share their financial data with non-banks, and 70% are happy if non-banks make payments on their behalf, with their permission.²

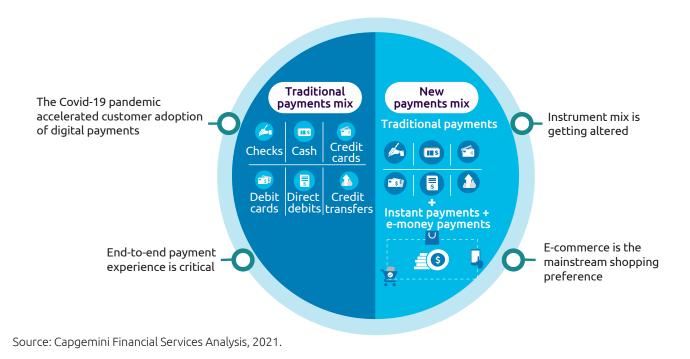
- Digital wallets are expected to overtake cash and card as the most popular in-store payment method.
 - Digital wallets are gaining significant traction in the payments ecosystem through their easy, convenient, and fast payment capabilities.
 - The number of mobile wallets in use is on track to reach 4.8 billion by 2025 (up from 2.8 billion in 2020) nearly 60% of the world's population.³
 - In the fastest-growing mobile wallets markets Southeast Asia, Latin America, and Africa & Middle East mobile wallets are displacing cash and cards.

² Capgemini, "World Payments Report 2021," October 7, 2021, Voice of Consumer survey, N=6,300.

³ Global Newswire, "Study: More than half of the world's population will use mobile wallets by 2025," July 8, 2021.

- Globally, contactless in-store payments via mobile wallet exceeded in-store cash and card payments for the first time in 2020. And by 2024, digital wallets will account for one in three in-store transactions globally.⁴
- Cash is moving out of the payments game.
 - In-store cash payments fell by ≥50% in 2020 in Canada, the UK, France, Norway, Sweden, and Australia.5
 - By 2024, expect to cash to account for less than 10% of in-store payments in the US and 13% of global payments.⁶
- The booming use of next-gen payments is sparking a new payments mix.
 - According to our analysis, by 2025, instant payments and e-money payments will account for >25% of global non-cash transactions, up from 14.5% in 2020.⁷
 - Increasing the use of next-gen payment methods buy now, pay later (BNPL), invisible, biometric, and cryptocurrency will be pivotal in driving the growth of non-cash payments.
- E-commerce is the growth engine behind digital payments proliferation and the payments' mix shift.
 - Digital wallets will account for more than half of all e-commerce payments worldwide by 2024.8
 - Traditional payment methods such as cards and cash-on-delivery are losing share quickly and may account for less than 40% of e-commerce payments by 2024.9
- Direct-to-customer (D2C) businesses are keen on leveraging next-gen payment solutions such as BNPL to increase conversion rate and optimize customers' payment experience.
 - Shopify has tied up with PayPal to provide end-to-end solutions for enabling Indian D2C businesses to accept cross-border payments without any hassles.¹⁰
 - Warby Parker, an American D2C designer eyewear brand, offers BNPL financing to customers by partnering with Affirm.
 To enhance the customers' payments experience further, the optical brand is expected to offer debit cards with direct access to pay-over-time functionality soon.¹¹

Figure 1: Traditional payments mix vs new payments mix



⁴ The Payers, "Digital wallets eclipse cash globally at POS for first time during pandemic, FIS study finds," February 25, 2021.

⁵ NFCW, "Mobile wallet transaction volumes overtake cash payments in stores," March 1, 2021.

^{6 &}lt;u>Ibid</u>

⁷ Capgemini, "World Payments Report 2021," October 7, 2021., "Chubb and Nubank Launch Fully Digital Life Insurance Offering in Brazil," December 1, 2020.

⁸ Yahoo Finance, "Digital Wallets Eclipse Cash Globally at Point of Sale for First Time During Pandemic," February 24, 2021.

⁹ IBS Intelligence, "FIS study reveals Cash bids a hasty retreat amid POS contraction," February 25, 2021.

¹⁰ Inc42, "#GoingD2C: Simplifying The Digital Payments Journey For India's D2C Brands," November 18, 2020.

¹¹ IBS Intelligence, "Affirm to launch Affirm Card with access to Buy Now, Pay Later functionality," February 26, 2021.

Impact

- COVID-19 sped the shift to permanent and irreversible digital contactless payments in 2022 and beyond.
- The payments industry will support a digital payments instrument mix and embrace next-gen payment methods to sustain growth.
- The pandemic increased the urgency for banks and payments firms to modernize payment systems, transform the payments mix, and increase affinity to digital payments.



New payment methods create smarter payments' infrastructure and/or better orchestration of current payment types, to deliver enhanced payment experiences that clients now demand."



- Shirish Wadivkar Global Head of Payments, Standard Chartered Bank, Singapore

DIGITAL ID INFRASTRUCTURE WILL BE THE KEY AS PAYMENTS BECOME TRANSPARENT

Contactless payments' popularity with consumers grew during the pandemic, which is prompting the need for a robust digital identity infrastructure in the Payments 4.X era.¹²

Context

- In the connected world of 2022, digital ID is a prominent tool for remote identification and authentication.
- Consumers and businesses demand safeguards from payment fraud and identity theft.
- Yet, the authentication process is fragmented and unwieldy, needing an overhaul to ensure a frictionless experience for customers in the Payments 4.X era.

Catalysts

- Banks, retailers/e-tailers, and other FIs count on digital identity verification to onboard customers.
- Global retail trends such as buy now, pay later (BNPL) also fuel needs for shopper identity verification.
- Digital ID solutions protect users against the abuse of personal data while shielding the payments system against money laundering and financial crime.
- Digital ID solutions can also help control the spike in online fraud online payment fraud is estimated to cost global businesses 1.8% of revenue every year.¹³

- Across the world, governments are launching national identity initiatives.
 - The European Commission hopes to launch an identity verification toolbox by September 2022, as part of its greater mission to achieve an open finance/open data economy.¹⁴
 - Several countries, including Australia, New Zealand, and Canada, have either implemented or are in the process of putting digital identity initiatives into effect.¹⁵
- Shared digital ID infrastructure will help unify access and pave the way for an open finance future.
 - Regulations such as PSD2 and open banking will thrive on a shared and integrated digital ID scheme that facilitates a payment authentication system that customers can access anytime, anywhere, and on any device.

¹² Payments 4.X, is a concept introduced in World Payments Report 2021 where Experience is the defining feature. Payments are embedded, invisible, and an enabling function in a collaborative environment to boost customer experience.

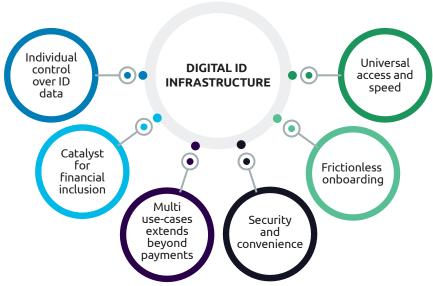
¹³ Ravelin, "Online payment fraud," accessed October 1, 2021.

¹⁴ The Paypers, "The growing importance of digital identity verification, interview with Mark Heymann," July 1, 2021.

¹⁵ Biometric update, "Governments in Australia and Canada investing in digital ID," February 3, 2021.

- With mobile payments expected to increase quickly, as many as five billion people may use digital ID platforms for authentication by 2024.¹⁶
- Digital identity verification is a crucial to ensure customer experience (CX) in the Payments 4.X era.
 - Nearly 30% of customers experience check-out process friction during online and in-store transactions.¹⁷
 - Strong Customer Authentication (SCA) under PSD2, which was scheduled to be implemented from October 2021, is reliant
 upon digital identity as the second level of authentication.¹⁸
- Globally, various industry associations and industry stakeholders are formulating uniform standards to build digital identity ecosystems.
 - The World Economic Forum launched a shared Platform for Good Digital Identity to bring together existing and new digital identity solutions that are inclusive, trustworthy, safe, and sustainable.¹⁹
 - Similarly, the World Bank's *Identity for Development* (ID4D) initiative aims at financial inclusion.²⁰
 - In the United States, the National Institute of Standards and Technology (NIST) published new guidelines to incorporate biometrics for password-less authentication and remote identity proofing.²¹
 - Industry stakeholders are demanding standards as market players collaborate to create ID solutions. For example, ID2020 is a blockchain digital identity alliance founded by private sector firms, United Nations agencies, and non-government organizations.²²
 - Eftpos became the first private digital identity exchange in Australia. The firm launched ConnectID in June 2021 to allow users to authenticate their identity with merchants, hotels, hospitals, insurers, and government agencies by linking to a verified digital ID.²³
 - Firms are also collaborating to create digital identity arrangements.
 - 10 Spanish banks, including Santander, Caixa, and Generali, worked together to develop Dalion a blockchain-based self-managed digital identity solution expected to launch in 2021.²⁴

Figure 2: Why is there a need for shared and integrated digital ID infrastructure schemes?



Source: Capgemini Financial Services Analysis, 2021.

¹⁶ Juniper Research, "Digital ID platforms to be used by 5bn people in 2024, as emerging economies go mobile-first," July 2019.

¹⁷ Capgemini, "World Payments Report 2021," October 7, 2021, Voice of Customer survey, N=6,300.

¹⁸ European Banking Authority, "Regulatory Technical Standards on strong customer authentication and secure communication under PSD2," accessed October 8, 2021.

¹⁹ World Economic Forum, accessed October 1, 2021.

World Bank, accessed October 1, 2021.

²¹ Biometric update, "Aware CCO pitches NIST Digital Identity Guidelines at Identity Week," September 24, 2021.

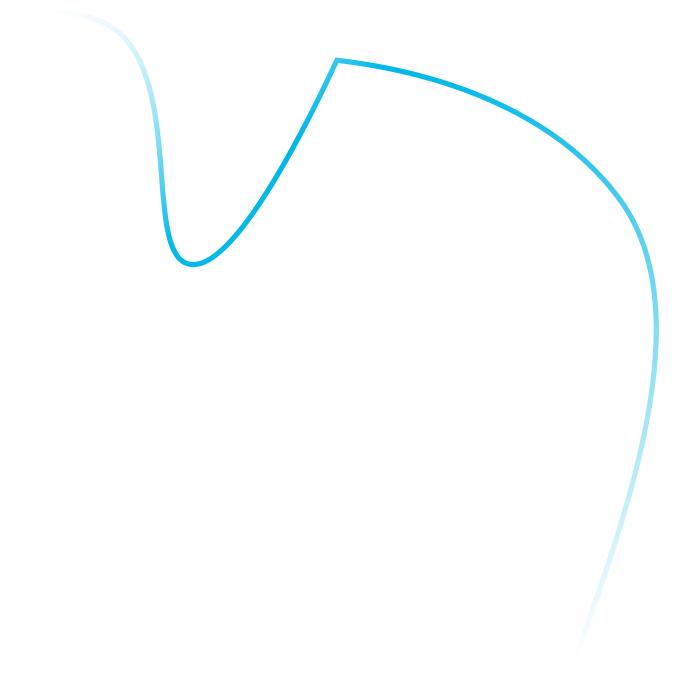
²² ID2020 website, accessed October 1, 2021.

²³ Pymnts, "Payments Network Eftpos Gets OK From Australia for Digital ID Verification," September 27, 2021.

²⁴ Santander, "Ten Spanish companies join forces to promote digital identity using blockchain technology," November 5, 2020.

Impact

- Expect to see more integrated and shared digital ID schemes that enable the payments industry to fight fraud on a global scale.
- Access to a single, unified digital ID will streamline the identity process and unlock new and enhanced consumer experiences in Payments 4.X.
- The digital identity market is growing, allowing banks to regulate data use, establish KYC functions, and boost consumer trust.
- Further, digital identity is important in the wake of growing adoption of digital currencies.



D2C AND OTHER NOVEL PROPOSITIONS FROM NON-BANKS EMPOWER SMBS AND MERCHANTS

Demand for digitalization from the SMB sector combined with emerging technologies, vast alternate data sources, and new credit models are paving the way for non-traditional players to serve this underserved customer segment.

Context

- Almost 40% of formal micro, small, and medium-sized enterprises (MSMEs) in developing countries, have unmet financing needs totaling USD5.2 trillion every year – equal to 1.4 times current global MSME lending.²⁵
- One in two small to mid-sized businesses (SMBs) cannot complete a formal credit check because they don't have extensive supportive data or collateral. Slow and cumbersome loan approval processes and strict policies are hindrances, too.²⁶
- To fill the gap left by the traditional lenders, new age players are coming in with tailored, innovative, and niche offerings to address SMBs' unique needs.

Catalysts

- SMBs often do not receive adequate and timely financing and current lending products cannot meet their needs.
- Time-consuming and costly due diligence, underwriting, and loan procedures make it unattractive for traditional lenders to serve SMBs.
- FinTechs and challenger banks are battling for dominance in SMB lending and changing the lending paradigm by embedding payments in their business models.
- · After the pandemic revved up the pace of digitalization, digital players jumped into the growing SMB market.
- Buy-now-pay-later (BNPL) firms such as **Klarna**, **Affirm**, **Afterpay** are adding direct-to-customer (D2C) layer on top of their activity to increase their total addressable market (TAM) or build differentiation.

 $^{^{25}}$ The World Bank, "Small and Medium Enterprises (SMEs) Finance," accessed October 8, 2021.

²⁶ <u>Ibid</u>.

- SMB lending has faced an uphill battle over the decades.
 - Often viewed as too unprofitable to justify significant investments, the SMB segment has historically fallen somewhere between a consumer and corporate in the eyes of the traditional financial institutions (FIs).
 - The global market opportunity for micro and small enterprises (MSEs) credit is estimated to be USD8 trillion, but more than half of it goes unmet.²⁷
- In a bid to serve unmet SMB sector needs with niche offerings, new-age non-banks are making strides in customer acquisition, underwriting, funding, and payments processing.
 - Indifi, an Indian FinTech, gathers and analyzes businesses' data from various sources and draws insights to judge their creditworthiness and their past and current performance to help them get secured loans.²⁸
- In Peru, **Tienda Pago** partners with fast-moving consumer goods companies for loan origination and vendor payments.²⁹
- UK-based FinTech **Tide** expanded into India prepared to invest more than USD10 billion over five years, planning to serve
 2 million SMEs.³⁰
- New-age players leverage technology to lower costs and offer innovative offerings to businesses.
 - **Funding Options**, a data-driven marketplace for SMEs in the UK, launched *Funding Cloud*, an integrated real-time cloud-based platform to navigate the complex and fragmented lending market.³¹
 - Mettle (a digital business account by NatWest) helps UK-based small business owners with invoice matching, tracking, and payment reminders alongside integrating with accounting to remove a significant administrative burden for SMEs.³²
 - Tel Aviv startup PayEm designed a spend and procurement platform specifically for global SMBs. It automates finance
 processes from request to reconciliation and streamlines reimbursement, procurement, accounts payable (AP) automation,
 and credit card processes into one centralized platform with cross-border capabilities.³³
 - Boston-based Forward Financing uses proprietary technology to allow businesses access to same-day financing to SMB in the United States.³⁴
 - Denmark digital challenger bank Lunar acquired Paylike to build out its proposition for business customers, enabling them
 to receive payments from customers without having to use an intermediary.³⁵
 - Hungary headquartered **CharlieIndia** developed *Invoice2RTP* solution enables banking customers to generate a payment request from invoice data, manage RTPs in one place, and automate invoice and payment data reconciliation.³⁶
- · Non-banks help businesses become closer to their customers with the help of innovative D2C propositions.
 - Indian FinTech Velocity aims to help small/medium brands draw actionable data-driven insights with its new product Velocity Insights, and offers dilution-free financing to accelerate their growth in the D2C business.
 - Sydney-based **Okendo**, a content marketing platform, helps brands scale the quality of their data for boosting customer acquisition and engagement. The firm has built a customer reviews system for **Shopify** (a D2C e-commerce platform) sellers.
 - Sweden-based Klarna partnered with US-based property Group Simon to provide shoppers with a variety of payment options.

²⁷ CGAP, "\$4.9 Trillion Small Business Credit Gap: Digital Models to the Rescue," June 4, 2019.

²⁸ Indifi, accessed October 1, 2021.

²⁹ <u>Tienda Pago</u>, accessed October 1, 2021.

³⁰ Financial Express, "UK-based fintech firm Tide enters India to tap the growing SMB market, to invest Rs 1,000 crore over the next five years," June 29, 2021.

³¹ Finextra, "Funding Options unveils cloud-based lending platform for SMEs," April 27, 2021.

³² Finextra, "Open Finance – don't forget about SMEs," March 1, 2021.

^{33 &}lt;u>Pymnts</u>, "'Hyper Growth' and Global Demand For Spend Management Luring Investors to B2B," September 1, 2021.

³⁴ Builtin, "55 Fintech Companies and Startups to Keep in Your Back Pocket," July 14, 2021.

³⁵ Finextra, "Lunar buys Paylike and launches one-step e-commerce checkout," October 12, 2021.

³⁶ Capgemini and Efma Financial NewTech Challenge, 2021.

³⁷ Inc42, "How This Fintech Startup Is Adding Velocity To India's D2C Brands," August 4, 2021.

³⁸ Tech Crunch, "Okendo raises \$5.3M to help DTC brands wean themselves off of Big Tech customer data," July 21, 2021.

³⁹ <u>WWD</u>, "Simon Teams With Klarna to Offer Guests In-store Payment Options," October 7, 2021.

Figure 3: Drivers and implications of new-age players plugging the gap in SMB lending and payments



Source: Capgemini Financial Services Analysis, 2021.

Impact

- Expect to see more innovative offerings built on data and intelligent analytics (alternate data-based models for easy and quick credit sanctions and loan approvals) in 2022 to improve CX for SMBs.
- As the gap between lending and payments shrinks, delinquencies and defaults may also go down as vendor payments, and supply-chain financing options become digital.
- As SMBs seek convenient and fast financing and payment options, industry players will integrate alternate data sources to help determine their credit scores and tap into the market.

BIGTECHS FORAY INTO B2B SEGMENT THROUGH PARTNERSHIPS

After a winning streak with P2P segment digital wallets, BigTechs seek expansion into more profitable segments – Merchant, SMB, and B2B.

Context

- BigTechs are sinking their teeth into the payments industry through investments in PayTechs and bank partnerships.
- Tech giants are motivated to capture and lock payments users into their ecosystems.
- They leverage payments as a stepping stone in their FinTech journey to expand their customer base.
- BigTechs are on a buying spree to expand their portfolios beyond digital wallets and P2P payments.

Catalysts

- B2B segment is at the tipping point of embracing digitalization and a profitable proposition to pursue.
- The complexity of B2B payment workflows calls for customized verticalized solutions across various subsegments.
- Unparalleled customer reach, data collection, and analytics put them in a B2B battle sweet spot.
- Through specialty player M&As and bank partnerships, BigTechs can target functions such as digital wallets and the payment front end, including gateways and acquisitions.

- Nearly 72% of banks consider BigTechs as competitive threats because of their deep pockets, platform-based capabilities, and customer outreach.⁴⁰
 - With robust ecosystems, BigTechs muscled their way into small and medium-sized businesses in recent years and are now well-positioned to tap B2B payments opportunities.
- Tech giants are taking advantage of gaps in SMB financing and working capital loans.
- As part of Amazon's USD1 billion plan to empower SMBs in India, the firm invested USD250 million to digitally enable 10 million micro, small and medium-sized enterprises (MSMEs) and support e-commerce exports worth USD10 billion while collecting credit data. Amazon's mobile app for SMBs, *Pay For Business*, simplifies digital payment acceptance and helps merchants manage day-to-day transactions.^{41,42}
- Meta (erstwhile Facebook) partnered with US black-owned Supplier Success to distribute early payments on receivables to diverse-owned businesses. The service offers next-day liquidity to diverse US-based suppliers at next to no cost.⁴³
- **Apple** acquired Canada-based **Mobeewave** to tap the potential of the SoftPOS (point-of-sale) terminal market as consumers and merchants shun cash in favor of contactless payments and touch-free interfaces.⁴⁴

⁴⁰ Capgemini, "World Payments Report 2021," October 7, 2021, Executive survey, N=164.

⁴¹ The Indian Express, "Amazon announces \$250 million fund for small, medium businesses in India," April 15, 2021.

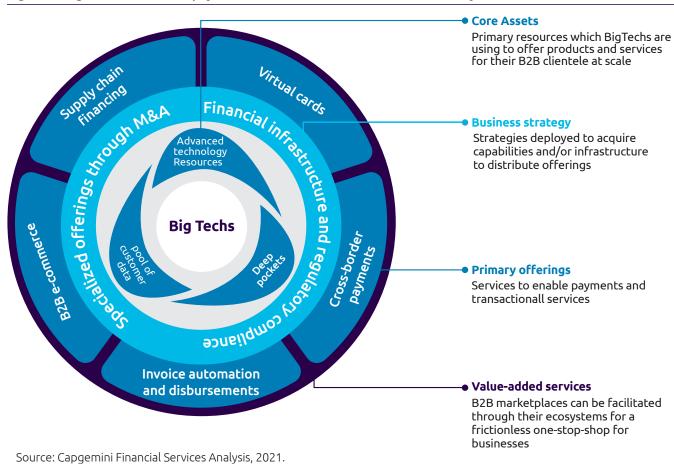
⁴² Amazon India, "50 lakh small & medium businesses now use Amazon Pay," April 17, 2021.

⁴³ PR Newswire, "Supplier Success Propels Facebook's Groundbreaking Receivables Financing Program Focused on Diverse-Owned Businesses," February 3, 2021.

⁴⁴ Pymnts, "Apple Buys Mobeewave For \$100M," August 2, 2020.

- BigTechs are venturing into the B2B world by partnering with banks in virtual cards, invoicing automation, B2B e-commerce, and cross-border payments.
 - According to the World Payments Report 2021 executive survey, 31% favored collaborating with technology and e-commerce giants to improve distribution.
- Targeting those without credit cards, *Fenfu*, a **Tencent** WeChat app, allows users in China to buy goods and pay later. It calculates interest immediately based on a rate of 0.04% per day, which annualized comes to about 14.6%. **Ant Financial** offers a similar service *Huabei*, whose users generally pay by installment.⁴⁵
- Ant Group partnered with JPMorgan to process payments made by merchants in their marketplace via US credit cards.⁴⁶
- **Goldman Sachs** is integrating data shared by third-party **Amazon** sellers into its digital underwriting decision platform to provide inventory and operational financing that support the growth of businesses.⁴⁷

Figure 4: BigTechs boost their payments business via collaboration and ecosystem network effects



Impact

- SMB lending is slowly moving to BigTechs, which may benefit them being successful with B2B payments in the long run.
- However, regulatory antitrust initiatives may hinder or prohibit BigTech's monopolistic M&A behavior within the industry.
- As a result, BigTechs may narrow their focus to financial product distribution and emerge as B2B marketplaces that do not compete with banks a win-win situation.
- In 2022, banks will compete with technology giants while also collaborating regarding capabilities and reach.

⁴⁵ Tech in Asia, "Tencent launches virtual credit card service," March 27, 2020.

⁴⁶ Finextra, "JP Morgan starts processing US credit cards on Alibaba.com," September 16, 2021.

⁴⁷ ZDNet, "Goldman Sachs banking-as-service plans accelerate with Amazon, Apple partnerships," July 16, 2020.

COST AND OPERATIONAL ADVANTAGES DRIVE BANKS TO EMBRACE OPEN ECOSYSTEMS

The payments industry is witnessing collaboration as firms are interested in reaping benefits from investments they already made – progressing towards industrializing their innovation.

Context

- The great digital transformation pushed the payments industry to consider open ecosystems as a strategy to succeed in the Payments 4.X era.
- Open ecosystems bring stakeholders with common objectives together to create more value for end users consumers or businesses.
- Firms are embracing open ecosystems to gain efficiencies at scale while reducing costs through shared utilities.

Catalysts

- Open ecosystems can drive more cross-functional and cross-sectoral collaborations in data aggregation, consent management, digital know your client (KYC), and credit ecosystem for the underbanked/unbanked.
- A conduit to help partner ecosystems scale up, open ecosystems can help expand service and product portfolios.
- The growth of cloud technology adoption is helping firms collaborate by facilitating real-time and fast exchange of data among parties.

- Banks are collaborating to amplify their efforts in e-KYC, transaction monitoring, cross-border payments, and cybersecurity.
 - Transaction Monitoring Netherlands (TMNL) is a joint venture that has been set up by Rabobank, ING, ABN Amro, Triodos Bank, and de Volksbank to monitor transactions and prevent financial crime.⁴⁸
 - The UAE sponsors a nationwide e-KYC blockchain consortium that offers a blockchain-powered data-sharing platform that
 maintains almost half of all corporate e-KYC records in the Emirates.⁴⁹
 - Trade finance consortiums such as we.trade (a joint-venture and a blockchain-enabled platform owned by 12 European banks and IBM) and the Marco Polo Network solve working capital finance issues, late invoice payments, cyber fraud, and pre-payments requested by sellers.^{50,51}
 - Development Bank of Singapore (DBS), JPMorgan, and Temasek established an open platform, Partior, to streamline cross-border payments.⁵²
 - Regional initiatives such as **P27** (pan-Nordics real-time payments scheme) are also a collaborative effort to fight operational inefficiencies in cross-border payments.

 $^{^{\}rm 48}$ $\underline{\rm FinTech\,Futures},$ "Major Dutch banks launch AML joint venture," July 13, 2020.

⁴⁹ Fineksus, "UAE KYC Blockchain Consortium," accessed October 1, 2021.

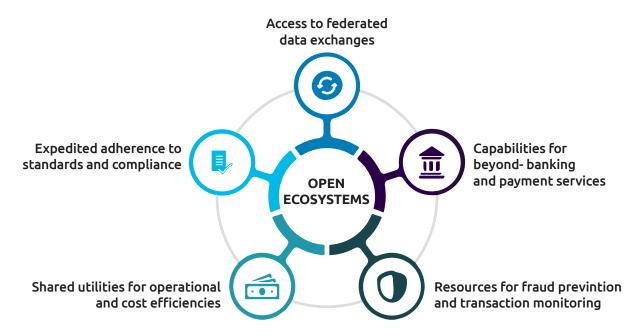
⁵⁰ We.Trade, accessed October 1, 2021.

⁵¹ Marco Polo Network, accessed October 10, 2021.

⁵² JPMorgan, "DBS, J.P. Morgan and Temasek to establish platform to transform interbank value movements in a new digital era," April 28, 2021.

- The DirectBooks platform owned by Deutsche Bank, Bank of America, Barclays, BNP Paribas, Citi, Goldman Sachs,
 JPMorgan, Morgan Stanley, and Wells Fargo is building a shared infrastructure the banks use to communicate about corporate bond opportunities. The platform delivers industry standardization and automation.⁵³
- API-based data ecosystems enable financial institutions to understand customers better and provide added value throughout the customer lifecycle.
 - Wells Fargo joined the Akoya data exchange platform to access its customers' account information.⁵⁴
 - In Singapore, SGFinDex is a public consent management digital infrastructure to enable individuals to access their financial information held across different government agencies and financial institutions. Moreover, leading banks such as
 United Overseas Bank are embedded within the platform to provide additional products and services for customers across physical and digital touchpoints.⁵⁵

Figure 5: Power of open ecosystems in payments



Source: Capgemini Financial Services Analysis, 2021.

^{53 &}lt;u>Direct Books</u>, accessed October 1, 2021.

Business Wire, "Wells Fargo Joins the Akoya Data Access Network to Advance API-based Financial Data Aggregation," June 22, 2021.

⁵⁵ Monetary Authority of Singapore, "Singapore Financial Data Exchange (SGFinDex)," accessed October 1, 2021.

Impact

- Beyond creating a more customer-centric environment, open ecosystems also support financial institution portfolio and risk management goals.
- Open ecosystems make particularly good sense within low-profit environments because they offer FIs a cost-effective way to meet consumer demand while utilizing digital efficiencies to streamline operations.
- Being part of industry consortiums also helps firms to adopt standards and rule books.



While regulators are striving to attain market equilibrium in payments, it might also impose pressure on the payment players (both traditional and new-age). To reduce this pressure, players have started collaborating through initiatives such as EPI/P27 to attain low-cost effectiveness drive."



– Claus Richter COO, P27

PAAS AND DATA-BASED API **BUSINESS MODELS HELP** UNLOCK NEW FRONTIERS

To generate new revenue streams from financial and non-financial partnerships, banks and payments firms need to build a strategy for leveraging APIs and open banking.

Context

- · Disrupted by the rise of new-age business models and growing customer preference for alternate payment methods, the traditional revenue models are dwindling on profitability.
- The Payments 4.X era calls for API maturity and data monetization. Although banks embraced open banking, the majority are still not ready for the API economy.
- To remain competitive and profitable in the payments business, firms must embrace a partnership-based ecosystem strategy.
- Firms are considering PaaS as an option to reduce costs and expedite go-to-market timelines.

Catalysts

- · Open banking provides the potential for a revenue goldmine as firms can leverage APIs to expand product offerings and generate new revenue streams.
- · Ongoing technology transformation investments, migration to real-time payment infrastructure, and other modernization initiatives such as ISO 20022 offer the necessary ammunition to succeed.
- With many corporate clients looking to rationalize their bank relationships, banks should consider investing in new data-led services.
- As banks are custodians of vast B2B/B2C customer transaction data, the existing environment is friendly for banks to treat the data as an asset class.

- As high as 45% of executives rate their payments business to be slightly unprofitable to highly unprofitable.
 - Traditional methods (checks, cards), which currently contribute 73% of total payments revenue, are losing profitability. By 2025, this share is expected to decrease to 45%, paving the way for new payment methods (API fees, data monetization).56
- Only 18% of banks are ready for Payments 4.X era in leveraging customer/transaction data.⁵⁷
 - What is impeding data capability development? The perception of regulation as a hindrance, a lack of skill sets to harness data, and little expertise about treating data as an asset.

⁵⁶ Capgemini, "World Payments Report 2021," October 7, 2021, Executive survey, N=164.

⁵⁷ <u>Ibid</u>.

- From an operational model, 38% of banks consider as-a-Service models to improve profitability.
 - UK-based Lloyds Banking Group entered a strategic partnership with UK FinTech Form3 to develop a cloud-native Payments-as-a-Service (PaaS) platform.⁵⁸
 - Australia's Westpac onboarded BNPL provider Afterpay as its first partner on its BaaS platform.⁵⁹
 - However, banks have not unleashed the fullest potential of APIs, which is essential for offering a robust platform. Currently, transactional APIs remain the primary revenue earner.
 - A whopping 75% of the firms think that leveraging Payments-as-a-Service (PaaS) will help overcome the challenges posed by their current processing platform.⁶⁰
 - More than one-third of the firms started implementing PaaS and believe that they might realize the benefits within a year after completing implementation.
 - CapEx avoidance with a "rent what you need now" approach, flexibility to add new functions, payment schemes, and clearing access, and ability to launch new products faster are expected to be the key benefits of PaaS.
- Governmental support of open banking helped non-banks emerge with novel offerings.
 - Several infrastructure players such as Marqeta have emerged as licensed infrastructure providers that power data and API access to power customer-facing propositions – thus making It easier for banks and FinTechs to implement payment functionalities.
 - UK-based PayTech **GoCardless** launched an open banking payments (OBP) feature, *Instant Bank Pay*, that offers merchants a low-cost way to collect instant payments and stave off card dominance for one-off payments.⁶¹
 - Klarna, a Swedish FinTech offering payment plans, social shopping, and finance to consumers, recently partnered with Simon, the largest shopping center operator in the United States. Their strategic multi-year alliance will give Simon shoppers access to Klarna's unique in-store payment solutions. A key benefit for Simon is that Klarna users tend to be younger than those who typically visit shopping centers.⁶²

Figure 6: Collaboration can help firms capitalize on open banking and API-based business models

Distribution (Customer-facing)

- Dominated by e-commerce players e.g., Shopify, Amazon, Tencent
- · Good at marketplace economy and generate network effects

Infrastructure (Inward looking/back-end) • Native embedding of on-demand infrastructure requirements for real-time payments processing, messaging, smart routing, cross-border payments. E.g., SWIFT, Finix Volante-Ripple Connection (FinTech/3rd party-facing) • Compliance-as-a-service, consent management, federated digital ID. E.g., Plaid, Qover, Intuit, Quickbooks

Source: Capgemini Financial Services Analysis, 2021.

⁵⁸ Retail Banker International, "Lloyds taps payments fintech Form3 to deliver digital transformation," July 22, 2020.

⁵⁹ Westpac, "Westpac and Afterpay announce partnership," October 20, 2020.

⁶⁰ Capgemini</sup>, "World Payments Report 2021," October 7, 2021, Executive survey, N=164.

⁶¹ Finextra, "GoCardless launches open banking payments," April 27, 2021.

⁶² Forbes, "Klarna And Simon Enter Into New Partnership To Drive Traffic To Malls," October 6, 2021.

- Open banking is also paving the way for a direct-to-business (D2B) model where payments firms, through partnerships with banks, sell their products or services directly to businesses.
 - UK-based PSP named Netpay International, through its partnership with over 100 acquired banks is providing multi-level
 marketing (MLM) companies with tailor-made credit card and payment processing and low rates.⁶³
 - Optiopay, a Germany-based firm developed a unique solution that uses bank account data and its applicability for every industry to provide end-customers with personalized value-added services.⁶⁴
- Traditional firms/incumbents are collaborating with specialists to develop data processing and sharing capabilities.
 - US-based Silicon Valley Bank partnered with San Francisco-based FinTech Plaid to allow clients to instantly authenticate bank account information and securely generate payments via a tokenized solution.⁶⁵
 - Visa plans to acquire open banking firm Tink in a EUR1.8-billion deal to leverage its aggregated dataset from 3,400 FIs through API connection.⁶⁶
- Banks realize that they have reached a critical window of opportunity to roll out open banking and drive API innovation:
 - ING-backed Yolt is repositioning itself by shifting focus from consumer-facing to business clients.⁶⁷

Impact

- Open-banking and data-based API models are critical success factors in Payments 4.X era.
- Banks must build foundations that deliver flexibility and agility to respond to corporate clients' evolving needs by lowering costs for standardized, accurate, and complete real-time payments data.
- In 2022 and beyond, payments leaders will craft an API strategy that prioritizes customer-centric solutions versus products.



We are entering an era of an explosion in data in payments. Players who truly harness the value of that data for customer good will win."



Shane Conway,
 Executive,
 Transaction Banking & Enterprise Payments, National Australia Bank, Australia

⁶³ Netpay, "Direct selling," accessed October 12, 2021.

⁶⁴ Capgemini and Efma Financial NewTech Challenge, 2021.

⁶⁵ Silicon Valley Bank, "Silicon Valley Bank and Plaid Partner to Provide Secure and Efficient Tokenized Payment Solutions," September 15, 2021.

⁶⁶ Tink, "Visa signs agreement to acquire Tink," June 24, 2021.

⁶⁷ ING, "Yolt to focus on growth of Yolt Technology Services as it intends to close its smart money app," September 8, 2021.

CYBERSECURITY IS CRITICAL AS DATA BECOMES NIMBLE IN THE OPEN FINANCE FUTURE

The rise in digital payment methods fueled by the pandemic is spurring cybersecurity concerns – a critical challenge for FIs and PSPs.

Context

- Since new payment methods came into play, cybersecurity has been a top priority for financial institutions and payments service providers.
- As more and more consumers embraced new payments systems in the wake of the pandemic, cybersecurity became even more important.
- Account takeover fraud rose from 34% in 2019 to 54% in 2020 a wake-up call that cybersecurity is a growing threat. 68
- FIs and PSPs are investing in cloud technology, automation, and analytics to protect sensitive data and mitigate emerging cyber risks.

Catalysts

- Non-cash transaction volume worldwide is set to reach 1.8 trillion by 2022, up from 0.78 trillion in 2020, an 18.6% CAGR, which calls for enhanced cybersecurity.⁶⁹
- The growing use of internet-based banking and new payment methods for e-commerce transactions makes cybersecurity challenges more daunting.
- Payments innovations aim to improve customer experiences such as BNPL and cryptocurrency while cyber threats escalate.
- Cyber fraud shot up in the wake of the pandemic.70

- Globally, countries are transitioning innovatively from a cash-based economy to a digital payment ecosystem spurred by COVID-19 conditions.
- The rapid shift in consumers' payment behavior to new payment methods has accelerated cyber threats to payment systems.
 - The 2021 World Payments Report Voice of Customer survey found that nearly 45% of consumers use new payment methods such as mobile wallets to make payments, up from 23% in the 2020 poll.
 - As more people turn to online payments, cyber threats have grown, with a Mastercard survey reporting that one out of four consumers experienced some kind of fraud in 2020 – a nearly 49% increase in cybercrime.⁷¹
- As a result, banks and FinTechs are reinvesting in automation and advanced analytics to build consumer confidence for online payments.

⁶⁸ Info security, "Fraudsters Ramped Up Account Takeover Attacks in 2020," February 3, 2021.

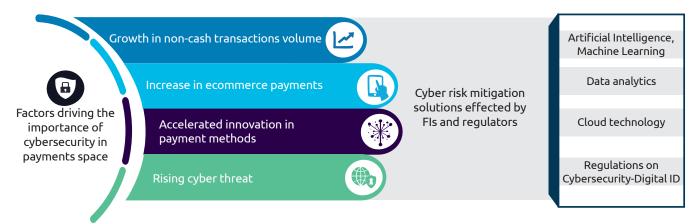
⁶⁹ Capgemini</sup>, "World Payments Report 2021," October 7, 2021.

⁷⁰ <u>ACFE Insights</u>, "Third Edition of the COVID-19 Benchmarking Report Released," December 18, 2020.

⁷¹ CNBC, "Rise in online payments spurs questions over Cybersecurity and privacy," June 30, 2021.

- A significant majority of Asia-Pacific banks (93%) are likely to upgrade or enhance their compliance systems. The FICO survey highlighted that 73% of Singaporean banks believe AI will strengthen anti-money laundering (AML) efforts.
- In Mexico, BBVA is revamping cards by adding biometrics, removing account details printed on the card's surface, and using 86% recycled materials.⁷³
- **Swedbank** enhanced its fraud platform to apply insights from machine learning and shared data to transition from a rules-based to a holistic fraud-management approach.⁷⁴
- Payments platform **Stripe** launched a self-service identity verification system for online businesses that leverages computer vision and AI to match official IDs from over 33 countries.⁷⁵
- CaixaBank, in partnership with fraud prevention company Revelock, developed an AI-based solution into its online banking platform, CaixaBankNow, to prevent fraud in digital banking channels.⁷⁶
- In addition to financial institutions, regulators also seek to alleviate cyber risks and protect citizens better through stringent cybersecurity regulations and data protection frameworks.
 - The **United Arab Emirates** endorsed facial biometrics for some sectors in the country in February 2021 to ensure efficient identification of individuals, preventing fraud.⁷⁷
 - Australia's 2020 cybersecurity strategy includes government investment of AUD1.67 billion through 2030 to achieve the country's vision of a more secure online world.⁷⁸
 - The **Reserve Bank of India** (RBI) rolled out a new rule in 2021 that requires customers to provide additional authentication for automatic payments from debit, credit cards, or wallets.⁷⁹

Figure 7: Pandemic accelerated cashless payments – bringing cybersecurity to the spotlight



Source: Capgemini Financial Services Analysis, 2021.

Impact

- In 2022, expect firms to implement a combination of digital identity, automation, and analytics to derive insights that reduce cyber risks and offer value-added customer services.
- Beefed-up cyber-risk assessments will help mitigate financial losses from cyber-attacks such as data theft. The result? Retention of customer and stakeholder trust.

⁷² <u>Futurecio</u>, "Singaporean banks hopeful AI can help in AML efforts," September 25, 2020.

⁷³ American Banker, "BBVA debuts biometric cards in Mexico as test run for global rollout," July 12, 2021.

 $^{^{74}}$ The Paypers, "Swedbank, ACI Worldwide to combat fraud and comply with SCA," July 6, 2021.

⁷⁵ <u>Al Magazine</u>, "Stripe Launches Al-Based Identity Verification System," June 16, 2021.

⁷⁶ The Paypers, "CaixaBank and Revelock develop AI powered fraud prevention solution," September 20, 2021.

⁷⁷ <u>Biometric update</u>, "UAE Cabinet approves trial of facial recognition for private sector services," February 17, 2021.

⁷⁸ Prime Minister of Australia, "Australia's 2020 cyber security strategy," accessed September 2021.

⁷⁹ Livemint, "Debit card, credit card auto-payment: RBI new rule on recurring payment from April," March 30, 2021.

PAYTECHS FOCUS ON MARKET EXPANSION AND M&AS TO IMPROVE PROFITABILITY

Payments are an FS market-entry gateway, but profitability and business sustainability depend on expanding beyond payment functions. That's why newcomers such as PayTechs are strategically diversifying to get an edge over incumbents.

Context

- FinTechs use the highly commoditized and low barrier-to-entry payments segment to get a toehold within the traditional financial market, thanks to PSD2.
- Data-driven hyper-scalers move on from payments and set their sights on diversifying offerings, building ecosystems, and achieving profitability and business resilience.
- New-age payments firms (PayTechs) are already in the Payments 4.X era by enhancing scale and capability beyond financial services.
- The platform acumen of these new players generates network effects that spark scale, adoption, and sustainability in an expanding ecosystem.

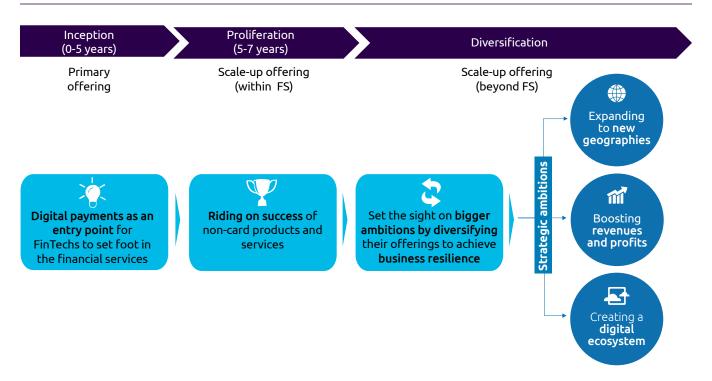
Catalysts

- PayTechs (FinTechs initially focused on niche areas such as payments and lending) are branching out into a wide range of complementary FS and non-FS sectors such as wealth, brokerage, insurance, and entertainment.
- Limited revenue from legacy payments business such as transaction and interchange fees brings low profitability challenges and lack of sustainability into focus.
 - Therefore, PayTechs rely on diversification to venture into other business areas to attain profitability and long-term business model sustainability.
- PayTechs are using various strategic roadmaps to support their diversification efforts to achieve profitability and business resilience.
 - Expanding to new geographies: PayTechs pivot to new business segments to support rapid growth into new markets.
 - Boosting revenues and profits: PayTechs, especially those backed by VCs where growth is a key performance indicator, are
 driven to grow revenues and profits.
 - **Creating a digital ecosystem**: PayTechs launch new service streams to orchestrate a digital ecosystem that performs as a one-stop-shop catering to a wide variety of customer needs.
- Keen on diversifying to other business segments, PayTechs will accomplish it through partnerships and acquisitions, driving up industry consolidation.

In a nutshell

- Payments are a gateway for market entry, and profitability lies in expanding to other functions.
 - Adyen relied on continued diversification from its primary e-acquiring offering to multiple verticals, merchant bases,
 - Stripe is building its global payments and treasury network to expand its suite of software and services to help ambitious businesses boost revenue. It also launched Stripe Identity, an ID verification system to help online enterprises reduce fraud.80,81
 - The firm recently announced its plan to acquire India-based payments software firm **Recko** to expand beyond its core offering of payment acceptance and look at payment reconciliations apart from offering payment infrastructure to businesses.82
 - Square, which offers mobile payments and a full suite of tools for SMBs, acquired music service Tidal.83 The move is part of the firm's strategy to build ecosystems around merchants/sellers and consumers and expand its user base to include artists
- PayPal bolsters its strategy to diversify its digital payments ecosystem with a broad range of merchants and end consumers is facilitated by launching various ancillary FS-products and services.
 - The firm, which began its journey as a digital wallet and payment processing service, has become a BigTech super app that offers savings, bill payments, personal financial management (PFM), buy now, pay later (BNPL), and cryptocurrencies under one roof.

Figure 8: PayTechs keen on business resilience through diversification



Source: Capgemini Financial Services Analysis, 2021.

⁸⁰ Stripe, "Stripe has raised a new round of funding to accelerate momentum in Europe and reinforce enterprise leadership," March 14, 2021.

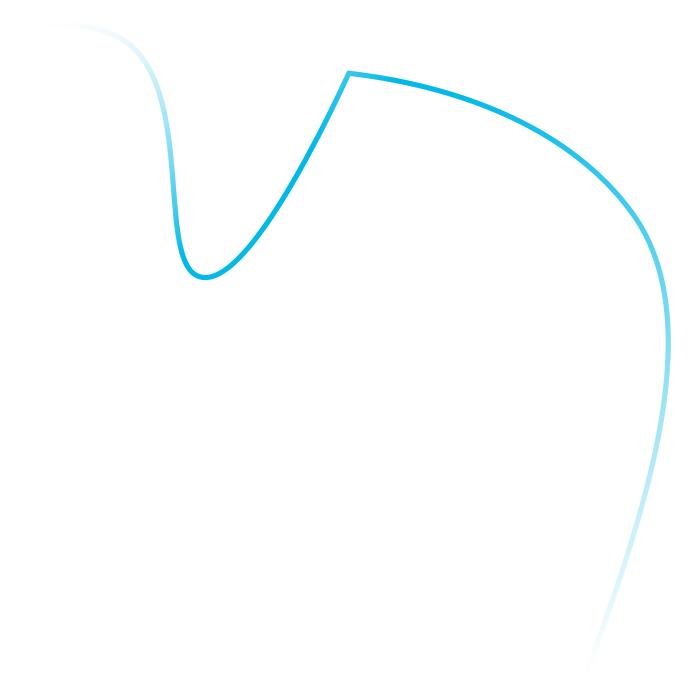
⁸¹ Stripe, "Stripe launches Stripe Identity, an identity verification tool to increase trust online," June 14, 2021.

⁸² Stripe, "Stripe will acquire Recko to help internet businesses automate payments reconciliation," Octpber 20, 2021.

⁸³ CNN Business, "Square to acquire majority stake in music service Tidal for \$297 million," March 4, 2021.

Impact

- In 2022 and the years ahead, the payments industry will shift from payments as a *product* to becoming *an enabling function* for customer reach and CX.
- PayTechs diversify their businesses and offer a gamut of financial services beyond payments to act as a single-stop shop for customer needs in various sectors.
- PayTechs have the edge over incumbents in their pursuit of diversification because they can change up quickly thanks to technological agility and data prowess.
- As firms more widely share infrastructure and data via platforms, payments will become embedded, invisible, and an enabling function in a collaborative environment that boosts CX, which is at the heart of the impending Payments 4.X era.



CONSOLIDATION REMAINS UNABATED DRIVEN BY NEED FOR ECONOMIES OF SCALE

Payments firms are taking the inorganic approach to expand the scale of their offerings and geographic reach.

Context

- The highly fragmented and disruptive payments industry is witnessing massive waves of mergers and acquisitions (M&A) activity over the past decade.
- Payments firms realize the need for consolidation to increase their scale of operations, expand their portfolio, and extend their geographical reach.
- This consolidation trend is visible across all the players in the payments landscape, ranging from FinTech-FinTech, Bank-FinTech, and PSP-FinTech.

Catalysts

- The need to become resilient and sustainable encourages payments firms to scale up and expand their operations, portfolio, and geographical reach through consolidation.
- New-age players that started with specialized/niche offerings find M&As as an effective tool to grow across the value chain.
- · Firms can save costs by consolidating with a technology player or large FI compared to curating in-house.
- M&As also help in leveraging readily available resources of another firm rather than reinventing the wheel.

- Payments service providers and card schemes have been actively pursuing M&A initiatives to accentuate their capabilities.
- Global Payments recently purchased SaaS firm MineralTree, which provides accounts payable automation and B2B payment solutions.⁸⁴
- Visa's planned acquisition of Tink brings together Visa's proven infrastructure, with Tink's APIs, to boost open banking adoption in Europe.⁸⁵
- Ireland-based financial service company **Stripe** acquired **Bouncer**, a fraud-fighting authentication firm, in May 2021 to enhance Stripe's fraud prevention tool – *Radar*.⁸⁶
- In September 2021, Mastercard agreed to acquire Aiia, a Danish open banking technology company, to expand its geographic reach of the open-banking ecosystem.⁸⁷
- Incumbents leverage inorganic approaches for geographical and portfolio expansion.
 - Deutsche Bank acquired Better Payment, a Berlin-based PSP, recently to expand in the fast-growing market for online payments processing and acceptance.⁸⁸

⁸⁴ Finextra, "Nedbank and Mastercard team on WhatsApp payments for small businesses," April 26, 2021.

^{85 &}lt;u>Tink</u>, "Visa signs agreement to acquire Tink," June 24, 2021.

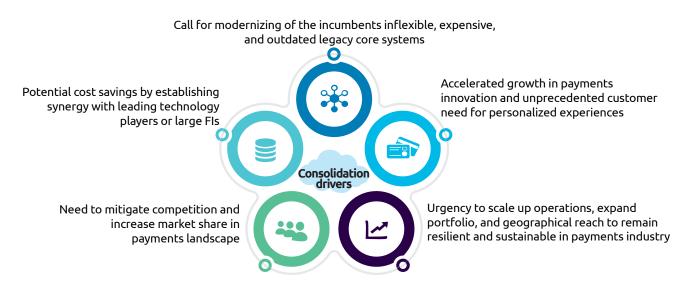
⁸⁶ Stripe, "Stripe acquires Bouncer to help businesses with fraud prevention," May 14, 2021.

⁸⁷ American Banker, "Mastercard buying Danish open-banking tech firm," Septembber 7, 2021.

^{88 &}lt;u>Finextra</u>, "Deutsche Bank acquires Better Payment," September 20, 2021.

- European payments firm **Worldline** acquired a controlling 51% stake of acquitting business of **Australia and New Zealand Banking Group** (ANZ) in a significant effort to expand outside Europe.⁸⁹
- Canadian payments-processing firm **Nuvei** acquired Dutch PSP **Smart2Pay** to raise its profile among high-growth digital commerce verticals and expand its geographic footprint.⁹⁰
- Stripe acquired Nigerian payments startup Paystack to expand its API-based payments services into Africa.91
- Netherlands-based **PayU** acquired India's **BillDesk** in a whopping USD4.7 billion to become one of the leading online payment providers globally by volume, processing nearly 4 billion transactions annually.⁹²

Figure 9: Drivers of consolidation era that reshapes the payments industry



Source: Capgemini Financial Services Analysis, 2021.

Impact

- As consolidation continues, payments firms might bulk up to offer a one-stop shop for end-to-end services and provide a wide variety of value propositions.
- · By sharing complementary capabilities through mergers, payments firms can quickly adapt to rapidly evolving market needs.
- We expect consolidations to be a near- to short-term trend as firms offset negative returns from unprofitable segments/ markets.



Payments infrastructure consolidation, along the lines of business or players will continue to evolve. It serves as a constructive model to reduce existing barriers while unlocking opportunities for the industry and users."



Mehdi Manaa,CEO, BUNA Payment platform, UAE

⁸⁹ ANZ, "ANZ enters joint-venture with Worldline to provide leading payments technology and merchant services in Australia," December 15, 2020.

⁹⁰ Nuvei, "Nuvei completes acquisition of Smart2pay, strengthens presence in high-growth digital markets and expands payment methods," November 2, 2020.

⁹¹ <u>TechCrunch</u>, "Stripe acquires Nigeria's Paystack for \$200M+ to expand into the African continent," October 15, 2020.

⁹² Business Standard, "PayU acquires BillDesk for \$4.7 bn in one of largest Indian fintech deals," September 1, 2021.

GROWING INTEREST ON CBDCS DEMAND FUTURE-READINESS

Central banks are exploring digital currencies as a potential solution to challenges such as low financial inclusion, money laundering, and unregulated cryptocurrencies increasing in circulation.

Context

- The payments ecosystem is transforming as cashless transactions become increasingly popular among consumers and private digital currencies emerge.
- Adoption of privately owned digital currencies such as bitcoin may lead to systemic monetary instability.
- Realizing the importance of developing digital fiat currency, as many as 86% of the world's central banks are exploring digital currency in various use cases, according to a Bank of International Settlements (BIS) 2021 survey.⁹³

Catalysts

- Globally, cryptocurrency transactions rose by 32% QoQ in Q2 2021, with Asia as the frontrunner recording a 44% increase.94
- Cryptocurrency adoption is rising as 45% of consumers say they are willing to use cryptocurrency payments in the next one to two years.⁹⁵
- Private cryptocurrencies could become a money laundering and terrorist financing threat, thus challenging monetary policies.
- Implementing Central Bank Digital Currency (CBDC) could help curtail high cross-border transaction costs and reduce settlement times.

- As private cryptocurrencies gained momentum, central banks started to experiment and work on CBDC use cases.
 - The People's Bank of China's digital yuan is on track to debut for the 2022 Winter Olympics, where huge transaction volumes are likely to be recorded.^{96,97}
 - Central banks in the United States, France, Sweden, and Russia are supporting CBDC pilots. 98,99,100,101
 - While Canada and the European Union actively plan pilot phases, Argentina and New Zealand demonstrate a growing interest in CBDCs.^{102,103,104,105}

⁹³ BIS, "BIS Innovation Hub work on central bank digital currency (CBDC)," accessed September 2021.

⁹⁴ IBS intelligence, "Coinbase reports Global cryptocurrency transaction volumes rose 32%," July 19, 2021.

⁹⁵ Capgemini, "World Payments Report 2021," October 7, 2021.

⁹⁶ China briefing, "China's Digital Yuan: Development Status and Possible Impact for Businesses," May 12, 2021.

Central Banking, "PBoC's digital yuan on track for 2022 Winter Olympic debut," September 21, 2021.

⁹⁸ Finextra, "Digital Dollar Project preps US CBDC pilots," May 3, 2021.

⁹⁹ Banque de France, "Banque de France conducts a new Central Bank Digital Currency experiment," June 21, 2021.

¹⁰⁰ Bloomberg, "Swedish Central Bank Reveals First Study of Digital Currency," April 7, 2021

 $^{^{101}}$ Coindesk, "Bank of Russia Eyes Digital Ruble Prototype in Late 2021," March 11, 2021.

¹⁰² Finextra, "Pandemic accelerates Bank of Canada's CBDC work," February 10, 2021.

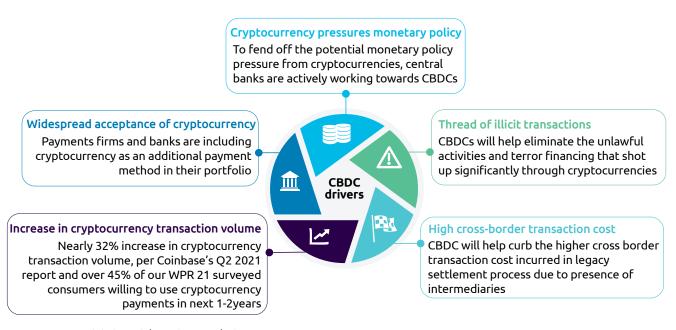
¹⁰³ ECB, "Eurosystem launches digital euro project," July 14, 2021.

 $^{^{104}}$ <code>Decrypt</code>, "Argentina Is Starting to Think About a Digital Peso," February 12, 2021.

¹⁰⁵ Coindesk, "Reserve Bank of New Zealand to Consult on Potential CBDC," July 7, 2021.

- As central banks contemplate CBDC adoption, three implementation approaches are being considered-retail, wholesale and hybrid CBDCs.
 - Retail CBDC issued publicly through e-wallet for retail transactions is underway in China and Sweden. 106,107
 - Wholesale CBDC issued to facilitate cross-border settlements between banks. The Monetary Authority of Singapore (MAS) and the Banque de France successfully experimented with settlements involving multiple CBDCs.^{108,109}
 - Hybrid CBDC a two-tiered model issued to the public and intermediaries is underway in Russia and China. 110,111
- CBDCs may bolster financial inclusion by enabling financial access to unbanked populations.
 - The **Reserve Bank of India** introduced the contactless payments instrument *e-RUPI* in 2021.¹¹² e-RUPI is a person-specific digital gift card in the form of a QR-code or SMS string that doesn't require a bank account, smartphone, or middleman interference. The move is a precursor to India's plan to launch a digital currency.
- Banks and technology giants are supporting distributed ledger technology (DLT)-based cryptocurrencies.
- JPMorgan's digital currency JPM Coin, through its JPM Onyx platform, is being used commercially by various firms for cross-border payments.¹¹³
- Citi Bank launched a digital assets group to help clients invest in cryptocurrencies, stable coins, non-fungible tokens, and central bank digital currencies.¹¹⁴

Figure 10: CBDC is likely to affect the payments industry significantly



Source: Capgemini Financial Services Analysis, 2021.

¹⁰⁶ <u>Ibid</u>.

¹⁰⁷ Reuters, "Sweden to bring in banks in next stage of e-krona project," April 6, 2021.

¹⁰⁸ <u>Asia Times</u>, "Singapore developing wholesale CBDC," November 23, 2020.

¹⁰⁹ Coindesk, "Banque de France Extends Wholesale CBDC Experiment," June 21, 2021.

The Paypers, "Bank of Russia presents new CBDC concept," April 9, 2021.

¹¹¹ Central Banking, "Some thoughts on CBDC operations in China," April 1, 2020.

¹¹² Livemint, "All you need to know about e-RUPI and its disruptive potential," August 4, 2021.

Ledger Insights, "JPM Coin goes into production, launches JP Morgan Onyx blockchain unit," October 27, 2020.

¹¹⁴ Banking Drive, "Citi launches digital assets unit, confirming crypto plans," June 25, 2021.

Impact

- We expect the introduction of CBDC to spark a more robust, efficient and trusted legal tender-based payments option.
- · Apart from improving financial inclusion, other use cases such as cost-effective cross-border payments, streamlined trade finance activity can be potential outcomes.
- Firms may leverage CBDC to curb money laundering because centralized blockchain technology will enable secure monitoring and reporting.
- Although a novel idea, it may take years for CBDC to transition from concept to reality, and payments firms will have to be infrastructure- and process-ready to adopt the developments.



Central bank digital currencies could bring further substantial innovation to payment systems. However, what is important - from our perspective - is the model that will be defined and implemented to distribute and manage these digital currencies."



- Marcello Vittorio Ronco, Head of Digital Platforms and Ecosystems, UniCredit

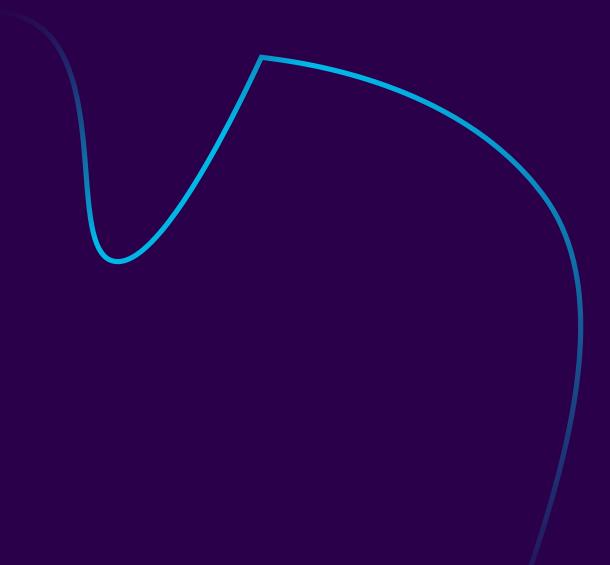
CONCLUSION

In the aftermath of a period in which firms diligently prioritized technology transformation to get closer to customers, the scene is set for the Payments 4.X era in 2022. Banks and other payments firms are locking their horns to tap the market potential. Moreover, regulators are encouraging collaboration, which is why regional schemes and open ecosystems are gaining traction.

Next-gen payments are poised to drive the new era of global non-cash transactions. The booming e-commerce segment, enthusiastic adoption of digital wallets, and buy-now-pay-later, biometric, and cryptocurrency payments trends are driving growth.

The pandemic set multi-dimensional disruption in motion that affected customer experience, intensified disintermediation, and hit payments service provider profits. What's more, operational and economic headwinds complicate the situation.

Further, new-age firms have an edge in the imminent Payments 4.X era thanks to their platform capabilities and digital acumen. As pressure mounts to calibrate scope and collaborate to scale, strategic payments firms will leverage recent lessons to navigate through 2022 and beyond.



ASK THE EXPERTS



Elias GhanemGlobal Head of Financial Services Market
Intelligence
<u>elias.ghanem@capgemini.com</u>

Elias is responsible for Capgemini's global portfolio of financial services thought leadership. He has more than 20 years of experience with a focus on effective collaboration between banks and the startup ecosystem.



Nilesh Vaidya Industry Head, Retail Banking and Wealth Management nilesh.vaidya@capgemini.com

Nilesh has been with Capgemini for 20 years and is an expert in managing digital journeys for clients in the areas of core banking transformation, payments, and wealth management. He works with clients to help them launch new banking products and their underlying technology. for two decades, identifying and developing solutions to address market disruptions.



lan Campos Executive Vice President-Capgemini's Financial Services <u>ian.campos@capgemini.com</u>

lan has over 25 years of experience in helping leading banks and insurance companies operationalize their strategic intent through technology-enabled transformation programs. He is passionate about helping clients achieve step-change improvements in their operational effectiveness and efficiency while delivering superior experiences.



Jeroen HölscherGlobal Head of Cards and Payments practice jeroen.holscher@capgemini.com

Jeroen is an expert in transformation programs in the cards and payments domain. He has been with Capgemini for 23 years and helps clients to improve their payment products and their underlying technology.



Christophe Vergne
Cards & Payments SME (Europe)
Christophe.vergne@capgemini.com

Christophe played a critical role in building Capgemini's global payments transformation capability. He has co-authored the World Payments Report for the past decade.



Venugopal PSV Cards & Payments SME (APAC) venugopal.psv@capgemini.com

Venu leads advisory and client solutions in Payments, Cards, and Transaction Banking. He has more than 21 years of hands-on banking and banking IT advisory experience.



Ravi VikramCards & Payments SME (US & Canada)
ravi.vikram@capgemini.com

Ravi has 18 years' experience in the Global Cards & Payments Practice at Capgemini. He supports consulting, solutioning, and thought leadership aspects in Retail Payments and Risk/Fraud areas.



Thierry MorinPayments expert, Capgemini Invent thierry.morin@capgemini.com

Thierry has extensive consulting and payments experience across Europe and has been helping banks, payment service providers and retailers to redesign their payment strategies, operating models, and service offerings over the past 11 years.



Chirag ThakralDeputy Head of Financial Services Market
Intelligence
chirag.thakral@capgemini.com

Chirag leads the Banking and Capital Markets practice in Market Intelligence. He has more than 14 years' experience as a strategy and thought leadership professional with in-depth FS expertise with a focus on banking and FinTechs.leadership aspects in Retail Payments and Risk/Fraud areas.



Vivek Kumar Singh
Banking and Capital Markets Leader, Global FS
Market Intelligence
vivek-kumar.singh@capgemini.com

Vivek leads the Banking, FinTech, and Payment sectors in Capgemini Market Intelligence and has over nine years of digital, consulting, and business strategy experience. He is a technology enthusiast who tracks industry disruptions, thought leadership programs, and business development.



Srividya MProject Manager, World Payments Report 2021,
Top Trends in Payments: 2022
srividya.manchiraju@capgemini.com

Srividya has led the development of World Payments Report 2019, 2020, and 2021 editions. She has eight years' experience in handling strategic consulting projects.

FOR MORE INFORMATION

Global

Nilesh Vaidya nilesh.vaidya@capgemini.com

Jeroen Hölscher jeroen.holscher@capgemini.com

Stanislas de Roys de Ledignan stanislas.deroys@capgemini.com

Asia (Hong Kong, Singapore)

Sriram Kannan sriram.kannan@capgemini.com

Anuj Singh anuj.singh@capgemini.com

Kimberley Douglas kim.douglas@capgemini.com

Australia

Vasant Gore vasant.gore@capgemini.com

Susan Beeston susan.beeston@capgemini.com

Belgium

Robert van der Eijk robert.van.der.eijk@capgemini.com

France

Christophe Vergne christophe.vergne@capgemini.com

Marwan Farah marwan.farah@capgemini.com

Olivier Jamault oliver.jamault@capgemini.com

Germany, Switzerland

Fredrich Andreas andreas.fredrich@capgemini.com

Stefan Huch stefan.huch@capgemini.com

Damien Stulemeijer (Switzerland)
damien.stulemeijer@capgemini.com

India

Sriram Kannan sriram.kannan@capgemini.com

Anuj Singh anuj.singh@capgemini.com

Italy

Francesco Fantazzini francesco.fantazzini@capgemini.com

Lorenzo Busca lorenzo.busca@capgemini.com

Japan

Makiko Takahashi makiko.takahashi@capgemini.com

Middle East

PSV Venugopal venugopal.psv@capgemini.com

Richard van den Engel richard.vanden.engel@capgemini.com

Nordics (Finland, Denmark, Norway, Sweden)

Thierry Morin thierry.morin@capgemini.com

Abhishek Mohan abhishek.a.mohan@capgemini.com Pinkesh Shah pinkesh.shah@capgemini.com

Spain

Ma Carmen Castellvi Cervello carmen.castellvi@capgemini.com

Mireia Hernandez Navarro mireia.hernandez- navarro@ capgemini.com

United Kingdom and Ireland

Alan Gregory alan.gregory@capgemini.com

Kristofer le Sage de Fontenay kristofer.le-sage-de-fontenay@capgemini.com

Nathan Summers nathan.summers@capgemini.com

United States and Canada

Sankar Krishnan sankar.krishnan@capgemini.com Rajesh Hegde

rajesh.a.hegde@capgemini.com Sujit Kini

sujit.kini@capgemini.com

Jennifer Lindstrom jennifer.lindstrom@capgemini.com

The Netherlands

Gerold Tjon Sack Kie gerold.tjonsackkie@capgemini.com

Marco de Jong marco.de.jong@capgemini.com

Alexander Eerdmans alexander.eerdmans@capgemini.com

ACKNOWLEDGMENTS

Market Intelligence core analyst team



Srividya Manchiraju
Project Manager, Payments
Market Intelligence, Financial Services



Swaroop Francis Industry Analyst, Payments Market Intelligence, Financial Services



Shanmugapriya MIndustry Analyst, Payments
Market Intelligence, Financial Services

We would also like to thank the following teams and individuals for helping to compile this report:

Elias Ghanem, Chirag Thakral, and Vivek Singh for their overall leadership for this year's report. Mahendra Bassarmalani for his research and findings. Tamara Berry for editorial support and content leadership. Dinesh Dhandapani Dhesigan for graphical interpretation and design.

Marion LECORBEILLER, Pranoti Kulkarni, Swathi Raghavarapu, Sai Bobba and Anirudh Malyala, Brent Mauch, for their overall marketing leadership for the report, and the Creative Services Team for producing the report: Sushmitha Kunaparaju, Suresh Chedarada, Balaswamy Lingeshwar, Andhorikar Anupriya.

DISCLAIMER

The information contained herein is general in nature and is not intended and should not be construed as professional advice or opinion provided to the user. This document does not purport to be a complete statement of the approaches or steps, which may vary according to individual factors and circumstances necessary for a business to accomplish any particular business goal. This document is provided for informational purposes only; it is meant solely to provide helpful information to the user. This document is not a recommendation of any particular approach and should not be relied upon to address or solve any particular matter. The text of this document was originally written in English. Translation to languages other than English is provided as a convenience to our users. Capgemini disclaims any responsibility for translation inaccuracies. The information provided herein is on an "as-is" basis. Capgemini disclaims any and all representations and warranties of any kind concerning any information provided in this report and will not be liable for any direct, indirect, special, incidental, consequential loss or loss of profits arising in any way from the information contained herein.

This message contains information that may be privileged or confidential and is the property of the Capgemini Group. Copyright © 2021 Capgemini. All rights reserved.



About Capgemini

Capgemini is a global leader in partnering with companies to transform and manage their business by harnessing the power of technology. The Group is guided everyday by its purpose of unleashing human energy through technology for an inclusive and sustainable future. It is a responsible and diverse organization of 300,000 team members in nearly 50 countries. With its strong 50 year heritage and deep industry expertise, Capgemini is trusted by its clients to address the entire breadth of their business needs, from strategy and design to operations, fuelled by the fast evolving and innovative world of cloud, data, AI, connectivity, software, digital engineering and platforms. The Group reported in 2020 global revenues of €16 billion.

Get the Future You Want | www.capgemini.com

