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WORLD FINTECH REPORT 2021

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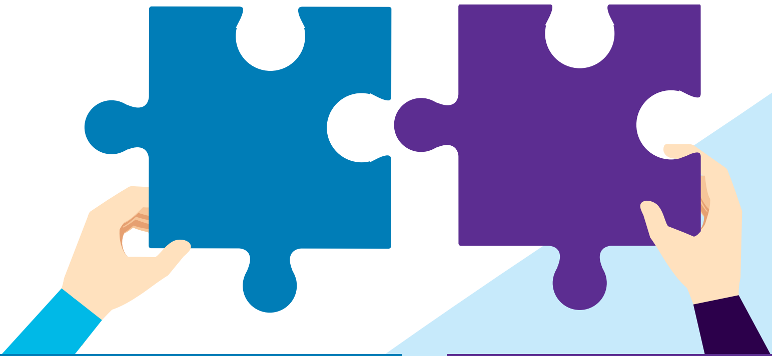
Executive summary



FINTECHS

Disruption → Popularity → Profitability Exploring the next FinTech maturity milestone.

FinTechs defied vulnerability, demonstrated resilience during COVID-19

- FinTech verticals (digital payments and savings, RegTechs, etc.) tallied double-digit growth in transaction volumes as 2020's black swan event posed sector-wide operational performance and financial risk challenges.
- As over-the-top enthusiasm for early-stage funding ebbs, investors eye mature and diversified FinTechs already heading to long-term growth.

The path to profitability

- Seasoned FinTechs follow a four-step strategy for long-term profitability. They start with rebundling diversified FS and non-FS services, adopting ecosystem banking to achieve scale, creating new monetization opportunities, and finally aiming for geographical expansion.
- FinTech focus on profits means more intense competition – industrywide. Incumbents will be wise to leverage their strengths (trust) while shoring up weaknesses (CX) to stay relevant.

BANKS

FinTech-inspired digital journeys are now an overarching priority.

Greenfield, Bluefield, or Brownfield: Move ahead with the *right field*

- Increasingly aware of the benefits of digital banks, traditional firms are breaking free from old boundaries by adopting a mix and match of greenfield, brownfield, and bluefield digital development approaches to create virtual subsidiaries and spin-offs.

A three-dimensional process adds structure to digital-only efforts

- **Define:** Identify your targeted customer segment to zoom into your primary market and zoom out with distinctive solutions.
- **Develop:** Build the new entity on a modern core with collaborative features and an enriched talent pool for long-term growth.
- **Drive:** Not all digital subsidiaries perform equally. Overcome stumbling blocks through leadership championship, ongoing financial support, and an enabling culture. Being digital comes with internal trade-offs. Stay focused on long-term value (versus possible short-term cannibalization).
- A bank of the future in the FinTech era will enable and nurture multiple digital-only subsidiaries, by providing support in terms of people, technology, and finance to serve different customer and community segments in different geographies.

Disruption → Popularity → Profitability
Exploring the next FinTech maturity milestone

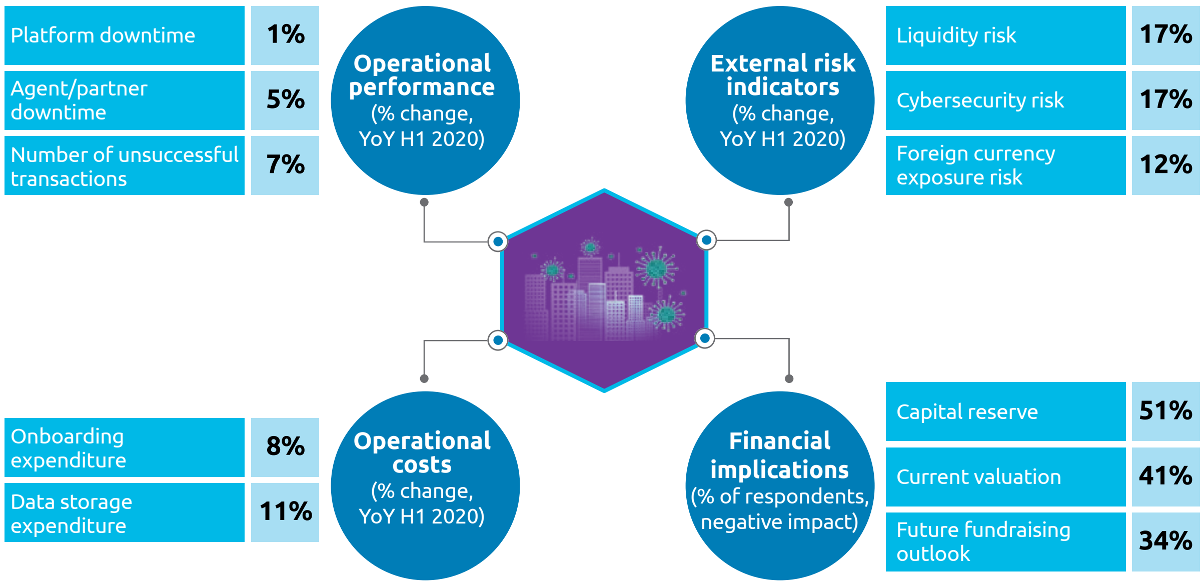
FinTechs remained resilient despite vulnerabilities during the pandemic

FinTechs came on the scene after the 2008 global recession and quickly became consumer favorites by radically distinguishing themselves from traditional banks. They rocked the industry with digitally disruptive customer experience, low-to-no-cost products, simple onboarding, convenience, and fully digital engagement. Now, FinTechs are breathing new life into the banking value-chain as they partner with incumbents to fill product and service gaps and expand selection.

And while the black swan environment of 2020 tested the entire banking ecosystem, FinTech segments grew. Verticals – including digital asset exchanges, digital payments, digital savings, and WealthTechs – witnessed average YoY growth of ~19% as per the World Economic Forum, World Bank, and Centre for Alternative Finance market assessment report. Digital lending, which contracted 8% YoY (H1 2020), was an exception.[1]

FinTechs remained vulnerable despite positive 2020 performance. They faced increased platform downtime, high rate of unsuccessful transactions, and increased costs related to staffing, onboarding, and data storage, as per the market assessment report. This forced the FinTechs to reduce revenue outlooks. The health crisis has taken a bite out of FinTechs' capital reserves and negatively affected market valuation and fundraising prospects for some. External risks related to liquidity, foreign currency exposure, and cybersecurity also posed growth challenges.

Figure 1. The pandemic exposed FinTech vulnerability



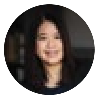
Sources: Capgemini Financial Services Analysis, 2021; World Economic Forum.

[1] World Economic Forum, "The Global Covid-19 FinTech Market Rapid Assessment Study," December 2020.

Despite the volatile environment, the FinTech sector reported an 11% YoY recovery in overall deal activity in Q4 2020 after four consecutive quarters of decline. Further, mega-rounds (big-ticket investment deals) climbed moderately in 2020 – to 102 from 92 in 2019. Although total 2020 funding remained level with 2019, Europe and North America posted gains.[2]

Change is in the air. Investor sentiment around FinTechs is also maturing. Over-the-top optimism for early-stage funding is weakening as enthusiasm heads upward for late-stage mature FinTechs.

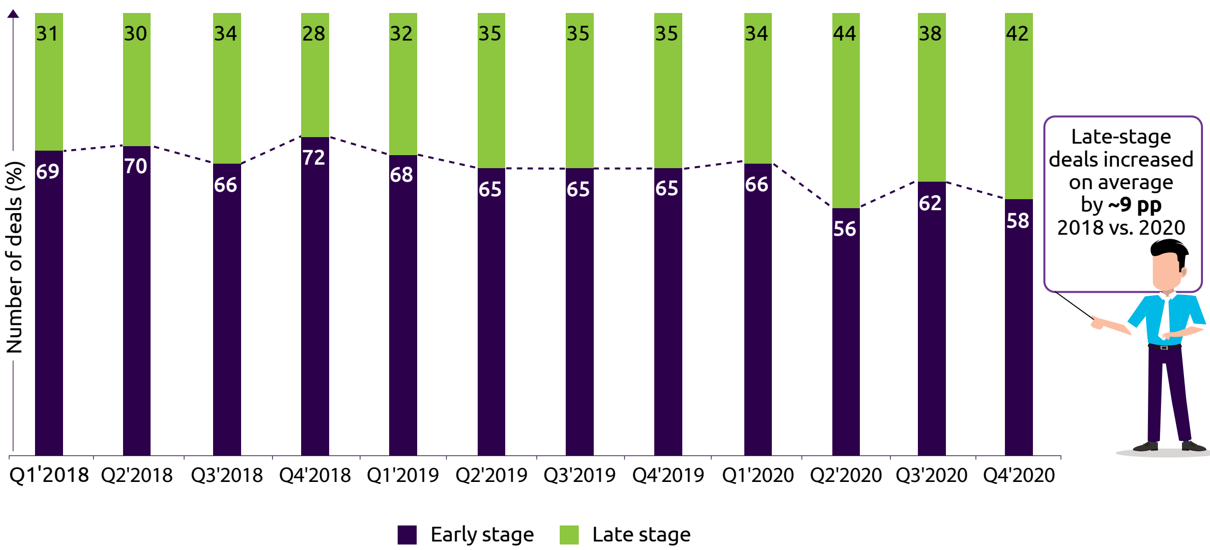
2021 is shaping up as a busy year in the FinTech funding landscape. There is sustained interest among investors for big rounds and mature start-ups. On the other hand, increased crowdfunding from retail investors could lead to underrepresented demographics being more included in the innovation ecosystem, bringing in fresh perspectives from idea generation to funding and execution."



Theodora Lau

Unconventional Ventures, Founder, US

Figure 2. VC investors attracted by late-stage FinTech upside



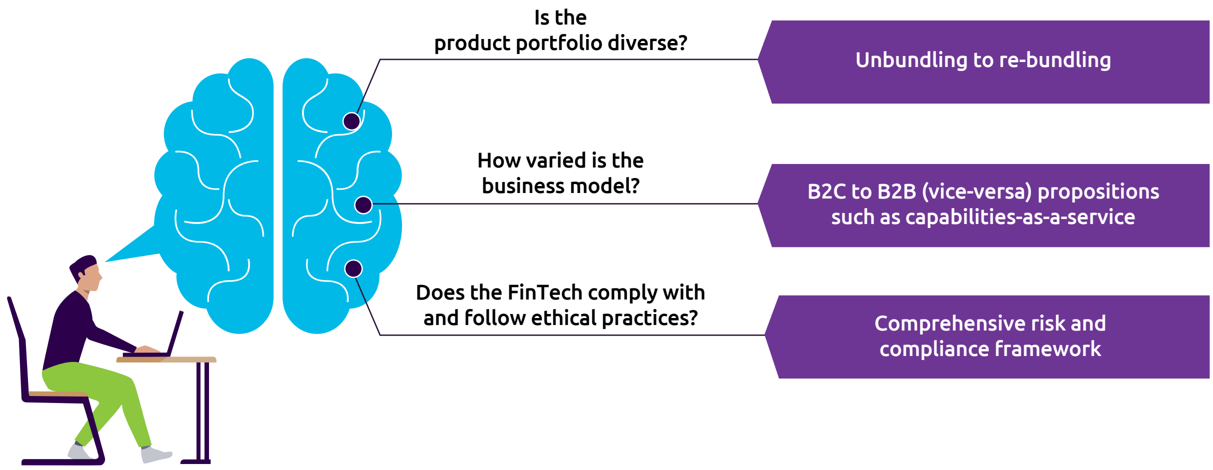
Sources: Capgemini Financial Services Analysis, 2021; CB Insights.

PP: Percentage points.

Note: Early-stage deals include seed funding and Series A deals. Late-stage deals include Series B to Series E+ deals.

[2] CB Insights, "State of Fintech Report: Investment & Sector Trends To Watch," January 2021.

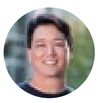
Figure 3. What are investors looking for?



Source: Capgemini Financial Services Analysis, 2021.

The market is slowly becoming crowded with commoditized offerings versus proposals for unique services. Why would an investor fund an early-stage startup when a proven, mature FinTech can fill a market gap? Increasingly, investors are supporting mature FinTechs with a keen understanding of unique large-market issues, having a diverse product portfolio and a sustainable business model.

Lower seed funding is likely due to limited whitespace in the FS vertical combined with investors' reluctance to fund new early-stage companies targeting small gaps in services, which existing well-funded startups could fill."



Jay Reinemann
General Partner, Propel Venture Partners, US

B2C FinTechs often hit the market by disintermediating banking products and services with a standalone core offering. Attractive early-stage FinTechs are cross-selling to drive long-term opportunities and shifting from unbundling to rebundling products and services.

UK-based **Revolut** entered the market with multi-currency payment wallet services. Now, it offers crypto trading, brokerage services, and deposit and savings (checking) accounts. New products and features helped Revolut raise USD500 million in February 2020 (series D funding).[3] Similarly, US-based challenger bank, **MoneyLion** began with personal finance and later added wealth management features, smart lending, and deposit accounts.[4]

While B2C FinTechs are in their glory days, the spotlight is gradually panning to B2B firms positioned to generate a sticky, scalable client base that delivers more profit than their total acquisition cost (unit economics).[5] A recipe for success!

In Europe, B2B FinTech funding outpaced B2C from January through October 2020, with a share of ~80% of the total funding (EUR6.3-billion).[5] Likewise, large banks such as Citi, Santander, and UBS are investing in FinTechs to augment their operational infrastructure.

[3] CNBC, "Fast-growing digital bank Revolut triples valuation to $5.5 billion," February 24, 2020.
[4] Data driven investor, "The unbundling & rebundling of the FinTechs," February 7, 2019.
[5] Sifted, "Move over Monzo: Investors love B2B FinTechs now," October 12, 2020.

The pandemic strengthened VC interest because, in a crowded marketplace, B2B FinTechs offered more stable and secure RoI compared with high-risk B2C startups during economic uncertainty. FinTechs that are rebundling B2C services and offering B2B propositions are in demand. For instance, **Klarna**, a Swedish FinTech offering buy-now-pay-later loans to consumers and payment solutions to businesses, inked a USD1 billion funding round in March 2021 to raise its value to USD31 billion.[6]

Many B2C FinTechs provide as-a-service capabilities (deep within the value chain) to incumbents as they segue to evolving B2B models. China-based **WeBank** started as a B2C player in 2014, serving over 200 million customers in China. In 2017, it started offering its BaaS platform capabilities (data models, onboarding procedure, risk management capabilities, and algorithms) to retailers, non-FS firms, and other FinTechs. B2B and embedded finance soon turned profitable, and by 2019, WeBank was the APAC digital bank profit leader with 60% YoY net profit growth and more than 28% return on equity.[7, 8]

Early on, some regulators and investors may have been overly exuberant about successful FinTechs. However, regulation and FinTech supervision are back on the radar screen after the accounting scandal and 2020 collapse of Wirecard.[9] Therefore, the pressure is on FinTechs to implement a comprehensive risk framework, maintain operational oversight, and enforce accounting and auditing safeguards to protect customers and investors.

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6 Finextra, "Klarna confirms mammoth $1 billion fund raise," March 1, 2021.
7 WeBank, "About us," accessed March 2021.
8 The Asian Banker, "WeBank registers strong profitsas it expands financial ecosystem," Oct 21, 2020
9 CSNBC, "The 'Enron of Germany': Wirecard scandal casts a shadow on corporate governance," June 29, 2020.

Figure 4. FinTechs are popular, yet few are profitable!

APAC	Valuation (USD bn, 2020)	Customer Base (mn)	
WeBank (2014)	30	200	2016
KakaoBank (2016)	18	12	2019
Niyo Bank (2015)	0.14	1.1	
Judo Bank* (2016)	1.6	9700 (SMBs)	2020

*Judo Bank customers are actual numbers and not in millions

Europe	Valuation (USD bn, 2020)	Customer Base (mn)	
Klarna (2015)	31	87	
Tinkoff (2006)	6.3	13.3	2008
Revolut (2015)	5.5	12	2018, 2020
Starling Bank (2014)	1.8	2	2020

Americas	Valuation (USD bn, 2020)	Customer Base (mn)	
NuBank (2013)	25	34	
Robinhood (2013)	20	13	
Chime (2014)	14.5	12	2020
Koho (2014)	0.23	0.35	

Unprofitable   Close to Breakeven   Profitable

Note: Figures inside brackets: Represent the year in which the FinTech was launched.
Figures inside boxes: Represent the year in which the FinTech turned profitable.

Source: Capgemini Financial Services Analysis, 2021; Fintech News Hong Kong; The Asian Banker; Korea Times; The Asian Banker; IBS Intelligence; Financial Review; Entrackr; CNBC; Business of Apps; Tinkoff; Finextra; Klarna; Sifted; Altfi; Business of Apps; CNBC; Forbes; Yahoo! Finance

As established, mature, and compliant FinTechs increasingly garner investor money, sector growth strategies merit recalibration. A balance between fast growth and a sustainable operational environment offers a pragmatic middle ground. While some VCs continue to rally behind current unprofitable FinTechs in anticipation of robust customer and revenue growth, many are evolving toward a disciplined, sustainable approach. Fast adoption and a handful of early moneymakers mark global FinTech evolution.

A comparative analysis of incumbents versus new-age players reveals that weak monetization, anemic product penetration, and low use hamper profitability. A challenger bank, on average, incurs ~EUR30 in acquisition cost per customer while generating only EUR15.[10]

The per-customer acquisition cost for UK challenger **Monzo** is USD65 (GBP46), significantly low compared with incumbents that spend ~USD250 (EUR200) per customer. However, with a 4.4-million customer base, Monzo's unit economics garner only ~USD24 (GBP17) per customer, while a traditional bank can generate up to USD800–900 per customer.[11, 12]

To maintain continued investor and regulatory support, challenger banks must demonstrate the path to generating their own capital, getting to revenue quickly whilst keeping costs down to avoid burning excessive cash in the early formative stages."

Chris Bayliss
Co-founder and Chief Financial Officer, Judo Bank, Australia

[10] Finextra, "Neobanks should find their niche to improve their profitability," December 30, 2020
[11] FXC Intelligence, "The unit economics of the digital banks – Revolut, Monzo vs TransferWise," August 20, 2020
[12] FinTech Futures, "The ROI of omni-channel digital banking," accessed March 2021

The path to profitability

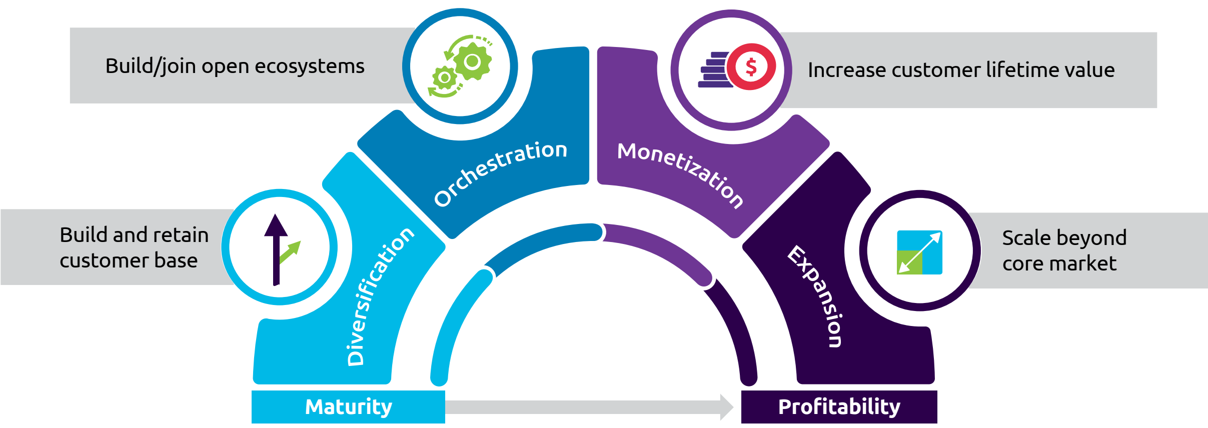
As profitability becomes the next frontier, industry executives interviewed as part of the World FinTech Report 2021 agree with our four-stage approach to long-term growth.

1. Diversify offerings to build a profitable customer base

Successful FinTechs start their maturity journey by first expanding their product portfolio within their initial market(s). During their early startup years, they strengthened their principal product line by attracting (B2C) customers or applying (B2B) proofs of concept in partnership with either FIs, incubators, or accelerators. For instance, major challenger banks, including South Korea's **KakaoBank** and Russia-based **Tinkoff Bank**, prioritized building a handful of viable products to solve a consumer issue such as payments, personal account services, or credit cards.[13, 14]

Retail banking FinTechs always begin with an aggressive acquisition strategy fueled by highly personalized and free (or nominally-priced) banking services (a double reason to get quick traction in the market). Consumers seeking relief from one-size-fits-all and over-priced/under-delivering services find the model appealing.

Figure 5. Mature FinTech firms follow a phased profitability journey



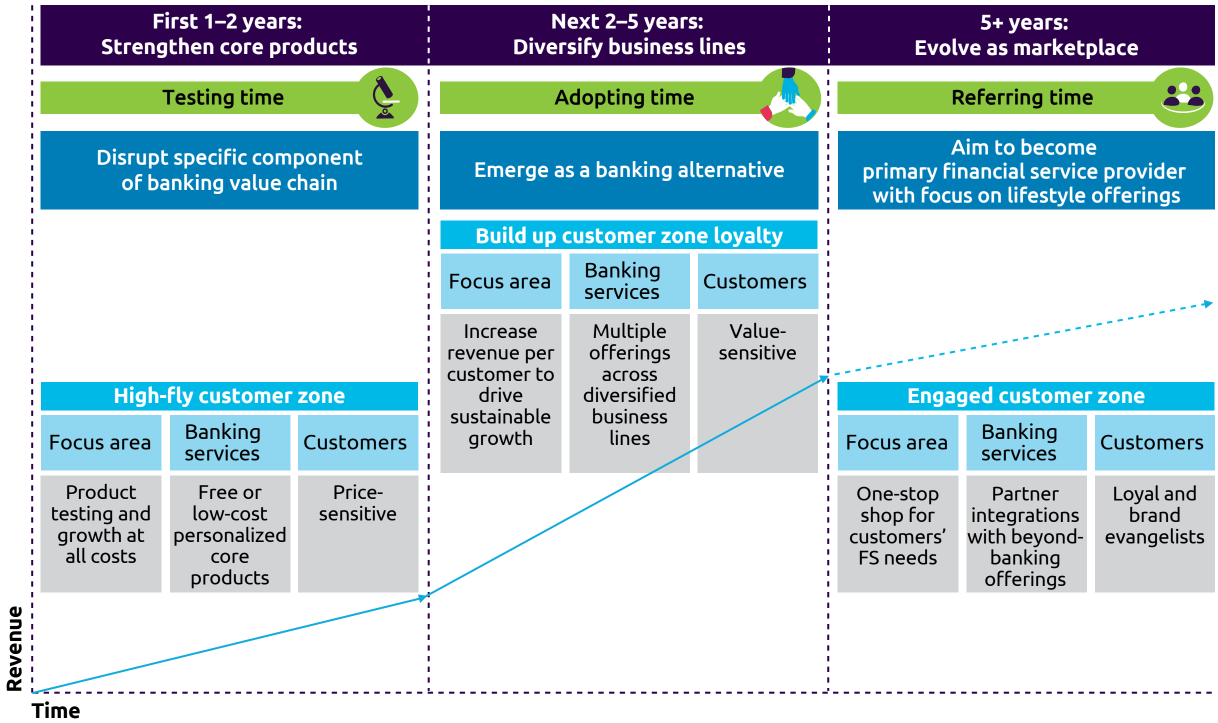
Source: Capgemini Financial Services Analysis, 2021.

However, price buyers are often less concerned with value differentiation, product fit, or relationship.

Within two to five years, FinTechs on the path to profitability begin to convert price buyers into value buyers interested in value differentiation, personalization, and superior customer experience. FinTechs expand from their core product stacks from standalone ones to multiple offerings and life experiences designed around specific customer segments. FinTechs that launched retail banking offerings during the diversification phase beefed up value-adding services, then entered the B2B domain, and eventually added Banking-as-a-Service offerings Between 2007 and 2017, **Tinkoff** added 15+ products – credit cards, cash loans to current accounts, debit cards, deposits, insurance, mortgages, and business offerings.[15]

[13] Whitesight, "Tinkoff Bank | Neo-Bank Strategy Deep Dive," November 28, 2020.
[14] Nikkei Asia, "Kakao plans to link up banking and payment platforms," August 10, 2017.
[15] Whitesight, "Tinkoff Bank | Neo-Bank Strategy Deep Dive," November 28, 2020.

Figure 6. FinTechs diversify product lines to build a loyal customer base



Source: Capgemini Financial Services Analysis, 2021.

FinTechs curate related products and services throughout the diversification phase to meet their customers' broad financial needs. They boost customers' share of wallet by rebundling several financial products and services. Bolstering per-customer revenue and stable revenue sources take center stage.

> ***From a profitability standpoint, B2B FinTechs have a long sales cycle, while for some – the solution does not match the customer needs. Similarly, for B2C FinTechs, the core offering is typically unprofitable as a standalone and would require diversification of products to achieve profits."***

Jay Reinemann
General Partner,
Propel Venture Partners, US

B2B FinTechs that serve incumbents and other third parties are driving to build new partnership models and go-to-market strategies that reduce long sales cycles. Boosting monetization capability requires FinTechs to move away from standalone product/service to focusing on end-to-end experiences.

Stripe, a US-based B2B FinTech, began as a payment enabling processing platform in 2011 and launched several complementary solutions (Stripe Issuing, Radar, Connect, Terminal, and Atlas) to become a payment infrastructure provider by 2020. New end-to-end solutions have helped Stripe acquire thousands of clients (including Amazon, Zoom, and Shopify).[16]

At this stage of diversification (2–5 years), FinTechs start moving close to ecosystem banking, **orchestrating or joining** multiple ecosystems to achieve economies of scale. This also unlocks new opportunities for FinTechs to **monetize** their products, services, and capabilities.

In five years, scaled-up FinTechs start to position themselves to become their customers' primary banking service provider while persuading highly

[16] Credit Suisse, "Stripe – Payment Facilitation and Beyond ... The Next Frontier in SaaS Monetization," accessed March 2021.

engaged, loyal customers to evangelize the brand. For example, **Stripe** invested in strong community relationships from the outset that helped it generate a powerful word-of-mouth growth loop. Now, Stripe attracts new customers organically without excessive marketing investment.[17]

During diversification, many FinTechs break even, and some (Kakao Bank, Starling Bank) turn a profit. FinTechs say that collaboration with third-parties (financial and non-financial) enriches their value proposition and is a fast route to diversification. Further, FinTechs leverage ecosystem banking to achieve the desired scale.

2. Orchestrate an ecosystem or join multiple ecosystems

If today's FinTech activity is a barometer, the future of banking won't include universal entities offering everything to everyone. It will likely feature firms operating in partnership with multiple suppliers to provide integrated products and services. Orchestration is turning new-age banking players (e.g., Tinkoff, Kakao Bank, and WeBank) into **one-stop-shop super apps** offering banking and beyond-banking services.

Ecosystem banking thrives on creating and cultivating network effects, in which a large customer base attracts suppliers, and more suppliers attract more customers and vice versa. Within an ecosystem, FinTechs can leverage various collaborative synergies to:

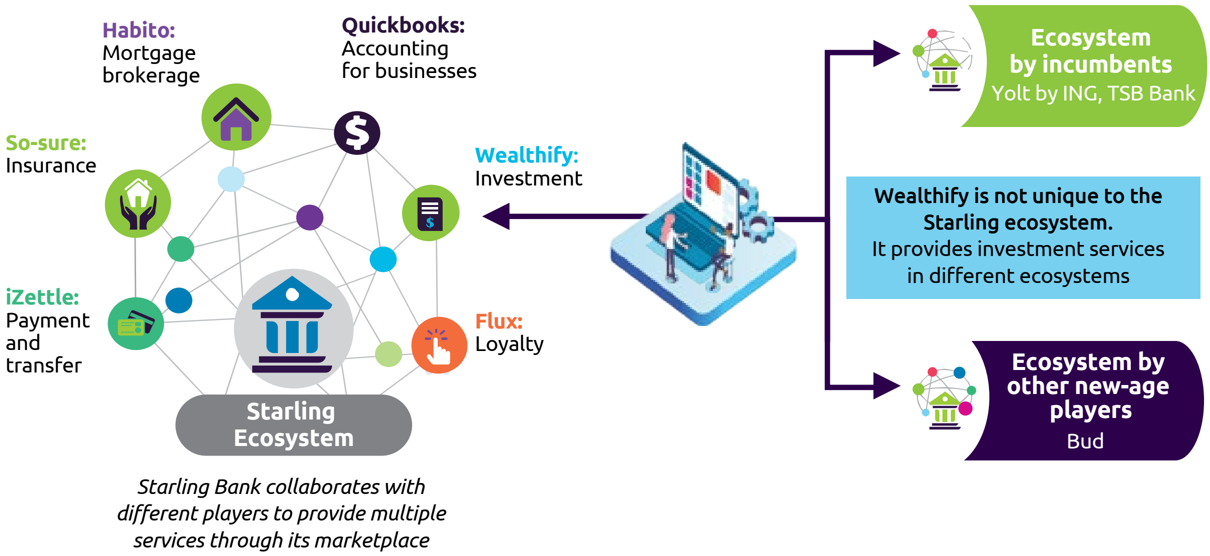
- Reduce customer acquisition costs
- Decrease customer churn
- Unearth monetization opportunities
- Access new and enriched contextual data
- Boost innovation by reducing time to market and friction between related service.

Ecosystems help FinTechs transition from just-another-banking-app status to becoming a hub central to customer lifestyles. **Starling Bank**, which started with payment services and cards in 2016, soon collaborated with several FinTechs to orchestrate an ecosystem offering various B2C and B2B financial products and services.

While not all FinTechs have the resources and capabilities to orchestrate an ecosystem, all require economies of scale to drive favorable unit economics. These FinTechs often elect to join multiple ecosystems to achieve profitable scale.

CreditLadder, a UK rent reporting service that helps tenants strengthen their credit history, integrated into the Revolut marketplace and became active within ecosystems built by UK firms TSB, Halifax, Metro Bank, and open platform API specialist Bud.[18, 19]

Figure 7. Achieving scale through ecosystem banking



Sources: Capgemini Financial Services Analysis, 2021; Starling Bank; Wealthify; Finextra.

[17] ChartMogul, "How Stripe dominates online payments by going after developers," December 4, 2020.
[18] CreditLadder, "Bank with Revolut? It's time to make your rent count," accessed March 2021.
[19] Finextra, "CreditLadder partners with Bud to help tenants use rental payment history in credit scoring," September 3, 2018.

Ecosystem success is contingent upon consistent customer engagement that converts to high loyalty and retention. As FinTechs evolve into ecosystems, they work to boost their daily active users (DAU) volume as a percentage of monthly active users (MAU), preferably higher than 20% and as close as possible to 50% or beyond. The popular China-based app **WeChat** maintains an impressive 92% DAU that makes it a sought-after ecosystem player (WeBank). China-based **Alipay** also sustains an active user base with a DAU of 50%.[20]

3. Monetize via a 360-degree approach

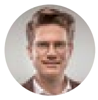
Ecosystems come with monetization opportunities. More and more FinTechs are diversifying their revenue streams to reduce their dependence on interchange fees by capitalizing on their capabilities, pricing models, and digital space/data. Some adopt multiple pricing models to diversify even further. **WeBank** generates income through interest, interchange fees, marketplace commission, platform pricing, and paid products.[21, 22]

Depending on the FinTech firm's scope, pricing strategies can help drive top-line earnings resulting in improved customer lifetime value. While revenue per customer is in the low double digits, strategic pricing models aim to increase returns and earn the maximum potential value per customer.

> ***Evolving from a mobile-only bank model to a lifestyle platform is a strategic transformation, from a financial service provider to a user-based community, respectively. Such ecosystems are based on engaging customers through third-party partnerships to deliver FS and non-FS offerings."***

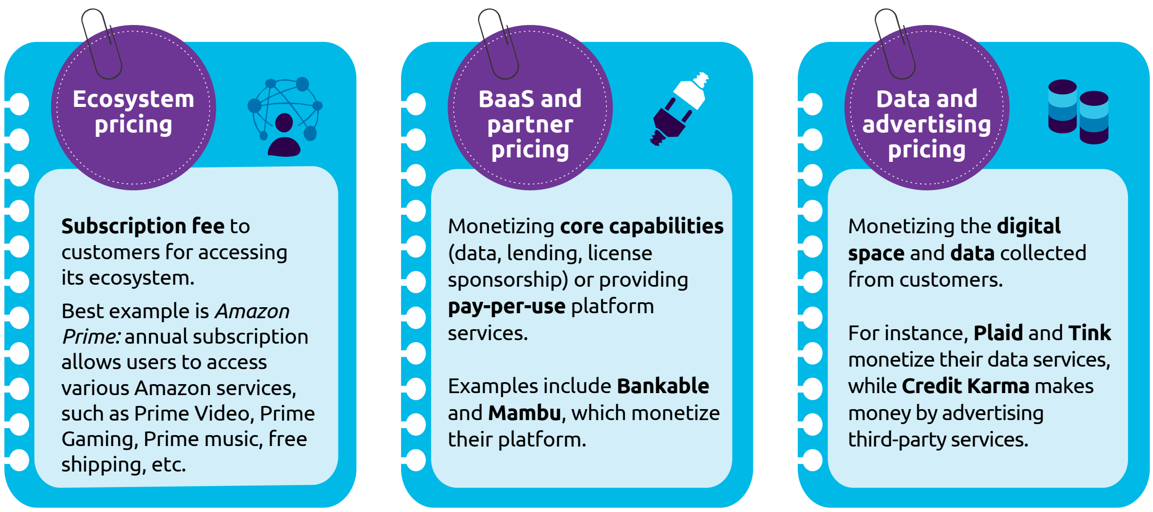
Benjami Puigdevall
CEO, Imagin, Spain

> ***Traditional monetization strategies – such as charging high-margin transactional fees for undifferentiated services – simply do not cut it in today's crowded FinTech space. New entrants must look into innovative monetization strategies such as through unorthodox partnerships and creating real customer value in areas adjacent to baseline financial services."***



Matej Ftacnik
CXO, Vacuumlabs, Slovakia

Figure 8. FinTechs adopt multiple pricing models to boost revenue per customer



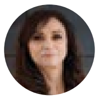
Source: Capgemini Financial Services Analysis, 2021.

[20] Aika's Newsletter, "Tinkoff and Russia's Ecosystems," February 8, 2021.
[21] WeBank, "About us," accessed March 2021.
[22] The banker database, "WeBank – Financial Data," accessed March 2021.

4. Expand into new markets to maintain growth momentum

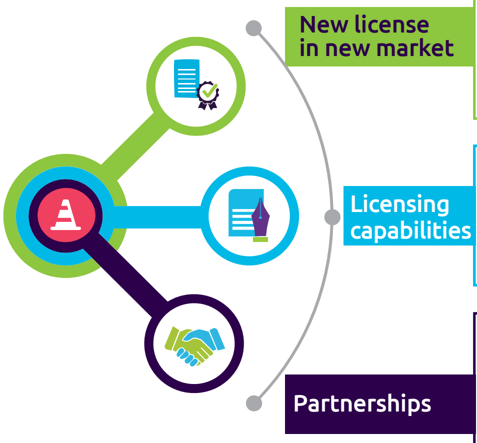
Geographical and market expansion is the next step as FinTechs scale and begin to break even through higher revenue per customer and sustained low-cost levels. However, to move beyond their core market, FinTech firms often explore new entry modes and choose a situation-based alternative. Once FinTechs decide their entry mode, they map out how to sustain a competitive advantage in the new market based on three crucial pillars: cost dynamics, culture, and evolving regulations. An offering similar to their home turf may not resonate with consumers in the new market.

> *Many FinTechs are taking a measured approach to growth, focusing on monetizing their capabilities over raising excessive funding. As neobanks/challenger banks scale their offerings, expansion into other markets comes as the next logical step. Whether or not they come to a new territory with a genuine value-add and a business model that is up to the task remain to be seen in some segments."*



Helene Panzarino
Associate Director, LIBF Digital Banking & Finance Centre, UK

Figure 9. Driving growth in new markets through different modes of entry



- Adapt to regional regulations in the new market.
- Retain its existing brand.

UK-Based **Revolut** received full-banking license from Lithuanian central bank in 2018, which helped it to gain broader access to other European markets.

- "Capability-as-a-Service" in new markets.
- White-label their capabilities, co-branding or franchise model.

UK-based **OakNorth**, entered the US market by providing its credit intelligence platform-as-a-service-service to third parties.

- B2B2C model via partnerships.
- Leverage the expertise and capabilities of partner bank to serve end users.

Germany-based **N26** collaborated with US-based **Axos Bank** to leverage its license and offer products and services in the United States. Axos Bank acts as an enabler, while N26 has become the front-end interface.

FinTechs are always facing a balancing act between outsourced and in-house technology development. Change is constant and in-house technology may drain operational coffers. Several FinTechs, such as Currency Cloud, Baxter FX, Lebara Money, Misys, Yapital, and Skrill, have outsourced their IT to remain lean and nimble.[23]

AWS caters to all stages of FinTech startups by providing them infrastructure technology to build and scale their businesses such as storage, databases, networking, machine learning, and data and analytics solutions."

Kathryn Van Nuys
Global Head of FinTech Business Development, AWS, US

Each FinTech culture is unique, and to enter a new market successfully, sensitivity to the local culture optimize value from resident talent. Ethical hiring practices and an inclusive workplace culture set the tone for high contribution. Within five years, Berlin-based **N26** built a 1,500-person workforce of 80 nationalities. Before entering the US market, it created a strategy and operations team comprised of local talent to target underbanked outer-city rural demographics.[24, 25]

To optimize compliance costs and avoid hefty fines, future-focused FinTech firms remain on top of evolving regulations. **Revolut** began international expansion by hiring a global licensing team tasked to secure different licenses in different markets. The team crafts acquisition strategies based on Revolut's vision and expenditures allocated for each region.[26]

Geographical expansion is crucial to maintaining growth momentum when the firm's targeted user type remains consistent. Leveraging best practices from the core market, FinTechs need to continue diversifying offerings, orchestrating experiences, and monetizing capabilities in new geographies to unlock new sources of value creation.

It is critical to devise a balance between developing in-house technology and outsourcing to vendors at a low-cost when building a hybrid IT model, which is responsible for running the bank and transforming CX. Typically, a firm would like to control their USP in terms of CX and outsource the general commoditized services. Further, firms can reduce the cost of operations with outsourced and skilled talent. The ultimate idea is to have the ability to be flexible, lean, and task-specific in terms of IT strategy."

Judith Erwin
CEO, Grasshopper Bank, US

[23] N-iX, "How FinTech outsourcing companies meet industry regulations," October 19, 2018.

[24] Medium, "N26 digital bank US entrance strategy," December 10, 2019.

[25] N26, "N26 Strengthens Executive Leadership Team with New C-Level Hires," September 28, 2020.

[26] Tearsheet, " 'Country by country, we'll secure banking and trading licenses': Revolut formally launches global strategy," January 2019.

UK challenger Starling pursues scale and profitability by remaining central to customer lives

Within six years of its 2014 launch, mobile-only challenger bank Starling was named in Forbes' World's Best Banks list (2020). Starling, a London-based early disruptor, provides a mobile banking app and a debit card that enables personal and business users to handle their accounts from a smartphone or desktop.

Business strategy: Subject to UK regulatory mandates, Starling was restricted to testing its operations with limited customers until earning a full banking license in July 2016.[27] After publicly launching its apps in 2017, the bank focused on customer acquisition, low-cost personalized products, and trailblazing money-management services. The bank took a digital-native promotional approach, leveraging social media to communicate its mobile-first products through Facebook.[28] At the start of 2018, Starling served ~100,000 customers.

Throughout 2018, the firm concentrated on its next growth phase – building a loyal and stable base. It diversified business lines to increase revenue per customer by pushing multiple services to the same individual to convert high-fly prospects into value-buyers. The firm expanded retail accounts into specialized categories, including joint, teen, and euro accounts, and offered business products such as a trader account and an SME marketplace. The result? By December 2019, Starling had onboarded more than a million customers and offered a diverse suite of products and services through its retail and business divisions.[29]

By 2020, Starling distributed more than 20 products across business lines, a leap from just four products in 2017. To stimulate consumer engagement, the bank hosted around 27 marketplace vendors by 2020, and firm executives announced plans to add a dozen more by 2023. The Starling marketplace enables easy access to banking and beyond-banking offerings, including insurance (Anorak, Churchill, So-sure), credit scores (CreditLadder), loyalty, and receipts (Flux, Tail), and online investment (Nutmeg, Wealthify, and Wealthsimple).[30, 31]

Starling offers Banking-as-a-Service (BaaS) to give business clients access to its flexible API-based software, banking license, payments infrastructure, and regulatory acumen. The firm's BaaS offerings help monetize its leading-edge technology, converting technical debt into a viable revenue stream.

Profitability: Starling broke even in October 2020 as operating profits reached GBP0.8 million after the firm grew fees and commission income by more than 2.5x year over year, sparked by the success of its platform services, diversified business model, and reduced dependence on interest income alone. In Q3 2020, Starling managed the accounts of nearly two million customers, including those of +250,000 SMEs, as business-client activity grew 3x YoY from 2019.[32]

What's next? Starling executives say the firm will continue to integrate partner products and scale offerings to improve per-customer revenue. The digital banking innovator is quickly evolving into an ecosystem orchestrator at the center of customer lives. With a foothold in the UK, Starling is venturing into EU markets with an equal focus on customer and business accounts. Currently, the firm seeks an Irish banking license to form a base from which to run its European operations.[33] The firm is considering an IPO listing from London for late 2022 or early 2023.[34]

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[27] FintechNews, "The World's Top 10 Neo- and Challenger Banks in 2016," September 3, 2016.
[28] Campaign Live, "Starling Bank's mobile-first marketing opens more accounts," March 2018.
[29] Whitesight, "Starling Bank | Neo-Bank Strategy Deep Dive," November 9, 2020.
[30] Starling Bank, "Connect to a world of smart financial products," accessed March 2021.
[31] Altfi, "Starling Bank's Marketplace hits third anniversary amid new 'quality over quantity' strategy," September 15, 2020.
[32] Starling Bank, "Starling Bank Trading Update – October 2020," November 2020.
[33] Business Insider, "Starling plans to launch in other European countries," March 2020.
[34] Bloomberg, "Boden: London Would Be Destination for Starling Bank IPO," March 17, 2021.

FinTechs' race to profitability raises the heat within the traditional FS sector

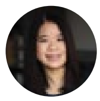
As FinTechs chase profits, FS market competition has heated up, putting intense pressure on incumbents. Drawing from their agility playbook, FinTechs are nibbling away at the market share of traditional banks. Capgemini's COVID-19 customer survey 2020 found that close to 25% of customers are willing to try banking products from new-age players, FinTechs, and BigTechs.

Why switch within a health crisis environment? Survey respondents (~70%) said faster delivery, personalized services, swift query resolution, and anytime/anywhere accessibility were motivators. It's no secret that customers faced with high friction from incumbents are frustrated and dissatisfied.

Silver lining? Customers continue to trust traditional banks. More than three-fourths of respondents to this report's Voice of the Customer survey said they trust their primary bank to support their financial needs and offer advice. They are not considering a complete switch to a new financial institution. What's more, they are willing to try incumbents' digital offerings, and 68% said they would try a digital-only bank operated by their primary bank.

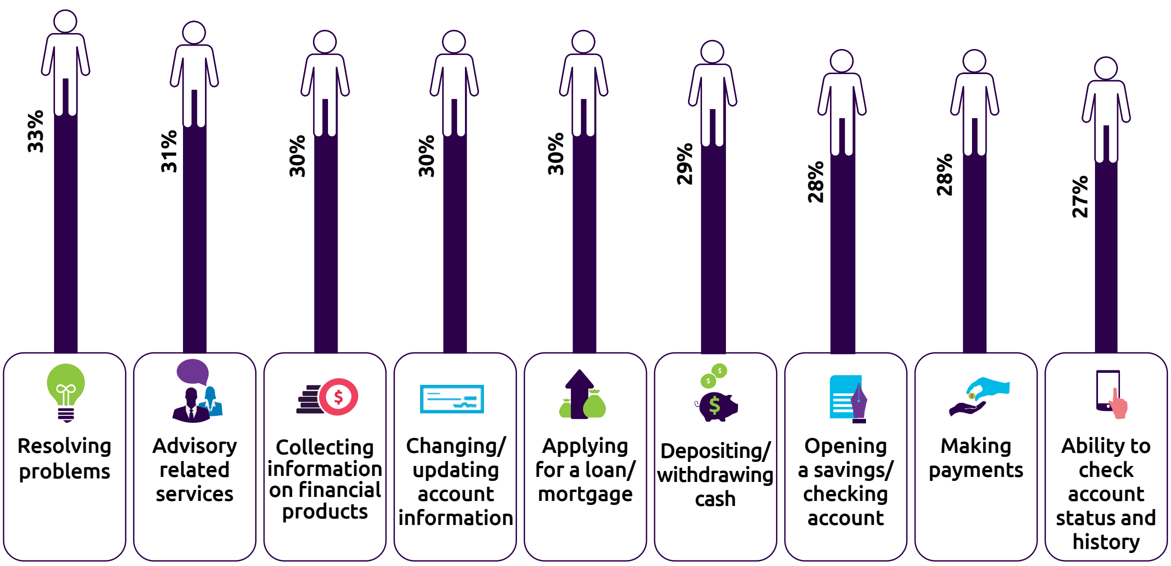
To stay relevant in the FinTech era, it's game on for incumbents prepared to leverage their strength (customer trust) while turning around customer experience weakness.

Customer-centricity – with a keen eye on customers' evolving interests and pain points – is the need of the hour for ecosystem players seeking to establish/ maintain trust."



Theodora Lau
Unconventional Ventures, Founder, US

Figure 10. Where do bank customers face high friction?

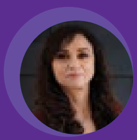


Source: Capgemini Financial Services Analysis, 2021; Capgemini Voice of Customer Survey, N=8,599.

Question: For each banking interaction listed, rate the level of friction or difficulty you experienced with your primary bank in the last 12 months, where 1 = very low friction or difficulty and 7 = very high friction or difficulty. Figure 10 reflects responses from customers who scored 5 or above.

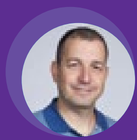
Experts recognize that mature FinTechs are attracting investors' attention and knocking on doors of profitability

"Recent funding rounds in the FinTech have been aimed more at the middle to later stages vs. seed rounds. Investors are looking to invest in proven and established FinTechs, and later-staged deals, although fewer overall, are made up of more significant amounts. There were some eye-watering large deals in 2020."



Helene Panzarino
Associate Director, LIBF Digital Banking & Finance Centre, UK

"Offering banking capabilities-as-a-service is a vast market with high growth potential for the future. By adopting such a model, a firm can sell different capabilities and embed them in non-financial service use cases. Ultimately, the aim is to become an ecosystem and provide all services under one roof, impacting most areas of customer/business lives."



Shuki Licht
CIO, Finastra, US

"Challenger banks that find the intersection between their vision, ability to raise capital over a sustained period, and obtaining a regulatory license will set a foundation for profitability and growth."

Chris Bayliss
Co-founder and Chief Financial Officer, Judo Bank, Australia

"FinTech investment ticket size is expanding and targeting mature FinTechs with the potential to survive."

Paul-Henri Blaiset
CEO, Blank, France

"Ecosystem banking provides two-fold monetization strategies - sales of financial products/services to an array of customers and revenue-sharing model with partners. Moreover, platformfication helps reduce acquisition costs, as a customer could be drawn to the ecosystem through various offerings."

Benjami Puigdevall
CEO, Imagin, Spain

"It is advantageous to consider unit economics at an early stage of the journey. Monetizing your customer base with a subscription fee is one way to cover the customer's account management fees. Further, data can be a huge asset in generating specific spending patterns of a particular customer segment that beyond-FS firms can also leverage to address pain points and fill gaps."

Rob Curtis
CEO, Daylight Bank, US

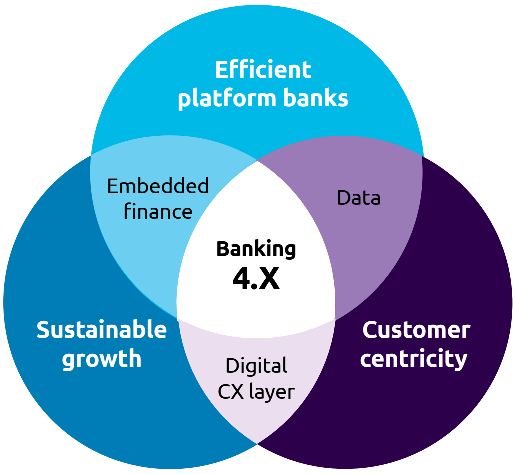
Today's FinTech-inspired digital journey has become an overarching FS priority

Many digital-only initiatives indicate early signs of powerful results

The pandemic fallout has made the traditional retail banking environment even more demanding. As banks navigate this unwieldy environment, operational costs are surging and revenue streams constrained. The sheer magnitude of disruption wrought by COVID-19 has sparked the industry's next big wave — **Banking 4.X.** [35, 36] A transformative shift where FIs invisibly embed banking within customer lifestyle through customer-centric and platform-based business models.

For incumbent banks, decades of operational patches have created intertwined layers of legacy technologies and business models. Transforming these tangled systems is a tall order, but the pandemic made it clear that procrastination is no longer an option. Increasingly, banks are coming to appreciate the potential of seamless digital engagement.

Figure 11: Ready or not, Banking 4.X makes its 2021 debut



Source: Capgemini Financial Services Analysis, 2021.

55% *banking executives, on average, said a digital-only subsidiary enables ubiquitous banking, drives new products to market faster, and makes collaboration easier thanks to plug-and-play functionality, as per our 2021 survey.*

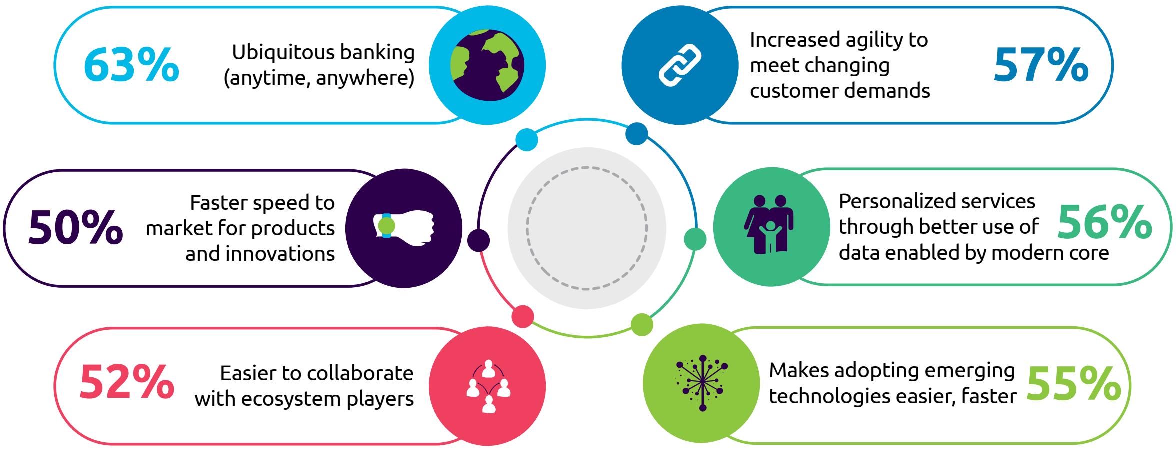
A benefit of being a digital bank backed by an incumbent is that it gives you the best of both worlds. One can extract the best aspects of the innovative FinTech ethos of a startup and combine that with the expertise and brand of an established bank."

Marieke Flament
CEO, Mettle, UK

[35] Capgemini, "World Retail Banking Report 2021," March 25, 2021.

[36] The World Retail Banking Report 2021 and its key findings are not derived from or associated with the work from author Brett King and his book Bank 4.0 (Copyright © Marshall Cavendish 2018). Brett King is not connected with Capgemini's thought leadership, and King's work on defining the industry term Bank 4.0 was not used in the preparation of this research.

Figure 12. Why should incumbents create digital-only subsidiaries? (Banking executive view)



Source: Capgemini Financial Services Analysis, 2021; World FinTech Report 2021 Executive survey, N=122.

Question: What can be the potential level of benefits of a digital-only bank across business priorities? Please rate on a scale of 1 to 7, with 1 = low benefits and 7 = high benefits. Figure 12 reflects responses from executives who scored 6 or above.

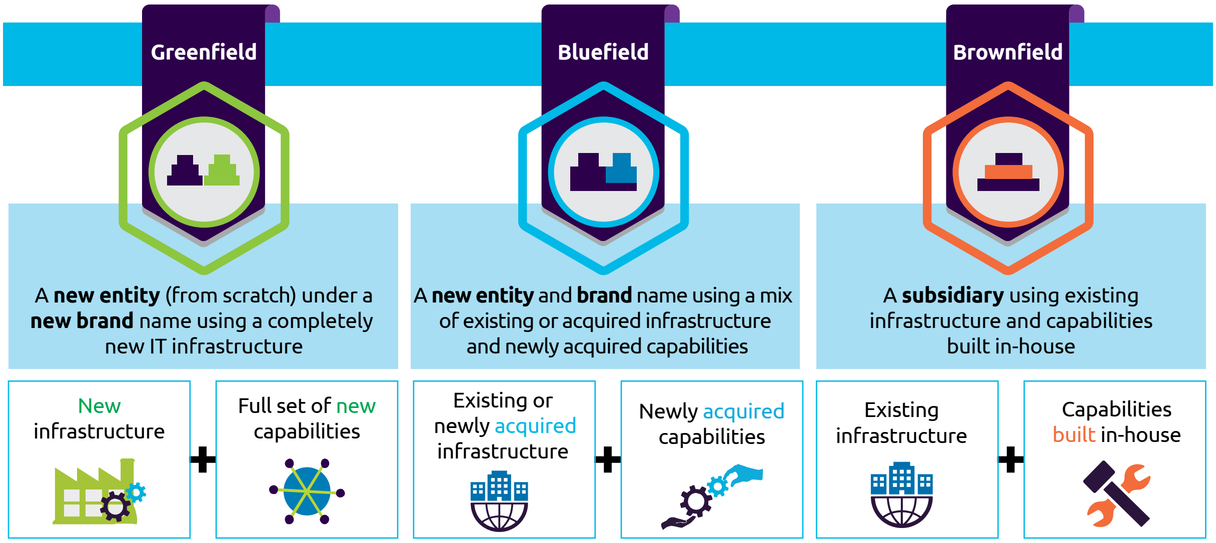
Throughout the last decade – and particularly since 2015 – several traditional, banks such as Leumi (IL), RBS (UK), JP Morgan (US), Equitable (CA), UOB, SG, Goldman Sachs (US), and Société Générale (FR) built digital-only subsidiaries. They leveraged their customer data, risk management, and governance capabilities while adding new functionalities focused on mobility, and hyper-personalization.

Bank-wide digital transformation is critical but can be slow and complicated. That's why a digital-only subsidiary may help incumbents remain in the game. However, every digital-only subsidiary isn't a guaranteed winner. If not a majority, too many have demonstrated the contrary. Careful weighing of options is essential.

Greenfield, Bluefield, or Brownfield: Move ahead with the right field

Considering a digital-only strategy? Bring your sharpest minds into a room and evaluate options and approaches. The goal is to create a startup with heritage that complements your internal capabilities and aligns with your overall business goals.

Figure 13. Banks can adopt a mix-and-match approach



Source: Capgemini Financial Services Analysis, 2021.

Greenfield

Create a new independent entity from scratch with a quick and effective greenfield approach to establish a digital-only subsidiary in a year or two – as internal parent bank transformation continues in parallel. Greenfield can be a practical choice for less digitally mature banks new to digital transformation.

- When the **Commercial Bank of Dubai** (CBD) took a greenfield approach in 2017 to target millennials and digital natives, it launched CBD NOW – the UAE's first digital-only bank.[37] In late 2020, CBD continued its digital efforts by partnering with UAE FinTech NOW Money (a payment services provider) to target underbanked individuals in the Gulf region with accounts and cards.[38]

Bluefield

This mid-spectrum approach falls between creating an iterative internal transformation program and building an independent digital entity. Often, digitally mature banks with unproven digital product innovation skills select this route. The parent could leverage its modern core banking platform or acquire a new one along with new capabilities (around products and UX) to quickly drive digital-only offerings to market.

- **BNP Paribas** acquired startup Compte-Nickel along with its digital stack and its ~500,000 customers in 2017. It now operates as ***NiCKEL***, an independent BNPP subsidiary that offers accounts, cards, and payments services, along with beyond-banking services, including insurance, roadside assistance, and travel assistance. NiCKEL partnered with French lottery and tobacconist associations with a national

[37] The Asian Banker, "CBD announces the launch of digital-only bank "CBD NOW'," November 27, 2016.
[38] FinExtra, "Commercial Bank of Dubai to target low-income customers with NOW money," October 19, 2020.

network of more than 20,000 points of sale across the country. The digital-only subsidiary has expanded to Spain and plans to enter Portugal and Belgium in 2022.[39, 40, 41] Since 2020, the profitable new-age bank has attracted nearly 400,000 users to drive its customer base to 1.9 million. Early this year, the firm's deputy director said each new NiCKEL customer paid an average of 60 euros per year, which should generate EUR24-million euros in bank revenue.[42]

- **Goldman Sachs** launched **Marcus** on its existing infrastructure and acquired several firms, such as GE Capital, Bond Street, Final, and Clarity Money to bolster its product and innovation capabilities.[43] In 2021, Goldman Sachs is considering further acquisitions to bulk up the capabilities of Marcus.[44]

Incumbents can build a digital arm through acquisition – and keeping it independent from the decades-old monolithic structure – to avoid simply creating a new front-end for the same back-end service."

Rob Curtis
CEO and co-founder, Daylight Bank, US

Brownfield

The oldest among digital transformation approaches, Brownfield methods continue to resonate with bank leaders worldwide. Highly digitally mature incumbents (such as DBS in Singapore and ING in the Netherlands) have the internal capability to efficiently incubate a digital bank and spin it off into the market as a separate entity.

- **ING** took a brownfield approach in 2016 to launch a money management app that allows users to track all bank accounts in one place. ING's innovation team in Amsterdam developed the Yolt app and spun off the venture, although ING retains a measure of investment and control. **Yolt** has more than 1.5 million registered customers and 31+ partners, including new-age players such as Monzo, Raisin, and Starling.

Assess the pros and cons of these proven transformational approaches. A hybrid, mix-and-match approach may be most efficient for catering to the unique requirements of diverse customer segments. Digital frontrunner **BNP Paribas** implemented a brownfield approach (and its core platform) to launch **Hello Bank!** in Belgium in 2013 as a separate entity. Today the digital-only firm operates in France, Belgium, Germany, Italy, the Czech Republic, and Austria.[45] Later, BNPP deployed bluefield techniques to launch NiCKEL. Hello Bank! and NiCKEL work together to secure BNP Paribas' presence across all niche segments.

39 Finextra, "BNP Paribas to acquire 95% stake in French neo bank Compte-Nickel," April 4, 2017.
40 Reuters, "BNP Paribas' Nickel unveils new offer in race to gain 2 mln clients," April 12, 2018.
41 The FinTech Times, "NiCKEL Expands to Europe With Plans to Move to Portugal and Belgium After Spain Opening," January 11, 2021.
42 MoneyVox, "BNP Paribas: 25% more customers for Nickel and Hello Bank in 2020," February 5, 2021.
43 CBInsights, How Goldman uses M&A to bring in talent for Marcus," October 19, 2018.
44 Reuters, "Goldman eyes deals to boost Marcus," January 15, 2021.
45 Vlerick Business School, "And BNP went mobile," February 6, 2017.

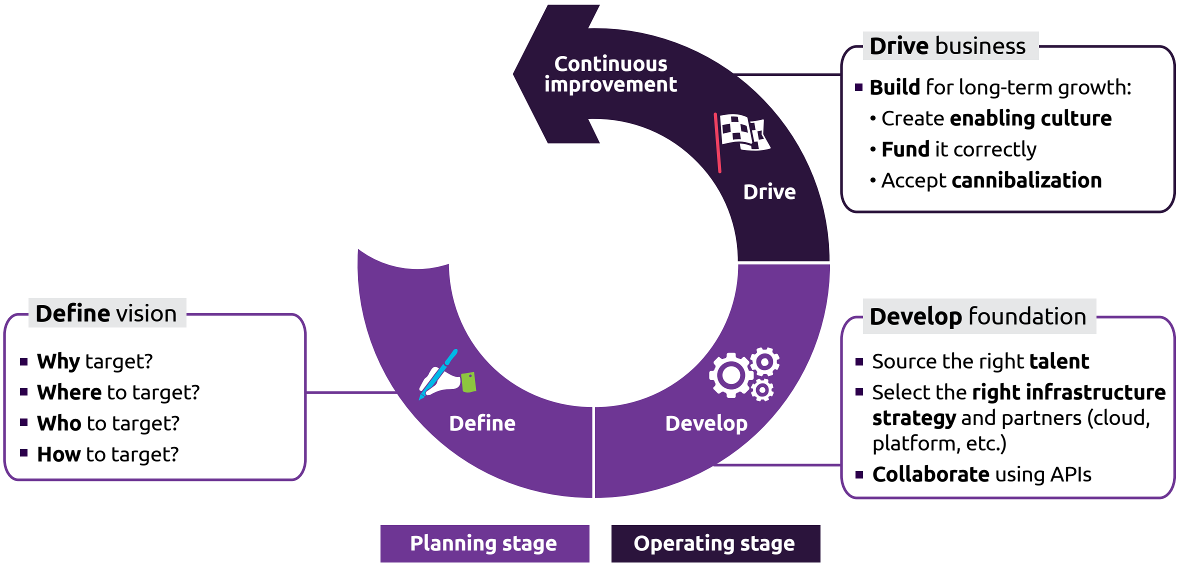
A three-dimensional process adds structure to digital-only efforts

The selected development approach becomes the foundation of the digital-only subsidiary. And structured, actionable processes fortify whichever approach is selected. Effective multi-dimensional processes offer operational efficiency and security as well as lifetime value and engagement for customers.

Define → Develop → Drive to keep implementation on track

Building a digital-only subsidiary is an iterative journey. A strategic definition of success marks the starting point begins, and an ever-changing environment makes the endpoint dynamic. With new technologies, consumer expectations, and competition, intelligent banks will keep adapting for relevance.

Figure 14. Deploy a three-dimensional process to build a *right-field* digital bank



Source: Capgemini Financial Services Analysis, 2021.

Step 1 – Define: Zoom into your target market and zoom out with distinctive solutions

Done right, discussions about a digital-only subsidiary will push some banks out of their comfort zone. The goal is not to create the mothership's digital twin but a complementary entity with long-term profit potential. Critical and sometimes tricky questions can jump-start the process, align all participants, and ensure the end game isn't an attempt to be all things to all customers. Instead, it is a distinctive solution aimed at a targeted market.

While deciding on the MVP, we understood the pain points and developed our product while keeping three things constant – customer first, 100% transparency, and easy-to-understand products."

Adi Sharma
COO – Cards and Product Development, Marcus, US

Crystallize your vision through questions

Why launch a digital-only bank? • To expand product and service reach? • To target new markets and segments? • To plug gaps in the existing banking model?	**Where to launch?** • Existing market? • New market?
Who to target? Micro-segmentation (retail and business) can help to identify untapped value in existing or new markets.	**What to offer?** • Scores of banks and FinTechs operating in the same market leave little white space for differentiation. • Develop a value proposition that stands out.

Some of these questions may seem obvious, but we learned in the World Retail Banking Report 2021 that only 30% of banks globally plan and implement periodic steps to understand their customers. Disciplined customer centricity is a success imperative to connect banks with existing and target customers. Customer input is invaluable when implementing a human-centered design for a digital-only entity.

Step 2 – Develop: A robust foundation with an enabling infrastructure

Once the digital bank strategy is in place, create the backbone of the new experience:

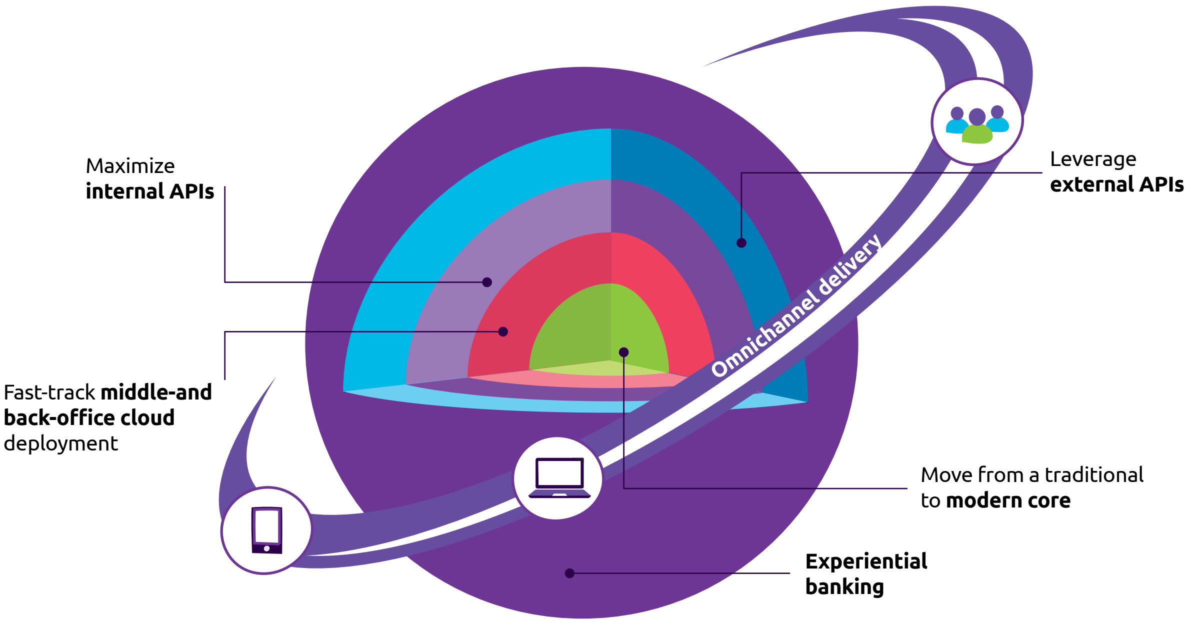
- Build a technology foundation
- Collaborate at scale
- Recruit the right talent.

Build a technology foundation powered by a **modern core** back office. The World Retail Banking Report 2020 identified that a modern core drives a range of benefits that affect innovation, customer centricity, risk, compliance, and operations.[46]

Parent banks that have a modern core can share it with their digital-only subsidiary or decide an approach to put a modern core in place.

As part of our World FinTech Report 2021 executive survey, we asked about leveraging a parent bank's core versus buying a new one. Not surprisingly, 65% of bank leaders said they prefer to leverage their parent bank's core. Building a new core can be pricey, especially if the parent bank has recently undergone a transformation. However, a word of caution – using your parent's

Figure 15. Begin with a robust and resilient digital foundation



Source: Capgemini Financial Services Analysis, 2021.

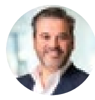
[46] Capgemini, World Retail Banking Report 2020, June 11, 2020.

legacy core is a major red flag and can deem your digital-only subsidiary as less productive, inefficient and inflexible in both – meeting the demands of today and anticipating the trends of tomorrow. A broken back-end can significantly offset front-end modernization efforts.

Next, after modern core implementation, is a fast-track plan to **migrate mid- and back-offices to the cloud.** Three of four executives we surveyed said cloud-native capabilities underpin an integrated platform that can quickly and securely prepare back-office operations to support innovation, business startups, mergers and acquisitions, and product and market launches. The cloud frees banks from the complexities, high costs, and risks of progressive renovation.47

In Australia, **Judo Bank** targets small-to-medium enterprises with a focus on lending. To empower its bank end, Judo adopted a modern cloud-based infrastructure ready to go live in about three months. The move helped the startup reduce customer onboarding to within five minutes while distributing loans worth AUD1.6 billion. Judo earned unicorn status in a little more than two years and is expected to become profitable in 2021.[48, 49]

Cloud offerings completely transform the cost dynamics of FinTechs and Challenger banks while increasing infrastructure resiliency, leading to reduced downtimes. Further, it boosts agility, helping them serve customers in innovative ways and scale quickly."



Aser Blanco
Head of Americas, Google Cloud Financial Services, US

Once the fledgling digital bank is cloud-powered, the next step is to scale **API networks** to accelerate the transformation journey. APIs act as a growth engine in two ways. They catalyze digital transformation by eliminating data and functional silos to synchronize operations across business lines and re-architect monolithic legacy systems into agile microservices. APIs also open new business frontiers by allowing efficient plug-and-play functionalities.

Goldman Sachs leveraged its modern core to power digital-only Marcus

Wall Street investment bank Goldman Sachs launched digital-only Marcus in 2016 to diversify revenue and funding sources by entering retail banking. It positioned Marcus as a debt-management solution and initially offered credit-worthy borrowers a fixed-rate, no-fee unsecured loan followed by a savings account.

Thanks to Goldman's modern core, Marcus went live within eight months. The software processes transactions in real time and can integrate with other applications via internal APIs. The flexibility allows Marcus customers to define and change their loan parameters within boundaries set by the bank.[50]

APIs enable cross-business synergies with the parent bank to help Marcus achieve scale and offer customers enhanced functionality, business confidence, and security, along with the use of enterprise applications and Goldman's large data lakes.[51] And an API developer portal offers alternative data and existing ecosystem solutions. Marcus partnered with **Intuit** to access the tax preparation software's data on customer debt, income, and other finances, which it can use to tailor immediate loan options.[52]

The agile and scalable Marcus platform allows the bank to monetize its core capabilities. For instance, Marcus entered the Banking-as-a-Service market in October 2020 by externalizing commercial banking and payments solutions via APIs.

By sharing its parent bank's technical, legal, and compliance infrastructure, Marcus has onboarded more than five million customers, and by Q3 2020, had USD92 billion in deposits. By 2025, Marcus executives want to reach USD125 billion in deposits by monetizing more core capabilities and becoming a true FinTech-era ecosystem player.[53]

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[47] Capgemini, "Virtual Company Offering," accessed March 2021.
[48] Aspire Systems, "Judo Bank: The Success Story of a Neobank," October 12, 2020.
[49] InternationalBanker, "Build Greenfield: How traditional banks are breaking the mould," September 16, 2019.
[50] American Banker, "Goldman Sachs reveals technology behind Marcus," November 30, 2016.
[51] Finextra, "Goldman Sachs rolls out Infosys Finacle at Marcus," November 30, 2016.
[52] Bank Automation News,"Goldman Sachs's Marcus: Partnerships Beyond Intuit," October 27, 2017.
[53] American Banker, "What's next for Goldman Sachs' Marcus," September 30, 2020.

Collaborate at scale to offset scarce money and time. Focus on disciplined end-to-end collaboration to ensure a superior last-mile experience for new customers. More than 40% of our executive survey respondents showed interest in collaborating with third-party vendors to enhance their digital-only subsidiary's capabilities.

Collaboration can boost internal processes. What's more, trusted scaleups offer outsource partnership potential – RegTechs (for compliance and KYC), AI conversational interface providers (such as Personetics), data service providers (such as Plaid), or platform providers (such as lending platform OakNorth).

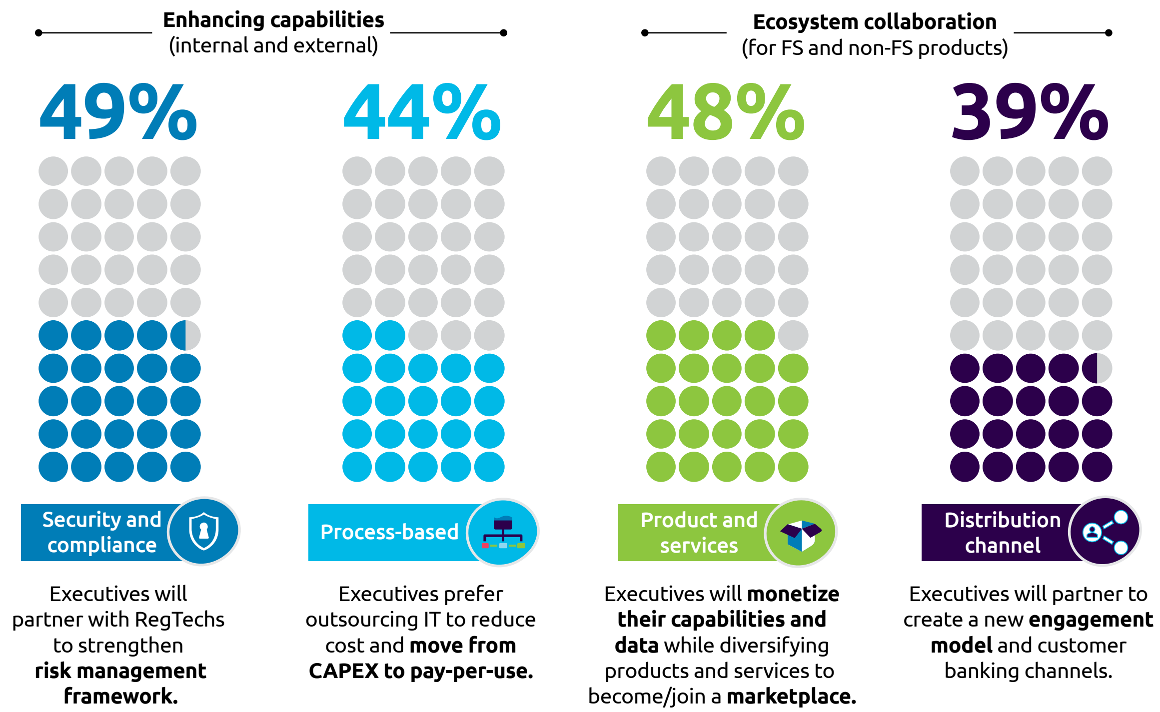
Besides enriching the banking infrastructure, collaborations around distribution channels and products and services can aid a digital subsidiary's go-to-market capabilities.

From a distribution perspective, build BaaS capabilities to embed banking functions (payments, cards, accounts, lending) into the offerings of other FS and non-FS players (e.g., e-commerce firms, retailers, and telecoms.) More than 70% of banking executives interviewed as part of the World Banking Report 2021 said BaaS platforms help them expand their customer base and create new revenue models.

From the product and services perspective, collaboration helps to create user communities. As digital-only banks evolve into ecosystems, building an active and engaged user community is a success imperative. Partnering with non-FS service providers could help digital banks to drive organic customer growth, thus reducing customer acquisition costs.

For instance, Spain's **CaxiaBank** transformed ***imagin***, its mobile-only bank for young people, into a digital platform dedicated to financial and non-financial digital services in June 2020. The lifestyle platform transformation included the launch of imaginPlanet (a climate change and sustainability initiative), imaginMusic, imaginCafe, imaginShop, and imaginGames. The bank entered into exclusive agreements with major digital players from travel and hospitality (e.g., Booking.com and Airbnb), urban transport companies, and e-commerce platforms.

Figure 16. Collaborating for better outcomes is key to digital bank success



Sources: Capgemini Financial Services Analysis, 2021; World FinTech Report 2021 Executive survey, N=95.

Note: Each circle signifies 2%.

Question: What are your priorities across different areas where your digital-only bank can collaborate or plans to collaborate? Please rate your collaboration preference on a scale of low, medium, and high. Figure 16 reflects responses from executives who rated high.

The switch and an active user community are helping imagin reduce customer acquisition costs and deliver a superior, frictionless experience.[54]

The integration of non-FS services is gradually stirring banking sector buzz, but the trend shouldn't dilute core products' value proposition. Instead, leverage non-FS solutions to boost user-community engagement while strengthening core products.

How? Digital-only banks can bundle complementing non-FS offerings with core banking products to offer an end-to-end solution. For instance, **BNP Paribas** sought to offer homebuyers support beyond mortgage loans by bundling services ranging from property search to movers and packers, legal assistance, interior design, and insurance together with its core real-estate loan offering. These types of integrated services can position subsidiaries as a customer's partner for life.

> ***BNPP, through its various activities, is evolving from just being a bank to being the daily companion of our clients by transitioning from a product-driven approach to a driven life event digital experience."***

Laurent Herbillon
Head of Open Innovation, BNPP, France

Recruit the right talent. Like time and money, talent is becoming scarce – particularly when it comes to digital expertise. Financial services firms face a shortage of technology professionals. A 2020 UK Treasury report found that Great Britain's FS sector is in the midst of an existential skills crisis as it fails to attract and retain new talent. And only 10% of young bank employees said they planned to stay long term, compared with 18% across other sectors. What's more, fewer than 40% of students said they associated bank employment with creativity and a dynamic work environment.[55]

In addition to building an enabling culture, banks can enrich their talent pool by mixing existing with new. For instance, **Goldman Sachs** built the early **Marcus** talent pool from a mix of experienced internal staff and external hires with new insight and fresh perspectives.

Succesful digital-only banks recruit talent from outside the company and from outside the industry. Future business models will intersect with other industries, so getting an outside view is essential to understanding different sectors.

> ***During the formative years, Goldman Sachs ensured our talent pool was a mix of existing and new. We had colleagues internally from GS, from other banks, and from BigTechs/ FinTechs. We defined our products in cross functional squads which were represented by our colleagues from marketing, product, technology, risk and operations.***

Adi Sharma
COO – Cards and Product Development, Marcus, US

Build an enabling culture to attract, activate, and retain talent

High **RISK** tolerance by encouraging risk taking + Offer **EQUITY** based incentives to boost innovation + Ingrain a sense of **OWNERSHIP** + Signify **VALUE** by highlighting contributions

[54] CaxiaBank, "CaixaBank relaunches imagin as a digital services and lifestyle platform for 2.6 million young people," June 17, 2020.
[55] The City UK, "Urgent action is needed to address a skills and talent crisis in UK financial services," January 28, 2020.

Trailblazing digital-only bank build on robust modern core foundation with collaborative features aims to cater the under/unbanked Vietnam merchants and Gen Z consumers

Hanoi-based MSB (formerly Maritime Bank) is one of Vietnam's leading retail and commercial financial institutions with more than 300 branches. In December 2020, it had more than 2.36 million retail customers and 57,000 corporate clients.

Business challenge: Vietnam's FinTech industry nearly tripled between 2017 and 2020, and competition from new-age players is stiff.[56] So, taking cues from e-commerce customer acquisition, MSB executives decided to study new metrics versus those traditionally prioritized by banks, such as revenue and non-performing loans. To proactively meet the needs of Vietnam's digitally active, youthful population, MSB prepared to launch a subsidiary, TNEX, Vietnam's first digital-only bank.

Strategy/implementation: The *CX First* vision for the no-branch brand was a lifestyle-play ecosystem bank. Based on research that found Vietnam to be home to ~58 million under-banked or unbanked customers, MSB targeted lower-income retail consumers and micro-merchants.[57] The TNEX development team worked with Berlin startup Mambu to create a configurable, scalable, cloud-based modern platform. The collaboration allowed TNEX to keep costs down while building a suite of innovative financial offerings within weeks. The team turned to AWS to enable microservices architecture with data analytics and machine learning capabilities. The in-house team built a front-end e-KYC solution and money manager tool using internal APIs to connect with MSB for payments, general ledger, and compliance functions. The TNEX team leveraged external APIs to integrate the customer data platform (CDP) from iConnect 101 and the Uber stack for maps.[58] Talent and culture were a TNEX priority. Taking an untraditional route, TNEX recruited from industries outside financial services. The first hire was a psychiatrist, and the second a sociologist.[59]

Results: In support of its dedication to CX, Topebox, a Vietnamese gaming company, designed the TNEX mobile app. By February 2021, it had been downloaded more than 50,000 times and offered B2C and B2B propositions. TNEX merchant clients receive a website, cash management capabilities, targeted campaign management, inventory management tools and QR code payment capabilities.[60] Cloud architecture gave TNEX the speed and agility to build a full-service merchant marketplace in six months and an SME and digital consumer bank in nine months.[61]

What's next? The bank's target is three million consumer customers and 200,000 merchant clients by 2023. It plans to be profitable by June 2023. Executives say they will measure success by digital traction, cost of acquisition, and customer lifetime value. TNEX has embraced ecosystem banking as an orchestrator and expects to offer Banking-as-a-Service this year to allow FinTech startups and other companies to offer banking products and payments services.

Banks need to strike a balance between developing in-house vs. outsourcing. The days where banks built everything in-house are not sustainable anymore. Cloud technology and APIs have revolutionized many industries, and financial services is not an exception. Many FinTechs have appeared in the last 5-10 years to solve banks' specific problems, from eKYC and omnichannel solutions, to risk management and FX platforms. The importance of collaboration has not escaped the eyes of banking executives, who are re-focusing their efforts to accelerate on their digital transformation programs."

David Jimenez Maireles
Chief Experience Officer, TNEX, Vietnam

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[56] Chào Hanoi, "The growth story of Vietnam's FinTech industry," January 13, 2021.
[57] Nextgencorebanking, "Building a bank from scratch," December 21, 2020.
[58] Ibid.
[59] Ibid.
[60] FinTech Magazine, "TNEX trailblazes new digital banking sector," February 2021.
[61] Vietnam News, "Amazon Web Services to help set-up VN's 1st digital-only bank," March 7, 2021.

Step 3 – Drive: To continuously engage with high-potential prospects and customers in the right markets with relatable, personalized products

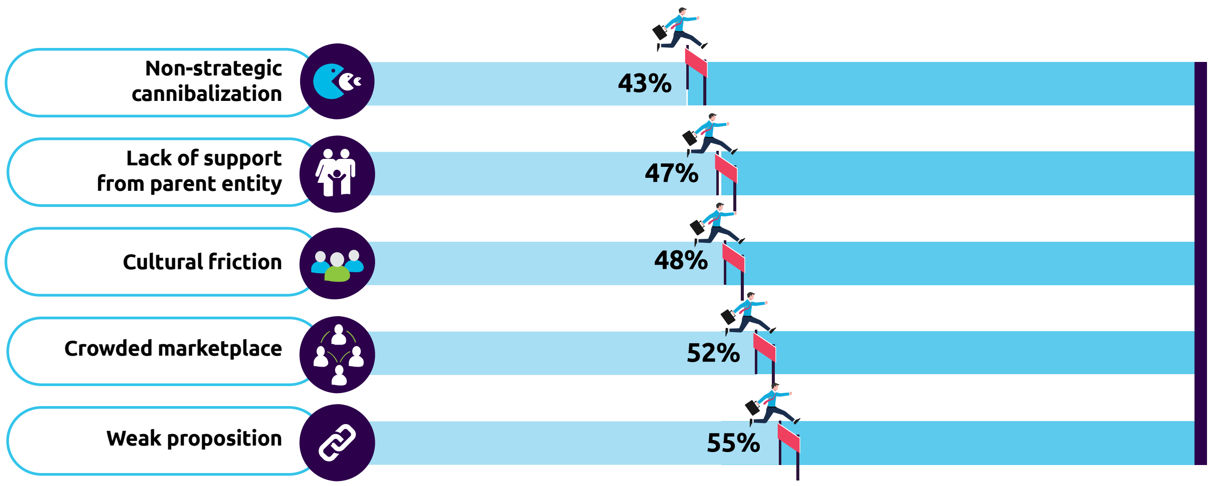
Our executive survey found that 57% banks are in the process of building a digital-only subsidiary. Upon further examination, 27% of these banks are in the planning stage, and 30% have begun the process.

Not all digital-only subsidiaries perform as expected. Our World FinTech Report 2021 Executive Steering Committee helped identify potential stumbling blocks.

To create successful digital-only subsidiaries, incumbents first need to find a technology partner to move away from legacy infrastructure and then provide full commitment and support to the digital-only arm. Transforming the entire model requires accepting cannibalization, providing parent support, and collaborating at scale to create the right kind of impact in customers' lives."

Zac Maufe
Head of Retail Banking, Google Cloud Financial Services, US

Figure 17. Operating a digital-only bank comes with a variety of hurdles



Source: Capgemini Financial Services Analysis, 2021; World FinTech Report 2021 Executive survey, N=122.

Question: What, according to you, are the challenges of a traditional bank (parent entity) when launching/expanding a digital-only bank? Please rate on a scale of 1 to 7, with 1 = not a challenge, 7 = very challenging.
Figure 17 reflects responses from executives who scored 5 or above.

Given long established legacy mindset and business models, incumbents keep tripping over these hurdles. They risk compromising or undermining the many benefits of digital-only banks. The World FinTech Report 2021 has distilled five important focus areas for incumbents to drive their digital-only subsidiaries on the path to long-term sustainable growth.

Stand out from the crowd. There are over 10,000 FinTech companies in the US and 9,000+ in the EMEA region that cater to millions of customers.[62] In parallel, thousands of banks and credit unions also serve these markets. The situation often leads to a commodity trap in which price drives competition, and no single player commands a premium in the market. And this is why it is so critical for a new digital-only subsidiary to target a clearly-defined niche – be it a new geographic market, business line, or a customer microsegment For example, **Starling Bank** released a study in March 2020 that identified an untapped market segment (the *shed economy*) comprised of 104,000 micro-businesses that essentially operate out of garden sheds. Valued at GBP17-billion, this UK micro-segment soon became a Starling niche target.[63]

[62] Statista, "Number of FinTechs startups worldwide from 2018 to Feb 2021," March 17, 2021.

[63] FinTech, "What is Starling Bank's 'shed economy'," March 26, 2021.

Offer parental support: Building and sustaining a digital-only alternative requires ongoing support and nurturing from the sponsoring bank – funding, marketing, and leadership guidance around compliance and acquisition. Ideally, a digital-bank should receive four to five years of support from its parent bank.

Accept strategic cannibalization: A digital entity and its parent bank may uncomfortably intersect with overlapping products and services. To overcome this hurdle, embrace strategic cannibalization to ensure that short-term revenue takes a back seat to long-term value potential. Consider a *Chief Cannibalization Officer* whose job description includes the destruction of legacy business lines that use technology, new structures, and new thinking while maintaining an optimal cannibalization rate. Banks that do it themselves have no fear of external cannibalization.

Be mindful of culture. A typical digital subsidiary fails due to internal politics over products and services. If the new subsidiary starts to steal market share from the old operation, politics may become hostile. It is vital to maintain a level of commitment from leadership to run the baby boat successfully."

Chris Skinner
11:FS, Non-Executive Director, Poland

Avoid a culture clash: Almost one in two bank executives we polled said they would not staff a new digital-only bank with employees from the parent bank. Incumbents are wise to strike a new-versus-old balance and foster an appropriate digital bank startup culture.

Continuously evolve your MVP: Digital-only banks initially operate with minimal products and features, but a continuous feedback loop is essential to keep developing features and upgrades within the minimum viable product (MVP). The MVP serves as a backbone, but innovation is necessary to take the core product to the next level. Over time, the digital bank's MVP can be bundled with new features and complementary products and services (by leveraging partner ecosystem) to elevate the value proposition.

Digital-only subsidiaries are not sandboxes for parent banks to carry out hit or miss trials. Parents that strategically nurture their new entities ensure long-term growth.

Digital-only banks are in the right place at the right time to support sustainable finance

The global health crisis thrust the financial services sector under the magnifying glass of regulators, clients, investors, and stakeholders. Financial institutions are being called upon to share their risk management strategies and plans to support ESG products, services, and standards.

In addition to mounting regulatory pressure, FS firms are witnessing increased emphasis from customers on green and sustainable practices. On average, 65% of our consumer survey respondents want banks to reduce their carbon footprint by following paperless processes, consuming renewable energy, and offering biodegradable cards. Nearly a third of consumers said they are willing to pay an additional charge for green products and services or shift to a new provider for environmentally and socially friendly products.

Traditional banks have reacted to these emerging green trends by promising significant carbon footprint reduction and setting up ambitious targets to achieve net-zero carbon emissions in the next few decades.

Few banks have made initial progress in using ESG data. For instance, **Islandsbanki** (Iceland) has partnered with **Meniga** to provide its customers with a precise carbon footprint for each transaction.[64] This ESG data can be further embedded with banking products such as loans, checking accounts, and payments to create green sustainable value propositions. **Bank of West** (by BNP Paribas) in the US, launched a green checking account. The account's carbon tracking tool uses the merchant code and purchase amount to calculate the carbon impact of a transaction.[65] However, much work remains. Incumbents are far behind the emerging green FinTechs such as Tomorrow (Germany), Aspiration (US), YAYZY (UK), Greenly (France), and Mitti (Spain).

As per IDC forecast, global data will grow to 175ZB,[66] and 80% of this data will be unstructured.[67] A 2019 report commissioned by Singapore multinational bank DBS, the Sustainable Digital Finance Alliance, and the United Nations determined that data used responsibly and effectively is critical to creating sustainable financial products and services.[68] Incumbents with underdeveloped digital and data capabilities will struggle to make significant progress towards green banking.

On the contrary, digital-only subsidiaries, with paperless processes and zero branch network, already have a minimal carbon footprint. They are supported by a next-gen digital foundation and are well-positioned to develop ESG-centric green and sustainable value propositions. With modern core and scaled API network, these digital-only banks can capture and assimilate data by leveraging built-in functionalities of smartphones, IoT devices, or other remote sensing technologies. By efficiently integrating novel technologies (such as AI), and effectively collaborating with third parties, digital-only subsidiaries are able to boost green initiatives of incumbents while spearheading the financing of emerging low-carbon economy.[69]

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[64] Forbes, "Icelandic bank is first to provide customers with new carbon footprint tracker," March 4, 2021.
[65] Banking Dive, "Bank of the West rolls out climate-conscious checking account," July 22, 2020.
[66] ZB is acronym for zettabytes. It is a measure of digital storage capacity. It is equal to a trillion gigabytes (GB).
[67] IDC, "IDC: Expect 175 zettabytes of data worldwide by 2025," December 3, 2018.
[68] DBS, "Sustainable digital finance in Asia," January 2019.
[69] Low-carbon economy refers to the green ecological economy based on low energy consumption and low pollution.

Think relevance and resilience for banks of the future

The ongoing pandemic has created a substantial divide between physical branches and digital channels, with the latter becoming a prominent mode of interaction for all age groups and segments. A July 2020 survey of US consumers found that more than 14-million Americans (6% of US adults with a checking account) consider a digital bank to be their primary bank — a 67% jump from January 2020.[70] Meanwhile, proliferating new-age players, including non-FS entities, are putting pressure on traditional institutions.

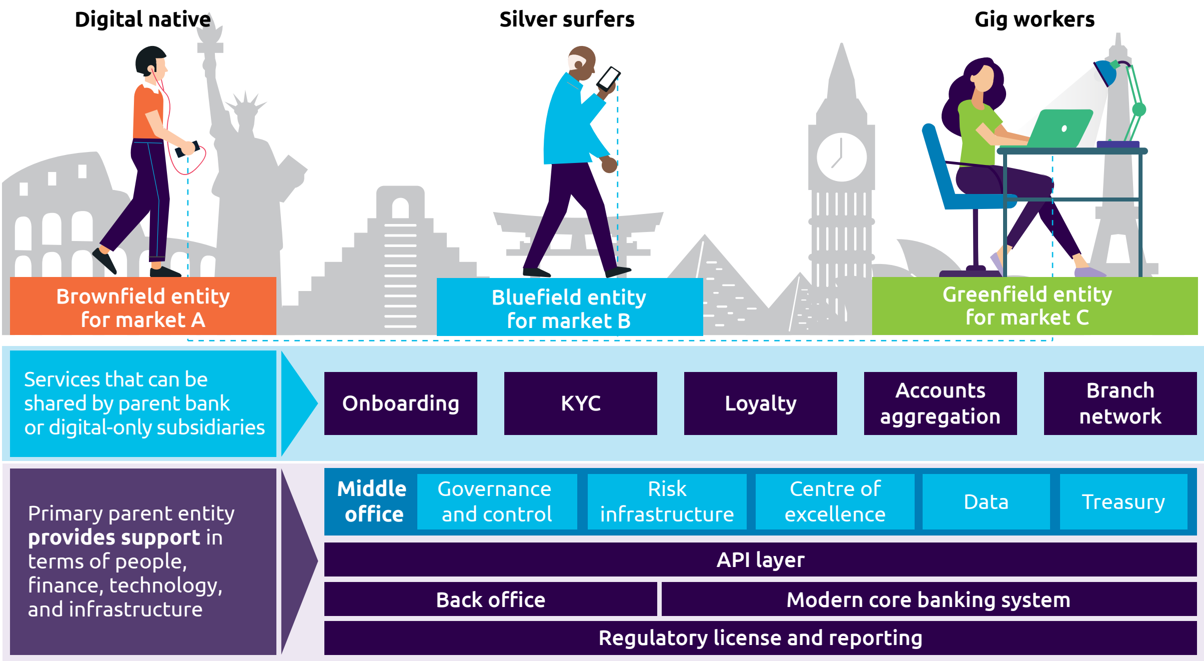
As customer centricity and enabling technologies become critical, incumbents are strategizing their future roles. Putting customers first is a top priority, and challenges around changing regulations and compliance remain. As the banking sector evolves, firms will cater to specific markets and meet customer demands locally.

How can traditional banks become future-proof as FinTechs continue to exert influence?

An emerging *hub-and-spoke* banking model may offer a success formula for incumbents. In this model, banks continue to modernize their middle and back office behind the scenes while creating multiple digital-only entities in different markets to serve specific customer segments. However, creating a digital entity is different from developing multiple front ends. Attempting to attach various front ends to the same middle- and back-office may backfire when a legacy environment cannot meet expectations. So fix the core first, and then set appropriate governance, risk infrastructure, and centers of excellence.

With a solid backbone, the parent bank can now share its varied expertise and resources to build numerous specialized digital-only banks (the spokes) to gain flexibility on who, where, and how to serve. Digital-only banks created via greenfield, bluefield, and brownfield approaches can target different customer segments – unbanked and underbanked, baby boomers, students, gig economy workers, millennials, and more – in different geographies.

Figure 18. Become a bank of the future



Source: Capgemini Financial Services Analysis, 2021.

[70] Forbes, "The Online Bank Insurgency Of 2020," July 20, 2020.

Standard Chartered raises its global digital-only profile with an innovative hub-&-spoke model

Standard Chartered, headquartered in London, traces its roots back to 1853. The bank operates a global network of almost 800 branches and outlets across more than 60 dynamic markets and employs ~85,000 people.

Business challenge/vision: In recent years, the bank significantly revamped its legacy technology through ongoing digital transformation projects. And in late 2020, the organization built a five-year plan to create a microservices operating environment, integrate new and emerging technologies, advance data capabilities, and strengthen security using cloud services.[71]

Even earlier, however, executives had prioritized the need to ramp up the bank's capability to deliver hyper-personalized FS and non-FS offerings to different customer segments across its far-flung markets – with an emphasis on inclusion. They crafted a global strategy through which the bank acted as a heritage, experience, and resources hub operating several spokes (digital subsidiaries) to boost banking options for various customer segments.

Strategy/implementation/benefits: In March 2018, the bank launched a digital-only bank in Côte d'Ivoire, its first virtual presence in Africa. And a year later, Standard Chartered digital banks were in place across Zambia, South Africa, Nigeria, Uganda, Tanzania, Ghana, and Kenya. Under the CDI initiative, as it is called internally, the bank is rapidly creating digital-only subsidiaries that can onboard business clients within 15 minutes and provide QR-code and P2P payments, loan and overdraft facilities, and instant fixed deposits. Personal banking customers take advantage of any time/anywhere banking on the go and a consistent online experience.[72] Standard Chartered digitized its wealth management offering for its African digital-only banks, which led to more than 150,000 new accounts. Based on the bank's Africa and the Middle East 2019 performance, its pre-tax operating profit grew 29% compared with the previous year. [73]

In Q3 2020, the bank bolstered its virtual presence in Hong Kong through cloud-based Mox, which features Asia's first all-in-one bank card. Users can set up an account in minutes to access a suite of retail banking services via the Mox app. Within months, more than 80,000 Mox accounts had been established.[74] Next, Standard Chartered began to accelerate its digital strategy in Singapore to compete with DBS Group and non-bank challengers. Through a partnership with NTUC Enterprise, which runs a chain of more than 100 supermarkets, the bank will go head-to-head with other Singapore digital-only bank platforms.[75]

Early this year, Standard Chartered announced a strategic partnership with Indonesian e-commerce giant Bukalapak to advance digital banking on the subcontinent. The bank will provide Bukalapak a plug-and-play white-label BaaS solution via its nexus platform. As a result, Standard Chartered will access Bukalapak's 100 million customers and 13.5 million sellers.[76] Previously, the bank forged a partnership with Sociolla to offer shoppers on the personal care e-commerce platform a more convenient and comfortable online purchasing experience.[77]

Piloting nexus in Indonesia will enable Standard Chartered to reach the unbanked and expand in the world's fourth most populous country. Executives say they plan to roll out BaaS initiatives in other Asia, Africa, and Middle East markets with established digital platforms.[78]

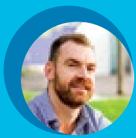
[71] The FinTech Times, "Standard Chartered partners with AWS to deliver new digital transformation," November 14, 2020.
[72] AfricaNews, "Standard Chartered launches second wave of digital-only retail banks across 4 African markets," September 12, 2019.
[73] InternationalFinance, "Standard Chartered launches 8 African digital-only banks within a year," February 2020.
[74] Fintech magazine, "Standard Chartered launches virtual bank Mox in Hong Kong," September 25, 2020.
[75] RetailBankerInternational, "Singapore clears deck for Standard Chartered to launch digital-only bank," December 11, 2020.
[76] E27, "Standard Chartered partners with Bukalapak to launch digital banking solutions," January 14, 2021.
[77] Standard Chartered press release, "nexus by Standard Chartered has established partnership with beauty and personal care e-commerce platform Sociolla to introduce financial products to their users," October 1, 2020.
[78] Pymnts," Standard Chartered Debuts Banking As A Service," March 12, 2020.

Business enablers and stakeholders emphasize on a three-dimensional approach for banks to build a digital-only arm

Incumbents are turning a gigantic ship, which takes a long time coupled with massive costs. Meanwhile, new-age players with their nimble and agile infrastructure are driving a speedboat."

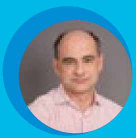
Chris Skinner
11:FS, Non-Executive Director, Poland

Product development begins by clearly defining a narrow audience. Effective customer segmentation creates more value and personalizes engagement with tailored features."



Rob Curtis
CEO, Daylight Bank, US

While the nomenclature can vary from one bank to another, the virtuous 3-dimensional road map describes the right picture or the right approach, from top to bottom, for building a digital-only bank."



Laurent Herbillon
Head of Open Innovation,
BNP Paribas, France

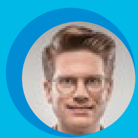
An evident phenomenon of multi-bancarisation can be witnessed, where digital banks are becoming the secondary banks for customers, especially in services such as travel, daily spending, and shared account. The usage of digital banks is expected to accelerate in 2021 as inhibitions around online banking are taking a back seat."

Caroline Lehericey
MD, Hello Bank, France

While pivoting on the thought of building MOX, we looked at two things specifically – collaboration and talent. First is how we want to run the business model - We started off by looking for partnerships that eventually gave us access to a larger client base. Second, and a critical aspect was building the right-talent. MOX has one-third of internal employees, coming from the parent, while the rest is outside expertise. Further deep-diving into talent, there are two sets. First is our leadership. We have hired and retained strong, innovative resources who are digitally native and understand experience. Second are the young, talented local population who understand the market."

Aalishaan Zaidi
Global Head of Digital Banking,
Standard Chartered, Singapore

"We see strong appetite in the market by the incumbent players to build and spin out digital-first FinTech subsidiaries; with clear separation from the 'mothership' on brand, marketing and proposition side. However, figuring out technology and internal culture is what often makes and brakes these ambitious endeavors in the end."



Matej Ftacnik
CXO, Vacuum Labs, Slovakia

Partner with Capgemini

Human-centered design in financial services

It is the nature of FinTechs to remain vigilant about relevance and competitive edge – from unbundling payments/lending strategies, to embedding products and services for seamless CX, or offering free brokerage trading, or free overdraft within 48 hours of payday – new-age players constantly innovate.

A part of Capgemini Invent, global design and innovation firm uses disruptive, new-age technologies to develop products and services that help FinTechs stand out in an increasingly crowded field.

Frog's human-centered design approach and methodology uses data, technology, and processes to indentify meaningful ways to resolve financial services challenges beyond generic needs by defining and implementing new business models and strategies to seize market opportunities.

High-velocity connected marketing

Open a direct-deposit checking account and receive USD250 in 90 days. While the solution sounds simple, an FS system launch often takes longer than expected.

Post-pandemic consumer expectations can change faster than an implementation timeline that must also accommodate complex regulations. As digital adoption speeds up, the role of technology and data is taking center stage when it comes to customer experience.

At Capgemini, we empower banks' marketing velocity and outcomes via technology and data and a marketing proposition that leverages BigTechs, unique high-techs, and our in-house expertise.

Digital assets for custody

The advent of digital assets has revolutionized the global custody industry. As cryptocurrency use increases and asset tokenization gains ground, Capgemini is forging relationships with leading technology vendors – and we have developed methodologies and assets to help our clients develop future-ready platforms with a focus on key trends, niche market solutions, venture building, and emerging asset exchanges.

Customized solution processes include: zeroing in on emerging trends, picking up market signals, assessing research and investment flows, and identifying distinctive capability potential

Niche market solutions are based on a PoC approach to build testable, pluggable, and scalable designs and actionable prototypes while further enabling opportunity solution testing.

Solutions expedite venture building and asset exchange by evaluating and proving business models, future-state models, processes, minimum viable business, and by helping clients identify best-fit innovation partners.

FinTechVisor for effective collaboration

FinTechVisor is a global platform, co-developed by Capgemini and Efma, to foster new partnerships between Financial Institutions and Financial NewTechs thanks to an interactive matchmaking tool.

Ask the experts

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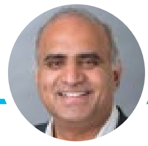
Elias is responsible for Capgemini's global portfolio of financial services thought leadership. He oversees a team of consultants and sector analysts who bring together a wide range of strategic research and analysis capabilities. He brings expertise in effective collaboration between banks and startups, having launched his own FinTech in 2014 after more than 20 years in banking and payments.

Nilesh Vaidya
Global Head of Banking and Capital Markets practice



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Nilesh has been with Capgemini for 20 years and is an expert in managing digital journeys for clients in areas of core banking transformation, payments, and wealth management. He works with clients to help them launch new banking products and its underlying technology.

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Sankar focuses on digital innovation and transformation at some of the leading global banking brands. He helps banks with their strategic priorities, including faster time to market, new product launches, revenue growth, and optimization of operations by using tech as enablers.

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Ian has over 25 years of experience in helping the 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.

Joachim von Puttkamer
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Joachim is passionate about solving problems and generating new ideas for the benefit of his clients. He has 18 years of experience across digitization initiatives, cost reduction and transformation programs. Joachim is responsible for the Management Consulting Business with Banks globally.

Colin Payne
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Colin is passionate about the development of new services in BFSI to match changing customer needs. With over 25 years of technology and change experience, he helps clients to reinvent and revolutionize customer first engagement and thrive with new ventures, delivered at pace.

Ask the experts

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Sujit focuses on growth strategy and accelerating client's digital transformation to launch new business ecosystem amid fast-paced industry disruption. He drives client and team collaboration for the co-creation of transformational outcomes through consulting, digital studios, innovation exchanges, partnerships, and FinTech solutions.

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

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Vaibhav supports banking and FinTech sector in Capgemini Market Intelligence. He comes with over six years of cross-sector research and consulting experience in digital technologies.

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Methodology

Scope and research sources

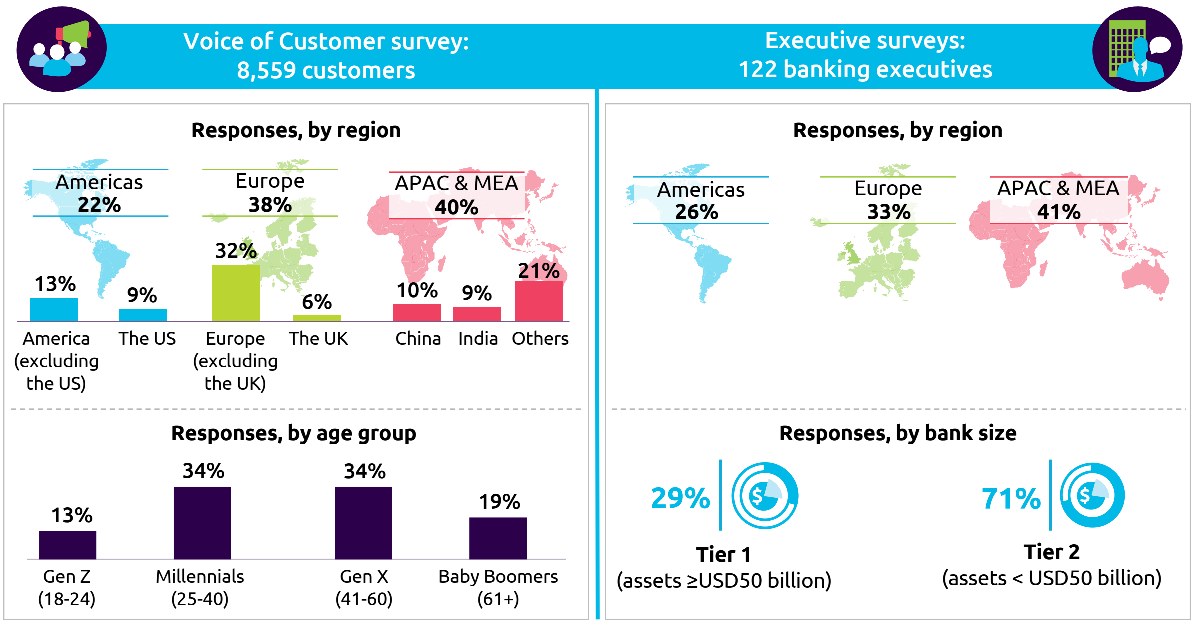
The World FinTech Report 2021 draws on insights from two primary sources – the **Global Voice of the Customer survey 2021,** and the **Executive surveys and interviews 2021.** Together, these primary research sources cover insights from 33 markets: Australia, Belgium, Bhutan, Brazil, Cambodia, Canada, China, Denmark, France, Germany, Hong Kong, Iceland, India, Italy, Japan, Malaysia, Mexico, Mongolia, Myanmar, the Netherlands, Norway, Portugal, Russia, Saudi Arabia, Serbia, Singapore, South Korea, Spain, Sweden, Switzerland, UAE, the United Kingdom, and the United States.

2021 Global Retail Banking Voice of Customer survey

The survey questioned customers on their personality dimensions such as lifestyle, employment, banking behavior, expectations from banks, channel preferences, satisfaction levels, and friction during banking interactions. Participants were also asked questions on their willingness to share customer data, affinity towards digital-only banking, and their interest on availing services from non-banking firms.

2021 Global Retail Banking Executive surveys and interviews

The report includes insights from focused interviews and surveys with over 130 senior executives of leading banks representing all the three regions: Americas (North America and Latin America), Europe, and Asia-Pacific & Middle East (including Japan).



Others include: Australia, Japan, UAE, and South East Asia.