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Future of Banking Series:

5 Megatrends of Banking

An ecosystem mindset, the way forward

INSIGHTS FOR SUCCESS | IDEAS TO EXECUTE

February 2020

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Preface

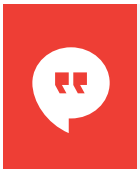
Our banking needs have not changed, but technology is evolving the way we bank

How do banks of the future make money? The answer is, by being the most intimate provider of service to the customer based on that digital footprint, and by being able to really leverage our understanding of the customer's financial lifestyle far better than any other player.

Chris Skinner
Author of Digital Bank and its sequel
ValueWeb

From the early 20th century, banks were majorly involved in four services – loans, payments and investments along with acting as a trustee of public wealth. Many would still argue that these are the core pillars of modern banking as well. They are right. Our banking needs have not evolved much but with technological progress, the way we perform these tasks has changed. This changes everything!

Now, in the era of Digital 4.0, emergent business models like Banking-as-a-Service (API), the niche bank (focused service provider), and utility provider (provider of cost-efficient core banking services) are fast gaining momentum. These new models are the result of new-age tech such as IoT, big data, autonomous robots, cloud, augmented reality, and artificial intelligence (AI) among others. This has unveiled innovative new methods of providing personalized and seamless banking experience for customers.



60 percent of retail banking profits are expected to become vulnerable to disruption by 2025.

A resurgent banking sector – what doesn't kill you makes you stronger

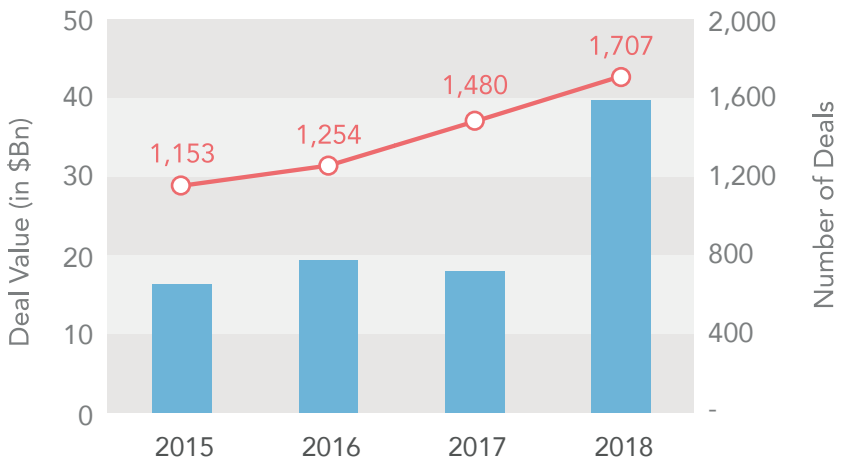
Emerging fintech players and strong industry growth has made banking ripe for disruption

We are now in the era of self-driving cars, automated assembly lines, and smart-phone-powered retail experiences. Still, a majority of banks have missed jumping onto the innovation bandwagon. What went wrong? Post the 2008 financial crisis, major global banks were caught flouting regulations which led the US and world economy to a grinding recession. The post crisis period was all about getting their house in order. This made innovation the last thing on the bankers' mind.

This resulted in an innovation gap so huge that now even non-traditional banking players are joining the ongoing digital wave in the sector. These new players are mostly tech-enabled firms who have the tech resources and agile operations to implement quick solutions for banking customers.

Global fintech deals hit a record $39.57 Bn in 2018

Annual Global Fintech Deals, 2015-2018

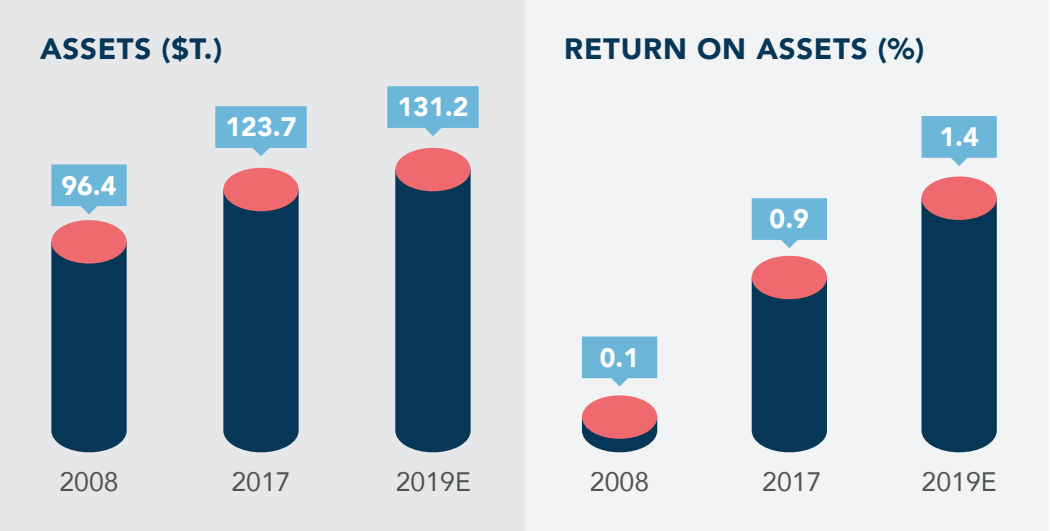


Source: Crunchbase Database

The current innovation wave in banking is riding on the back of steady growth in the last decade. The environment is further supported by technology advancements making digital solutions more economical and accessible for the masses. Add in a favourable regulatory environment and we are all set for explosive growth in the industry.

Global Banking Industry: Growth of the top 1,000 world banks in the last decade

The top banks have grown in size, and are more profitable



Source: Danielle Myles, The Banker 2009, 2017, 2018

Big techs making in-roads in the peer-to-peer (P2P) payment space

The competition is set to intensify with top tech companies with billions of existing users offering niche banking solutions

WeChat Pay

A payment solution completely integrated inside the social and messaging application "WeChat"

G Pay

A digital wallet platform and online payment system to power in-app and tap-to-pay purchases on android devices

A peer-to-peer payment solution integrated into the Facebook Messenger App

amazon pay

An online-payments processing service which give Amazon users the option to pay with their Amazon accounts

Reaching billions of unbanked is the biggest opportunity

It is not the strongest species that survive, nor the most intelligent, but the ones most responsive to change

Charles Darwin

What we see as the major danger and opportunity emerging for retail and commercial banks is their indecisiveness of making clear business model choices. First movers like JPMC are reinventing how a modern bank should look and operate – showcasing how going digital helps in cost saving, increasing reach, and loyalty. Despite this, we are not seeing many incumbents taking the digital plunge wholeheartedly. Overtime, indecisiveness will lead to more decisive players dictating the evolution of banking and incumbents losing their ability to compete.

Business model decisions will have to be made keeping in mind the market actualities. Banks will need to re-frame their models looking at what opportunities the banks can best cater to emerge as a leading value provider for their consumers.

Future challenges and opportunities for bankers:

- **Bank the unbanked:** With deep mobile penetration, banks have a never-before opportunity to serve 1.7 billion globally unbanked customers thus pushing the need for new products and services

- **Providing seamless and frictionless customer experience:** Banks need to focus on mobile-centric customer experience as they are now competing with top tech firms– the champions of customer experience

- **Demographic and behavioural changes:** The aging population of developed economies and the digital-first millennials of emerging economies provide a unique opportunity for growth. We foresee banks organizing themselves around customer needs instead of products and services

- **Current business model pressures:** Legacy systems are staggeringly complex and costly affairs to manage. Often, each product has its own separate operations, technology, and processes. To remain profitable and compete with the new-age, tech-enabled players, banks need to provide traditional services at almost zero pricing by reducing their operational costs severely

- **Improve access to banking services to SMEs:** Small businesses have suffered a lot because of limited access to finance and support services in spite of being the major contributors to economic progress. SMEs require omnichannel offerings based on integrating traditional and digital channels which can anticipate and fulfill their needs as they mature

How did we identify these megatrends?

We shortlisted the megatrends on the basis of how likely they are to change banking as it exists today. Then, taking our understanding of what we know now and assuming certain growth conditions looking at how the current industry is shaping up, we examined different ways these trends could play out. Some key considerations:

- **Potential impact on industry participants**
  Incumbent banks, fintech startups, customers, and regulators are the key stakeholders in the banking value chain. We checked the possibility of disruption caused by our megatrends in the way the ecosystem partners operate and provide value

- **Favorable regulatory support**
  Given the regulatory reforms which are still sweeping the industry, we checked the impact of government regulation on successful adoption of these megatrends

- **Likelihood of implementation by industry participants**
  Each megatrend is dependent on parameters such as capital investment, access to resources such as data, technologies, etc, and value each ecosystem participant is able to derive out of these megatrends

Digital all the way: Banking megatrends for 2025

Our list of emerging megatrends is based on how the ongoing digital revolution is paving the way for a new era where banking is available for all, is a frictionless experience, and above all, highly personalized.

With the current pace of innovation, supportive reforms, maturity of fintechs and the adoption of successful use cases by incumbents, we expect these megatrends to transform fundamentals of banking.

1. **Open Banking**
   With regulation supporting free sharing of customer data, fintechs via the use of APIs are coming with innovative product and service offerings for customers on the back of data from traditional banks

2. **Banking for Millennials**
   As per Open Access Government, by 2020, millennials will comprise 35% of the global workforce. Banking as an industry has not evolved much in the last 100 years but with millennials demanding personalized services, we expect banks to become customer-first platforms

3. **Customer Experience in Banking**
   Incumbents who will survive the ongoing digital 4.0 wave will differentiate themselves by championing customer experience. Banks are learning and partnering with tech firms to leverage their experience in making banking experience seamless

4. **Digital-Only Banks**
   Digital-only banks operate like tech startups and provide highly intuitive experiences on the back of technology and innovative digital services. They show great promise on improving customers banking engagements starting with one experience at a time

5. **Invisible Banking**
   Technological progress has enabled a significant rise in cashless transactions. Combined with the power of seamless and frictionless platforms, banking is being integrated into our daily digital touchpoints with the eventual aim of making it an organic experience

The 5 Megatrends of Banking 2025

Megatrend 1.
Open Banking: A plug-and-play solution

Is it the end of traditional banking models?

"

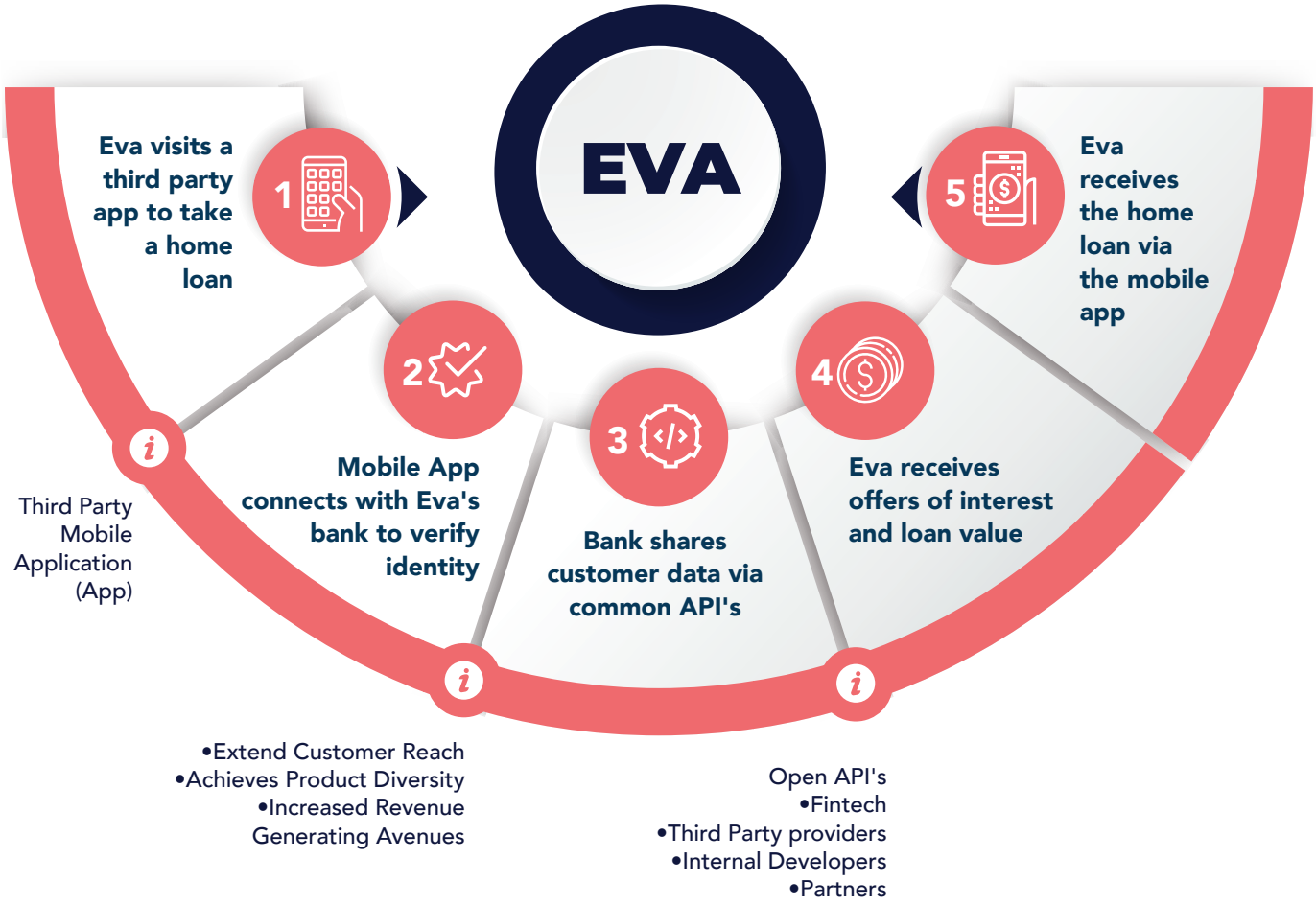
This, to me, is the battleground when I'm talking about the digital revolution, the digital human, the digital bank: If you do not get cognitive, predictive, proactive, custom analytics that'll give the customer a far more informed view about their financial affairs, you will not be the partner for that customer in their financial future.

Chris Skinner
Author of Digital Bank and its sequel
ValueWeb

Open banking has been a hot topic in the banking space for some time, partly fueled by the growing number of regulations which are opening the previously bolted banking industry for competition like never before. We define 'Open Banking' as a model allowing the sharing of banking data via APIs between unaffiliated parties to provide enhanced banking services.

This model has the potential to revolutionize how banks generate value and at the same time, has the power to make redundant the players which fail to switch to open banking.

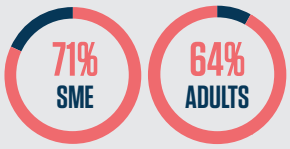
Representation: How Eva's life got easier via Open Banking?



Open Banking – The land of opportunities for financial service providers

$1 Tn

Incremental revenue opportunity in Asia-Pacific over the next decade



Adoption rates of open banking by 2022

90%

Bankers believe that open banking will boost their organic growth by up to 10%

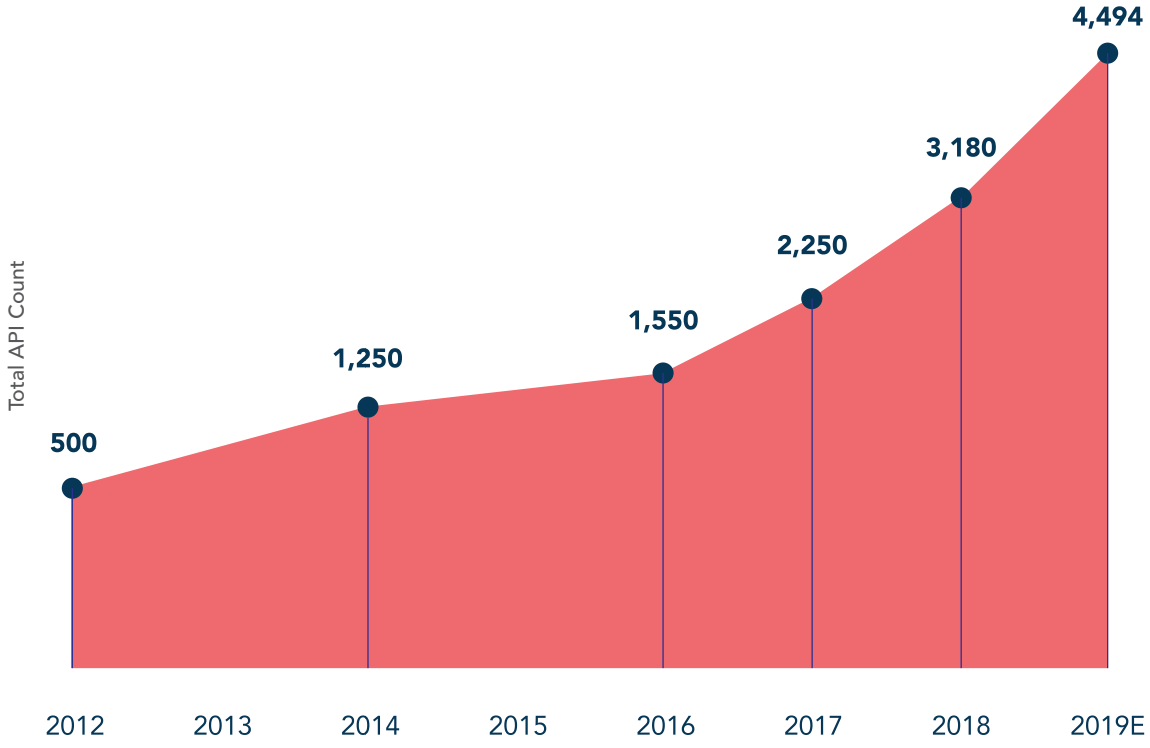
What banks tend to gain?

Develop better digital services

Increase customer personalization

Reduce costs of customer acquisition

Global Growth in Financial Services APIs



The catalysts of opening banking

1. Changing consumer behavior

82% Millennials who would trust third parties to aggregate their financial data in exchange for lower pricing on products and services

62% Customers who believe that the service is far more important than the financial institution that delivers it

2. Regulatory support

Government initiatives

- European Union: EU has made it mandatory for payment services providers to meet the PSD2 technical standards which lays out specific requirements to ensure strong customer authentication and security measures needed for online transactions
- Singapore: The Monetary Authority of Singapore and The Association of Banks have come up with an API Playbook which will support data exchange and communication between banks and fintechs
- United States: The Electronic Payments Association (NACHA) has created the API Standardization Industry Group, which identified 16 specific APIs for development based on their overall impact to the payments industry

3. Large unbanked population

$1.7 Bn

Global unbanked population

$380 Bn

New revenue opportunity for banks by bringing in unbanked adults and businesses

4. Growing digitization and faster internet speed

3.2 Bn

Global smartphone users

3.5 Bn by end 2018

5.5 Bn by end 2023

Global 4G penetration

5. Increased competition from non-banks

11%

Big techs' revenue coming from financial services

$3 Bn

Merchant cash advances by Amazon

Big techs in payments

Google Pay	amazon pay	Apple Pay
67 Mn	**300 Mn+**	**383 Mn+**
Google Pay+ users	Amazon Pay users	Apple Pay users

Case Study: Uber partners with BBVA in Mexico

GOAL

To onboard driver partners in Mexico where more than half of the population is unbanked

THE HOW

Provide in-app banking

Uber faced a unique challenge operating in Mexico where they found out that 35 percent of their drivers coming on board had never accessed banking services before.

To deal with this situation, the company partnered with BBVA to launch banking services by using BBVA's open APIs, allowing Uber's driver partners access to services like real-time payments within their app. In addition, drivers are provided access to a partner debit card linked to their Uber account, enabling them to spend their earnings directly from their app.

THE STRATEGY

Leveraging the gig economy for extending banking outreach

By understating the financial problems faced by drivers in the gig economy, Uber offered innovative solutions such as a free $100 daily overdraft facility for drivers using the app as a banking platform. This meant drivers who start their day with zero money, could fill their gas tanks and start earning, in turn, increasing business for Uber.

Also, the banking partnership allowed Uber to provide financial benefits like loans and non-financial benefits like discounts and reimbursements for gas purchases for drivers.

THE RESULT

Uber account becoming primary banking account for their driver partners

To Uber's surprise, once they started providing banking services, they soon discovered that drivers were bringing in money from other sources into their accounts thus furthering financial inclusion for their drivers which in turn increased customer loyalty.

How should incumbents be thinking about all of this?

1. Embrace digital to ensure survival

Cost-cutting, new product development, and ecosystem partnerships are some of the upfront benefits

58%

Banking executives who believe becoming digital will help in cutting costs

32%

Banking executives say they will shut down more branches

52%

Banking executives who say innovation is a top spending category

JPMC partnered with Persado, a software company to use its AI tools to improve its customer messaging and cut down on its marketing costs.

Banks are investing top dollars in tech budgets to roll out advanced digital features (FY2018)

$11.5 Bn

JPMC Bank

$10 Bn

Bank of America

$9 Bn

Wells Fargo

Key Questions:

- **What will be the role of the bank in the open banking landscape?**
- **How are digital players eating away the bank's revenue?**
- **How can banks maintain their relationships with customers vs them switching to digital competitors?**

2. Leverage ecosystem partnerships by adoption of APIs

Banks need to revamp their integration platforms to facilitate swift interactions with third-party providers

1 Bank channel

At this stage, banks buildout APIs for their own development teams' ease of use in web, mobile, and other internal applications.

Use case: DBS launched an Innovation Plan in mid-2015 that had over 1,000 experiments in APIs, cloud computing, microservice architecture and machine learning.

2 Create API marketplace

Next step for banks in their API journey will be to open some of their APIs to trusted third party developers. This will begin to build the larger ecosystem around banking services beyond banks' own apps.

Use case: UnionBank of the Philippines' API Marketplace allows fintechs to tap into banking and other functionalities allowing personalized offerings.

3 Become an API distributor

This extends a bank's API marketplace by listing third party financial services API offerings from partners and fintechs alongside the bank's own, enabling delivery of best-in-class products and solutions to customers.

Use case: United Overseas Bank (UOB) partnered with Agoda and Expedia to offer an online travel marketplace using their APIs to draw best options from more than a million hotel and flight possibilities.

4 Open banking API's

The final level is to offer a set of open banking APIs that enables developers to integrate banking products and services into their own apps. Small players can use these APIs to extend their offerings using APIs offered by a larger bank.

Use case: Bank of China provides access to registered users to access its sandboxes for product information on APIs – branch information, credit cards, deposits, insurance, interest and exchange rates, investments, and mortgage, among others.

How to win the API war?

Winning in the API-enabled banking ecosystem will not be a game of technological capabilities but the ability of banks to deliver value for their customers.

Banks would need to develop APIs from a demand perspective by looking at what the customer wants and fulfilling that need while simultaneously making these APIs indispensable for their ecosystem partners (developers, fintechs and startups). APIs which are developed for fulfilling the banks' own needs are likely to fail.

Key Questions:

- **What is the value proposition the bank is trying to achieve with API? –** Whether to achieve process improvements, to make advisory and analytics tools, enhance product offerings or an aggregation platform
- **Does the bank have internal capabilities to develop the required API ecosystem?**

Key points to consider:

- Internal data availability and standardization
- Maturity of internal technology and data analytics
- Consumer interest for bank's open banking proposition

Megatrend 2. **Banking in the World of Millennials**

If you do not know me well, you do not get my money!

“

At its core, banking is not simply about profit, but about personal relationships.

Felix Rohatyn
Chairman and CEO
Lazard Freres

With rising incomes, millennials are set to take over the financial world with a majority share in the global wealth. However, there is a significant gap in what millennials expect from their banks and what is on offer!

These 20 to 35-year-old's are the first digital natives of this world making them unique in their behavior compared to their predecessor, the Gen X. Millennials prefer digital convenience, on-the-go service and digital solutions for all their needs. This generation is not much of a fan of savings and does not have much experience in managing their finances. Also, they are the most burdened by debt.

Millennials look at banks as their financial partners who are consistently failing them!

GEN Z
32%

MILLENNIALS
32%

Percentage of Gen Z and millennials of global population in 2019

75%

Percentage of millennials in global workforce by 2025

42%

Millennials unsatisfied with their financial condition

55%

Millennials in debt

In numbers: Millennials and banking

Millennials are next in line to inherit global wealth and they are not happy with what bankers have to offer

45% Who believe they would not require a bank at all

70% Would be excited about a new financial offering from Google, Amazon, Apple, and PayPal than from their own nationwide bank

68%
Millennials who already use mobile banking

150% MORE THAN GEN X-ERS
250% MORE THAN BABY BOOMERS
Millennials' rate of change of banks

58%
Don't think their bank offers anything different than other banks

300%
More likely to open a bank account with mobile than in-person

52%
Have accounts with more than one financial service provider

Banks are finding unique ways to embed themselves in millennials' life

LOLLA CASHLESS

PRESENTED BY

Lollapalooza, a music festival in the US with millennial viewership, partnered with Citi Bank for Lolla cashless, allowing visitors to pay through a wristband.

The Citizens Bank of Edmond in the US designed a special dual-screen ATM for customers. One screen allowing them to operate as a typical ATM while the other screen allows them to connect to a bank teller in real-time for detailed inquiries.

Case Study: Chase Sapphire Reserve credit card

The credit card was one of the top product launches in 2016

Challenge: Millennials hate credit cards, but can the product be redesigned to suit their needs?

Goal: Design a credit card for millennials based on their spending habits, rewards, and benefits

Approach: Chase undertook to understand the lifestyle of millennials — What mattered to them, why were they not using credit cards, what did they like about credit cards, and their spending habits and patterns. Using this data combined with their behavior, Chase was triggered to build a credit card product ground up. For example, defining spending in a more flexible (millennial) way. Thus, travel was no more an airline or a train ticket but could be an Uber or Lyft.

How did they do it?

Behavioral Triggers	Chase Offering
Wants upfront benefits or value	Attract millennials by a one-time signup bonus of 100,000 reward
Quality conscious	 Cards which are designed classically with metallic plates to give them heft
Rewards and offer conscious	**Annual fee:** The Chase Sapphire Reserve has high $450 annual fee, but the rewards and benefits more than make up for it. Users automatically get statement credits rebating the first $300 in the travel category spending each year. So, in effect, the annual fee is only $150 **Rewards** • The card earns points on everyday spending faster with a 3x points per dollar spent on travel and dining purchases and 1x on everything else • Enhanced travel and purchase protections • Comes with a Priority Pass Select membership, which gets the customer and any travel companions' free access to more than 1,000 airport lounges globally

Results:

Chase reached its full-year acquisition target within first two weeks of the card being available; manufacturers ran out of the special metal alloy that gives the card a classic look

Product virality: Millennials were posting YouTube videos of themselves unboxing this credit card

Chase has expanded its high-end Sapphire cards to include checking accounts. These platinum accounts require minimum $75,000 in deposits and investments, but eliminate fees such as wire transfers and foreign exchange at overseas ATMs

How can incumbents embrace millennials?

1. Provide millennial-centric customer experience

Find opportunities to build trust throughout the customer journey to show banking services can add value to their lives

25%
Banking products available offline, making mobile-only users unaware of their existence

58%
Don't think their bank offers anything different than other banks

45%
Who says that their bank does not communicate with them via preferred channels

- Tying up with innovative third-party solutions to offer the best-in-class tech products and services such as using Capital One's integration with Alexa for payment of credit card bills
- Drive personalization in offerings and communication by studying millennial user behavior and providing relevant solutions

2. Become their financial advisors

To reap long-term benefits, banks would need to become digital-first financial advisors for their customers

32%
Millennials who have sought financial advice in last 5 years

12%
Millennials who believe they have the financial literacy to manage their finances

34%
More likely than baby boomers to value financial education from their bank

- Behavioral banking: Using AI and data analytics on customer data helps them reach their financial goals
- Extensive use of robo-advisors to automatically allocate, manage and optimize clients' portfolios as per their predefined targets

3. Become innovators across the banking value chain

Using first design principles, redesign current offerings and come up with new innovative solutions in line with millennial expectations

Provide financial guidance

Banks should implement systems which help millennials automate their financial tasks.

Implementation of Smart Contracts for automated portfolio management. Application includes but not limited to, automatically triggering the sale of a fund based on set rules to fulfilling execution of a contract between the client and the asset manager.

Increase trust and security

To provide a secured platform for millennials who do not hesitate to switch accounts in case of any negative press. Blockchain and AI-based systems should be used to provide secured transactions.

Using AI- and ML- based systems for anomaly detection based on user data such as location combined with their behavioral patterns to detect fraudulent transactions.

Provide convenience by eliminating routine tasks

Development of advanced identity management systems based on consumer data such as biometrics, making KYC redundant.

Further, securing this data with blockchain-based solutions and creating a central repository of consumer identities which are readily available across the financial ecosystem for confirming identities. This way user will not have to reconfirm identities whenever he does a new financial transaction.

Megatrend 3. **Customer Experience: The key differentiator between winners and losers**

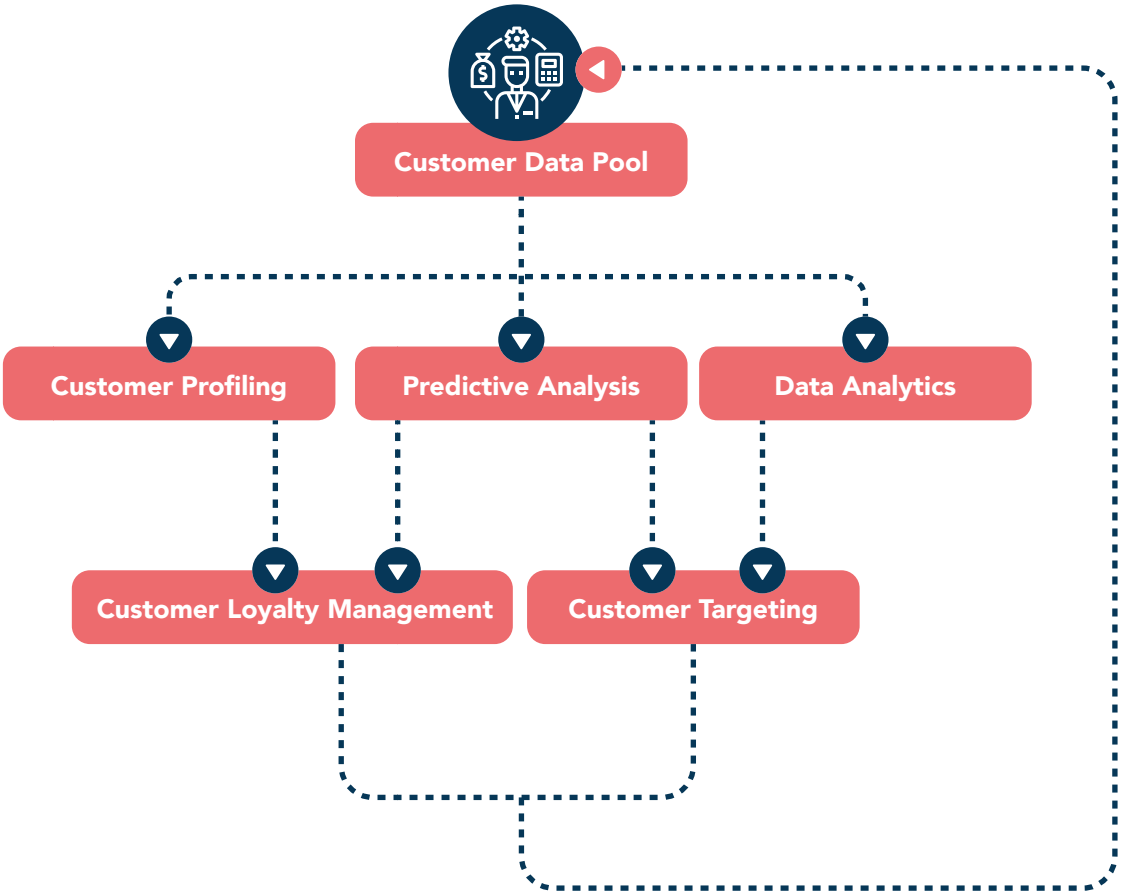
With increasing tech application, banking is turning into a service

> The goal as a company is to have customer service that is not just the best, but legendary
>
> **Sam Walton**
> Founder Walmart

Today everything in the consumers' life is better than ever with real-time smart digital services on the palm of their hands. From ordering food, booking cabs, flights or shopping, everything is done in a few clicks in a seamless way. Therefore, today when banking customers evaluate banks, they do not compare interest or overdraft but customer experience.

Technological advancements are changing how consumers interact and engage with products and services. With applications of voice, smart digital assistants, and all-in-one banking platforms, we are seeing newer and efficient customer journeys. This is fundamentally changing how business gets done. To be a top-of-mind brand will require banks to become an active part of customer's digital life.

Virtuous cycle of building a data-enabled customer experience system



Why customer experience is the key

Banks will need to overhaul their customer journeys to offer personalized product and service

68%
Customers who would grant more access to their data for personalized services

34%
Customers who believe that banks understand their needs and preferences

70% vs 38%
High satisfaction level of users who were offered personalized experiences vs those who were not

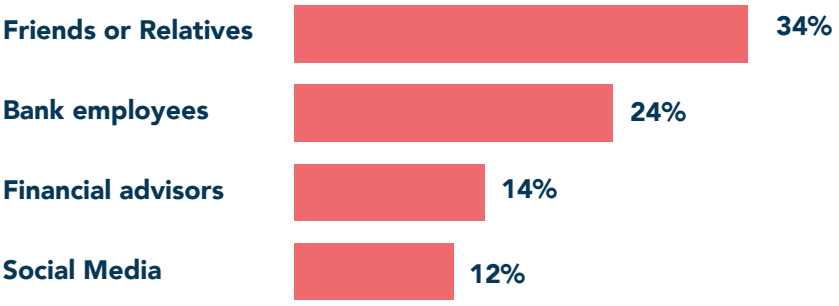
65%
Millennials who will switch banks for a better tech platform

82%
Millennials who will switch banks for personalized rewards and offers

52%
Millennials banking with more than one financial service provider

Where customers turn for advice on financial service providers

About 62% (friends or relatives and social media) recommendation is coming from non-bank-controlled channels. Therefore, providing a superior customer experience will increase retention, loyalty and in turn mean more business for the banks.



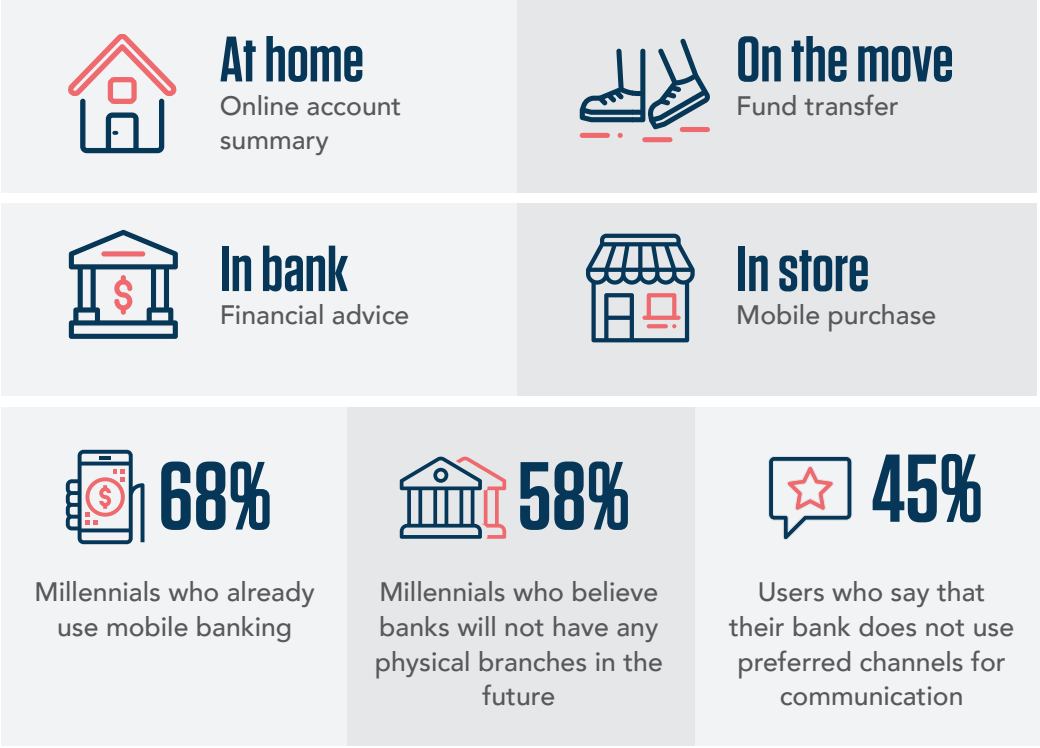
(Note: total is not 100%)

What triggered the adoption of customer experience in banks?

1. Changing customer expectations

Customers today expect to do banking where, when and how it suits them

With banking becoming mobile-first, a poorly performing mobile app is enough for a millennial to switch banks.



With almost all banking services integrated in mobile, design teams need to help customers find relevant features and content they need to achieve their goal. For complex tasks, banks need to make sure customers can reach a person when they want to, over the phone or via chat, video, or messaging.

2. Increasing competition from tech-enabled fintech startups

Customers are moving from their incumbent banks to fintechs which are providing superior customer experience

BANKS **42%** | **FINTECH** **88%**

Banking executives vs fintech executives on how customer-centric they are

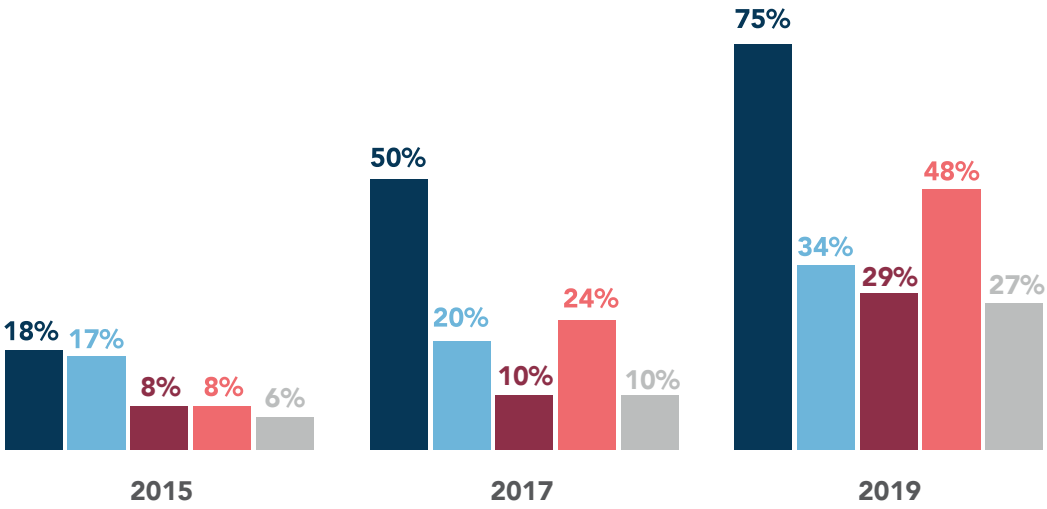
78%

Customers who believe that fintechs provide better omnichannel experience than their banks

62%

Customers who would stick with their bank if it provides more personalised customer experience

Global Consumer Fintech Adoption Rates, By Category



Source: Statista Database

- Money transfer and payments
- Savings and investments
- Borrowing
- Budgeting and financial planning
- Insurance

Square

A fintech startup that provides seamless, multi-device responsive design that functions on any smartphone, tablet and point-of-service device

3. Big techs entering financial services

The pioneers of customer experience – Amazon, Google, Facebook and Apple who have access to billions of users, have started making serious inroads with strategic bets in the financial space.

72%
Customers who would buy financial offerings from big techs

35%
Customers who trust big techs more than their primary banks

Big techs in payments

Google Pay	amazon pay	Apple Pay
67 Mn	**300 Mn+**	**383 Mn+**
Google Pay+ users	Amazon Pay users	Apple Pay users

Recent financial initiatives by big techs

Google: Announced that it will be offering checking accounts
Apple: Set to launch a new credit card in collaboration with Goldman Sachs
Facebook: Announced that it will launch a global cryptocurrency named Libra built on blockchain

Amazon: Banking, the next frontier?

Amazon is building financial products and services to increase participation in the Amazon ecosystem. To achieve this objective, the company has built tools & services focused on:

PAYMENTS	CASH DEPOSIT	LENDING

65% Prime customers who would bank with Amazon if offered discounts on purchases

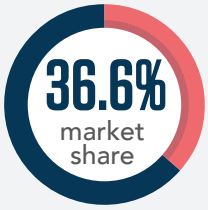
The e-commerce player has millions of customers who are doing transactions via its platform

310 million
active customer accounts

100 million
Prime customers

5 million sellers

Amazon Alexa: Is the future voice-enabled banking hardware already at your home?



Global leader in smart speakers

Customers who would consider using voice-controlled assistant for banking

Case Study: "Eno", Capital One's smart conversational AI assistant

Eno is Capital One's AI-powered assistant which helps users with insights and alerts, shopping, and account management. The company, known for providing exceptional digital customer experience, says that the best customer feedback has been received for its smart AI assistant.

Intelligent interface

The AI-powered assistant can interpret 2,000 different ways customers inquire about their balance, other inquiries and preemptively help with related details. An example:

CUSTOMER	ENO
Customer asks about his credit card reward balance	Provides response and anticipates related questions like– 'How do I cash in my rewards?' OR 'When do they expire?'

Smart AI functionalities built on behavioral data

The smart AI help customers with insights which are generally ignored by the customer such as:

- If the customer has been double-charged
- If a recurring transaction just had an increase
- Reminder if a free trial is about to expire so as to avoid charges

Eno has been designed to help customers with:

Monitor charges	Did you make two purchases of $40 at Cut & Cloth?
Track spending	Your bill is higher than usual. Did you expect an increase?
Fraud alerts	Recognize this purchase; $530 at Camera Supply Store?
Account updates	There is a credit of $456 in your account. Were you expecting this?

How banking leaders should be thinking about customer experience?

1. Offer personalized products and services

90%

Banking executives who agree that personalization is the next big competitive advantage

35%

Banking executives who reported that personalization is a priority for them

Key Questions:

- Does your bank have a customer-centric culture to scale personalization?
- What are the current personalization capabilities of the bank in terms of tools and resources?
- Is personalization a key success parameter for your product team?

2. Build omnichannel experiences

46%

As per Google, percentage of people who switch between devices before completing their financial activity

38%

Customers who think that their banks' communication channels are seamless

Key Questions:

- Does your bank provide seamless experience and communication across channels – online, branch, phone and mobile app?
- Does your bank have a solution that offers visibility into customer and member data across multiple touchpoints of the organization?
- Reduced human interaction due to tech applications makes the remaining few human touchpoints more important than ever. How is the bank combining digital and human channels?

Seamless omnichannel experience

The smart assistant collects information from multiple sources and provides smart interactions via mobile, desktop, and wearables

3. Using education and guidance as a brand driver

55%

Millennials in the US who worry they would not be able to pay back their student loan

70%

Customers open to automated advice on investments

42% Consumer more likely to buy product digitally after watching a video

Champion banks are proactively trying to engage with specialist content providers to enhance user experience.

- Bank of America partnered with Khan Academy to offer its customers financial literacy video tutorials
- Capital One promotes community access to its users so they can obtain advice and share experiences

4. Implement data-backed behavioural banking

86%

Bank executives who believe that AI will have a significant impact on their bank in the coming 5 years

62%

Banks which are implementing AI strategies across one of their functions

Key Questions:

- How are the customer interactions across channels being tracked?
- How is the bank enhancing customer journey maps with an eye on technological solutions?
- Does the bank have data repositories with big data capabilities to achieve customer segmentation?

Megatrend 4.
Digital-only Banks

With increased application of advanced tech, banking is turning into a service-oriented solution provider

"Digitization means that financial institutions are increasingly becoming technology companies with a banking license.

Zane Miltina
Luminor Bank

For quite some time, the buzz in the banking space has been – "Digital-only banks undercut incumbent banks on fees and harvest financial data to provide better customer experience". What does it mean to be a digital-only bank? It has a lot more to do than just having a website or a multi-function app. It has more to do with the application of automation in every single step of a bank's process, be it back end operations, new product development, customer service and anything which falls in between. Digital-only banks do everything which a bank can, except accepting payments in **CASH!**

The backbone of digital banks is the application of new technologies such as big data, artificial intelligence, blockchain, advanced analytics and other emerging technologies to provide enhanced customer experience. The key for these banks is the ability to provide user with the service of their choice via access of their choice.

Why incumbents should care

300%

Expected increase in consumption of financial services by 2030 due to digital play

8-10%

Expected revenue loss for incumbents due to digital banks by 2022

>30
APPLICATION

>15
LICENCES GRANTED

Applications in APAC for virtual banks by financial service providers, fintechs, and technology players

Key Differentiators: Traditional and digital-only banks

Digital-only banks are tech companies operating in the banking sector

	Traditional Players	Digital-Only Bank
Customer Acquisition	Branch and online	Mobile-first
Customer Demographic	Mostly Gen X	Mostly millennials
Customer Service	Branch, customer support, self-service	Tech-enabled self-service eg. ChatBots
Customer Experience	Branch, online, mobile	Mobile-first
Customer Data Approach	Internal data	Based on customer interactions across platforms
Product Approach	One size fits all	Personalized as per user data
Operating Model	Centralized	De-centralized
Product Development Approach	In-house R&D teams	Agile, with the use of tech stack as cloud, mobile, AI, APIs, etc.
Regulation and Compliance	Highly regulated	Regulation still under development for most countries

What triggered the adoption of digital-only banks?

1. Millennials want personalized experience from banks

75%
By 2025, millennials will comprise three-quarters of global workforce

45%
Millennials who believe they would not require a bank at all

72%
Customers who would buy financial offerings from big techs

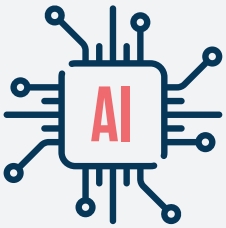
68%
Millennials who already use mobile to do banking

45%
Are counting on tech startups to overhaul the way banks work

58%
Don't think their bank offers anything different than other banks

2. Use cases of advanced technologies in banking

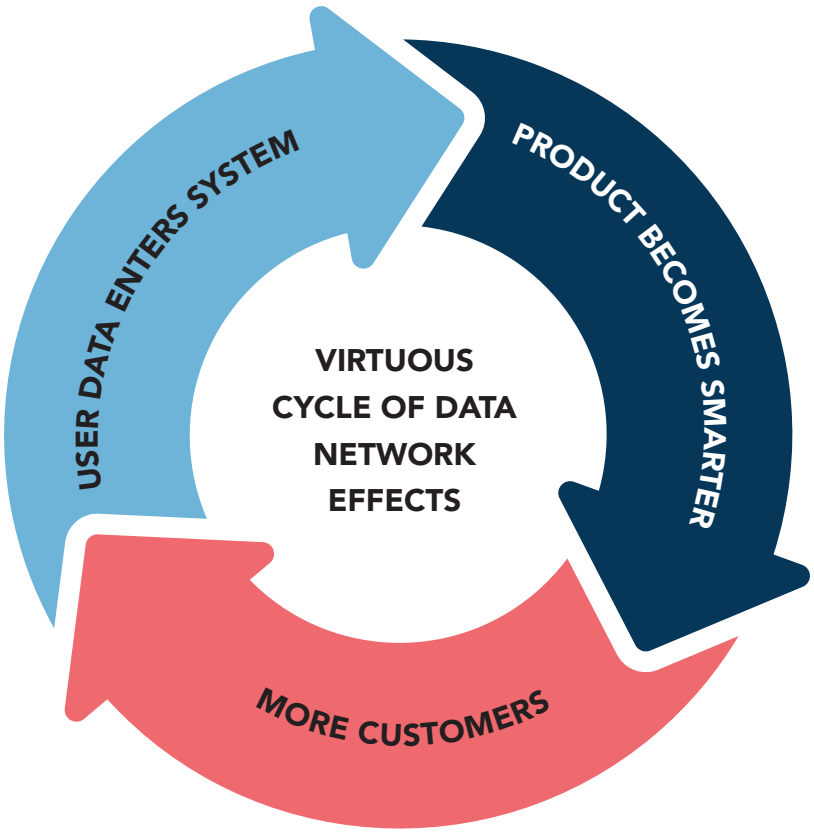
Advanced AI and Machine Learning



1. Advanced customer analytics enabling personalized offerings
2. Automation in processes enable cost savings
3. New revenue opportunities based on enhanced customer data
4. Enables personalization of customer experiences – conversational AI, predictive suggestions
5. Fraud detection by anomaly detection

Data network effects:

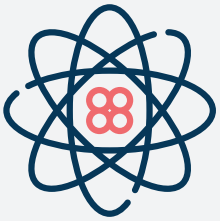
Digital-only banks undercut incumbent banks on fees and harvest financial data to provide better customer experience



Blockchain

1. Faster payments by bypassing third-party authentication
2. Faster and secured trading by removing intermediate authentication
3. Identity verification (KYC) becomes a one-time task
4. Fraud prevention by decentralized and transparent transactions
5. Smart contracts enabling Insurance compliance

Quantum Banking – Future of Banking



1. Quantum cryptography will be shapeshifting making data almost unhackable
2. Quantum integrated with blockchain will make the most secured of software with use cases across identity verification, security, and encryption among others
3. Downtime due to overload is non-existent since quantum computing will handle multiple billion transaction per second, reducing server costs
4. Quantum computing can process data at more than 10^7 more efficiently, making automated decision-making a cake walk

Case Study: WeBank – First digital-only bank in China

> Banks should behave more like technology companies… Banks should invest a lot more in core technology and be competitive once again." – Henry Ma, CIO, WeBank

Founded by Tencent, Baiyeyuan, Liye Group, and other companies in 2014, WeBank is China's first digital-only bank. The bank, by application of ABCD (AI, blockchain, cloud and big data) technologies, has made serious inroads in financial inclusion in China by servicing unbanked individuals and SMEs.

Valued at

$21 Bn

One of the largest unicorns in the world

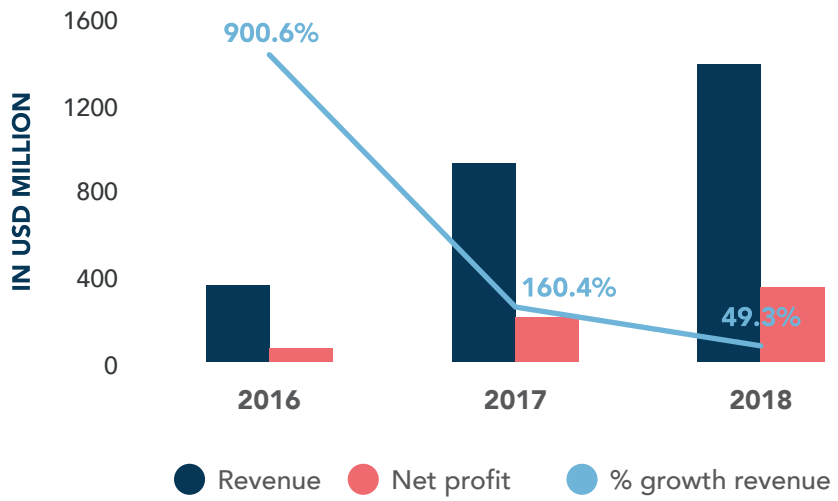
2017 **$0.75 Bn** 2018 **$21.5 Bn**

A 2,800 percent Y-o-Y growth in deposits

SME **$500K** RETAIL **$100 Mn**

Banking customers

WeBank Growth Story



Launched 5 years ago, the bank has come a long way from reporting losses of USD75 million in the first year of its operations.

Leveraging tech has enabled WeBank to reach the unbanked, develop low-cost products, and reduce costs

Retail Customers	SME Customers
The bank deals on large volumes and small ticket loans on the back of implementing a low-cost banking infrastructure.	Even the SME customers of the bank are small players with on average 10 employees.
Average loan size USD $1,180	Average loan size USD $30k
Average cost to administer a WeBank customer is just 50 cents compared to USD$3-15 for a traditional bank	
Of all the SME loan disbursed, 66 percent of their customers received a loan from a financial institution for the first time	

A technology-enabled modern bank representing the future of financial services

234
Applied for 234 tech patents

>30
> 30 digital banking products

>50%
Tech employees > 50%

Leveraging agile in the banking space:

AGILE BANKING = **FINTECH COMPONENTS** + **AGILITY EMBEDDED GOVERNANCE**

Ai + Blockchain + Cloud + Data

Architecture + Operation + Organization

Products: Tech-based banking products ensure faster, cheaper and exceptional customer experience

Weilidai Consumer Loan:

A personal micro-loan product offered through WeChat and QQ's wallets

Credit Lined Offered:
$40-42.5k

Time to determine credit line:
<5sec

Time to receive funds in account:
<1 min

Weiyedai SME Loan:

A SME loan product fully delivered online and based solely on company credit

Max repayment period:
36 months

Time to receive funds:
15 minutes

Unsecured loans:
0 collateral

Application of ABCD technologies to deliver a truly digital experience for its customers

A

Artificial Intelligence

Advanced AI for financial inclusion scale up and technology-driven financial ecosystem. Chatbot handles 98% of inbound customer inquiries; eKYC facial recognition solution has fulfilled over 640 million identity verification requests

B

Blockchain

Initiated China's 1st Financial Blockchain Consortium (FISCO) with over 100 members

C

Cloud Computing

The bank is the first to deploy core banking systems on private cloud. WeBank designed a 100% in-house distributed core banking system capable of handling high-volume and high frequency transactions

D

Big Data

The bank's big data platform has over 15 petabytes of data with over 300,000 batch jobs being processed daily

APPLICATION

- Anti-fraud
- eKYC
- Chatbot
- Smart Collection

- Syndicated Loan Reconciliation
- Supply Chain Finance
- Arbitration Chain

- Private Cloud Built on Distributed
- Architecture
- Highly Scalable Financial Cloud
- API/SDK-enabled Services

- Risk Management
- Differentiated Services
- Precision Marketing

Megatrend 5. **Invisible Banking: Creating an "Invisible Brand"**

Banking is a means to an end; understanding this is the first step to embed yourself in your customer's journey

"

The idea is to embed banking into the everyday lives of customers, so banking becomes invisible.

Piyush Gupta
CEO
DBS (World's Best Bank 2019 by Euromoney)

The thing with banking is no one really wakes up with the idea that they want to do "banking" today. People want to do things, buy things or experiences and banking is just an enabler.

What banks need to do is to understand what the customer wants, which leads to finding the financial service which empowers that need (transaction) and then finding ways to hide the transaction element.

Welcome to the age of invisible banking!

Invisible banking enables banking products and services to be integrated within the day-to-day digital touchpoints of customers. The whole process is aimed at being organic and natural by ensuring the customer journey is seamless and frictionless to the extent that the customer does not even realize the presence of a bank.

Invisible Banking in 2025

A possible scenario: We are looking at an AI-based personal assistant, Alice, handling all our banking and non-banking needs

Hi Dave, I have received a message from your dentist. Do you want me to read you the message?

Go ahead, Alice.

Alice, with access to my personal communication, calendar, and connected devices, decided to contact Dave when he was not engaged.

His evening just opened up and he can go ahead with your procedure at 6pm. You are free in the evening. Would you want me to confirm the appointment?

Alice is voice-enabled and automatically authenticates me as the legitimate user.

Ok, let us get it over with!

Done. Booking confirmed and paid for!

Alice, with access to my payments account, settles the transaction and confirms my appointment in my calendar.

On another topic, how are my finances looking?

We are on track. All house expenses have been paid for and I moved some savings into your investments as per plan.

Alice looks for the best investment opportunities as per the financial plan while also managing the expenses and giving suggestions on how to best manage finances.

Thank you!

How banks need to think about it

> To win in an invisible banking world will require banks to become partners in their customer's buying journey

Banks need to be part of the customer's buying journey from the beginning – from advising the customer to helping them in comparing solutions, followed by shortlisting the best available option, and then finally, when the purchase moment arrives, hide the transaction and provide a seamless buying experience.

Bank is enabled by its ecosystem partners making home loan a seamless experience for its customers

The catalysts of invisible banking

Changing market dynamics such as regulation, customer expectations coupled with technological advancements are giving rise to new customer journeys

1. Investment in technology and providing innovative solutions via partnerships

To explore new opportunities, the tech budgets of banks are swelling up as they explore innovative ways to embed themselves in their consumer's life. Another interesting way banks are providing superior service to their customers is by tying up with innovative fintechs who are leaders in their niches such as TransferWise for sending money abroad.

Use Case: JPMC

$11.5 Bn

Tech budget

>50,000

Technologists employed by the bank

$600 Mn

Investment in partnerships with high-profile startups, including OnDeck and Roostify

2. Leveraging ecosystem partners to provide seamless customer experiences and innovative solutions

- The bank has rolled out an AI-powered virtual assistant making it easier for corporate clients to move money around the world
- JPMC has partnered with the IBM Data Science and AI Elite Team to enhance its machine learning leveraging capabilities
- JPMC partnered with Intuit, enabling the bank's customers to authorize sharing of their account data with Intuit's financial management applications like Mint and TurboTax
- The bank launched Chase Pay for seamless transactions, partnering with the likes of Starbucks and Best Buy
- Other partnerships across the ecosystem include: PayPal, Southwest, Disney, British Airways, and Hyatt among multiple others

3. Evolution of customer behavior and interactions

Customers today do not expect to visit the branch to carry out their banking operations. They wish for seamless experiences as provided by the likes of Google, Amazon, Netflix, etc. Changing consumer expectations are forcing banks to reimagine customer journeys and come up with organic interactions for their customers.

28 apps

Average number of apps installed on a smartphone

32 times

Average number of times people unlock phones to check apps

65%

Millennials would change their bank for a better tech platform

55%

Percentage of banking clients would consider leaving if digital channels are not integrated

68%

Millennials who already use mobile banking

4. Open banking regulations

Many countries across the globe have come up with open banking playbooks. The new regulations promote free data sharing, enabling new players to enter and disrupt the banking experience with innovative solutions.

Government initiatives

- European Union: EU has made it mandatory for payment services providers to meet the PSD2 technical standards which lays out specific requirements to ensure strong customer authentication and security measures needed for online transactions
- Singapore: The Monetary Authority of Singapore and The Association of Banks have come up with an API Playbook which will support data exchange and communication between banks and fintechs
- United States: The Electronic Payments Association (NACHA) has created the API Standardization Industry Group, which identified 16 specific APIs for development based on their overall impact to the payments industry

Case Study: DBS Bank – "We are making banking invisible"

> Customer-centricity in practice: Providing a seamless banking experience via customers day-to-day digital touchpoints

DBS Bank realized that to be truly customer-centric, they would need a complete overhaul from the front to the back end. The bank has decided to re-architect its tech infrastructure by making its back end cloud-native, scaling by leveraging its ecosystem and maximizing the use of data across the bank.

The end goal of the transformation is to embed themselves into the lives of their customers where banking is happening without the user really being aware of it.

Foodster	DBS teamed up with Foodster, Southeast Asia's first bank-led retail chatbot, to allow its customers to place their orders for morning coffee on the go.
Revenue **27%** Cost **16%**	Increase in digital revenues vs Increase in digital costs for Retail and SME segment. (From FY2017 to FY2018)

Revenues - Retail and SME

Indicators	2018	2017	Value of Digital Play
Income per customer (USD)	1,034	960	Higher income per customer
Cost-income ratio (%)	34	36	Lower CIR
Return on equity (%)	32	27	Higher ROE

~$1 Bn

DBS's IT Budget: half of the IT budget goes into building **new solutions and innovations** and the other half goes to maintaining existing architecture and data centers.

How DBS is delivering on its promise of making banking invisible

Parameter	Target	Result
Ecosystem	Grow and deepen ecosystem partner-ships	• Doubled the number of APIs published to more than 350 and connected with over 90 external partners • Partnerships– Gojek, Agrocorp, HeveaConnect
Transact	Increase automation across units, products and channels	• DBS achieved 21% automation across processes in Singapore
Reimagining customer experiences	Drive customer journey thinking	• The bank added 150 customer journeys in 2018, bringing the total to 600 • The customer center team was able to reduce inbound calls by 14% in Singapore using customer science
Being a data-driven company	Increase data analytics projects to drive a data-driven culture	• DBS undertook more than 200 data analytics projects across the bank in 2018, the double of 2017 • The bank established an analytics centre of excellence to train over 10,000 people on data capabilities and its responsible usage
Hiring	Attract top tech talent	• The bank runs Hack-to-Hire programme, helping it identify and hire top tech talent

The 7 things banking leaders should be thinking about

1. The future is integrated: The rise of AI-based "Super Apps"

In future, there would be no banking app as access to money will be integrated via a single app which will also manage other aspects of the customer's life such as time management, learning, health, etc. The "Super App" will be running on advanced AI and as it gets more data, it will get more personalized. In most probability, the super app will be integrated into our lives via one of our favorite wearables and is likely to be voice-enabled.

gojek

Gojek, an online platform which started as a simple ride-hailing app in Indonesia, now offers more than 20 services including salon services and laundry.

>125 Million Download

App downloads: More than 125 million

6,600X

Total order volume growth: 6,600x in 36 months

450,000

Orders completed daily: 450,000 as of June 2016

Key Questions:

- How can partnering across the ecosystem increase customer acquisition for the bank?
- Does the bank have internal capabilities to develop the required API technologies?
- With majority transactions happening via such super apps, how will banks deal with the disappearance of traditional services such as customer service call centers, branches, salesforce, and back office?
- The shift from offline to online will remove the direct relationship with the end customer. How will banks brand differentiate itself in such a scenario?

2. Future regulation and data privacy

With transactions and settlement happening in real-time, regulations would become real-time

Regulation by algorithm	As data transfer, transactions and payment transfer will be real-time and will number in billions, most regulation will have to be code-driven. This means there will be pieces of regulatory code which will have to be embedded in service providers' systems.
Regulatory thinking	Everything digital will mean stringent and detailed data privacy laws. This would mean regulatory thinking would need to be embedded from the start as part of the design process.
Regulatory credibility	Financial service providers which stand out in regulatory infrastructure and technology will stand out as a trustworthy institution. This can be a key differentiating factor among competition.

Key Questions:

- With structural changes happening in how banks operate, how will regulation affect each layer of banking operations?
- In the likely scenario of regulation being built into the core architecture of banks, does the bank have the capabilities of building a ground-up architecture with such regulations in place?
- Does the bank have a strong regulatory team with expertise in operating in a digital-first banking environment?

3. Future banks will be technology companies delivering superior banking experiences

Winners of today will be the champions of customer journeys of tomorrow. This will require banks to shift from the traditional problem-solving approach of designing products for customers to designing value to deliver an exceptional experience.

5-10%

Revenue impact of personalization at scale for financial service providers

70% vs 38%

Satisfaction level of users offered personalized experiences vs those who were not

62%

Consumers who think banking services are designed with banks' interest in mind

- Banks should develop design-focus using customer feedback and value proposition instead of profitability and technology feasibility
- Further, experimentation and iterations need to be modelled around testing the core value proposition of the products or services

Key Questions:

- Why do customers make the choices that they do? Why do customers buy your or the competitors' products?
- With a focus on the underlying social and emotional drivers instead of functional usage, what are the customer experiences/journeys which are being repeated often?
- Post-clarity on customer experience, banks need to ask which are the preferred digital touchpoints as per user behavior. Keep testing!

4. Operating Model Drivers for 2025:

The future operating models will be predicated on the 3 themes of regulation, decentralization, and innovation

INCREASED REGULATION

Adapting new systems to banking regulations 4.0 is top priority for banks keeping in mind that adherence to regulation is one of the major cost for banks

INCREASED DECENTRALIZATION

Banks still exhibit high degree of in-house production related to overall value creation. This will change with partnerships and collaboration across the ecosystem

INCREASED INNOVATION

With rapid tech implementation, banking products and services are far from being standardized. Expect increased end-to-end automation across banking processes

Cost is the primary objective of an operating model. With declining revenue and lack of stable cost margins, we envision that regulation, innovation, and decentralization will be the 3 pillars of cost which banks will have to play around with to narrow in on a successful digitally enabled operating model.

Key Questions:

- What is the degree of standardization in banking processes compared with best practices in other industries?
- What are the new regulations under application and development for industries leading in tech adoption?
- How can banking architecture be developed and standardized to meet the regulatory requirements of digital 4.0?

5. Revenue Model Drivers for 2025:

Drivers of revenue model changes include shrinking revenues, new digital revenue streams, commoditization of products, and increased revenue from digital channels

NEW REVENUE STREAMS	Increased competition, low product differentiation, and competition from low-cost financial service providers can lead to a shift in how banks generate revenue. For example, a trend towards free banking services where client-based fee models can be substituted by service provider-based advertisement models.
COMMODITIZATION OF PRODUCTS	Digital financial products are likely to become commodities with increased automation. We are already seeing this with credit cards, e-wallets, and investment products. This trend can lead to a revenue model where basic products and transactional services are provided free of cost, and premium is charged for high quality advisory services.
FOCUS ON DIGITAL CHANNELS FOR REVENUE	As per a recent EY survey, 70 percent of banks will invest in invest in technology to strengthen competitive positioning and build market share in the next 3 years. With customers wanting more control over their banking services, providers will have to shift to digital channels for providing a personalized experience. Future success will be measured on digital acquisitions, percentage of digital transactions, and digital engagement scores across channels for banks.

In future, new revenue models will be the key differentiating factors among banks and non-banks due to the nature of specialization of such players. The key will be the ability of a bank to generate revenue from hybrid customer-bank interactions.

Key Questions:

- If basic products and transactional services are free, how must future digital advisory services be designed to be paid for by customers?
- What business models can the bank support in a platform/marketplace based on a collaborative ecosystem?
- How can banks use digital tools to provide personalization and transparency, and what are its likely impact on long term customer loyalty?

6. Big Data Banking in 2025:

Data will be the backbone of new banking business models, personalized product and services, behavioural digital marketing, and process optimizations

RISE OF BEHAVIORAL BANKING

With advancements in data analytics and increased application of advanced AI, client interactions will get super effective and highly personalized.

Future products and services will be tailored made as per user thus driving efficiencies.

EXPLOSION OF DATA 5.0

We are generating about 2.5 quintillion bytes of data each day and with the growth in IOT, this is going to grow through the roof.

With interactions ranging from search, financial operations, social media etc., the challenge lies in making sense of this unstructured data. This data is a gold mine for banks with applications including risk, product development, behavioral marketing etc.

BANKS BASED ON FUTURE TECHNOLOGIES

Technologies such as blockchain, biometrics, NLP, advanced AI, AR and now, QUANTUM, are seeing real world applications.

Some future banks will be focused on serving clients based on products and services specialized via the use of one of these or a combination of these technologies such as smart contracts, quantum encryption systems etc.

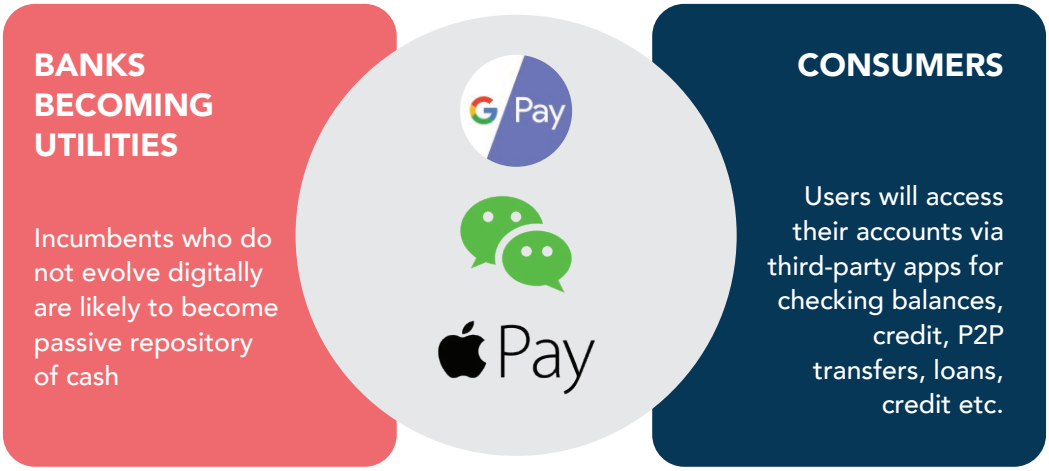
Data will be the core on which banking will be predicated. Data collection, improving efficiency in processes, new product development, new operating and revenue models, etc. will all be based on making sense of data collected via various digital touchpoints of customers.

Key Questions:

- Where all is the data being stored in silos within the bank and what tools are required to make sense of this data?
- How can the internal data be leveraged via sourcing additional data from third parties? Who are these third parties and what are those data points?
- How will you use technology to understand changing customer behavior and their future banking requirements?

7. Banking Clients in 2025:

Customer-facing platforms will own the relationship-pushing incumbents to the background



TECHNOLOGY-enabled banking platforms providing seamless **customer experience** by combining mobile, big data, analytics, digital marketing, and more.

Value add in the future likely to be championed by fintech platforms and digital banks – selling the service, paying interest, customer support, etc. – powered by digital chatbots and digitally assisted client advisors.

Key Questions:

- What are the future client's needs and behaviors?
- How do future client journeys look like?
- How can financial services be matched with the client's needs?
- How can relationships be sustained in the digital ecosystem of the future?

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