



Photo by Antonio Aragon Renuncio

Inclusive Digital Banking: Emerging Markets Case Studies

Ivo Jeník and Arisha Salman

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Speakers



Ivo Jeník
Financial Sector Specialist



Arisha Salman
Financial Sector Analyst

Agenda

10 minutes	Introduction
10 minutes	Case studies: Overview
20 minutes	Accelerating financial inclusion through new digital banks
10 minutes	Business models
10 minutes	Enabling factors
15 minutes	Q & A

Logistics

Slido Polls

- Go to: www.slido.com
- Enter event code: CGAP

WebEx Q&A/Chat

- Q&A: Post specific questions
- Chat: Have open ended conversations

Other Logistics

- Audience mics will remain muted
- Webinar will be recorded and shared
- Presentation will be shared



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Introduction

Persisting Exclusion & Digital Banks



Over the past decade, digital technology has helped advance financial inclusion

1.2 Billion

Individuals gained access to formal financial services between 2011 and 2016

4.4%

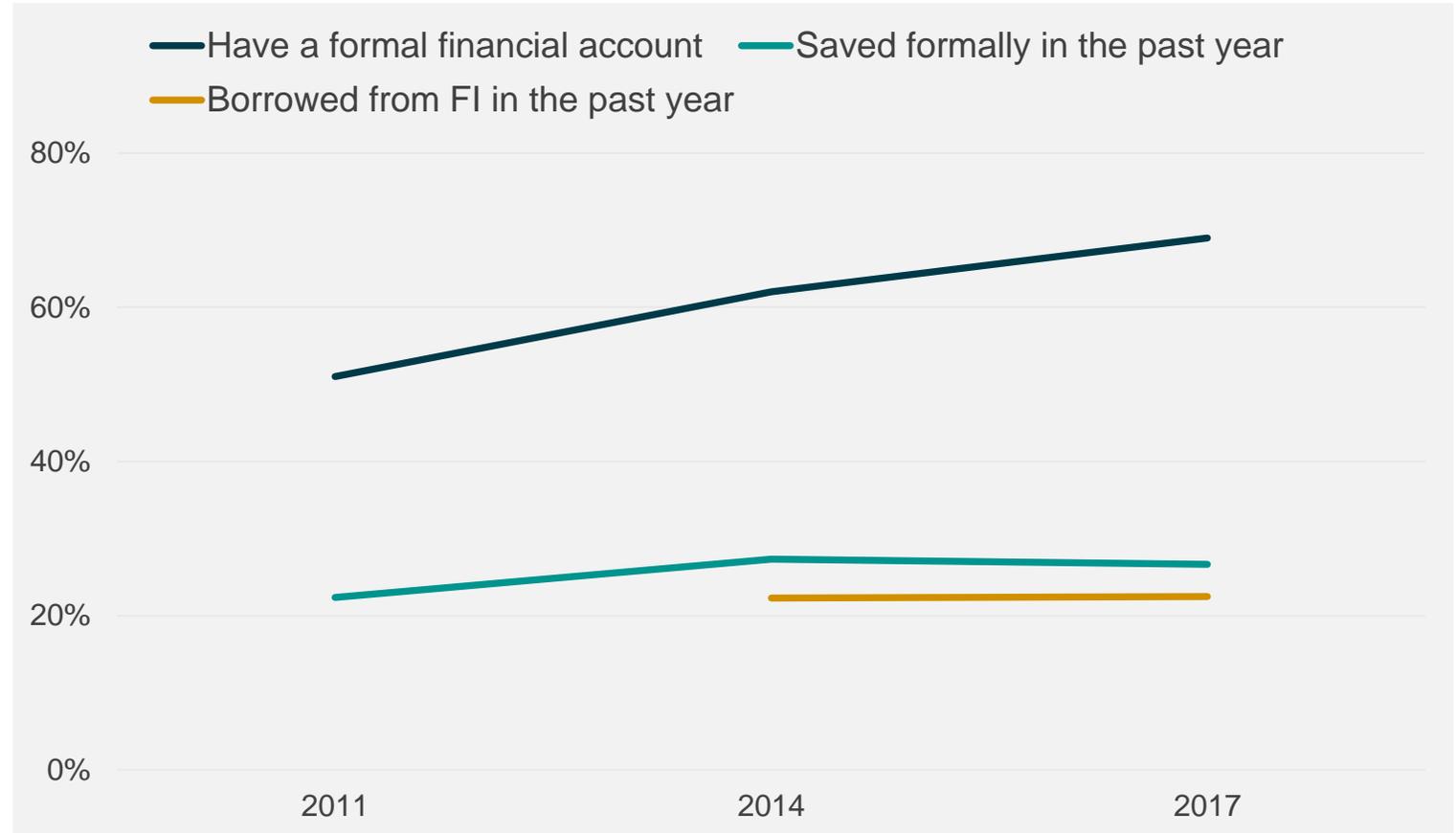
Adults who had a mobile money account globally in 2016

52.2%

Adults made or received digital payments in 2016

But financial inclusion, while broadening, remains shallow

- Progress on savings, credit, and insurance has been far slower, barely rising at all even as accounts become more commonplace.
- Lack of financial depth limits the usefulness of the accounts, resulting in low use and high dormancy.
- 1.7 billion people remain excluded, even from basic accounts.



Source: Findex (World Bank, 2017)

Customer adoption and transaction rates remain modest

Gaps in current financial services offerings:



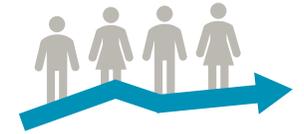
Limited value proposition offered through digital offerings



Absence of complete range of financial services



Resistance of FIs to change business models, management culture, operating procedures



Modest customer adoption and engagement rates

Inclusive providers face constraints



Banks in developing markets often are limited by legacy operational models.

- Distribution is a major challenge for banks that depend on costly branches.
- IT systems often are outdated and expensive, which limit banks' ability and flexibility to improve products or develop new ones.
- Product management practices have been slow to adopt agile approaches, human-centered design methods.



Mobile money operators (MMOs) often are constrained by their business model and risk appetite.

- The revenue model centers on transaction fees, limiting the options MMOs have for creating broader offerings.
- Regulation typically limits the ability of MMOs to offer services beyond basic payments. Almost none has acquired a full banking license, and strategic partnerships with banks often are slow and difficult.

Customers do not find relevant products

Most e-money accounts focus on payments, with limited savings, credit, or insurance offerings associated with them.

Direct and indirect costs of accessing services tend to be high.

Products often are not designed to meet the needs and circumstances of low-income customers.



46%

Customer activity rate among providers offering a credit, savings or insurance product (compared to 26% customer activity rate among providers who do not)

A new generation of fully digital retail banks promises to address those limits by



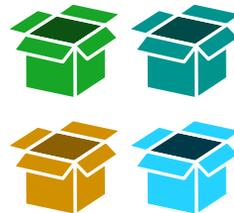
Reaching underserved clients through alternative distribution channels, innovative KYC, and alternative credit scoring



Offering products that are tailored to the needs of unserved or underserved customers, transparent, and user-friendly



Pricing products more attractively than competitors



Offering a greater variety of products than existing mass market providers

Inclusiveness of digital banks can be assessed across 4 dimensions

COST



- Lower cost of physical infrastructure
- Automation of back-end and front-end functions
- RegTech lowers compliance cost
- Cloud-based, SaaS services shift costs CapEx to OpEx

Low operating costs and lower CapEx may enable a lower floor for pricing overall

ACCESS



- Digital channels and 3rd party distribution (including agents) bring services closer to customers and make them available 24/7
- Alternative data expand eligibility (e.g., access to credit)
- Intuitive UI/UX makes the service easier to access

Bring banking closer to wider customer segments through technology and alternative distribution

FIT



- Technology stack provides flexibility to add products and tailor functionality (including catering to niche customer segments)
- Integrated personal finance management tools help with personal finance
- Service-oriented architecture and open APIs create flexibility and efficiency in designing suitable products

Improved business intelligence supported by technology leads to greater personalization

EXPERIENCE



- Convenient 24/7 availability of services
- Behavioral nudging promotes beneficial consumer behavior
- Greater control and transparency increases customer trust
- Integrates into the lifestyle of digitally native customers

Customer-centric approach improves confidence through intuitive interfaces, individual approach, and responsiveness

Three promising business models in digital banking

		EXAMPLES	KEY CHARACTERISTICS
	Fully digital retail bank: A traditional banking business model improved with latest digital technologies to offer a better banking experience for lower cost.	TymeBank (S. Africa) 811 (India) UnionBank (Philippines)	Cheap, Fast, Convenient
	Marketplace bank: A banking response to e-commerce and fintech competitors in the form of a one-stop shop for financial services run by a bank, offering easy access to a variety of products/services.	Starling Bank (UK) UnionBank (Philippines)	Economies of scope and scale
	Banking-as-a-Service: Tech companies with a banking license that represent the vision of banks as market utilities. Improves access to cutting-edge technology and brings economies of scope and scale.	Banxy-Fidor (Algeria) Accendo (Mexico)	Cutting-edge technology

Photo by Ana Caroline de Lima



Case Studies

Overview



CGAP has developed case studies for three fully digital retail banks, each of which offers a unique value proposition...

METHODOLOGY

1 Primary interviews
Emerging players
Incumbents
Software provider

2 UI/UX testing
Demos
Site visits

3 CGAP assessment
Business model
Company culture

SELECTION CRITERIA



Diversity of business models



Time in operation



Learning opportunities



Lessons to share



TymeBank

Modern technology enabling creative solutions for inclusion

IMPACT


2 million
 customers in
 less than 2 years


110,000
 approx. number
 of customers
 added monthly

PRODUCT

Transaction/ Savings account	✓
Debit/Credit card	✓
Remittances	✓
Consumer credit	✓
PFM	✓
MSME products	✓
Other	X

VALUE PROPOSITION

- Lower pricing and competitive savings rates in comparison to competitors
- Convenient access via a combination of digital channels and a vast network of physical touch points (in retail stores)
- On-boarding of customers in under 5 minutes through digital kiosks
- Incentive programs to promote certain customer behavior

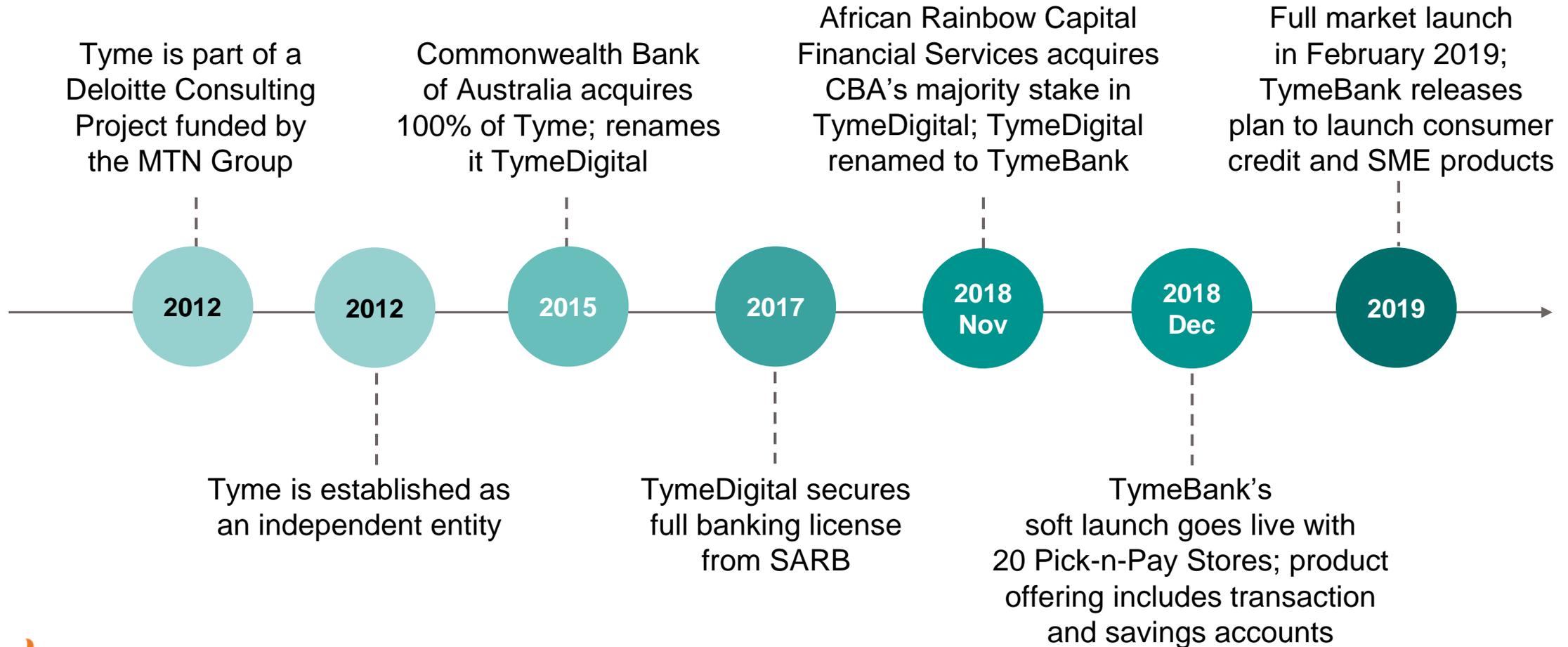
EDGE

 Distribution through kiosks in 800+ retail stores

 Lower pricing and competitive savings rates

 Advanced customer data analytics

TymeBank has evolved into a fully digital retail bank from its first iteration in 2012

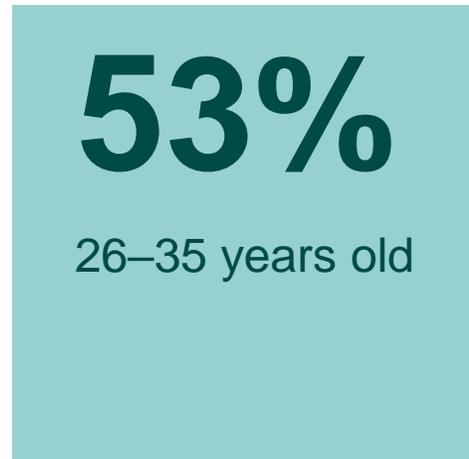


TymeBank caters to a young customer base that is spread across rural and urban South Africa

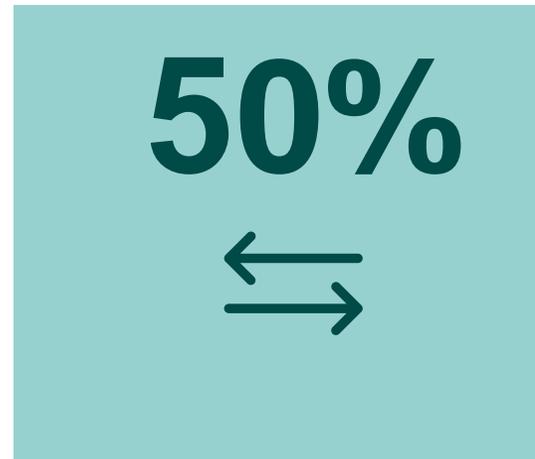
TymeBank users are split evenly on gender



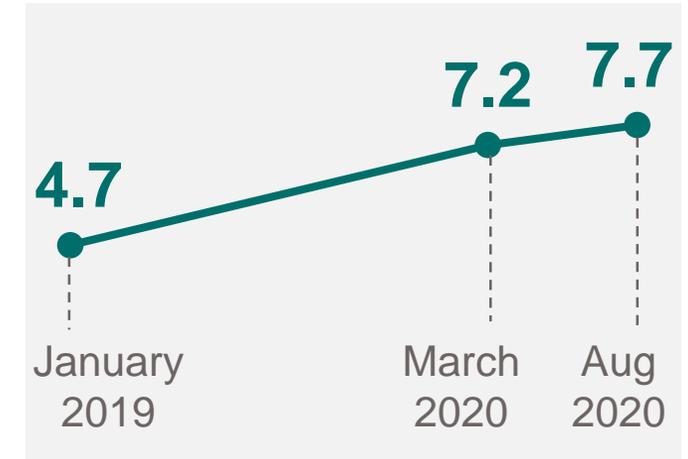
Customers are young, but not just millennials



The customer activity rate is high



Users tend to transact more over time



Average number of monthly transactions (active user)

811



kotak

Kotak Mahindra Bank

An incumbent bank testing a digital play to expand market share

IMPACT

2X

increase in KMB's customer base since launching 811
(Growth from 8 to 16 Mn Customers)

8 million

Number of new customers added since launch

PRODUCT

Transaction/Savings account	✓
Debit/Credit card (KMB)	✓
Remittances (KMB)	✓
Consumer credit (KMB)	✓
PFM	X
MSME products	X
Other: Investments (KMB)	✓

VALUE PROPOSITION

Simple and affordable products

- Zero-balance savings account
- Free transactions (within monthly limits) and limited fees

Real time, digital onboarding

- Biometric led (Aadhaar enabled) digital eKYC
- Video KYC

EDGE

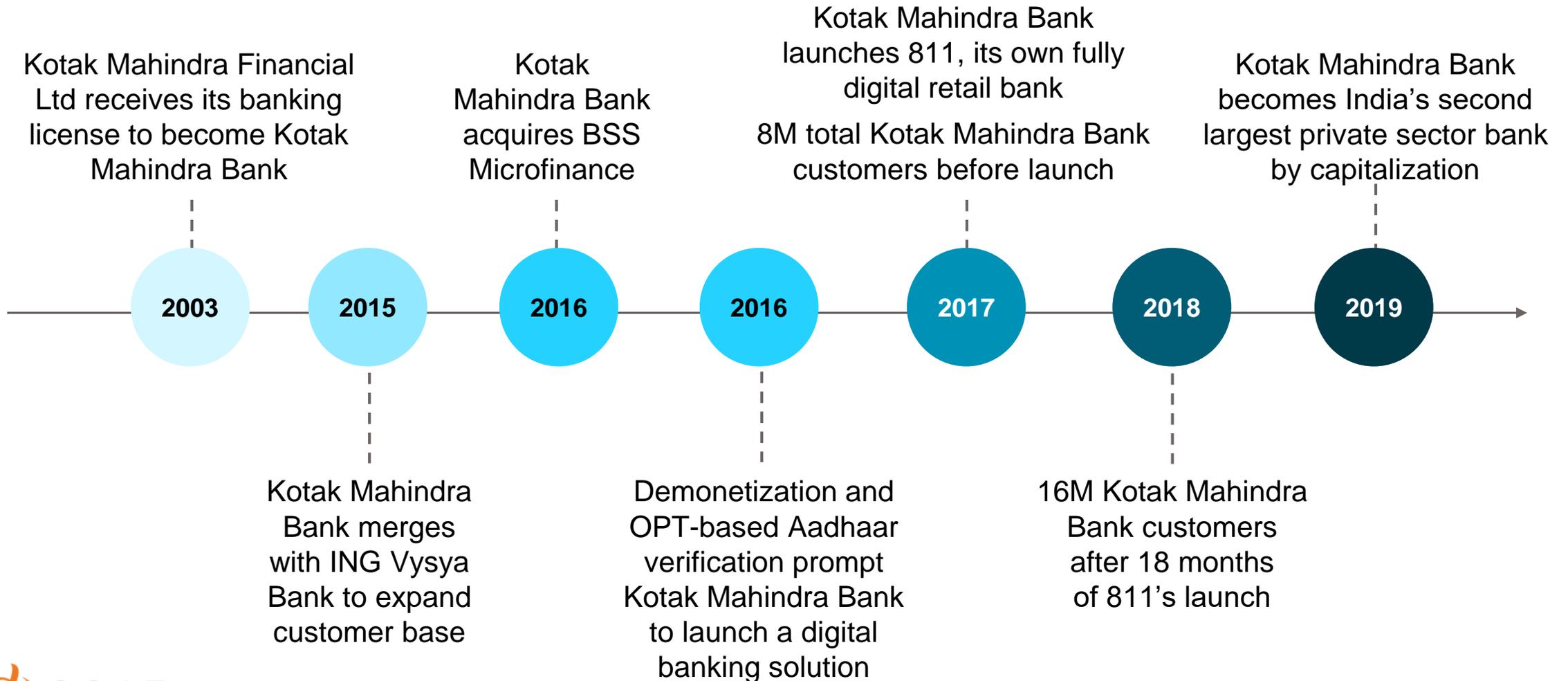


Video eKYC



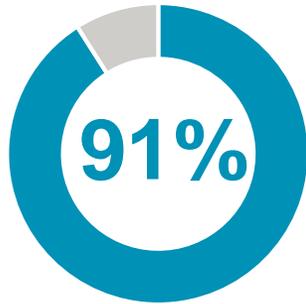
Prominent marketing campaign

Kotak811 was borne as a fully digital retail offering of Kotak Mahindra Bank (KMB)



Kotak811 caters to a large proportion of young, first-time bankers and underserved

Attracts young, male customers



younger than 40 years

Most customers live in urban and peri-urban areas



Live in the Top 20 Cities

Most customers are in underserved segments

28%
self-employed

25%
students,
homemakers,
retired



UnionBank

An incumbent with a vision of banking blended with e-commerce

IMPACT

5 million

Number of customers served (digital channels & branches)

65 million

number of customers in target market

PRODUCT

Transaction/Savings account	✓
Debit/Credit card	✓
Remittances	✓
Loans	✓
PFM	✓
MSME products	✓
Other: Corporate cash management, BaaS	✓

VALUE PROPOSITION

- Expanding rural outreach, to MSMEs, and to lower-income segments through a comprehensive digital transformation strategy
- Creating an enabling ecosystem for other players, particularly rural banks, to modernize
- Implementing a marketplace strategy that integrates financial services with e-commerce

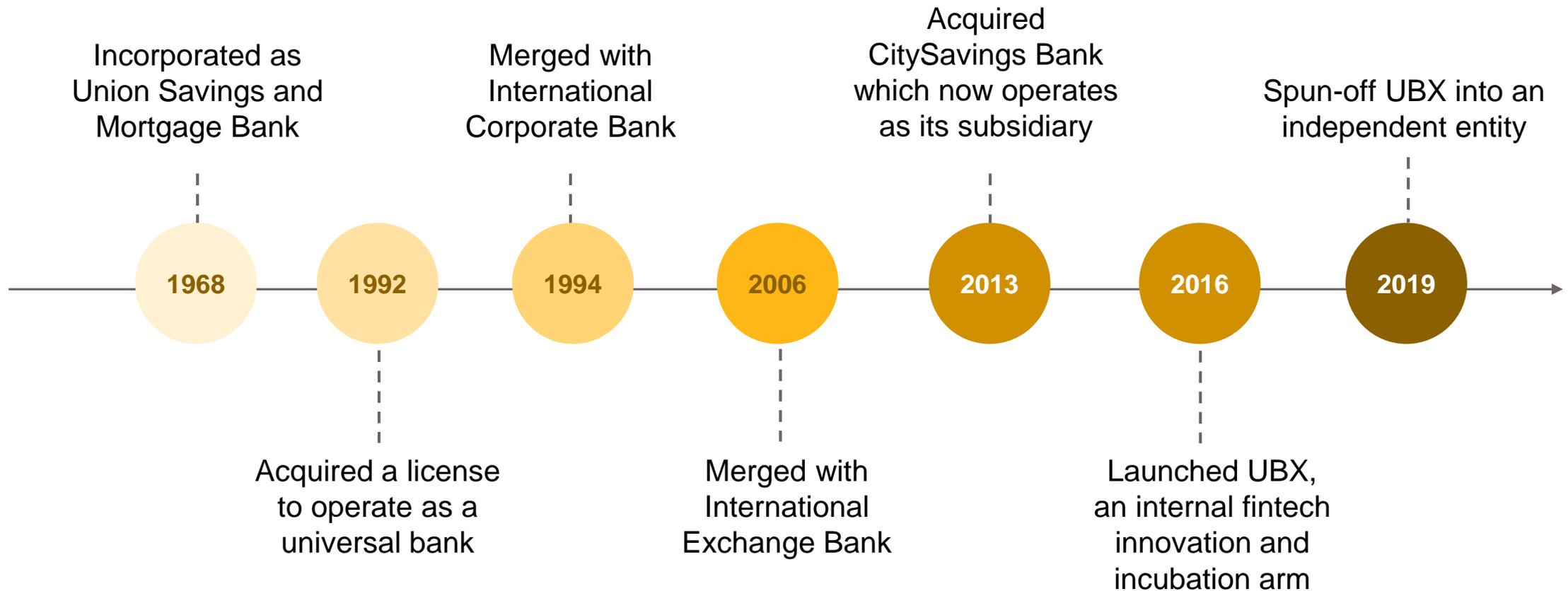
EDGE

 Multidimensional digital strategy

Cooperation with rural banks 

 Focus on e-formalization of MSMEs

UnionBank has evolved from a branch-based universal bank to a bank focused on innovation through multiple digital offerings



UnionBank has adopted a 4-pillar digital transformation strategy to develop capacity to serve different market segments

A. Digitization of UnionBank	B. The Future of Banking	C. Digitization of CitySavings Bank	D. “Digital-Only” Bank
<p>Transformation of UnionBank’s main banking products and services into digital offerings</p> <p>Plans to limit the growth of 210 full-scale branches and expansion of digital-only branches</p>	<p>Structured approach to experimentation with emerging technologies and business models</p> <p>Led by UBX, an innovation lab that was recently spun-off into a wholly-owned UnionBank subsidiary</p>	<p>Mobile technology to enable UnionBank’s subsidiary, City-Savings Bank, to extend financial services to underserved segments particularly in rural areas</p>	<p>“Digital-only” banking proposition</p> <p>One of the early elements of this strategy was the launch of the EON Cyber Account, an electronic savings account that is powered by UnionBank</p>

UnionBank targets underserved segments and plans to reach 65Mn customers

Customers belong to underserved segments

60% or **3 million**

Approx. customers are outside urban areas

50% or **2.5 million**

Reach to rural customers through i2i initiative



50 rural banks
in i2i network



Wide reach through new initiatives

UB ><



GLOBALLINKER

bux



Sentro



SeekCap



i2i



UnionBank
DEVELOPER PORTAL



Photo by Hailey Tucker

Accelerating Financial Inclusion through New Digital Banks



Digital banks have several features that help them advance financial inclusion



COST

Attractive pricing
and incentives



ACCESS

Remote customer
onboarding
Innovative distribution
models



FIT

Improved
understanding
of customers
using data



EXPERIENCE

Essential products

Essential products



Focus on solutions that speak to the mass market



Simplicity as a key design principle in products, processes, and interfaces



Products that cater to daily needs



Customer feedback used as input in design process



Defined customer journeys from loyalty to profitability

Digital banks cater to the most critical financial needs of customers

Example: TymeBank aims to offer a full range of basic financial products to individuals and MSMEs with low fees, high returns (passing operational cost savings to their clients)



EveryDay Account

- Paperless sign-up process
- No sign-up fee or monthly charges
- No minimum balance requirements



GoalSave

- Progressive interest rates (from 4% to 7%)
- Higher than competitors



Lending (to be launched)

- Buy now pay later & consumer loans
- MSME loans
- Alternative credit scoring based on purchase (basket-level) and device data

“ We are focused on giving clients core products they need in their daily financial lives.”

Coen Jonker, TymeBank co-founder.

Digital banks cater to the most critical financial needs of customers

Example: Kotak811 targets individuals across socioeconomic and cultural groups termed as “dreamers” with its basic interest-bearing savings accounts that address basic financial needs



811 Zero Balance Savings Account

- No account opening fees
- Free virtual debit card
- 1 free deposit & withdrawal monthly (US\$134)
- Physical debit card (US 2.5/year)
- Up to 4% p.a. interest yield
- 5 free monthly withdrawals from ATMs



Offered through KMB

- Short-term loans
 - Credit cards
-

Improved understanding of customers through data



Data enables more flexible business intelligence



Customer feedback loop integrated in design process



Frequent iterations of products (daily / weekly)



Test-and-learn approach



360° view of customer data



Non-financial data

Improved understanding of customers through data

Improving customer data trails

Example: UnionBank's digital transformation strategy rests on its ability to gather and analyze diverse customer data. More importantly, they help customers generate digital data trails.



E-commerce site that links 270,000 MSMEs and help them grow their online business.



Merchant payments solutions leveraging Facebook Messenger and other channels; serving 30,000 MSMEs



B2B solution for e-formalization: a built-in online store builder, payment platform, and other business solutions to run and digitize MSME businesses.



- Marketplace lending platform that allows MSMEs to get “same day” loan approvals and uses alternative credit scoring
- Partnership with OneConnect (Chinese Fintech) to develop AI-powered loan engine
- Reduced time for loan processing and operating costs are equal to 2 to 3% of loan disbursements, including acquisition costs of around 1% of the loan amount



Risk-based pricing

Example: Tyme plans to leverage its rich data and algorithmic decisioning platform to offer consumer loans. It will use basket-level data and device usage data to assess credit-worthiness. This will allow them to optimize the cost of credit to the customer and expand credit-worthiness, even of thin-file customers.

1 **Tyme customers** use debit card linked to Everyday Account to shop at Pick n Pay and Boxer stores

2 **TymeBank collects** basket level data of customers to understand spending patterns

3 **TymeBank will leverage this data** to develop credit decisioning algorithms

Innovative distribution models



Alternatives to in-house brick-and-mortar branches and agents



Blended solutions (offline-online) leveraging the advantages of both



Leveraging on players with existing footprint (rural banks, grocery stores, ATMs)



Innovative solutions (integration with till machines, kiosks)



Increasing diversity of distribution channels

Innovative distribution models



Example: TymeBank customers sign up for accounts through a combination of web/mobile channels and a vast network of retail stores present nationwide, including in low-income areas

85%

Customers on-boarded at 800+ retail stores

93,500

Approx. number of new customers each month through kiosks



Ambassadors provide personalized assistance to customers during on-boarding

Kiosks



Customers sign up for accounts and get personalized debit cards in **less than 5 minutes**.

Kiosks consist of touch screen, fingerprint reader, camera, and a card printer.

Tyme says the cost of running a kiosk is about 4% of the cost of running a bank branch. This includes the servicing cost, the fee paid to the partners & ambassadors.

UnionBank: i2i



Example: i2i is a version of Banking-as-a-Service that caters to rural banks, creating a vast distribution network for UB in remote and underserved areas



A cloud-based blockchain platform that gives rural banks access to additional banking services (fund transfers, bill payments, loan application processes, ERP management)



i2i promotes interoperability of rural banks and reduces the time it takes to complete processes like fund transfers across the Philippines



More than 50 participating rural banks (out of more than 400)



UnionBank wants to leverage the network to reach out to 65m customers (the financial inclusion in the Philippines is 34% of adult population)

Remote on-boarding of customers



Overcoming physical distance



Using alternative methods of customer identification and verification



Minimum friction, speed and convenience as key design principles



Biometrics and data sharing among key enablers



Cost efficiency for the provider and for the customer

Kotak811 customers can be on-boarded completely digitally through video-based eKYC process

811



Customers begin the on-boarding process through mobile-app/web



Customers enter their personal details as well as Aadhaar and PAN card numbers



Customers need to:

- Have uninterrupted access to data connectivity
- A clear background that allows bank representatives to see their faces
- A blank sheet of paper which the customer has to sign on



- Customer Relationship Number and Account Number are generated
- Customer gets a full-fledged bank account with no restrictions on transactions or account balances

On-board customers cheaper and faster by leveraging existing infrastructure and cutting-edge technology



Example: UnionBank's partnership with Jumio to implement a fully automated eKYC solution

Solution improves the speed, safety, and security associated with the digital onboarding process



Artificial intelligence



Face-based biometrics



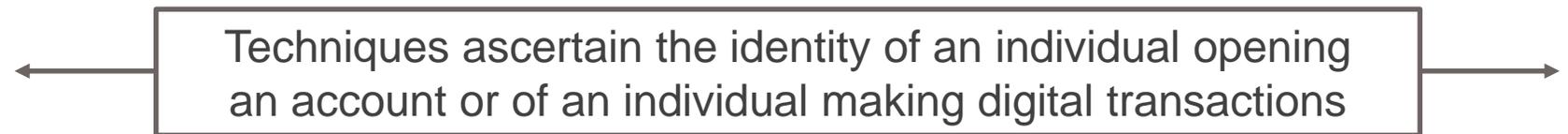
Computer vision



Certified liveness detection

End-to-end time shortened from 15 minutes to 5.

Risk of on-boarding related fraud slashed by 30 to 40%.



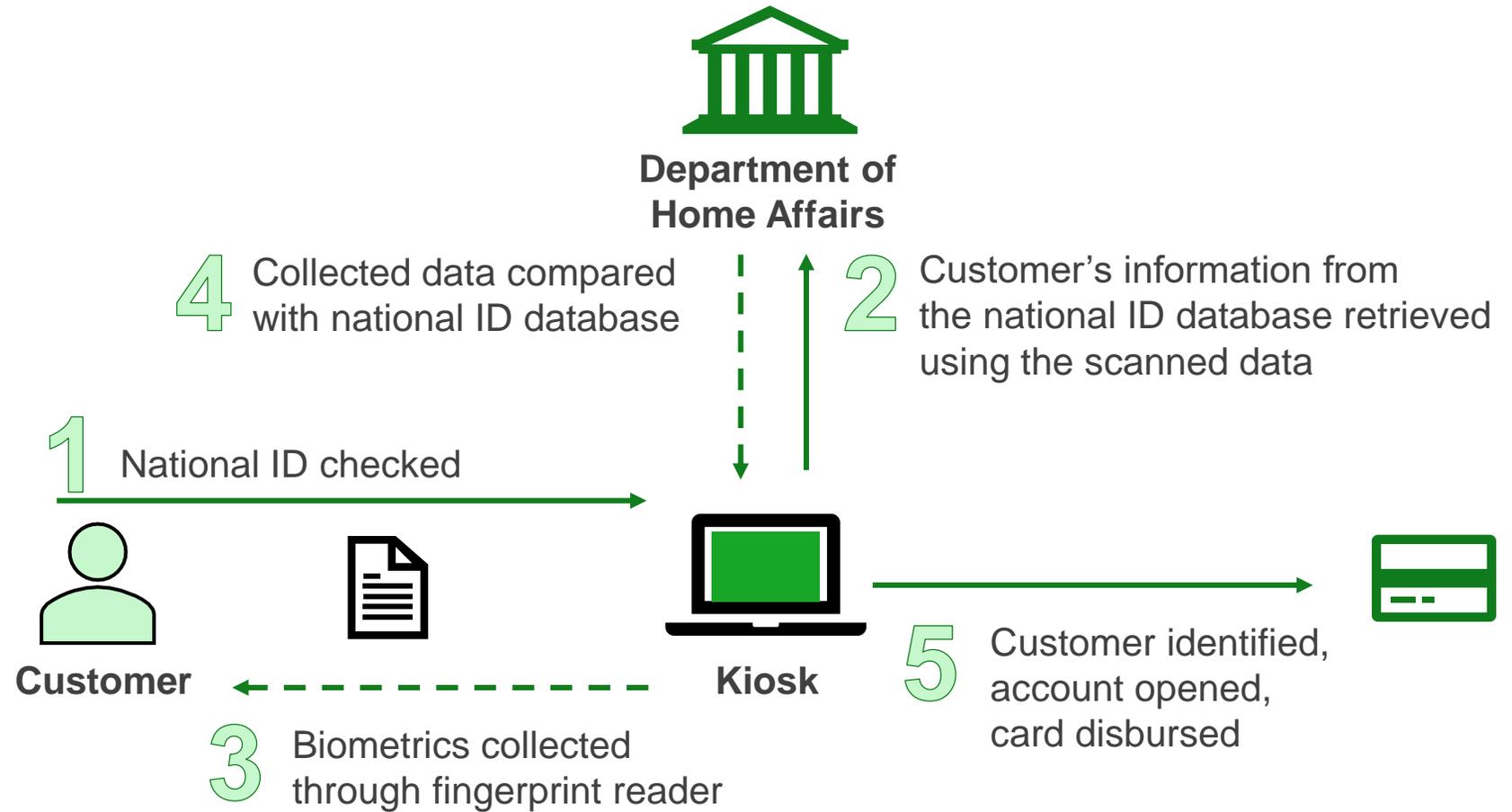
On-board customers cheaper and faster by leveraging existing infrastructure and cutting-edge technology



Example: Tyme taps into SA's universal biometric National ID system and Digital ID Database to facilitate on-boarding

End-to-end signup process is fully paperless and takes less than 5 minutes.

Customer acquisition cost is just US\$3.00 including card printing.



Attractive pricing and incentives



The growth stage comes with aggressive pricing



Long-term objective to remain competitive



Commitment to translate increased margins into lower prices

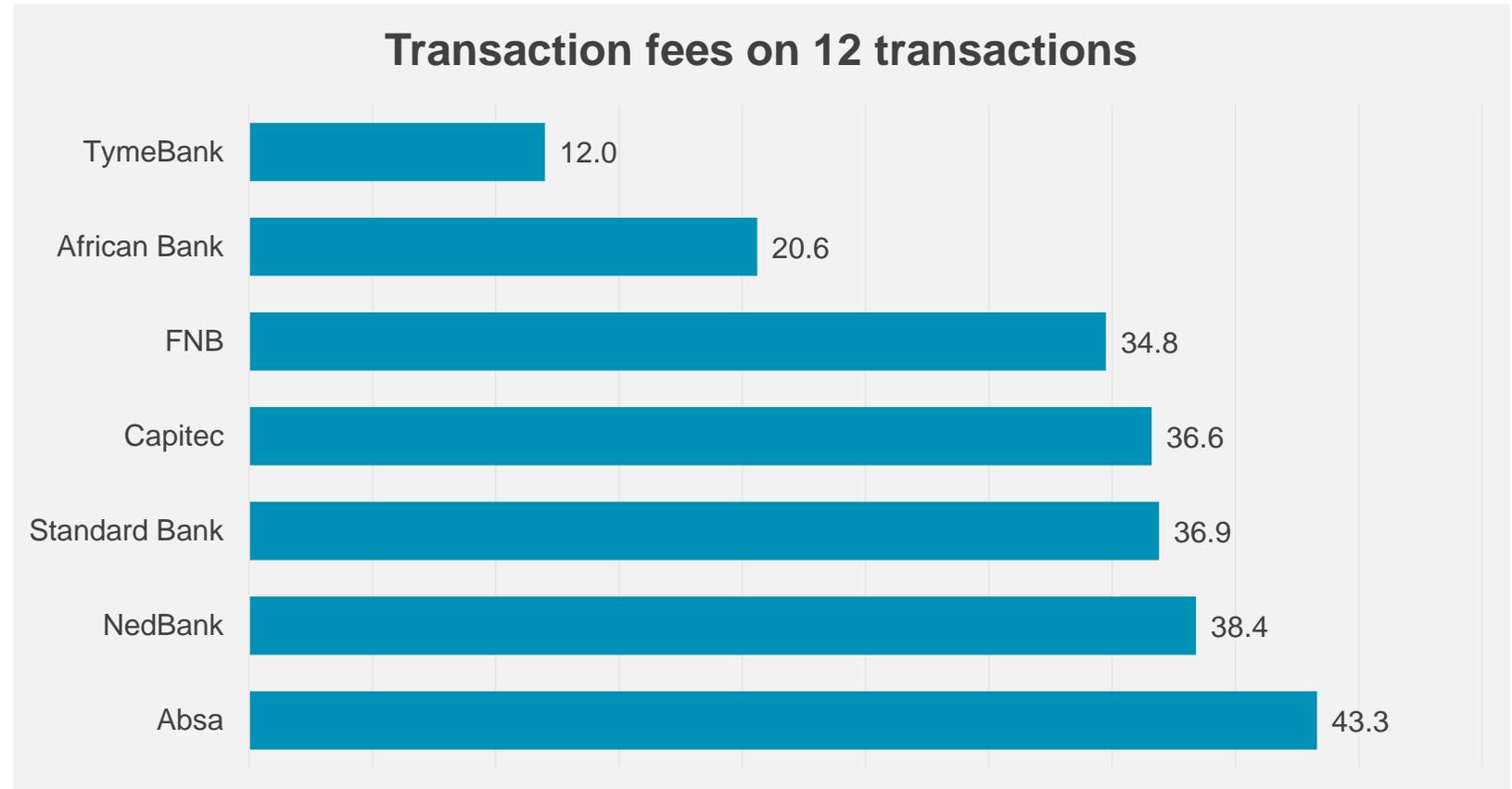


Financial (yield) and non-financial (loyalty programs) incentives to promote certain behavior (e.g., saving)

Digital banks offer products that are better priced than competitors' products



Example: TymeBank charges a significantly lower transaction fee than competitors: Its customers pay 40% less than those at the next most affordable bank for 12 transactions



Source: UBS 2019



Photo by Nicolas Réminé

Business Model

Digital banks typically have the following core revenue streams



Interchange fee on card transactions



Transaction fee



Intermediation revenue
(Net interest margin)



Physical debit card
issuance fee

While still being in their growth stages, the studied firms have clearly defined pathways to profitability (1)



Kotak811

KMB is expanding the “size of the pie” through 811. The customer base grew from 8Mn to 16Mn in 18 months

Once on-boarded, customers embark on any of three paths to KMB products:

- Credit-driven
- Deposits-driven
- Investment-driven

Cross-selling helps improve ARPU for the KMB as a whole (inclusive of 811)

While still being in their growth stages, the studied firms have clearly defined pathways to profitability (2)



TymeBank: Tyme has been onboarding ~110,000 customers per month, 85% of which through their kiosks for a cost of around US\$3.00 per customer and 15% via web for around US\$0.60.

The cost of running a kiosk is ~4% of the cost of running a bank branch.

The key for success will be uptake of its consumer and MSME lending products.

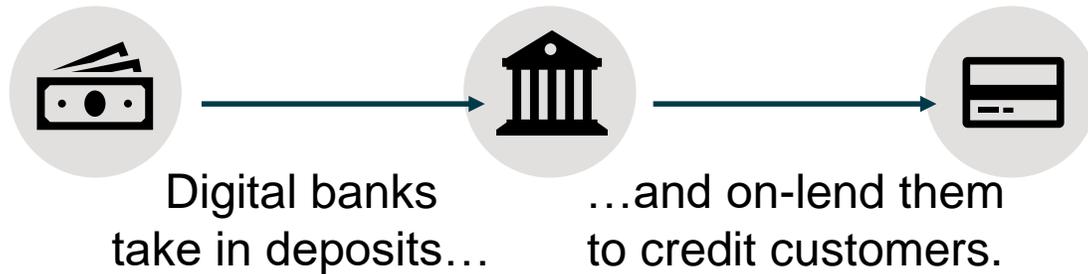


UnionBank: Testing different strategies, including API developer portal, 'BaaS', crowdfunding, e-commerce accelerator, merchant payments. Many services offered as freemium at this stage, assuming profits from scale once the business grows and certain services are monetized.

Digital banks feature a different business model than 'neobanks'

Digital Banks

Deriving revenue from intermediation



Neobanks

Dependence on transactional fees



Klar (Mexico): An example of neobank

IMPACT

150,000
customers

20,000
credit lines



Goal (end of 2020)
500,000 customers &
100,000 credit lines

VALUE PROPOSITION

Extend formal credit to previously excluded (or underserved) customers based on an innovative credit underwriting model using the purchase and behavioral patterns of debit card customers

PRODUCT

Transaction/Savings account	✓
Debit/Credit card	✓
Remittances	✓
Loans	✓
PFM	✓
MSME products	X
Other	X

EDGE



On-boarding through mobile app and web-based channels



Combination of deposits and lending without a banking license



Credit card available to thin-file customers

Unlike licensed banks, Klar's regulatory status does not allow it to intermediate retail deposits

To overcome the barrier, Klar operates two independent companies
Klar's regulatory status is less significant from a customer's point of view but it limits Klar's revenue structure

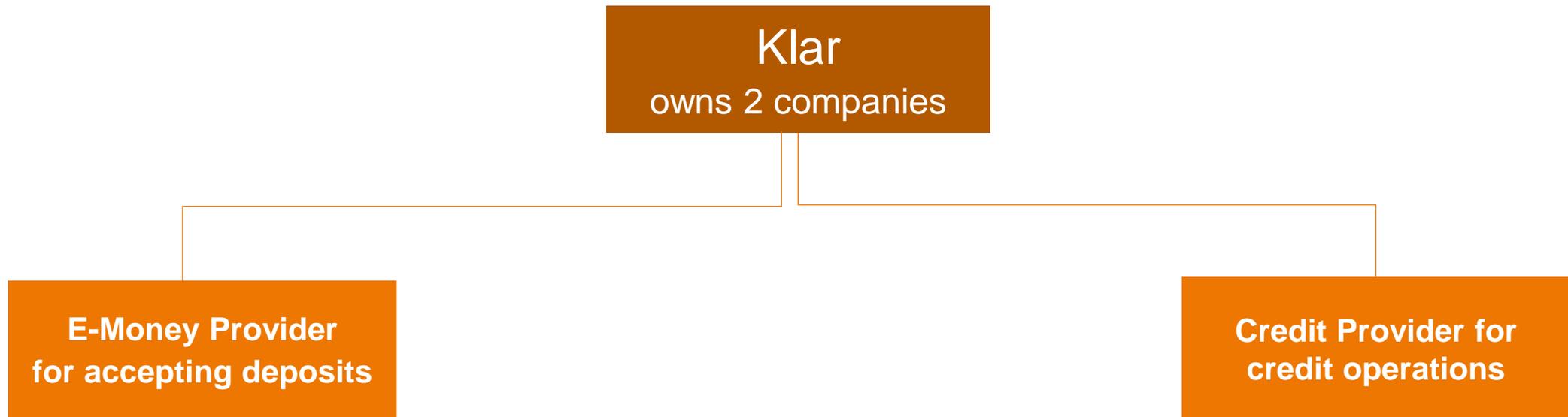




Photo by Francisco Javier Soto Plascencia

Enabling Factors

Technology Stack: Leveraging modern technology platforms to overcome challenges associated with legacy systems

Modular Architecture

Improved control over front-end channels for user interfaces, business rules to configure products and services

Stack integrates easily with 3rd party providers, including FinTechs

Cost Effectiveness

Digital banks book their tech stack costs as operating expenses

Tech-related expenditures can be calibrated with the growth of the business

Scalability

Most, and sometimes all, of a modern stack is cloud-based

Cloud-based stack make it possible to scale according to business needs

Partnerships offer a lever for scale

Effective Management of Data

Data is more easily managed in a modern tech stack

The orchestration engine in a modular stack can be integrated with a data environment to extract and use data in real time

Agile Product Development Culture

Driven by company culture and organization that cultivates continuous product development

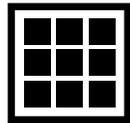
Microservice architecture that allows product features to be built or modified in their own containers, minimizing disruption to the system

Example: Tyme has built a modern tech stack that supports its customer proposition and business model

Modern and agile stack Supporting daily releases



Cloud-Based



Microservices
Architecture



Containerization

Robust data analytics practice Data is processed in real time



Usable, reliable,
and manageable
data warehouse

Process engine (e.g., Kafka)
events readily digestible into
a data environment (Spark)



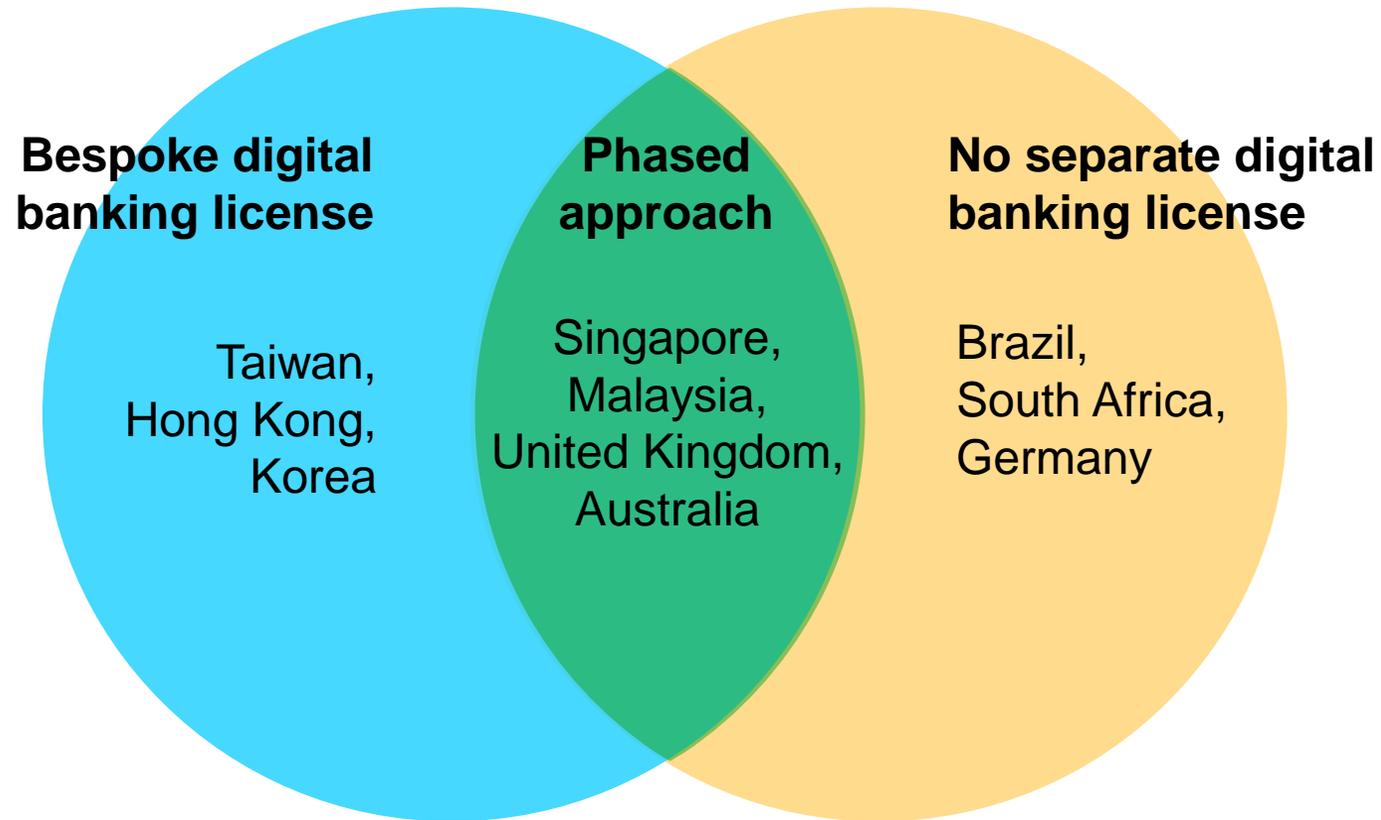
Inline analytics

Conducive corporate culture Customer-focused product development

Over 100 tech and data experts:

- Developers
- Coders
- BI experts
- Python/SQL experts
- Data engineers
- Machine learning specialists

Regulation: Globally, regulators are adopting different approaches to welcome new digital players and encourage innovation



To lure new entrants some regulators have adopted a bespoke digital banking license

Common characteristics of bespoke digital banking licenses



Restrictions on banks' physical presence

Regulators encourage innovative ideas on digital distribution by limiting physical touchpoints



Unaltered fundamental requirements for banking

New digital banks still must comply with basic regulatory requirements such as AML/CFT, consumer protection rules, risk management



Focus on financial inclusion

Regulators expect new entrants to assist the unserved and underserved customer segments, including micro, small and medium enterprises

Regulation: Early insights



A bespoke regime less important than a risk-based, outcome-oriented approach

Activity as a unit of risk assessment

Key regulatory enablers include onboarding (AML/CFT), outsourcing (cloud computing), distribution (different types of agents)

Catalyzing initiatives: innovation facilitators & phased approach

Should ensure a level playing field and not disadvantage digital players by e.g. forbidding them from physical touch points or specific customer segments.

Infrastructure: Markets that are ripe for disruption by digital banks share common characteristics



High Internet
Penetration



Growing Smartphone
Adoption



National ID
Coverage



Robust Payments
Systems



Q&A

Thank you

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