Profiles of Digital Finance Organizations Leveraging Data and Analytics

Caribou Digital

Partnership for FINANCE in a DIGITAL AFRICA

mastercard foundation

NOTES

The views presented in this paper are those of the author and the Partnership, and do not necessarily represent the views of the Mastercard Foundation or Caribou Digital.

For questions or comments please contact us at ideas@financedigitalafrica.org.

RECOMMENDED CITATION

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ABOUT THE PARTNERSHIP

The Mastercard Foundation Partnership for Finance in a Digital Africa (the "Partnership"), an initiative of the Foundation's Financial Inclusion Program, catalyzes knowledge and insights to promote meaningful financial inclusion in an increasingly digital world. Led and hosted by Caribou Digital, the Partnership works closely with leading organizations and companies across the digital finance space. By aggregating and synthesizing knowledge, conducting research to address key gaps, and identifying implications for the diverse actors working in the space, the Partnership strives to inform decisions with facts, and to accelerate meaningful financial inclusion for people across sub-Saharan Africa.

www.financedigitalafrica.org

www.mastercardfdn.org/financial-inclusion-program/

cariboudigital.net

DIGITAL FINANCE WHEEL

- *Color shading to represent the financial services product categories where data and analytics are used within the business model*
- *'Payment Services' is also shaded when there is digital / mobile money integration*

SOURCES OF DATA

A few different typologies for landscaping big data have been proposed. This research categorized data sources (big data as well as traditional) across four functional categories:

- *Individuals' financial services use or history*
- *Individuals' digital interactions using a device*
- *Other individual data, such as psychometric survey responses*
- *Marketwide data, which can be crop prices or satellite imagery as examples*

Individuals' financial services use	- *Financial services usage* - *Credit reference bureau data* - *Mobile money behavior*
Individuals' digital interactions	- *User activity levels, interaction and communication trends* - *Social media usage* - *Social connections* - *Data and voice mobile behavior* - *Geographic location*
Other Individual data	- *Psychometric and behavioral data* - *Demographic data / HH information* - *Agricultural information* - *KYC*
Marketwide data	- *Satellite images* - *Agronomic practices / agricultural data* - *Weather, climate and environmental records* - *Historical market and income data* - *Household surveys, financial diaries, etc.*

INTERNAL DATA

- *Information obtained directly from / about customers or developed through analysis*

Black asset product developed from data obtained internally
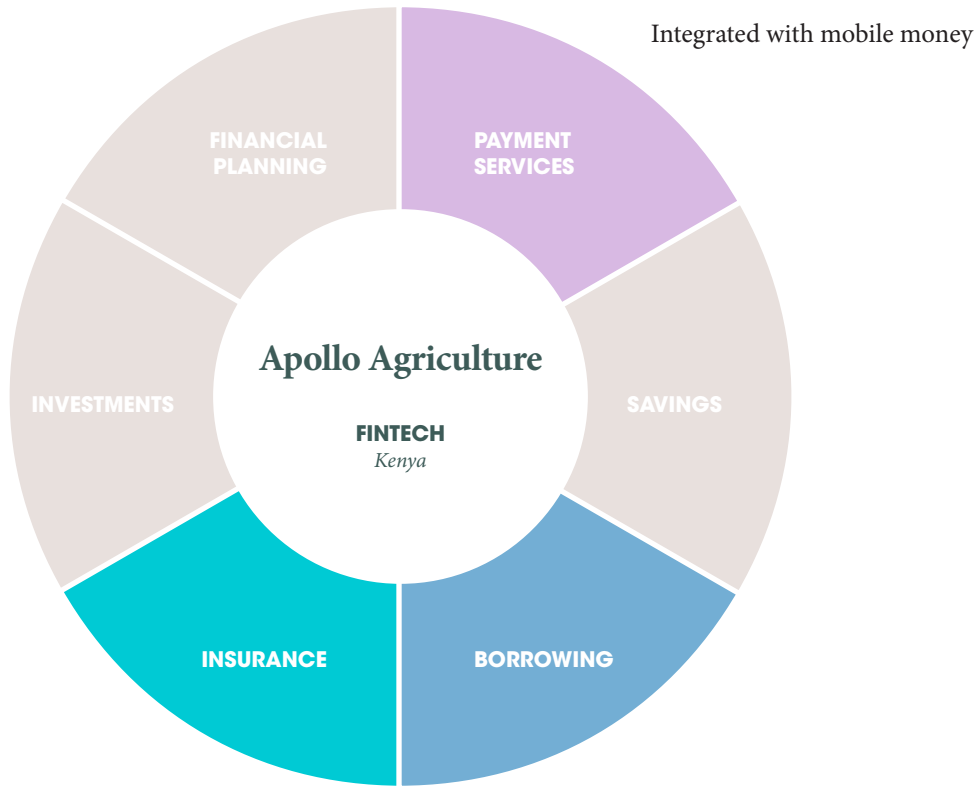
Green used internally only

EXTERNAL DATA

- *Information obtained from a 3rd party (e.g. externally) or a publicly available data set*

Green used internally only

APOLLO AGRICULTURE

Agronomic machine learning, remote sensing, and mobile technology to help farmers access credit, high-quality farm inputs, and customized advice.

Integrated with mobile money

FINANCIAL PLANNING

PAYMENT SERVICES

INVESTMENTS

SAVINGS

INSURANCE

BORROWING

Apollo Agriculture

FINTECH
Kenya

Business orientation: B2C

Sells farmers a package of seed, fertilizer, advice, insurance and credit

- credit rates customers using data from high-res satellite imagery and behavioral, psychometric, and agronomic data;
- trains farmers on best practices via SMS and automated voice calls ("IVR")
- physical product distributed through network of local input suppliers using digital voucher codes

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	Repayments data	Kenya Credit Reference Bureau *(in progress)*
Individuals' digital interactions	Communication trends	
Other individual data	Self-reported data from farmers (demographic, financial, agricultural, psychometrics)	
Marketwide data	Data processed from satellite images (size of farm, crops, house size)	Satellite imagery
		Agronomic practices

Arifu

Digital adviser and education marketplace helping people access information they need in a personalized way.

Arifu

OTHER (EDTECH)
Kenya, Tanzania, Rwanda

- FINANCIAL PLANNING
- PAYMENT SERVICES
- SAVINGS
- BORROWING
- INSURANCE
- INVESTMENTS

Business orientation: B2B

Customer management solution

- *Adaptive learning system that measures individual user needs and capabilities over Web and SMS in order to offer customized experience and financial education*
- *Saving and borrowing, information about providers' products and services, and financial services available through mobile phones.*

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use		
Individuals' digital interactions	User interaction with the service	
	Skills / abilities	
	Social connections	
Other individual data	Customer and agent analytics[1]	
	Age, Gender, Interests	
	Referalls	
Marketwide data		

1   asset product based on engagement, location, channel, language, grammar, sentiment, goals/progress, leads, feedback on training, referrals, incentive feedback

BIMA

InsureTech provider of mobile-delivered insurance and health services in emerging markets.

Integrated with mobile money

BIMA

FINTECH
Africa, Asia, Latin America

- FINANCIAL PLANNING
- PAYMENT SERVICES
- SAVINGS
- BORROWING
- INSURANCE
- INVESTMENTS
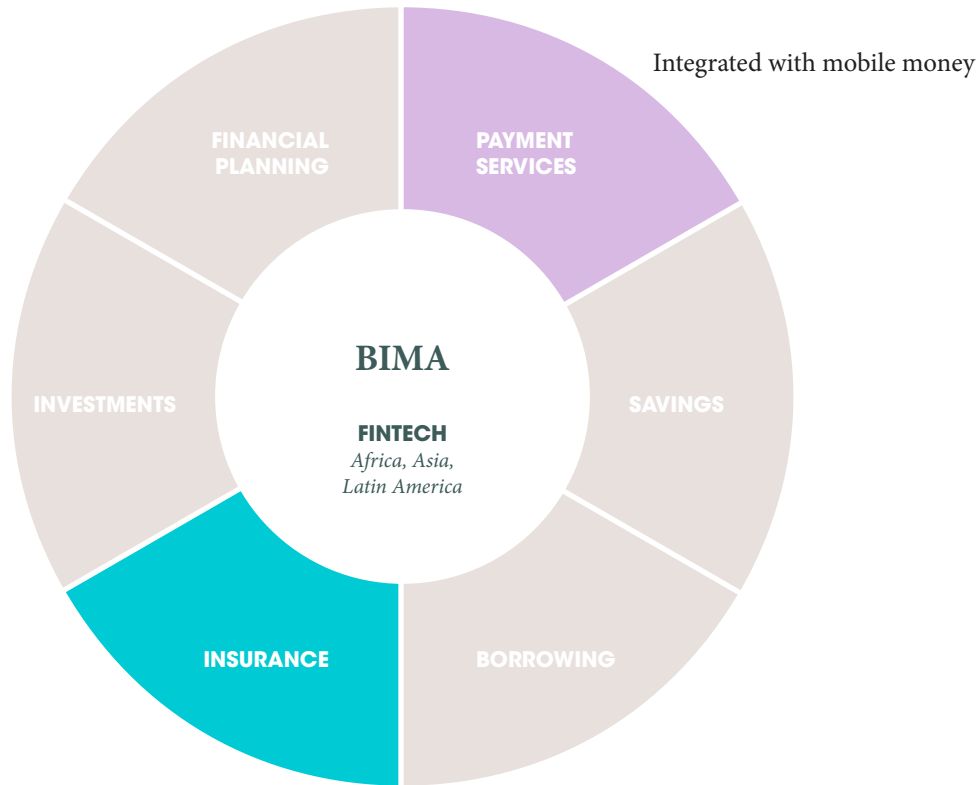
Business orientation: B2B

InsureTech mobile platform solution

- *Enters markets, designs products, approaches underwriters and controls all aspects of the customer journey.*
- *Pre-paid life, personal accident, and hospitalization insurance (3, 6, 12 mo)*
- *In some markets, also offers pre-paid tele-doctor services*

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	Previous use of financial services (insurance)	Analysis of mobile money use conducted by MNO analyst
Individuals' digital interactions		Analysis of mobile use conducted by MNO analyst
Other individual data		MM Customer Information (name, phone number)
		GSM Customer Information
Marketwide data		

cignifi

Credit risk and marketing scores using mobile phone data. Unlocks leads for credit/loans, insurance, savings among mobile prepay customers.

Cignifi

FINTECH
Latin America

- FINANCIAL PLANNING
- PAYMENT SERVICES
- SAVINGS
- BORROWING
- INSURANCE
- INVESTMENTS
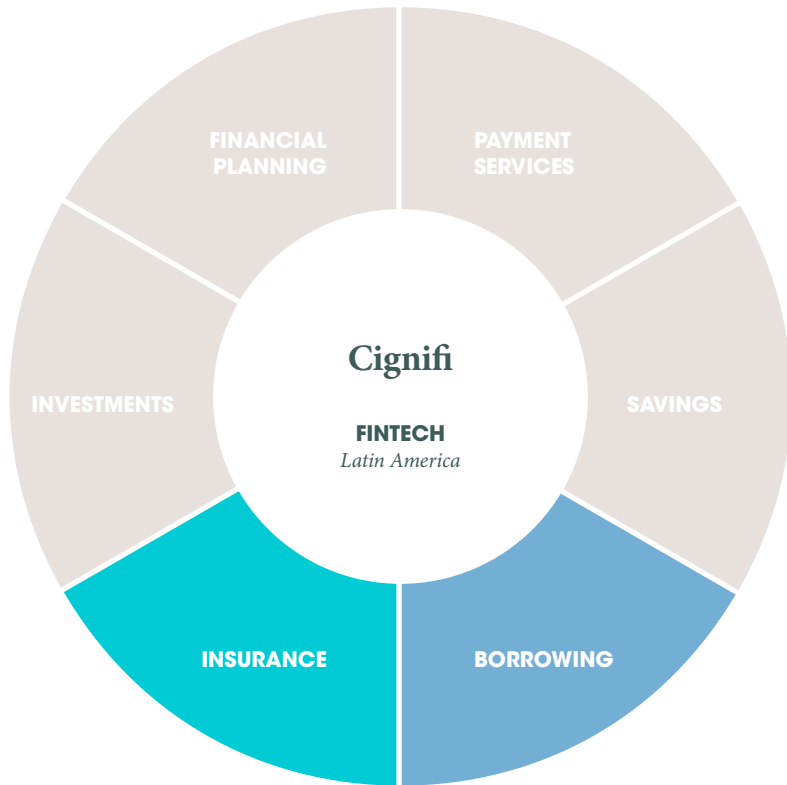
Business orientation: B2B

Credit rating for thin file customers + 'big data' tools

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	Algorithm-derived credit score (asset product)	
Individuals' digital interactions		Mobile behavior data (mobile phone use and call records)
Other individual data		
Marketwide data		

Craft Silicon

Thinking. Crafting. Transforming.

Customized software for financial services sector in Kenya and internationally. Switch and platform core financial solutions.

Craft Silicon

FINTECH
20 countries including Kenya, Ghana, Nigeria, Malawi

Segments: FINANCIAL PLANNING, PAYMENT SERVICES, SAVINGS, BORROWING, INSURANCE, INVESTMENTS
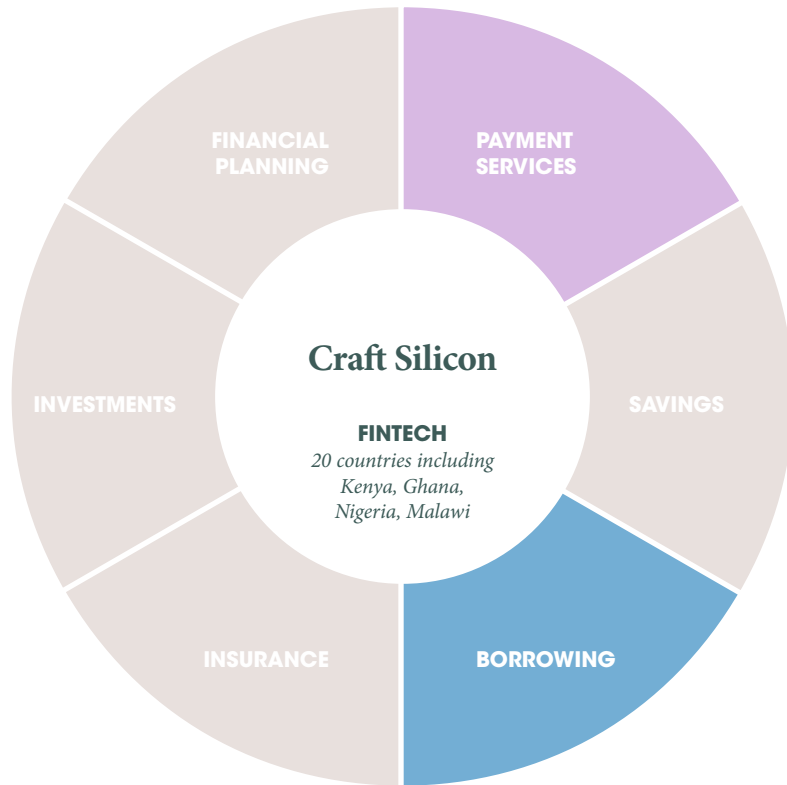
Business orientation: B2B

White label financial services software

Recently launched transportation services platform providing ride matching and financial services

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	Analysis of customer data to create credit score for clients (asset product)	Bank & MFI internal data (owned by client)
		Credit Reference Bureaus
		Utility payment data
		School fee payment data
Individuals' digital interactions		*Future—* smartphone usage, including social media
Other individual data		KRA (Revenue Authority), IPRS (Population registration)
Marketwide data		

EFL

Pioneer of psychometric credit scoring, providing credit scores to financial institutions for business and consumer lending.

EFL

FINTECH

Africa (Zimbabwe, Ethiopia, South Africa, Kenya), Asia, LatAm, Europe

FINANCIAL PLANNING · PAYMENT SERVICES · SAVINGS · BORROWING · INSURANCE · INVESTMENTS
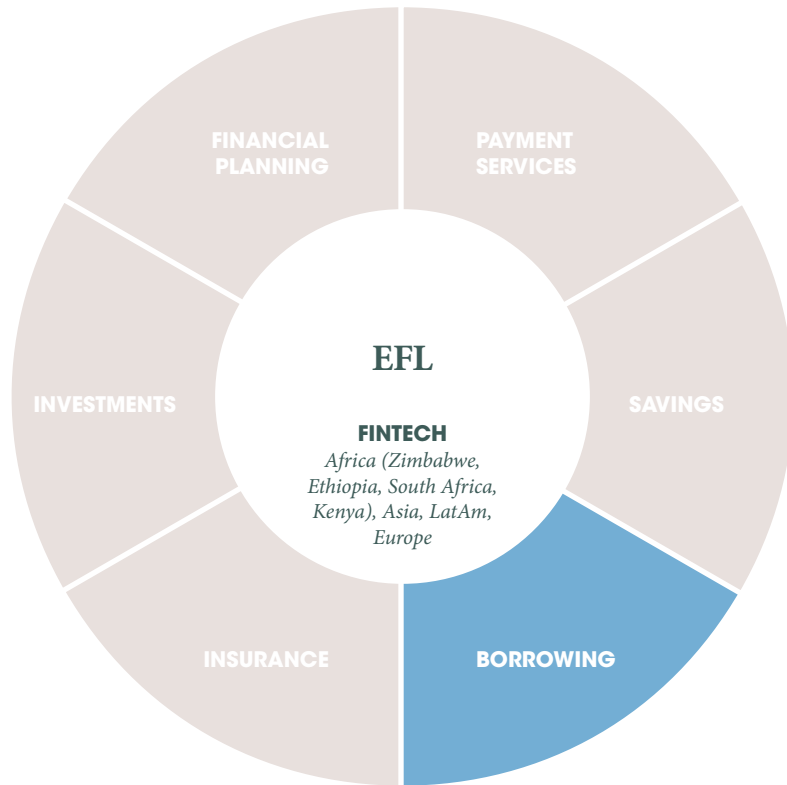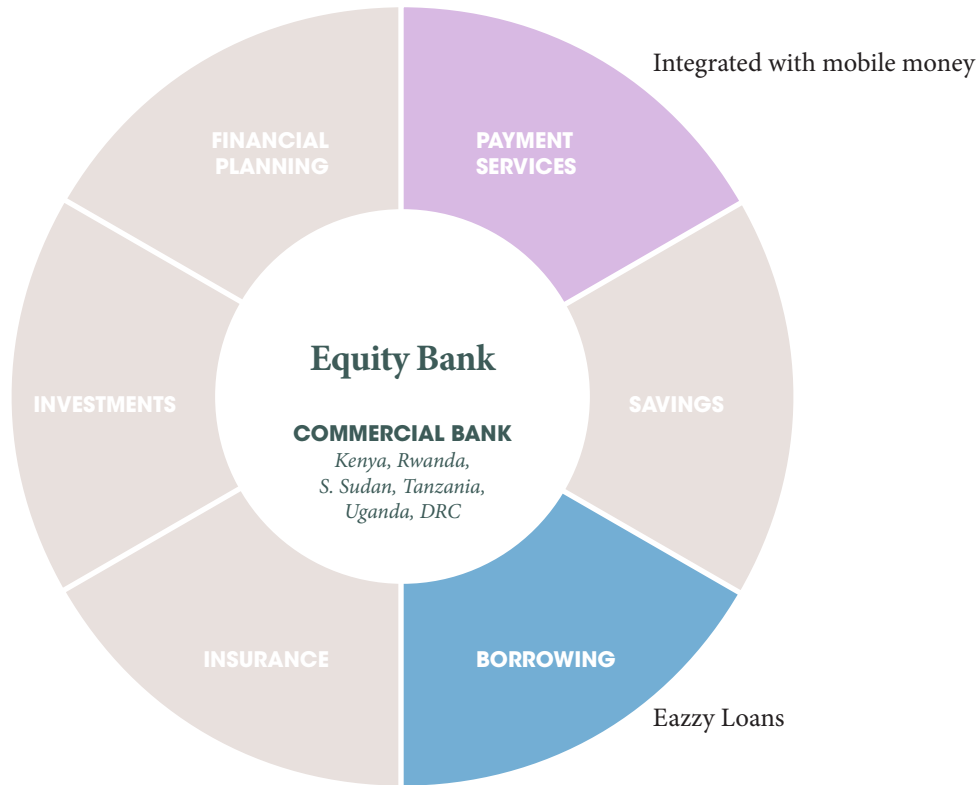
Business orientation: B2B

Psychometric-based credit rating platform for thin file small business owners; psychometric-based loan guarantee product for P2P lending platforms

- *Propriety psychometric tests to evaluate creditworthiness of applicants in order to support lending for working capital, unsecured loans, asset finance.*

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	Psychometric credit score (asset product)	Credit bureau data
Individuals' digital interactions		Mobile phone use and call records
		Social media usage (Facebook & Twitter)
		Geographic location
Other individual data	Psychometric and Behavioral data, using questions and exercises addressing dimensions like honesty, diligence, confidence, and stability	These sources aren't used directly in the scoring product, but are additional layers that can be combined with psychometrics to develop a more comprehensive picture of risk.
Marketwide data		

EQUITY Bank • Your Listening, Caring Partner

Commercial bank HQ in Kenya that targets low-income market. Recently launched Equitel VMNO, integrating mobile & financial VAS.

Equity Bank

COMMERCIAL BANK
Kenya, Rwanda, S. Sudan, Tanzania, Uganda, DRC

- FINANCIAL PLANNING
- PAYMENT SERVICES — Integrated with mobile money
- SAVINGS
- BORROWING — Eazzy Loans
- INSURANCE
- INVESTMENTS

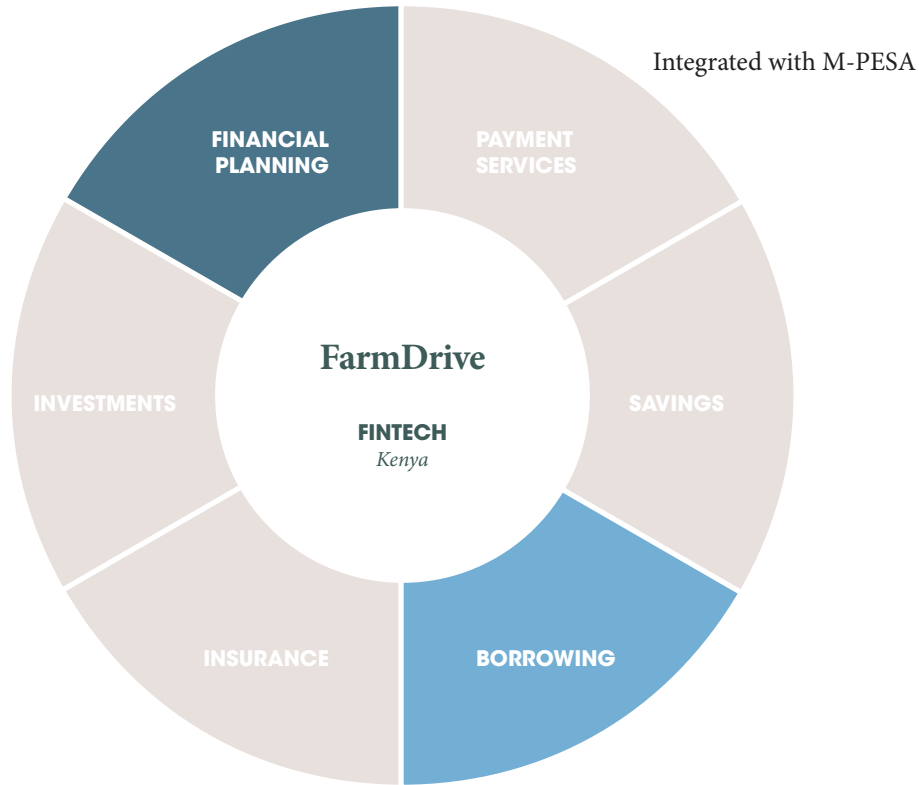Business orientation: B2C

Emergency loans thru mobile channel

- Initial credit limit determined by behavior on Equity bank account and mobile money usage
- Various parameters that are used include: frequency of customer banking in a mo., average amount in account, default history, CRB rating etc.
- Limit based on aggregate score across all dimensions
- If the score is too low the customer will be declined

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	Savings account and current account info	Credit information bureaus
	Previous use of credit	Mobile money usage *(future)*
	Mobile Money usage (cash in/cash out, transactions)	Other Bank Transaction Data *(future)*
Individuals' digital interactions	Customer Agent Transactions	Mobile Airtime Top Up *(future)*
	Merchant Transactions	Mobile CDRs *(future)*
		Social Media *(future)*
Other individual data		These sources will be available in the future via Equity Bank's forthcoming Fintech application
		Psychometric credit scores
Marketwide data		

FarmDrive

Alternative credit scoring for Smallholder Farmers, using mobile phones, alt-data and machine learning.

Integrated with M-PESA

FINANCIAL PLANNING · **PAYMENT SERVICES** · **SAVINGS** · **BORROWING** · **INSURANCE** · **INVESTMENTS**

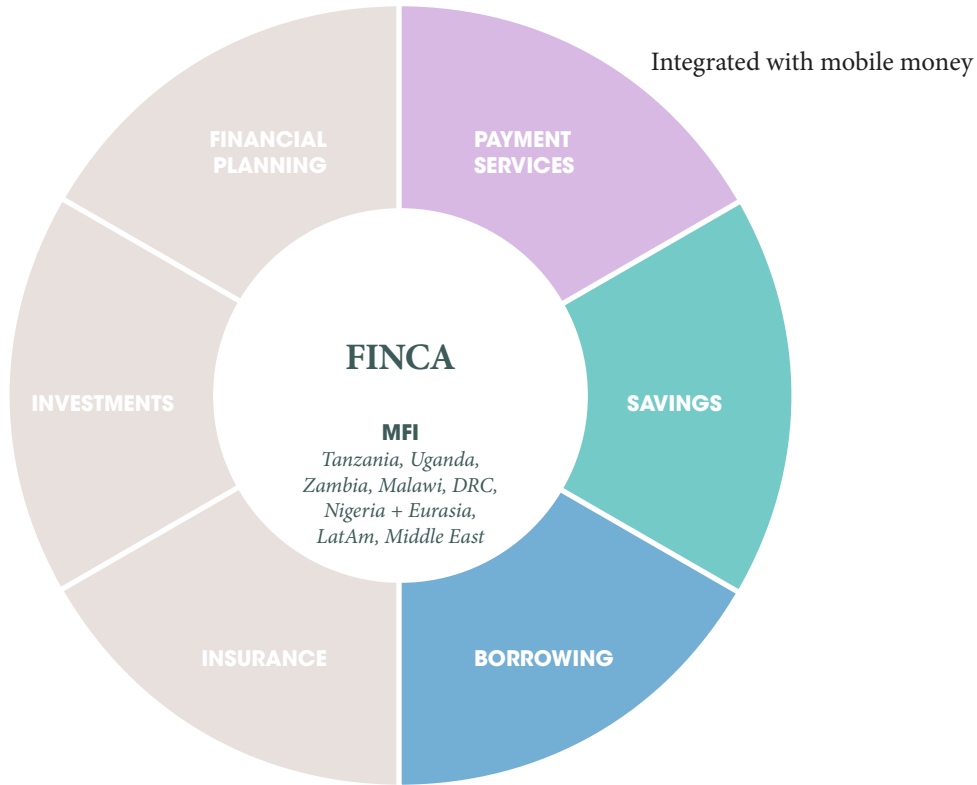**FarmDrive**
FINTECH
Kenya

Business orientation: B2C

Credit rating to enable lending for small holder farmers

- *Platform connects different types of alternative data, combined with big data sets*
- *Currently B2C, will eventually move B2B once algorithms are proven*

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	Loan Repayments	Credit Reference Bureaus
	FarmDrive Record Keeping Service (expenses & revenues)	
Individuals' digital interactions		
Other individual data	Farmer profile (location, crops, farm size, assets, edu level)	IPRS government database (for KYC)
	Farmer agronomic data from record keeping tool	
	Psychometric Data	
	KYC (name, ID)	
Marketwide data		Weather, climate and environmental records
		Satellite imagery (R&D phase with CGAP)
		Historical Market & Income data

FINCA

Microfinance organization with subsidiaries. Information on profile pertains to Tanzania.

Integrated with mobile money

FINANCIAL PLANNING · PAYMENT SERVICES · SAVINGS · BORROWING · INSURANCE · INVESTMENTS

FINCA

MFI
Tanzania, Uganda, Zambia, Malawi, DRC, Nigeria + Eurasia, LatAm, Middle East

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Business orientation: B2C (lending to Enterprises and Individuals)

Individual micro- savings and loan products through mobile channels as well as individual/group entrepreneur/business loans
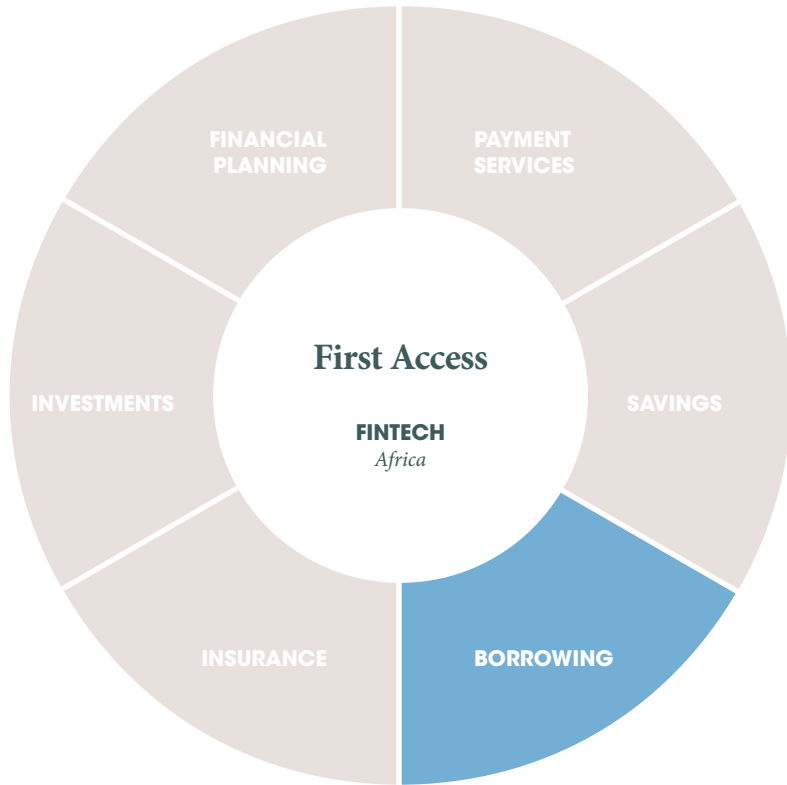
- *Traditional underwriting for Enterprise; outsourcing credit scoring function for Enterprise scoring with FinTech*
- *Mobile financial services in partnership with MNO, leveraging mobile wallet and GSM data; Outsourcing scoring with FinTech*

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	Use of financial services in core banking system[1] (savings, borrowing)	Mobile money savings product usage[2]
		Credit reference bureaus[1]
		Credit score from Enterprise Data[1]
Individuals' digital interactions		Credit score from MNO data[2]
		Social media[1] *(future)*
Other individual data	HH information[1]	New National ID system in TZ[1]
	Geolocation[1]	
Marketwide data		

1 Enterprise
2 Mobile Financial Services

firstaccess

Digitization, analytics, risk management, and credit scoring for lenders in emerging markets.

First Access

FINANCIAL PLANNING

PAYMENT SERVICES

INVESTMENTS

SAVINGS

FINTECH
Africa

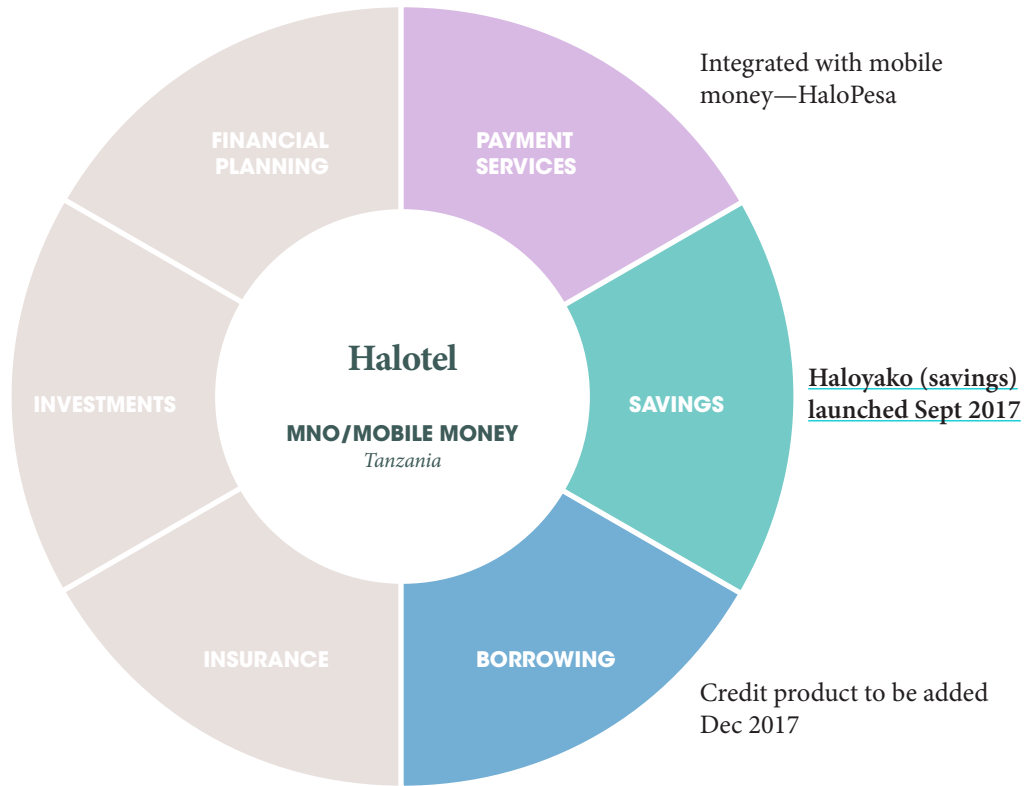**INSURANCE**

BORROWING

Business orientation: B2B

Customer acquisition platform providing analytics, risk management, and credit scoring for lenders in emerging markets

- Platform for digitizing loan appraisal and application
- Business intelligence reporting and alerts to monitor trends, increase efficiency, and lower operational costs

	INTERNAL DATA	**EXTERNAL DATA**
Individuals' financial services use	Credit score based on algorithm (asset product)	Mobile money (balance/transactions)
	Data digitization platform (asset product)	Credit reference bureau data
	API for integrating with other data sources (asset product)	
Individuals' digital interactions		Mobile airtime (top-ups / balance)
		These sources will be available in the future via Equity Bank's forthcoming Fintech application
Other individual data	Applicant information acquired via loan appraisal and application	
	Geographic location (urban/rural, mobility)	
	Demographic (age, gender)	
Marketwide data		*Future version will incorporate agricultural data (Mastercard Foundation-funded project)*

halotel

TZ mobile network operator, 8% marketshare (Q4, 2016). Parent company is Viettel Group (state-owned investment group HQ in Vietnam)

Halotel

MNO/MOBILE MONEY
Tanzania

- PAYMENT SERVICES — Integrated with mobile money—HaloPesa
- SAVINGS — Haloyako (savings) launched Sept 2017
- BORROWING — Credit product to be added Dec 2017
- INSURANCE
- INVESTMENTS
- FINANCIAL PLANNING

Business orientation: B2C

Micro- savings and credit through mobile channel

- *Savings for general and specific goals*
- *Outsourced credit scoring based on mobile money and mobile phone usage*

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	Halopesa usage (transactions, CICO) and balance Use of financial services (Haloyako savings)	Credit scoring provided by 3rd party
Individuals' digital interactions	Mobile phone use and call records Halotel GSM balance	Credit scoring provided by 3rd party
Other individual data	KYC information	
Marketwide data		

JUHUDI KILIMO
Transforming the lives of farmers.

MFI financing specific agricultural assets that offer immediate and sustainable income for farmers.

Integrated with mobile money to enable loan disbursement and repayments

Juhudi Kilimo

MFI
Kenya

FINANCIAL PLANNING · PAYMENT SERVICES · SAVINGS · BORROWING · INSURANCE · INVESTMENTS
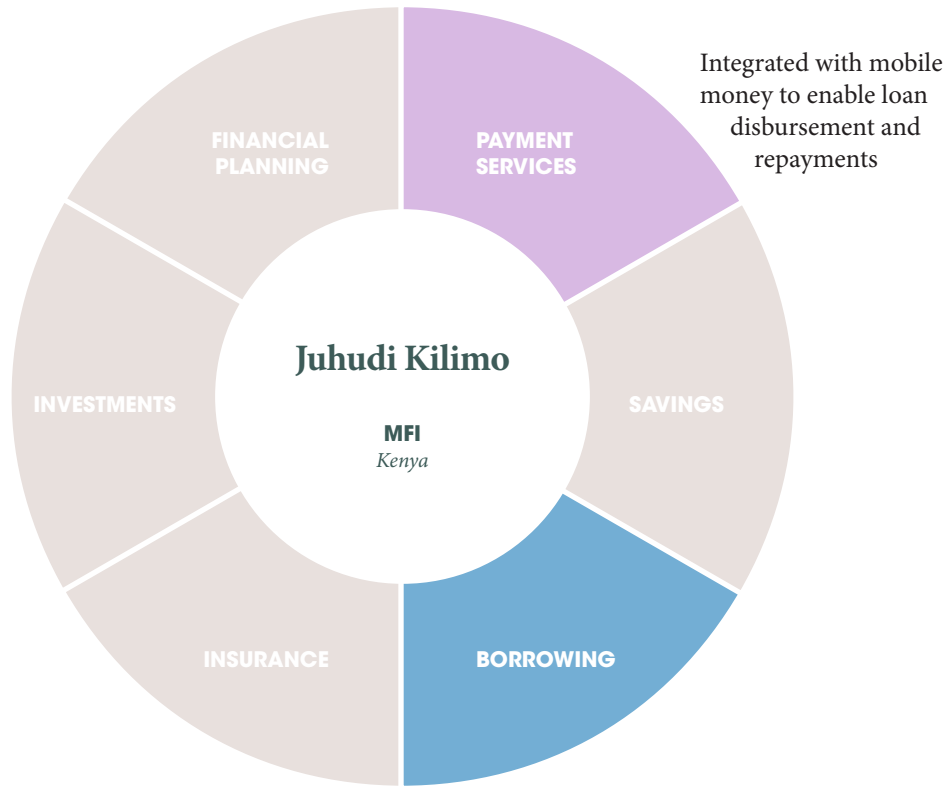
Business orientation: B2C

Asset financing and P2P lending guarantees for smallholder farmers

- *Lending for farm animals, equipment, working capital, clean energy*
- *Psychometric score pilot funded by MCF*

	INTERNAL DATA	**EXTERNAL DATA**
Individuals' financial services use		Credit Reference Bureaus
Individuals' digital interactions		
Other individual data	Household and agronomic information (via loan officer)	Psychometric credit score (via **EFL**)
Marketwide data		

JUMO

Creating financial identities for thin file MSMEs using behavioral data from mobile usage

Jumo

FINTECH

Tanzania, Kenya, Rwanda, Zambia, Uganda, Ghana

- FINANCIAL PLANNING
- PAYMENT SERVICES
- SAVINGS
- BORROWING
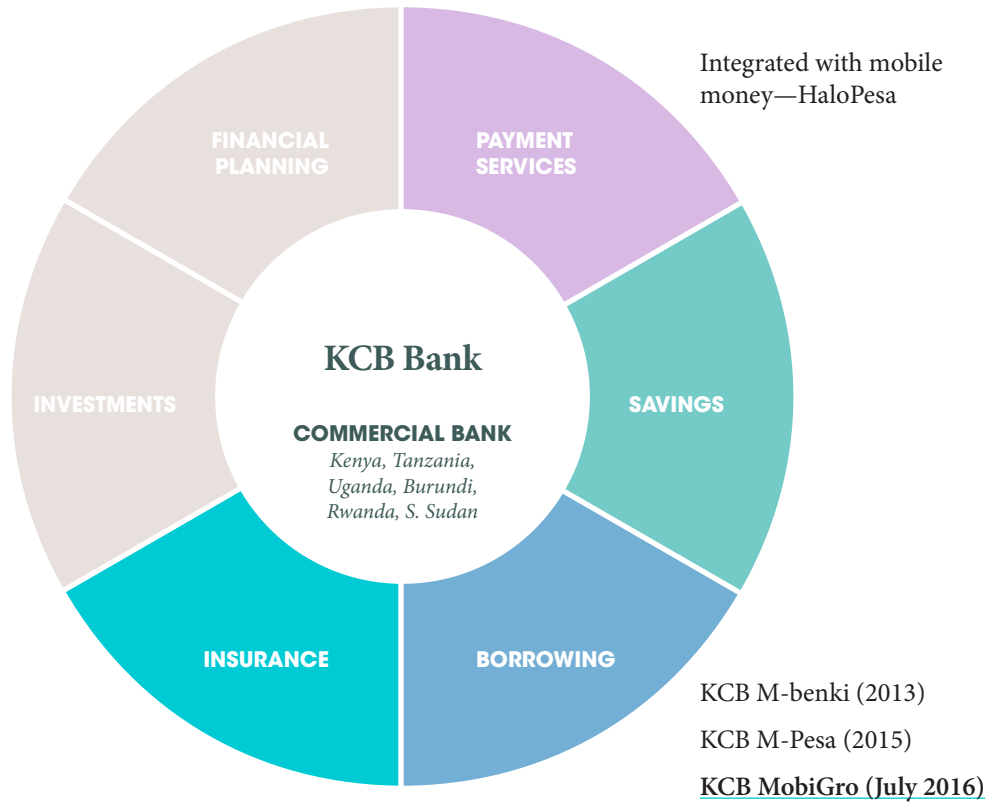- INSURANCE
- INVESTMENTS

Business orientation: B2B

Transactional platform with predictive analytics and machine learning capabilities for MSME savings, lending and insurance products offered thru mobile channels

- *Leveraging customer GSM & mobile money behavior to assess creditworthiness (see video)*
- *Starting to launch savings products that have an insurance wrapper*

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	Algorithm-derived credit score (asset product)	Anonymized mobile wallet behavior
Individuals' digital interactions	USSD Interactions / CI Surveys	Anonymized GSM usage (voice, SMS, data) / Geographic location (nearest tower) / Customer Days Active on Network
Other individual data		
Marketwide data		

KCB

Largest commercial bank in Kenya, part of KCB group. Information on profile pertains to Kenya.

KCB Bank

COMMERCIAL BANK
Kenya, Tanzania, Uganda, Burundi, Rwanda, S. Sudan

- FINANCIAL PLANNING
- PAYMENT SERVICES
- SAVINGS
- BORROWING
- INSURANCE
- INVESTMENTS

Integrated with mobile money—HaloPesa

KCB M-benki (2013)

KCB M-Pesa (2015)

KCB MobiGro (July 2016)
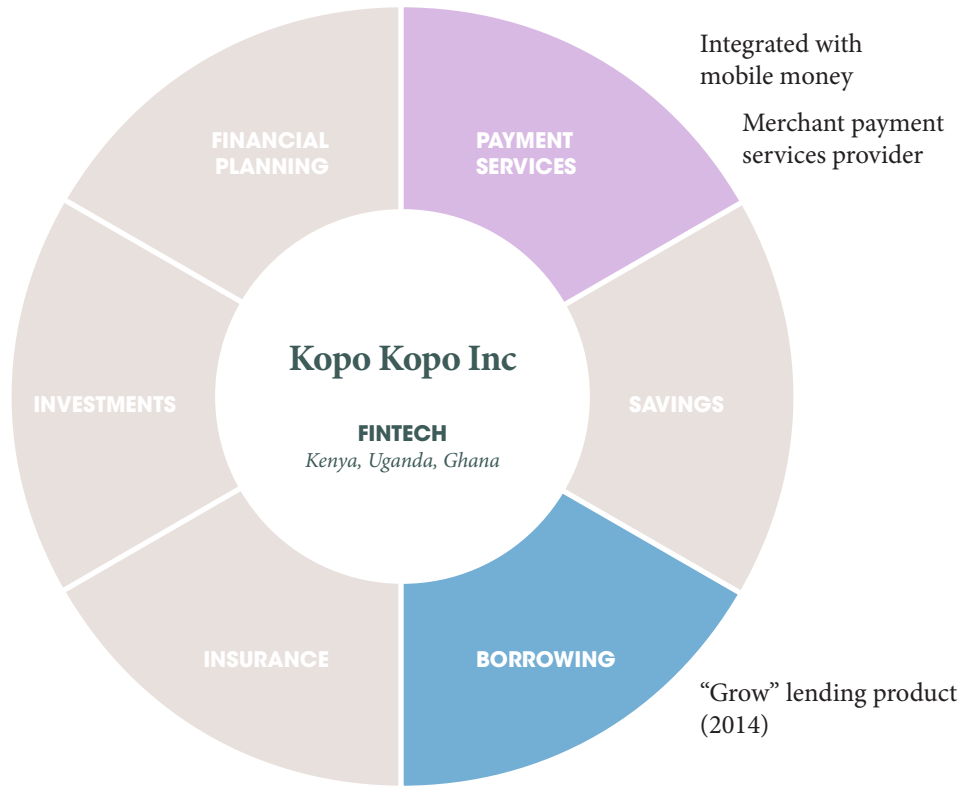
Business orientation: B2C

Bundled products including micro-savings and credit, insurance, and other value added services through mobile channel

- *KCB M-benki – micro- savings and credit*
- *KCB MobiGro – bundled product for farmers—insurance, credit, savings, training on farming skills, links to input providers and markets*
- *KCB M-Pesa – micro- savings and credit*

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	KCB conventional banking platform	Mobile money use and behaviour (KCB M-PESA)
	KCB mobile banking platform	Credit reference bureaus
	Bill Payments (from KCB utility payment services)	Data from off-takers, food producers / farmer organizations, contract farming, agri-NGOs, and other agri-business deals
Individuals' digital interactions		Mobile phone usage and behaviour
Other individual data		
Marketwide data		Considering satellite data *(future)*

KOPO KOPO

Market-appropriate solutions for SMEs enabling them to go digital and use mobile payments.

Kopo Kopo Inc

FINTECH
Kenya, Uganda, Ghana

- FINANCIAL PLANNING
- PAYMENT SERVICES
- SAVINGS
- BORROWING
- INSURANCE
- INVESTMENTS

Integrated with mobile money

Merchant payment services provider

"Grow" lending product (2014)

Business orientation: B2C (customers are merchants)

Lending for SME merchants leveraging merchant transaction data

- $150 – $50,000 loans for merchants with credit worthiness assessment based on transactions data

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	Merchant transactions through platform (Lipa Na M-Pesa or MasterPass QR)	Credit Reference Bureau (final check, not part of algorithm)
Individuals' digital interactions		
Other individual data	Merchant KYC (ID, business information)	
Marketwide data		

Lendable

Turnkey solution for financing alternative lenders (technology and service connecting them to sources of capital in US/UK)

Apollo Agriculture

FINTECH
Kenya, Uganda

- FINANCIAL PLANNING
- PAYMENT SERVICES
- SAVINGS
- BORROWING
- INSURANCE
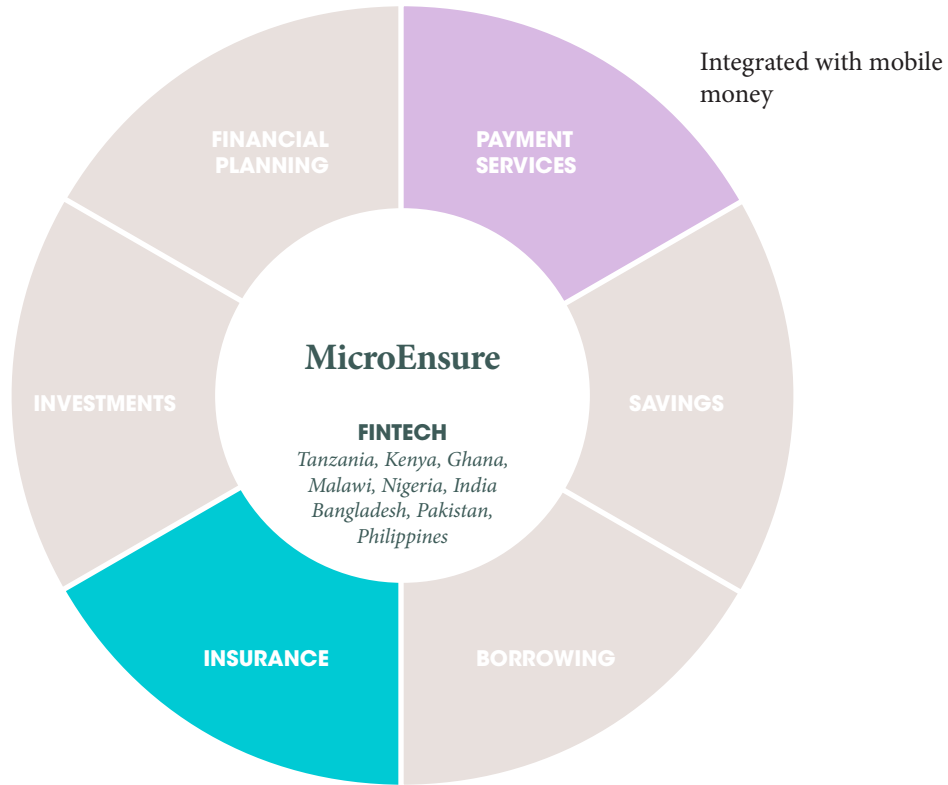- INVESTMENTS
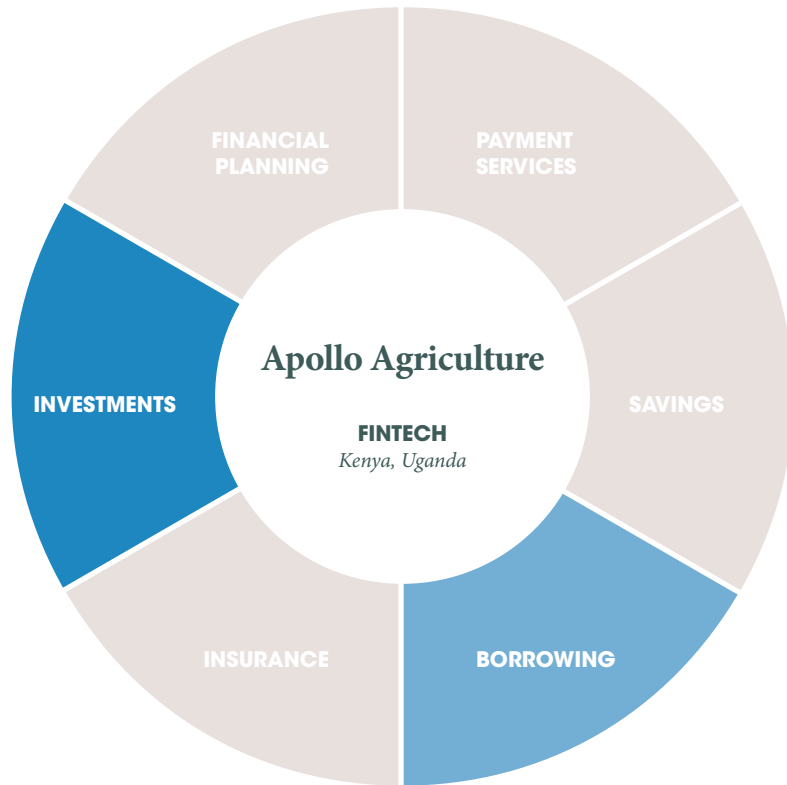
Business orientation: B2B

Solution for alternative lenders including analytics (through business intelligence platform and data scientists) and connection to sources of capital

- *Analytics offered to lenders as well as investors*
- *Portfolio risk based on individual responses to situations, especially correlated events (election, drought, etc.)*

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	Lendable Risk Engine: automated bayesian cash flow simulations and individual scoring (asset product)	Partner customer data
	Lendable proprietary database of benchmarks	Reconciliation with payments gateways
Individuals' digital interactions		
Other individual data		
Marketwide data		Macro data sets on financial shocks

MICROENSURE

Specialist provider of life, health and property insurance to mass market via mobile financial services, MNOs, MFIs, banks and co-ops.

MicroEnsure

FINTECH

Tanzania, Kenya, Ghana, Malawi, Nigeria, India Bangladesh, Pakistan, Philippines

Wheel segments:
- FINANCIAL PLANNING
- PAYMENT SERVICES — Integrated with mobile money
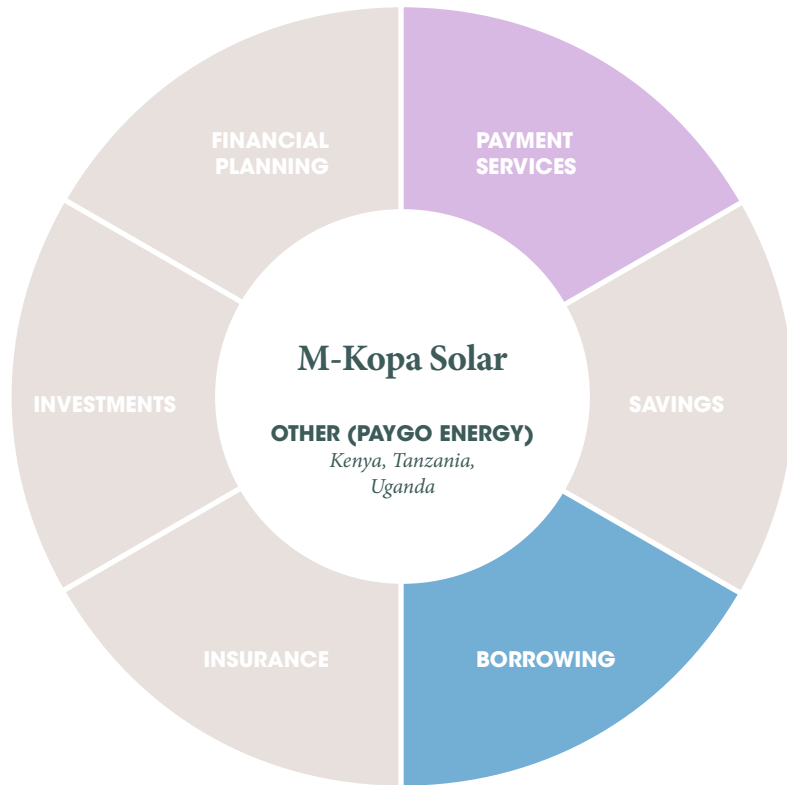- SAVINGS
- BORROWING
- INSURANCE
- INVESTMENTS

Business orientation: B2B

InsureTech mobile platform solution

- *Back office insurance industry support, including product design, high-volume administration and claims servicing*

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	Insurance purchases	Loan balances
	Insurance payment history	Savings balances
	Insurance renewals	Mobile money balances
	Insurance claims	
Individuals' digital interactions	Digital customer service interactions	Snapshot of airtime balance (from a few providers)
Other individual data	In-person customer service interactions	Geolocation (manual, from MFI partners)
Marketwide data	Risk and incident rate across emerging markets portfolio	Weather records

M-KOPA SOLAR

Solar energy company providing home-based systems, with the availability of add-on products, on a PAYGO basis.

M-Kopa Solar

OTHER (PAYGO ENERGY)
Kenya, Tanzania, Uganda

Wheel segments: FINANCIAL PLANNING, PAYMENT SERVICES, SAVINGS, BORROWING, INSURANCE, INVESTMENTS
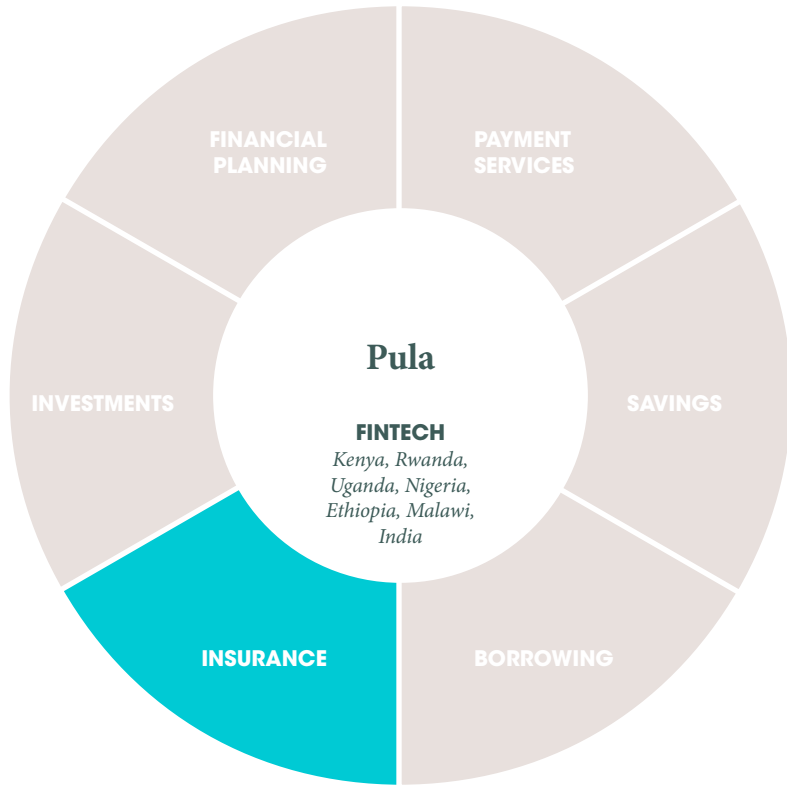
Business orientation: B2C

Asset financing based on solar home energy systems

- *Data and analytics are used operationally to track customers and inform customer acquisition / distribution network*
- *Data and analytics also used in new product development and pricing*

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	Amount on deposit / downpayment	Credit Reference Bureau (for KYC)
	PAYG payments histories / equity in the device	M-Pesa transaction history (aggregated, & only with consent)
Individuals' digital interactions	Use of the device	
	Geographic location of the device (for cohort performance)	
Other individual data	Basic KYC	M-Pesa database (name match only for KYC)
Marketwide data		HH surveys, financial diaries, surveys, HCD teams, etc.

PULA

Radically restructuring agriculture insurance, using technology to insure previously unbanked, uninsured, untapped markets

Pula

FINTECH
Kenya, Rwanda, Uganda, Nigeria, Ethiopia, Malawi, India

FINANCIAL PLANNING — PAYMENT SERVICES — INVESTMENTS — SAVINGS — INSURANCE — BORROWING
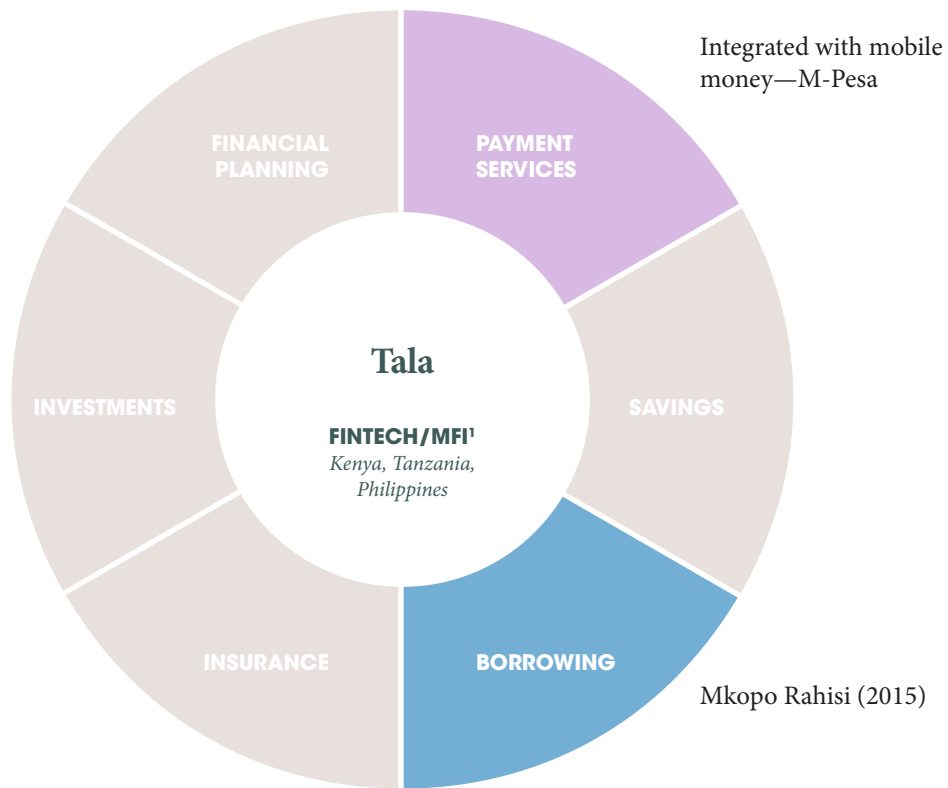
Business orientation: B2B

Platform for integrating area yield insurance into farming products

- *Insurance embedded into farming product, avoiding the need to put insurance education at the center of the product. (See Ted Talk video)*
- *Periodic farming tips, based on date and crop planted*

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use		
Individuals' digital interactions		
Other individual data	Agronomic data based on item insuring and date registering / KCB conventional banking platform	
Marketwide data		Satellite imagery and precipitation data / Agricultural yields and irrigation information

TALA

Alt-data credit scoring and platform for providing instant credit.

Tala

FINTECH/MFI[1]
Kenya, Tanzania, Philippines

- PAYMENT SERVICES
- SAVINGS
- BORROWING
- INSURANCE
- INVESTMENTS
- FINANCIAL PLANNING

Integrated with mobile money—M-Pesa
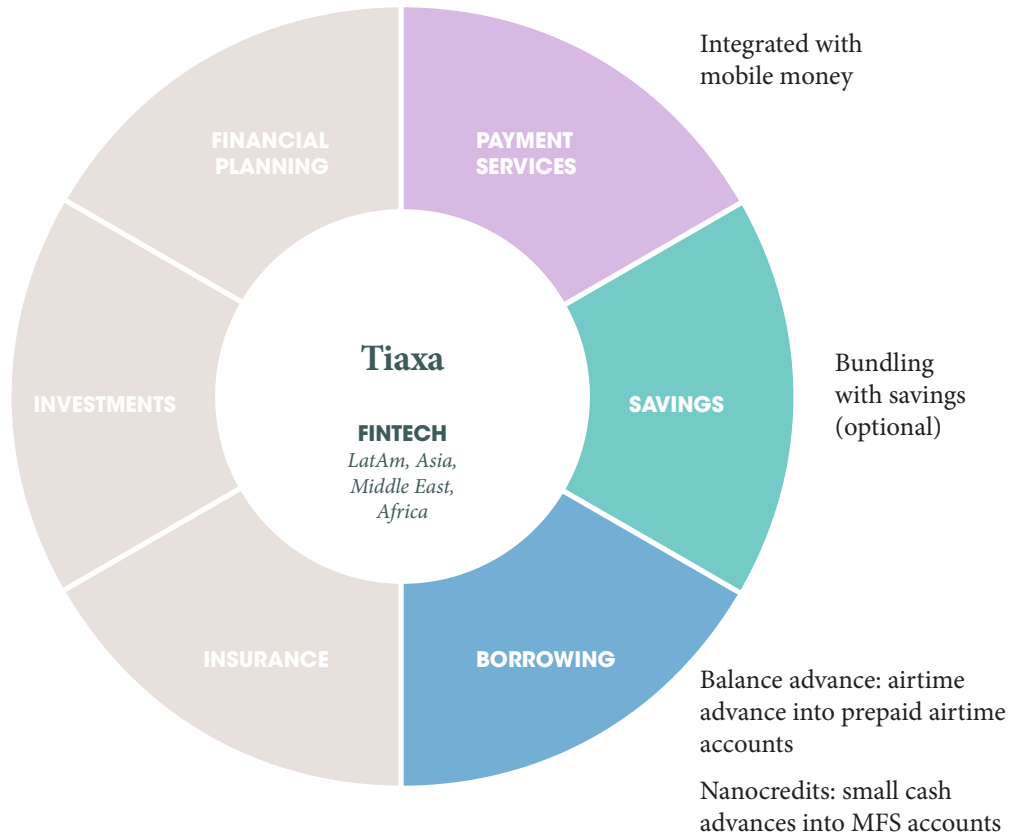
Mkopo Rahisi (2015)

Business orientation: B2C

On-balance sheet lending based on alternative-data credit scoring

- *Individual and microbusiness finance*
- *Smartphone application scans loan applicant's data and assesses creditworthiness near-instantly*

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use		
Individuals' digital interactions	SMS (sniff for financial transactions)	
	CDRs	
	Apps on phone	
	Social media usage	
	Geographic location	
Other individual data	Self-reported data on identity, income and motivation for loan	KYC verification (IPRS in KE; MM provider cross-check in TZ)
Marketwide data	User research findings for product improvement	

1   Tala required to register as an MFI in Tanzania

tiaxa

Global Leader in Nano-Credits, providing 10 million small loans per day in over 20 countries, both as airtime for prepaid mobile phone subscribers and as cash through Mobile Money, for unbanked people in emerging markets.
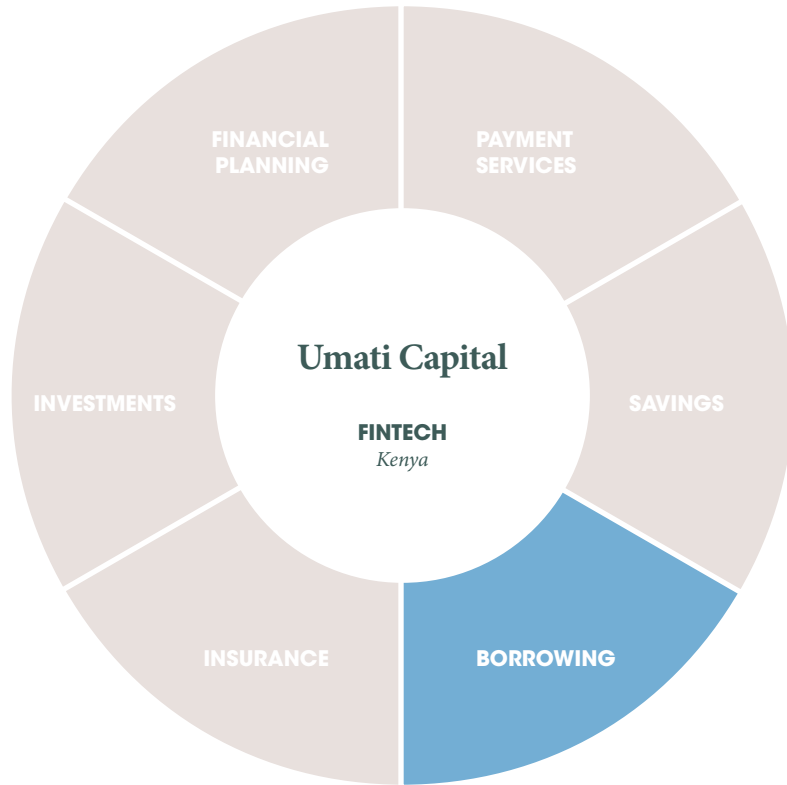
Tiaxa
FINTECH
LatAm, Asia, Middle East, Africa

- FINANCIAL PLANNING
- PAYMENT SERVICES — Integrated with mobile money
- SAVINGS — Bundling with savings (optional)
- BORROWING — Balance advance: airtime advance into prepaid airtime accounts / Nanocredits: small cash advances into MFS accounts
- INSURANCE
- INVESTMENTS

Business orientation: B2B

Turn-key solution for MNOs to expand into digital lending

- *On-balance sheet nano-lending in mobile money or airtime*
- *Credit scoring based on mobile money and mobile phone usage patterns*

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	History of use with nano-lending products	Mobile money behaviour (cash in / cash out, transactions)
Individuals' digital interactions		Mobile phone use and call records
		Top up and recharge behavior
Other individual data		KYC information (name, DOB, etc.)
Marketwide data		

umati capital
intelligent lending

Innovative invoice discounting solution for SMEs in Kenya. Credit to suppliers by risk profiling buyers.

Umati Capital

FINTECH
Kenya

Donut segments: FINANCIAL PLANNING, PAYMENT SERVICES, SAVINGS, BORROWING (highlighted), INSURANCE, INVESTMENTS

Business orientation: B2C

On-balance sheet invoice discounting / factoring based on traditional and alternative-data underwriting
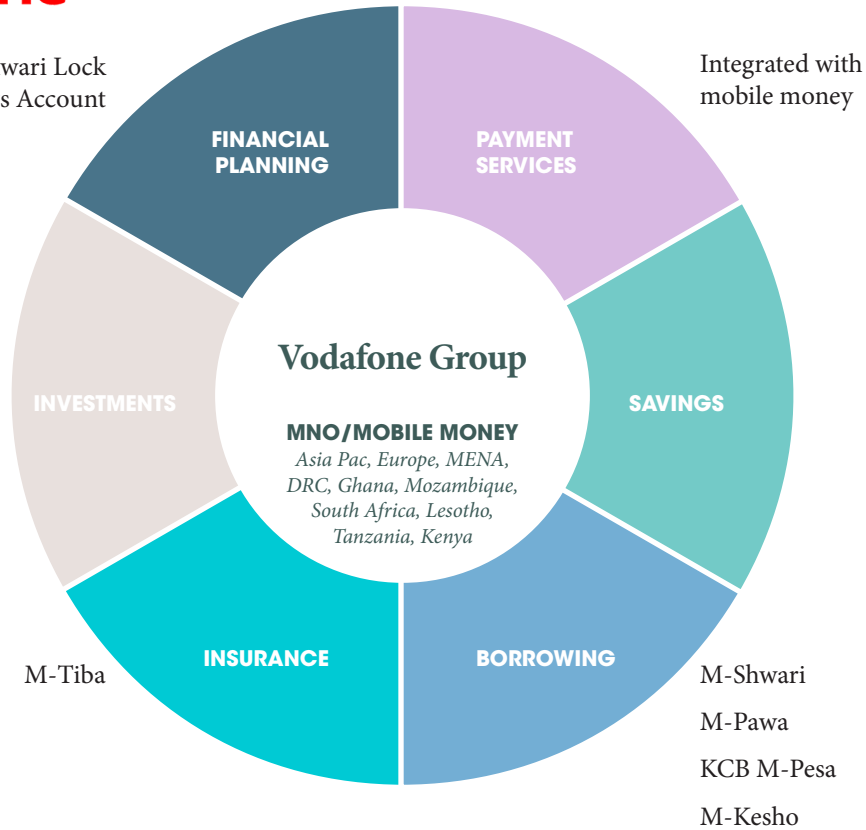
- *Currently credit scoring is on off-taker (against receivables and CRB data)*
- *Recently now also screening suppliers (bank statements and sales history) and looking to add additional alternative data into algorithm for screening suppliers*

	INTERNAL DATA	EXTERNAL DATA
Individuals' financial services use	Sales history (suppliers)	Credit Reference Bureaus (suppliers)
	Bank statement analysis (suppliers)	Mobile Money data (suppliers) *(future)*
	Receivables (off-taker)	
Individuals' digital interactions		Social media (suppliers) *(future)*
		Psychometrics (suppliers) (will outsource) *(future)*
Other individual data		
Marketwide data		Commodities pricing / quantities / supply areas

![Vodafone logo]

Largest MNO in Tanzania and Kenya. Ranked second world wide in terms of number of connections.

M-Shwari Lock Savings Account

FINANCIAL PLANNING

PAYMENT SERVICES

Integrated with mobile money

INVESTMENTS

Vodafone Group

MNO/MOBILE MONEY
Asia Pac, Europe, MENA, DRC, Ghana, Mozambique, South Africa, Lesotho, Tanzania, Kenya

SAVINGS

M-Tiba

INSURANCE

BORROWING

M-Shwari

M-Pawa

KCB M-Pesa

M-Kesho

Business orientation: B2C & B2B

Developing a platform for a range of players to be able to use data for credit scoring

- *Products using alternative data for credit scoring in Kenya and Tanzania:*
  - *__M-Shwari__ (KE)—savings / micro-credit product*
  - *__M-Pawa__ (TZ)—savings / micro-loan product*
  - *__KCB M-Pesa__ (KE) —KCB products on M-Pesa rails*
  - *__M-Kesho__ (KE)—Equity bank products on M-Pesa rails*
  - *__M-Tiba__ (KE)—mobile health wallet*

Individuals' financial services use

Credit Score
(asset product based on mobile money and mobile phone behaviour)

M-Pesa Behavior

Individuals' digital interactions

GSM Behavior and CDRs

Other individual data

Demographic data

Marketwide data