Scope of FinTech in Agriculture

FinTech helps tackle the challenges that African small scale farmers face in accessing mainstream financial services products such as financing, insurance, payments and investments.
A country example: Agri-Fintech value chain players in Kenya

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FinTech ecosystem supporting Africa’s agriculture sector
Embracing the FinTech ecosystem promotes both financial inclusion and business profitability
Selected case studies
ACRE Africa: Agricultural microinsurance

Insurance could become attractive to farmers if premiums are taken care of

Seed company pays farmer’s insurance premium to micro-insurance provider
Farmers insured via mobile network (which also enables location-based data)
In case seed germination fails due to lack of rainfall, farmers compensated via mobile money, enabling repurchase of seeds
Ensures convenient drought risk mitigation for farmers and brand differentiation/loyalty, increases sales for seed company

Impact

Key ecosystem partners*

Sources: Business daily

Seed company
- Pays insurance premium on farmer’s behalf to build brand loyalty for its seeds
- Bundles service with seed packets

Agrovets
- Local merchants present at point of sale when farmers purchase seeds; best positioned to educate farmers about insurance product

Mobile operator network
- Marketing, channel for registration, payments via mobile
- Location based data

Micro-insurance provider
- Integrate microinsurance products
- Underwrite the risk

Sources:
- Business daily

Geography: Kenya, Tanzania, Rwanda
Launched: 2009

185 Customers in 2009
350k Customers in Dec, 2016
CAGR: -19.4%
ACRE Africa: How does it work?

1. Farmer purchases bag of insured seeds at start of crop season
2. Farmer opens bag during planting, finds registration card inside
3. Registration using unique SMS code from registration card inside seed bag
4. Farmer location detected by insurance provider from location based service system and satellite imagery
5. Farmer can repurchase seeds, replant and harvest in the same season

Compensation sent to farmer via mobile money if no sufficient rainfall in location

If the seed germination fails after 21 days without rain

Indicates key farmer actions
Indicates insurance provider's actions

FinTech ecosystem supporting Africa's agriculture sector
Kilimo Booster: Agricultural microfinance

Smallholder farmers benefit from a flexible repayment schedule and immediate loan disbursement

Kilimo booster

- M-PESA based loan product specifically for small farmers
- Flexible terms and customizable grace period based on individual clients’ unique agricultural activities
- Estimation of loan-readiness using automated cash flow model
- Immediate disbursement, in less than 72 hours
- Enables diversified farm endeavours and overcoming agricultural shocks such as disease/pests quickly

Impact

96% Kenyan households use M-PESA at least once a month

5980 loans Kilimo booster disbursed loans, 2016

~19m Mobile users in Kenya with M-Pesa wallets (2016)

83% Farmers expressed no challenge in receiving loan via mobile payment

Key ecosystem partners*

Micro finance institution

- Developed Kilomo Booster platform for smallholder farmer loans
- Provides loans to the farmers

Mobile operator network

- M-PESA platform utilized to receive and make payments
- Customers can also use mobiles for loan queries

Non-profit for financial inclusion

- Provided IT support & design based research process
- Helped create cash flow analysis model and customer facing USSD application

Non-profit organization

- Provided additional funding to enhance technological capacity

Source: Daily Nation, USAID

96%

~19m

83%
Kilimo booster: How does it work?

1. Loan officer asks the farmer a short series of questions, input in tablet-based automated cash flow analysis model.

2. Software generates financial summary, grace period and loan terms.

3. Loan disbursement within 72 hours of loan application, to the M-PESA account of the user.

4. Customer facing USSD application allows users to query account balances and loan information using mobile phones rather than relying on loan officers.

5. Farmer can repay loans via M-PESA system.

Grace period of up to six months is allowed to individual farmers, based on nature of enterprise.

Loan officers/branch managers use online dashboards to track repayment progress.
FarmDrive: Agricultural credit scoring

FarmDrive collects and aggregates alternative datasets from multiple sources to build credit scores for smallholder farmers in Africa.

The alternative datasets are analyzed by machine learning algorithms to produce relevant credit scores for smallholder farmers, and decisioning tools that enable financial institutions to develop small-scale agriculture loan products.
In Kenya, Umati Capital has created an app called **Umati Application**, which offers supply chain financing, a product that gives small businesses credit to pay up to 80% of their suppliers’ invoices in days. This results in fewer past due statements, more loyal suppliers and smoother income flows.

In Zimbabwe, Econet Wireless created a weather-indexed microinsurance cover called **EcoFarmer** for small farmers. Farmers pay a premium of 10% e.g. $2.50 for $25 cover per season, and this can be deducted from their prepaid phone account. Membership includes farming best practice training, funeral insurance and membership with the Zimbabwe Farmers’ Union.
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