

Uganda

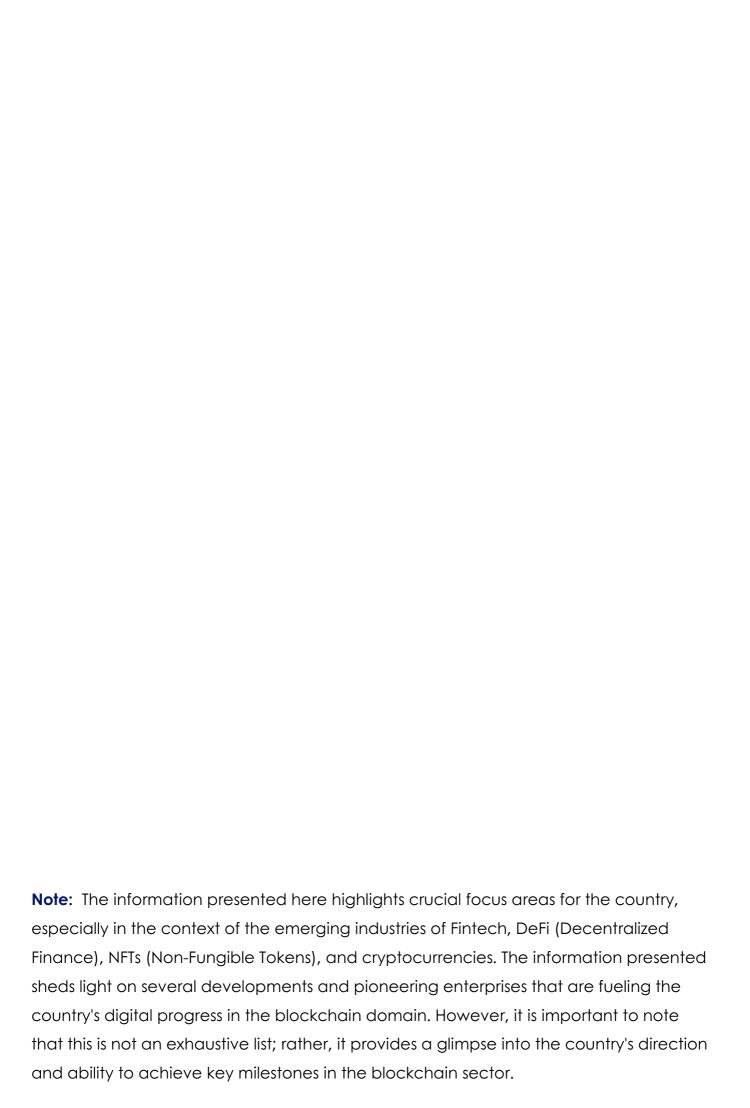


2023

Blockchain and Digital Transformation in Africa.

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### Fintech

### Digital Payments and Remittances/ Mobile Banking and Digital Wallets

**Xente Payments** is a flexible mobile application that allows users to safely transact using their phones and numbers. The app supports e-commerce, remittance, and bill payments. It accepts mobile money and bank card prepayments. Xente also lets customers pay later or in installments. Xente stands out as an m-commerce and FinTech company with products for consumers and enterprises. It offers APIs to incorporate mobile wallet payments into websites and apps.

**Yo!** Payments enables businesses manage various mobile payment providers securely and easily. It accepts mobile money payments through point-of-sale devices, mobile apps, and the web using SMS, USSD, and IVR. It offers bill payments, collections, point-of-sale transactions, money transfers, and other e-money services. Banks, non-bank enterprises, government agencies, and NGOs use it.

**DusuPay**, a UK-based payment gateway created in 2015, allows African businesses to accept and make payments. It integrates with MNO payment platforms in multiple African nations to encourage intra-African trade by transferring payments. The company serves currency trading, betting, money remittance, e-commerce, and tours & travel enterprises as a B2B business. It specializes in B2B cross-border mobile money transfers. It also accepts over 115 payment methods in 125 countries across Africa, Europe, America, and Asia.

**Ezeemoney**, a payment aggregator, simplifies payments into customer mobile wallets across numerous mobile network operators (MNOs) and converts them into mobile wallets and bank accounts. Customers can choose their payment method. Ezeemoney, like Yo! Payments, offers bill payments, collections, point-of-sale transactions, money transfers, and other e-money services. Banks, non-banks, government agencies, and NGOs use it.

### SIM Registration in the Blockchain

The Uganda Communications Commission (UCC) has used blockchain technology for new SIM card registrations, a major milestone. Thus, Ugandan blockchain business Cryptosavannah is developing the SIM card registration blockchain. FSD Uganda supports the endeavor to improve financial market infrastructure and processes, including data sharing (interoperability) across ecosystem members. Blockchain will combine real-time data for SIM card registration. The system automatically searches all registered SIM cards for the National Identification Number (NIN) of a new SIM card. This reduces manual searches,

prevents fraud, identity theft, and illegal registrations. Besides, this system will save telecom operators time by eliminating the need to constantly exchange SIM card registration data with UCC. The blockchain will also allow consumers to verify the quantity of SIM cards registered under their NIN to comply with law. It supports its National Development Plan (NDP III) goal of creating a genuinely digital economy where mobile phones deliver digital products and services by adopting blockchain technology.

## Insurtech and Microinsurance Solutions

aYo Uganda: Ugandan healthcare insurance is provided by MMI Holdings subsidiary aYo Uganda. They offer two micro-insurance products, 'Send with Care' and 'Recharge with Care,' tied to MTN mobile money transactions. aYo pays the user's family three times the last four months' remittance for a year after death. Over a year, aYo deposits three times each user's MTN mobile banking account's last four months' remittances towards hospitalization.

Mazima Retirement Plan (MRP) is for self-employed and informal workers. Uganda's National Social Security Fund (NSSF) provides pensions and retirement for registered workers, while informal workers have few options. Hence, personal retirement savings plans with interest from MRP cover this gap. Housing Finance Bank (HFB) is the custodian account, with Pride Microfinance Bank accepting deposits. MRP's fund manager is Capital Alliance. WeFarm Limited's farmer-to-farmer information sharing network gives insurance carriers precise reports on farmer interactions. This helps insurers understand farmers and agriculture<sup>2</sup>.

**Money Duka Services:** It offers loans, insurance, along with other financial products online.

**Mcash:** Craft Silicon Uganda and **MCash** provide mobile micro-insurance solutions. The app offers low-cost transaction handling, switching, and mobile payments.

### P2P Lending and Alternative Financing

**Numida** digital lending platform offers entrepreneurs unsecured loans based on cash flow and financial management. The platform evaluates creditworthiness with a proprietary algorithm and provides financial literacy training to entrepreneurs. Entrepreneurs can get greater loan principles and better terms the more they use Numida.

**Borrocracy** matches borrowers and lenders through peer-to-peer lending. Borrowers must supply KYC

<sup>&</sup>lt;sup>1</sup> FSD Uganda, "How the Blockchain Technology Can Secure Your Mobile Phone Transactions," Financial Sector Deepening Uganda (FSD Uganda), May 6, 2022, <a href="https://fsduganda.or.ug/how-blockchain-technology-can-secure-mobile-phone-transactions/">https://fsduganda.or.ug/how-blockchain-technology-can-secure-mobile-phone-transactions/</a>.

<sup>&</sup>lt;sup>2</sup> MSME Garage, "Pension Saving for the Informal Sector - Msme Garage," MSME Garage, March 24, 2023, https://msmegarage.org/2023/03/24/pension-saving-for-the-informal-sector/.

documentation, proof of age, residency status, bank account, address, and regular income when applying online. Lenders set lending rates.

**Akellobanker** is a social enterprise that lends to farmers in rural areas and small-scale traders. They use a localized mobile and online application, especially through rural financial service providers. Credit underwriting on the platform uses financial and non-financial credit-scoring techniques. Akellobanker provides agricultural input loans and SACCO banking software to financially deprived areas.

**JUMO**, a digital credit service, launched in 2015. It offers Wewole digital credit with a mobile network operator. Due to Uganda's riskier mobile money market, JUMO risks defaulters. Data analytics decide eligibility for loans up to UGX 500,000, and no CRB check is needed.

**First Access Uganda**, a division of First Access Finance, scores non-traditional borrowers. First Access attracts other financial institutions or retail investors to lend to borrowers who match their algorithm's predictability criteria.

### Blockchain and Cryptocurrency Adoption and Development

**Digital Uganda Vision Initiative:** This government-led initiative promotes blockchain and cryptocurrency usage in many sectors. It aims to use digital technology to improve financial inclusion, transparency, and economic prosperity.

**CryptoSavannah:** It is a Ugandan blockchain and cryptocurrency innovation hub. It promotes blockchain education, research, and development nationwide. CryptoSavannah organizes workshops, conferences, and meetups to promote blockchain technology and its uses.

**Ensibuuko:** Ugandan fintech business Ensibuuko provides digital banking and financial services to rural and underprivileged regions using blockchain technology. Farmers and small business owners can use their phones to access loans, savings, and other financial services through the organization.

#### DeFi

# Financial Inclusion and Digital Banking Service

Hamwe East Africa, founded in 2013, specializes in bulk SMS aggregation. The Uganda Communication Commission (UCC) licensed its USSD code-based system. Notably, Hamwe West Africa provides technology solutions in Uganda, Rwanda, and Burundi, with intentions to enter Kenya. Hamwe created the 'Mfarmer' app in 2015 to improve financial services access by enabling customer registration, profiling, transaction records, and secure digital payments.

**Awamo**, a FinTech business, provides mobile, user-friendly microfinance management for emerging market MFIs. Their cloud-based credit, risk, and portfolio management system reduces MFI transaction costs and default risk.

# Centralized Remittances and Cross-Border Payments

**Uganda's multi-currency system, UNISS**, allows transactions in Ugandan shillings (UGX) and international currencies such the US dollar, British pound, euro, Kenyan, Tanzanian, and Rwandan franc. It manages time-sensitive and high-value bank payments and is important for financial stability. Commercial banks are financial middlemen with exclusive access to UNISS.

**The Electronic Clearing System** (ECS) processes Ugandan shilling and foreign currency cheques and EFT transactions. Cheques are dropping as EFT volume and value rise.

**Interswitch**, a Ugandan private payment and transaction processing company, provides switching services to banks, mobile money operators, and other FSPs. It links 16 banks, four mobile money networks, and five FSPs nationwide. ATMs may access cash, including MTO remittances, however transaction volumes are modest.

#### Agricultural Financing and Supply Chain Solutions

**Agrikore:** Block Commodities developed Agrikore in collaboration with the Ugandan government. Ugandan smallholder farmers can receive financial and supply chain solutions. Farmers use blockchain technology to access financing, inputs, and markets.

**BanQu:** Its traceability and supply chain compliance software help traders achieve sustainable sourcing. Their platform collects audit-proof procurement and sustainability data across the value chain, helping firms make wiser decisions. BanQu, trusted by strategic sourcing leaders, provides genuine traceability with unaggregated source data, geolocated transactions, proof of quality and certifications, verified payments, real-time insights and

reporting, and auditable tamper-proof records. Their device-agnostic platform streamlines sustainable sourcing and compliance. BanQu tailors solutions for agriculture, recycling, climate, fashion, and compliance. From discovery to implementation, they support and guide clients to accomplish sustainability goals.

### Micro-Lending and Credit Access for SMEs

YESS ImpactBlocks initiative uses blockchain technology to improve transparency and create personal savings and credit records for Village Savings and Loan Associations (VSLAs). Self-help VSLAs lend their own money. YESS Impact, Mercy for Women and Youth, and HiveOnline launched the 2020 initiative to address VSLAs' paper-based record-keeping systems. Blockchain makes the initiative accessible to disadvantaged communities<sup>3</sup>. Each VSLA group's trained members utilize a smartphone app to record savings and loan information, improving record-keeping, transparency, and security. VSLA members can get financing and build their businesses by sharing their digital financial history with MFIs. MFIs can scale and adjust the project.

### Decentralized Insurance and Risk Management

**Xeno Technologies** is a non-financial service provider that generates tailored investment portfolios based on an individual's particular circumstances, financial goals, and risk tolerance. A proprietary risk profile and portfolio composition technology automatically creates a userspecific investment portfolio on this site.

<sup>&</sup>lt;sup>3</sup> Luise Ammerschuber, "Contributing to Closing the Financial Inclusion Gap through Blockchain for Microcredits in Uganda," 2022, <a href="https://yess-impact.com/wp-content/uploads/2023/02/Ammerschuber-L.-Blockchain-for-Financial-Inclusion-in-Uganda.pdf">https://yess-impact.com/wp-content/uploads/2023/02/Ammerschuber-L.-Blockchain-for-Financial-Inclusion-in-Uganda.pdf</a>.

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