

## Kenya's Twiga Foods partners IBM for blockchain-based microfinancing

Kenyan agri-tech startup Twiga Foods has partnered IBM Research to extend access to microloans to 220 food stall retailers across Kenya using a blockchain-based financing system.





Twiga Foods is a business-to-business (B2B) food distribution company that builds markets for agricultural producers and retailers through transparency, efficiency and technology. Its mobile platform brings together food producers, pack house and vehicles to supply and deliver produce directly from farmers to urban retailers.

The startup – which raised a \$10.3 million Series A funding round last year – was looking to expand its logistic services in a total market ecosystem by adding financial services. In order to do this, late last year it began working with IBM Researc to deploy a blockchain-enabled supply lending platform to help scale its reach.

"After analysing purchase records from a mobile device, we used machine learning algorithms to predict creditworthiness turn giving lenders the confidence they need to provide microloans to small businesses. Once the credit score is determin we used a blockchain, based on the Hyperledger Fabric, to manage the entire lending process from application to receivir offers to accepting the terms to repayment," said Isaac Markus, a researcher on the inclusive financial services group at IBM Research in Kenya.

With blockchain, the lending process becomes transparent to all parties involved, from the lending bank to the borrower's bank and the loan applicants themselves. Blockchains are immutable, helping to reduce fraud, since no one single party c append the blockchain without consensus from the entire network.

Blockchains also employ a series of "smart contracts" which can be executed in real time, having the potential to significant reduce the time it takes to manually process and issue a loan.

"Previously, we were focused on helping farmers distribute bananas, tomatoes, onions and potatoes to 2,600 kiosks acros Kenya, but we soon realised that we could help them sell even more produce with access to working capital," said Grant Brooke, co-founder of Twiga Foods. "If the food vendors can sell more, we can distribute more, growing both of our businesses."





The eight-week pilot processed more than 220 loans with the average loan around KES3,000 (\$30), which increased the order size by 30% and profits for each retailer, on average, by 6%.

The loans were for four and eight days with an interest rate of one and two per cent respectively. All of the loans were executed via mobile phone and went directly toward working capital for the businesses. When a retailer had an order delivered, they would get an SMS with loan options for financing that order. They would then respond to the SMS confirming the loan option they preferred.

"We had several iterations of the platform based on feedback from the retailers. The SMS-based solution provided an effective channel for a diverse set of users, some with limited IT literacy, to access financing for their orders," said Andre-Kinai, the lead research engineer on the project at IBM Research.

Based on the success of the pilot, the plan is for the platform to be rolled out to more SMEs across Africa by the end of th year and expanded into new sectors.

## ABOUT TOM JACKSON

Co-founder @DisruptAfrica. Tech and business journalist in Africa. Passionate about the vibrant tech startups scene in Africa, Tom can usually be found sniffing out the continent's m exciting new companies and entrepreneurs, funding rounds and any other developments within the growing ecosystem View my profile and articles...

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