

CASE STUDY: Digital Solutions Foster Inclusion

Insights from the IAP Challenge Fund



Digital technology is transforming the world around us; emerging markets are no exception.¹ Africa operates a total of 300 million mobile money accounts, which is the highest in the world and by 2025, 50% of the population in Sub-Saharan Africa will be subscribed to mobile services². Governments are also introducing strategies to improve the enabling environment and infrastructure to achieve digital transformation. A new generation of entrepreneurs and investors see business opportunities amongst the millions of people who were previously inaccessible or too expensive to reach. The Innovations Against Poverty (IAP) programme has invested in visionary entrepreneurs who developed digital solutions to improve the lives of low-income people living in Cambodia, Uganda, Ethiopia and Zambia.

Blending smartphone use and working through intermediaries increases farmer reach

AMK Microfinance Institution in Cambodia developed a mobile app, Tonle Sap, so rural farmers could access financial services, market and farming information. While mobile phone penetration in Cambodia is extremely high, studies suggest only a third of rural farmers own a smartphone. Internet speeds are also much lower outside urban areas, which further limits the number of smallholders that could easily use the app.

Seeing challenges in reaching farmers, AMK noted that farmers did interact with others who did have smartphones, and that those third parties could provide access to the AMK app. AMK changed its approach and targets intermediaries like government staff and NGO workers, input suppliers, credit officers and, of course, well-connected youth as delivery channels for its service to farmers.

¹ OECD Development Centre 2022

² GSMA 2022

While this strategy may limit app usage in the short-term, it will help bridge the gap for the next few years until smartphone prices and data usage are accessible for all rural farmers. Since the end of direct support from IAP, the app has been upgraded to incorporate a component to facilitate transactions and links between farmers and wholesalers/retailers. The MFI has also recently received a loan of USD 15 million from BIO, a Belgian investment company, to expand its portfolio.



Technology-coordinated PAYGos increase reach and enhance affordability

94% of Ugandan households rely on firewood and charcoal for their cooking needs³, while only 1% of households use clean cooking fuels, such as LPG⁴. Affordability is a critical factor hindering households from converting to cleaner energy options. To relieve households of the cost burden of LPG use and reach last mile customers, Wana Energy Solution introduced a PAYGo payment scheme. The company started selling LPG in 2010, to an initial 45 customers. Seeing its customers struggle with paying the upfront cost for their product, Wana began credit sales through in-house financing. Then, in partnership with IAP, the company launched PAYGo through smart metering for more efficient credit sales management. The data from that metering helped them build a clearer picture of customer preferences and gas use to improve service quality.

The technology monitors gas data and reconciles it against the customer's account. If they have no balance, access to gas is shut off until the account is replenished. With this approach, low-income consumers can access LPG, as instalment payments for LPG are comparable with the daily cost of acquiring traditional fuels. In the two years of IAP partnership, 9875 low-income people benefitted from cooking with Wana's LPG.

Similarly, Winsol Green Power Engineering in Ethiopia has used PAYGo to offer solar home systems. Another PAYGo model, WidEnergy in Zambia, has been able to provide renewable energy, purified water, and Wi-Fi for remote clients. While micro-payments have long been a staple of products and services targeting the bottom of the economic pyramid, combining this approach with a digital solution enables a much larger number of low-income consumers to access products and services which improve their quality of life.

³ Modern Energy Cooking Services 2022

⁴ M-KOPA Labs 2022

Digitizing MSMEs creates more transparent businesses and enables financing

Emmanuel Emodek, co-founder and Managing Director of ChapChap in Uganda, believes digital connectivity can transform informal economies in Uganda and beyond. *“Digitizing SMEs gives them an opportunity to understand their business better and shorten their journey to success,”* says Emmanuel. ChapChap has developed a point-of-sale mobile app for Micro, Small and Medium Enterprises (MSMEs) to track their inventory, sales and expenses. Low-income customers can also pay their electricity and water bills via the app, saving them precious time. The app uses the financial transaction data of subscribed MSMEs to build their financial profile, paving the way for them to access loans without collateral. ChapChap partnered with IAP to scale the use of its digital payment platform and has expanded to 39 new Ugandan towns, registering more than 3.2 million users and serving more than 20,000 MSMEs. The company has recently received an equity investment from Nordic Impact Funds to expand its services across Uganda and regionally.



Digitally formalizing land ownership unlocks economic opportunities

In Zambia, Medeem works to formalize land rights for low-income people by digitizing the process. The country has two land tenure systems, state land and customary land; customary land accounts for 94% of land ownership⁵. While a title deed can be acquired from the government for state land, customary land is given by a village through an oral agreement. Rural dwellers who obtain land through the latter system do not have formal ownership rights and often suffer from disputes over land ownership. Land is then left idle as title owners do not feel secure enough to invest in it.

Medeem land ownership security and documentation by collecting and digitalising land-tenure information. Once finalised, Medeem sells the certificate to the individual. This service would cost USD 2000 to 3000 when processed through the government; Medeem provides it for USD 10 to 50, making this affordable for rural communities. Over Medeem's partnership with IAP, 6134 households acquired land rights certification.

Medeem is also working on connecting registered landowners with investors and off-takers in agriculture. Since smallholders can use certificates as collateral, this opens the way for credit access. The impact is transformational. As one of Medeem's clients said, *'I am now free to develop my land with a free mind.'*

⁵ Republic of Zambia, National Lands Policy. Available online: <https://pmrczambia.com/wp-content/uploads/2021/05/National-Lands-Policy.pdf> (accessed on 31 October 2023)

New Technologies Drive New Business Models

Digital connectivity is transforming the world, especially in low-income markets. New technologies, such as those developed by entrepreneurs supported by IAP, are transforming the production and distribution of critical goods and services. Private sector investment to develop and scale digital solutions augments the impact of the venture in low-income markets. But digital solutions alone are not enough; digital innovations can only truly transform economies when combined with creative, entrepreneurial approaches to bridge the digital divide and reach large enough numbers of low-income users.

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-Emmanuel Emodek, co-founder of ChapChap

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