



VENTURES

PILOT INSIGHTS REPORT



The potential of cryptocurrency for Kenya's youth: Pilot insights on stablecoin micropayments for digital workers



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PARTNERS



EXECUTIVE SUMMARY

When the economic impact of the Covid-19 lockdown reached her informal settlement in Nairobi, Lucy Atieno -- a single, 26-year-old gig worker -- lost her main income stream. Recently, Lucy began freelancing part-time as a digital microworker. *"I have not been in active employment so I have mostly been at home. For me, the microwork came in as an opportunity to make use of the extra time...and earn something so that I could take care of some responsibilities,"* she said. On a productive day, Lucy can earn up to KSH 800 (USD 7.00) by completing microwork tasks on her smartphone, such as tagging photos or transcribing audio clips for global technology firms. The ability to earn this income from home, grow her savings, and cash out earnings anytime makes Lucy feel financially secure.

Innovations in digital work and cross-border payments are inspiring new opportunities for youth, similar to Lucy, who have traditionally been excluded from the formal economy. In Kenya, the emergence of digital work platforms and trustworthy cryptocurrencies, such as stablecoins, are shaping a new, inclusive digital economy.

It is no secret that sub-Saharan Africa has the youngest and fastest-growing youth population in the world today, accounting for over 20 percent of the region's population.¹ The number of people between the ages of 15 and 24 in Africa is expected to double to 400 million by 2045.² In Kenya alone, 68 percent of the total population is below the age of 35.³ These young people make up the country's present and future microentrepreneurs, informal workers, smallholder farmers, people living in informal settlements, and those fleeing conflict or climate change. Their needs are widely varied and equally urgent, and the existing solution set leaves the majority of the 68 percent unemployed and vulnerable.

Digital microwork offers a promising solution that mobilizes the youth demographic to achieve Kenya's Vision 2030 objective to become "a globally competitive and prosperous country with a high quality of life by 2030."⁴ **Digital microwork is a form of digital labor that breaks up complex technical projects into thousands of fractional tasks which can be completed in minutes.** Part of Kenya's economic pathway towards Vision 2030 is to become a global business process outsourcing (BPO) destination by 2030, of which digital microwork plays a key role. The explosive growth of the artificial intelligence (AI) and machine learning (ML) sectors makes AI-based digital microwork highly attractive, and the AI industry alone is expected to reach a market value of USD 185.17 billion by 2026 (a compound annual growth rate [CAGR] of 26.1 percent from 2021).⁵ As a form of BPO, digital microwork has the potential to unlock income opportunities and increase savings potential for un/underemployed youth in radical ways. Yet the industry has been slow on the uptake in Kenya, due in large part to the cost and friction of cross-border micropayments. Transaction fees often require microworkers to forfeit a significant portion of their earnings (in some cases up to 30 percent of gross earnings), making microwork uneconomical.⁶

Cryptocurrency removes this costly barrier and offers the potential to transform the existing financial system by creating revolutionary new pathways for people to spend, save, send, and secure money. In simple terms, **cryptocurrency is a store of digital value, traded online through a network of computers that have the power to objectively verify and record unique transactions.** Stablecoins, a type of cryptocurrency tied to a store of physical value like a fiat currency, make everyday use cases like peer-to-peer (P2P) transactions and cross-border payments affordable, simple, instantaneous, and accessible to all.

1 Mercy Corps Youth Employment Labs. Towards a digital workforce: Understanding the building blocks of Kenya's gig economy. 2019.

2 Rockefeller Foundation. Digital Jobs Africa.

3 DFID. Regional Analysis of Youth Demographics. 2018.

4 Kenya Vision 2030. About.

5 Mordor Intelligence. Artificial Intelligence Market - Growth, Trends, Covid-19 Impact, Forecast (2021-2026). 2021.

6 Spindle Design. Landscape Assessment. Kenyan Microwork Ecosystem. 2020.

Mercy Corps Ventures (MCV) is accelerating financial inclusion and de-risking the adoption of new technological innovations by conducting real-world pilots that build the evidence base and develop lessons learned for large-scale implementation. The MCV pilot detailed in this report was completed over three months at the start of 2021 to test whether digital stablecoins and mobile wallets could ease frictions and reduce costs in cross-border payments for un/underemployed youth completing microwork in Kenya, and the results are very promising. Based on qualitative and quantitative surveys, the pilot confirmed three key insights:

- 1. Stablecoins reduce the costs and frictions of sending and receiving cross-border micropayments.** By leveraging easy-to-use mobile platforms, anyone with a phone can access a dramatic reduction in cross-border transaction fees: from 28.8 percent for a USD 5.00 transaction to 2.02 percent regardless of transaction value, which translates to a reduction in fees from USD 1.44 to USD 0.10.⁷
- 2. Stablecoin-based digital wallets can unlock new digital employment and earning opportunities for un/underemployed youth** by making digital employment a more lucrative, desirable work opportunity. Because stablecoins reduce cross-border transaction fees, the technology increases the emerging sector's take-home earning potential.
- 3. Stablecoin-based digital wallets can incentivize savings behavior for previously unbanked populations** by seamlessly building in a user-friendly wallet with savings rewards into the payment process.

All 200 pilot participants completed their three-month engagement as newly-trained microworkers and owners of stablecoin-based digital wallets, with highly positive feedback. One participant reflected on the flexibility of the work

opportunity, saying, *"I really enjoy [microwork] because it is convenient. You can do it in your own free time."*⁸ Another reported that the income gained from microwork served as a stepping stone to starting a small business. *"I made a lot of money from the microwork so I was able to join driving school. I started a small business where I earned another extra income."*⁹ The majority of participants confirmed that they would refer both microwork and stablecoin-based digital wallets to a friend.

While there is always early apprehension toward new technology, the momentum behind cryptocurrencies, and stablecoins in particular, signifies the overwhelming demand for a new way of transacting. Further, the youth bulge in Kenya represents an urgent employment challenge the world has never seen before, warranting openness to tools that push us to reimagine the future. MCV's pilot confirmed that new possibilities are emerging with digital microwork and stablecoin to unlock future economic opportunity for the 26.4 percent un/underemployed population in Kenya today.¹⁰ With proper regulation and collaboration, Kenya can continue to strengthen its pioneering role in the digital economy.

Kenya is already leading the world in P2P cryptocurrency transactions, and ranks fifth overall in cryptocurrency adoption.¹¹ **The tools to create universal financial access and enable a truly inclusive and equitable global financial system are now within reach, and a delicate regulatory balance is required.** To enable a successful, positively transformational new digital economy, the Kenyan government can proactively form a Working Committee that designs a regulatory roadmap and uses a "test and learn" environment, such as a regulatory sandbox, to closely evaluate and publicly trial new systems and processes over the long-term. This will allow the country to develop a thoughtful and flexible regulatory framework that ensures microwork and digital payments serve the needs of Kenyans, and in turn, brings the possibility of universal financial inclusion into tangible reality.

⁷ At the time of the pilot, the lowest market rate for cross-border transactions was through PayPal. For a USD 5.00 transaction, the fee was 28.8 percent.

⁸ This is a real quote from a pilot participant who identifies as female, age 24.

⁹ This is a real quote from a pilot participant who identifies as female, age 19.

¹⁰ Mercy Corps Youth Employment Labs. Towards a digital workforce: Understanding the building blocks of Kenya's gig economy. 2019.

¹¹ Chainalysis Blog. "2021 Global Crypto Adoption Index." 2021.

Based on pilot findings, new possibilities are emerging with digital microwork and stablecoin to unlock future economic opportunity, particularly for the 68 percent of Kenya's population who are below the age of 35.¹² As a leading digital economy among emerging markets, Kenya is well-positioned to build on its reputation and leapfrog many of its peers through digital labor and cryptocurrency. A delicate regulatory balance is required to achieve this. Careful monitoring of this burgeoning system is important, but too much regulation risks throttling opportunities for Kenyans while its neighbors thrive. Overregulation may even lead to an underground digital ecosystem where any opportunity to create a free and equitable system becomes entirely out of reach for everyday users.

The most significant decision for policymakers and leaders is whether to risk reinforcing the present-day systems that exclude millions from the emerging digital currency ecosystem or to actively create a safe, ethical pathway for universal inclusion. Compliance must be balanced with these risks.

The largest potential barrier to inclusion is a Know Your Customer (KYC) requirement that makes it difficult, if not impossible, to get started. Though Kenya has attempted to introduce a digital identification program through Huduma Namba, it was stalled in 2021 due to data privacy concerns.¹³ Even if Kenya were to successfully introduce a digital identification program, millions of people—a majority of whom may be ideal participants in the microwork economy—may still be out of reach. Therefore, simply setting traditional KYC requirements similar to a bank account may not work. Having a more inclusive and innovative approach to KYC and Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT) compliance is at the root of the success for mobile money platforms, such as M-Pesa in Kenya, and should be considered for cryptocurrencies as well.

A blockchain-based ecosystem of virtual asset service providers (VASPs) -- entities engaged in digital financial transactions and subject to KYC and AML standards -- can help create a mutually-agreed standard for pre-KYC eligibility that brings transactions safely into the system rather than forcing them out of the system

entirely. For those without the right identification or reliable internet connection, such as refugees and smallholder farmers, unhosted wallets -- the method of storing cryptocurrency without a third-party intermediary -- is the only option.

Worldwide, over 1.1 billion people do not have government-issued identification (IDs), and this is one of the key reasons overly restrictive KYC requirements present a significant barrier to inclusion.¹⁴ People lack government issued IDs for a variety of reasons. Significant groups lacking official identity documentation include refugees, populations displaced by climate change, conflict, or those under threat of persecution. Working with, not against, these VASPs and being supportive of those whose only option is to use unhosted wallets is the best step forward. The Financial Action Task Force (FATF) -- the international body focused on fighting money laundering -- recognizes the need for carefully balancing financial inclusion with compliance in a virtual currency ecosystem.¹⁵

To enable a successful new digital economy, the Kenyan government can proactively form a Working Committee that designs a regulatory roadmap and uses a "test and learn" environment, such as a regulatory sandbox, to closely evaluate and publicly trial new systems and processes. The Working Committee can be composed of key industry stakeholders, as well as Kenyan authorities, to ensure the country develops a circumspect, flexible regulatory framework that enables digital labor and digital payments to serve the needs of Kenyans.

12 DFID. Regional Analysis of Youth Demographics. 2018.

13 Namati. "Press Release: Huduma Namba Stopped!" 2020.

14 World Bank. "The global identification challenge: Who are the 1 billion people without proof of identity?". 2018.

15 Alpen Sheth. "The Digital Divide at the Heart of Financial Inclusion." 2020.

RECOMMENDED NEXT STEPS

» Recommended next steps to design policy recommendations



1 Form a Stablecoin Working Committee. Understanding stablecoins and their relevance in the new digital economy is an important early step that can happen before any specific regulatory recognitions or restrictions are put into place. The Working Committee might include Central Bank of Kenya (CBK) representatives, international experts, and industry stakeholders who can advise and contribute to the key questions associated with stablecoins, which will reduce the burden on the CBK to retain all expertise in-house. The Working Committee can also feed into existing initiatives, such as the exploration of creating a CBK digital currency.

The activities of the working committee might include:

- Commissioning and reviewing relevant research
- Gathering stakeholder input and feedback
- Liaising with other digital currency initiatives within CBK
- Developing an initial regulatory roadmap

2 Trial digital labor and stablecoin on a larger scale as part of Kenya's "test and learn" environment. Kenya has demonstrated an openness to innovation through the Capital Market Authority's regulatory sandbox, a type of "test and learn" environment, which allows Kenya's regulators to build appropriate consumer protection safeguards into new products and services while learning from, and working with, innovators.

Example opportunities for further exploration in the "test and learn" environment:

- Stablecoin/M-Pesa integration
- KYC and AML monitoring
- VASP versus unhosted wallets
- Banking deposits
- Employment and income tax
- Minimum wage regulations
- Pension contributions and other portable benefits

3 Develop a stablecoin regulatory framework. Applying lessons learned from the Working Committee and initiatives tested in the "test and learn" environment, the CBK can develop a sense of clarity on the near-term and long-term implications and opportunities of stablecoins and the digital economy more broadly.

4 Recognize stablecoins as a valid cross-border transaction currency and scale the transformation of the digital economy. The CBK's 2015 notice renouncing Bitcoin and similar technologies as illegal has been replaced by more recent discussions including the CBK exploring a Kenyan digital currency. Recognizing the legitimacy of stablecoin is the first step to fostering the enabling environment necessary.

ADDITIONAL CONSIDERATIONS

Across these four recommendations are a multitude of questions, considerations, ideas, and potential hurdles that need to be addressed. Although our primary policy recommendations focus on the broader opportunities for stablecoins in the digital economy, other recommendations arising from the pilot include:

Work with other governments to establish cryptocurrency regulations and promote the urgency of doing so.

By nature of cryptocurrency being a global currency, cryptocurrency regulations will require global cooperation. Kenya's policy development will require Pan-African and international collaboration to be truly effective.

Key stakeholder: Government regulators

Secondary stakeholders: Regional and global intergovernmental forums (such as WEF, the AU, the UN)

Prioritize opportunities to minimize the climate impact of blockchain technologies.

While some blockchain technologies are known for energy consumption, more recent blockchains and cryptocurrencies are demonstrably less energy intensive and are additionally offsetting their carbon footprints by buying carbon credits. Working collaboratively with industry partners will help set standards and encourage more energy efficient and renewal-based technologies to thrive.

Key stakeholders: Government regulators, cryptocurrencies

Secondary stakeholders: Cryptocurrency users

Strengthen quality, affordable internet access and quality mobile device use.

In addition to [Vision 2030](#) objectives to expand internet access across the country, provide microwork-specific incentives, like subsidizing the cost of accessing microwork platforms. Public and private sector partnerships can also help level the playing field for digital workers by leveraging new blockchain-based connectivity infrastructure, such as [Helium](#), which help promote more user-centric internet utilities, and encourage coverage in remote and underserved areas.

Key stakeholder: Telecom providers, Telecom associations (such as the GSMA and ITU)

Secondary stakeholders: Government regulators

Promote training and education of Kenya's digital workforce.

Increase programs like [Ajira](#) to grow knowledge of how to find work, how to engage successfully as workers in the digital economy, and how to navigate the financial system. This includes improvements to financial literacy so that Kenyans earning money independently can save effectively and avoid bad debt.

Key stakeholder: Ajira and other microwork training initiatives

Secondary stakeholders: Digital workers

Prioritize regulation around digital worker labor rights.

Continue to work with international organizations, including the International Labour Organization, to advocate for and evaluate the implications and opportunities for workers' rights in the new digital labor economy, including portable benefits.

Key stakeholder: Labor rights organizations, microwork service providers

Secondary stakeholders: Government regulators

CONCLUSION

The momentum behind cryptocurrencies, and stablecoins in particular, signifies the overwhelming demand for a new way of transacting. The growing digital microwork space is radically unlocking lucrative income opportunities and increasing savings potential for un/underemployed youth.

For motivated, entrepreneurial young people like Lucy Atieno, learning about a way to earn a living and store earnings using a mobile phone is truly life-changing. It is about more than economic opportunity. Earning an income leads to a sense of purpose and pride in one's work, gaining transferable skills, working alongside other like-minded individuals, and experiencing the confidence that comes with increased income security. In the words of another pilot participant, *"Through this program, I have been able to learn a lot, engaging and viewing microwork through a different lens. I am proud to be a microworker."*¹⁶

MCV's pilot uncovered clear insights into the positive impact of digital stablecoins and mobile wallets on easing frictions and reducing costs in cross-border payments for un/underemployed youth microworkers in Kenya. This is only one of innumerable use cases for stablecoins' transformative potential. For example, Kenya hosts one of the largest refugee populations in Africa, estimated at around 520,000 refugees and asylum seekers.¹⁷ Digital labor, such as microwork enabled by stablecoin, has proven to be particularly relevant for refugees, who otherwise lack the legal right to work and have limited access to financial services.

It is only a matter of time before stablecoin-based wallets become mainstream and young Kenyans like Lucy use them for all transactions, including earning an income, sending money to rural family members, and paying daily expenses. Already, nearly one in twelve Kenyans are using cryptocurrency.¹⁸ To realize the opportunities uncovered in this pilot, Kenya must proactively pursue regulations that encourage innovation to flourish while ensuring universal financial inclusion is reached.

¹⁶ This is a real quote from a pilot participant who identifies as female, age unavailable.

¹⁷ ACAPS. Kenya Country Overview. 2021.

¹⁸ Triple A. "Cryptocurrency information about Kenya." 2021.





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