



Case Study #3 | *iiDENTIFii reducing bias, increasing inclusion*

In Africa, market-specific threats such as SIM swap fraud and online banking-related kidnappings are continually evolving to circumvent digital safety measures. In addition to a potentially positive impact on safety, a secure digital identity also holds the potential to revolutionise elections, financial services, and overall economic inclusion on the continent. In order to achieve this, IDV (Identity Verification) providers have to focus on relevant, diverse algorithms that counteract bias and accessible, enterprise-grade technology that stands up to rapid expansion and constantly evolving security threats.

Africa is a sleeping giant and the requirement for digitised biometric authentication is immense. If we can scale effectively across the continent and continue to counteract continually evolving cybercrime threats, IDV has the potential to have a powerful and sustainable impact.

iiDENTIFii Impact: Reducing threats that restrict financial and economic growth by providing inclusive identification in Africa.

Biometric identity does not just protect consumers from threats. It offers a new landscape of identification, where access is opened up for a world of essential services for those for whom it was previously out of reach. An inclusive digital identity approach can open doors to critical government services such as labour markets, government benefits and financial services, without the risk of impersonation or fraudulent funding. This extends to those with limited ability to engage in the digital world.

Historically, proof of identity was only available to those who could fulfil a rigid set of criteria. One of the main barriers to a person opening a bank account, for example, would be the inability to prove their identity without any formal identity document or proof of formal address. According to the World Bank, 57% of Africans still have no bank account, including mobile money accounts. A recent study by BPC and Fincog found that this translates to about 360 million adults in the region and approximately 17% of the total global unbanked population without access to formal financial services. According to McKinsey, extending full digital identity coverage could unlock economic value equivalent to 3-13% of GDP by 2030.



iiDENTIFii offers a quick and reliable method for verifying and authenticating a person's identity in just a few seconds, accessible from any location using any device.

Our technology uses biometric liveness detection to *ensure the authentication of a real person in real time, with a particular emphasis on accurately recognising African faces.* Our algorithms have been rigorously tested and have successfully performed over 50 million face-match operations across Africa.

This makes iiDENTIFii the preferred identity verification platform for the largest financial institutions on the continent. Regional and global application of iiDENTIFii's algorithm makes identity verification more inclusive, further promoting financial inclusion.

Stats:

57%

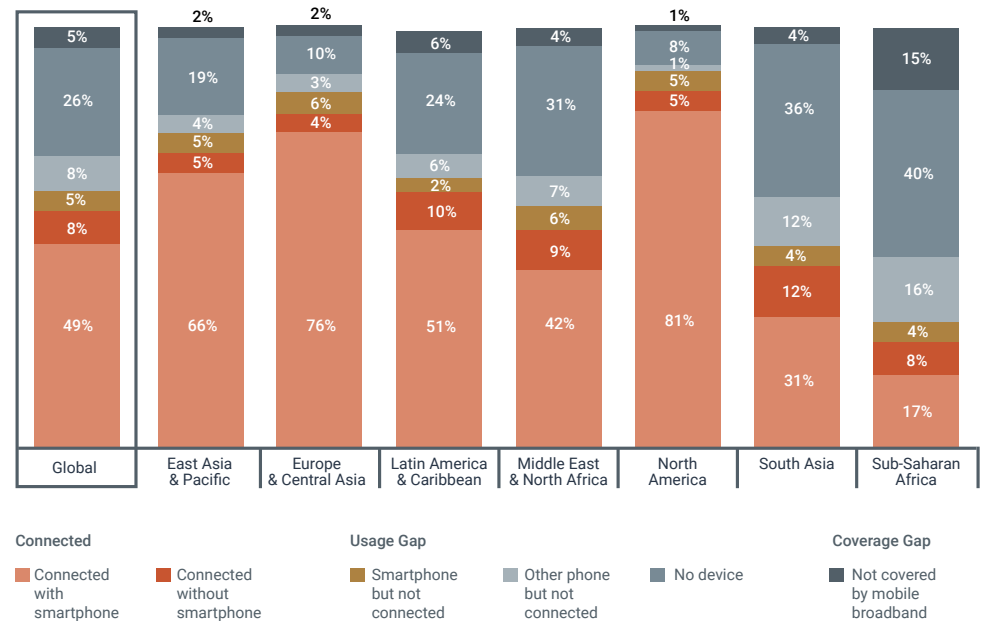
of Africans still have no bank account, including mobile money accounts

THE WORLD BANK

advocates for development and deployment of Digital Public Infrastructure to advance financial inclusion and productivity gains in the Global South

Inclusivity extends to infrastructure as well as the ability to access biometrics platforms on devices. Not all population groups have access to advanced smart phone technology. In Africa iIDENTIFIi is proud to be the only IDV that can operate on mobile devices that aren't smartphones.

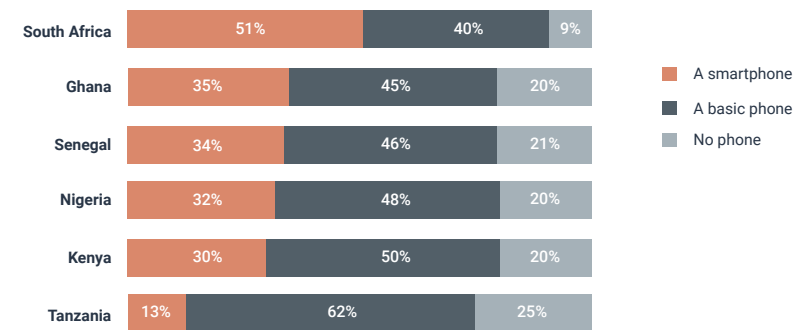
State of connectivity by region, with connectivity and usage gap by device type, 2022.



Base: Total population, 198 countries
 Note: Totals may not add up to 100% due to rounding
 Source: GSMA Intelligence

Majorities across sub-Saharan Africa own a mobile phone; basic phones are the most common type.

Adults who report owning...



Note: Percentages based on total sample.
Source: Spring 2017 Global Attitudes Survey. Q64 & Q65.
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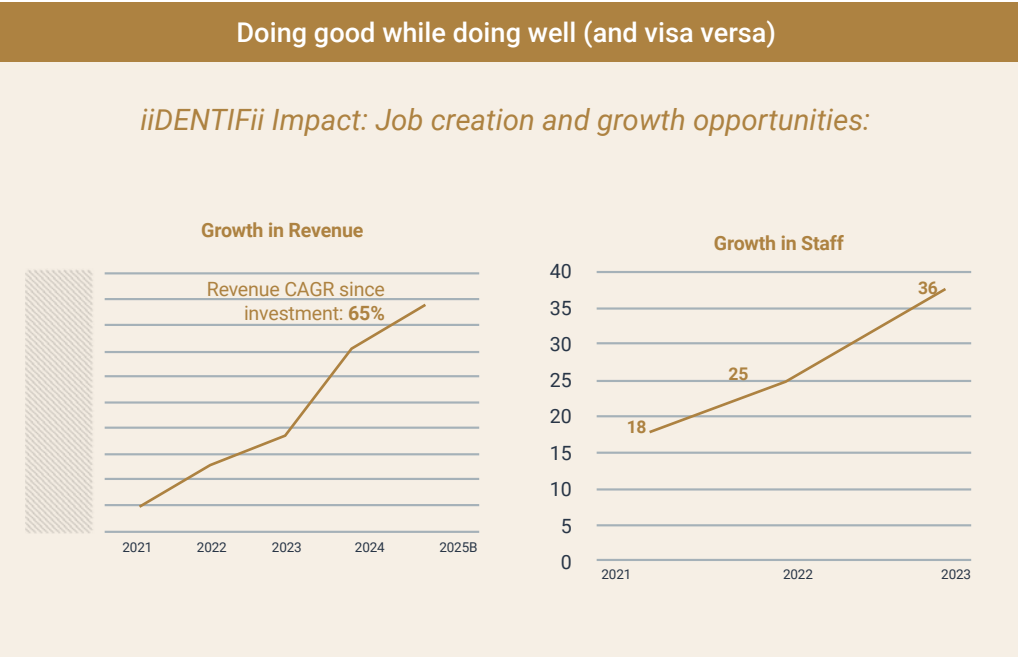
Bias and diversity in biometrics

Historically, international biometric authentication and facial biometrics have carried bias in who they successfully identify. In 2019, an MIT study found that three commercial facial analysis programs had a margin of error between 20% and 34% when identifying dark-skinned women, compared to 0.8% or lower for light skinned men.

The same study indicated the root cause for this – The facial data used to train at least one of the systems was more than 77% white and more than 83% male. Another study by the National Institute of Standards and Technology (NIST) found that facial recognition algorithms falsely identified African American and Asian faces 10 to 100 times more than Caucasian faces. Facial biometrics will be less able to identify the patterns found in a particular demographic's faces if the initial data sets it was trained on did not contain a diverse range of faces from a wide variety of demographics. Simply put, facial biometrics can't pick up a pattern that it hasn't seen before.

Because every person has the right to identify and to be positively and easily identified, IDV systems need to ensure that the datasets used to train algorithms are balanced according to age, gender, and skin tone.

With this in mind, iiIDENTIFii's algorithm has been trained on over 50 million African faces to make it relevant to our continent, and for markets outside of Africa where black and brown faces facial recognition means inclusivity even for minority population groups.





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