



IDEX

BIOMETRIC PAYMENT CARDS

ARE THEY THE GAME CHANGER FOR FINANCIAL INCLUSION?

By The IDEX Biometrics Team

What Do We Mean by Financial Inclusion?

Financial inclusion is the pursuit of making financial services accessible, at affordable costs, to all individuals and minorities. While many of us take our bank accounts for granted, without one, the ability to engage in the economy and broader society is virtually non-existent.

There are limited ways to pay bills, a lack of consumer protection, limitations on employment, zero credit record, and very few lending opportunities.

WHO ARE THE UNBANKED?

Globally, about 1.7 billion adults remain unbanked today¹, that's more than a third of the world's adult population who are making little or no use of formal financial services².

The majority of unbanked adults live in the developing world, with close to half living in just seven developing economies³.

The top inhibitor for financial inclusion is the lack of viable identification required to set up a bank account. In countries such as the U.S. and UK, formal identity is issued at birth through the use of birth certificates and after that passports, and additional forms of identification are relatively

easy and inexpensive to obtain. In developing countries, however, access to formal identification is scarce. This is due to the costs being far too high and ultimately a lack of daily necessity for official identification.

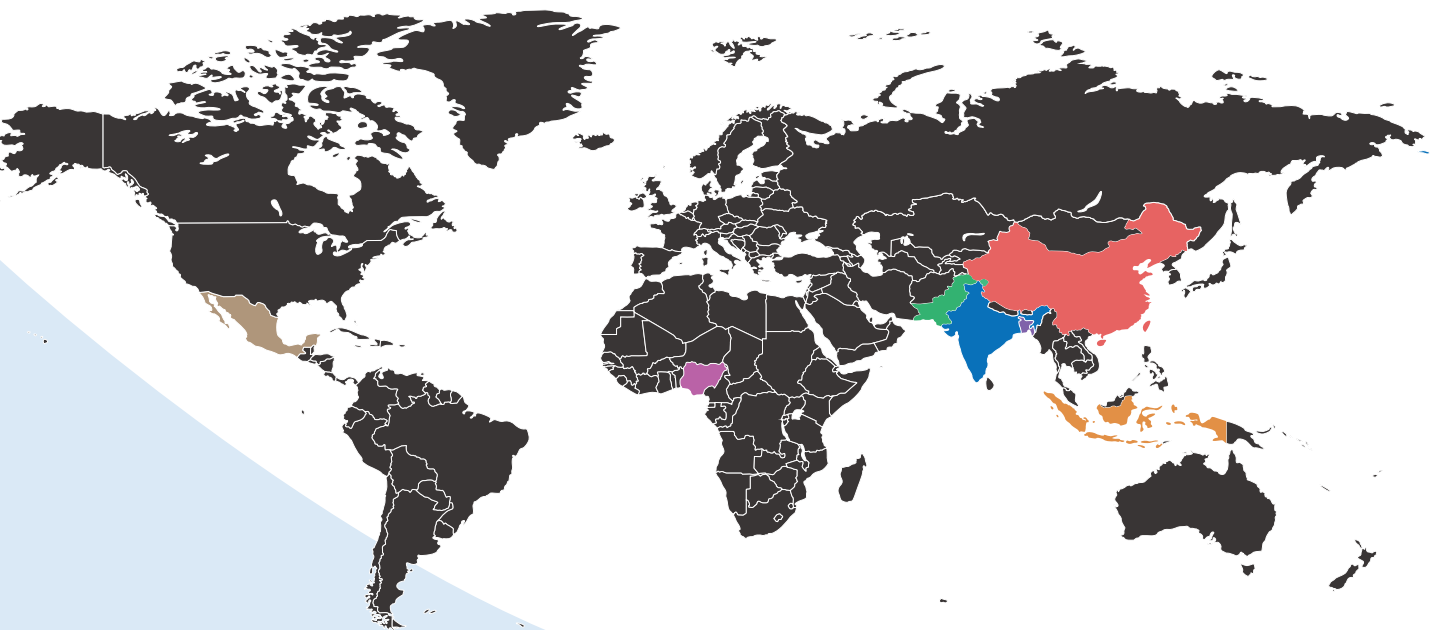


1.<https://globalfindex.worldbank.org/>

2.<https://www.accenture.com/gb-en/insight-billion-reasons-bank-inclusively>

3.<https://globalfindex.worldbank.org/>

WHERE DO THE MAJORITY OF THE UNBANKED LIVE?



Top inhibitors for why there are so many unbanked?

- 1 Lack of correct government identification
- 2 Distrust of the financial system
- 3 Illiteracy and language barriers

IT'S NOT ONLY THE UNBANKED

There are also those who while being banked, are struggling to hang on to their financial independence, due to either physical or mental health limitations.

Currently, there are an estimated 47 million people in the world now living with dementia⁴. As a result of this, sufferers often find it challenging to remember PINs or passwords needed to access their bank accounts.

Currently, signatures are used as a second-factor authentication in this situation, but what happens if someone can't remember or write their signature?



⁴<http://www.who.int/features/factfiles/dementia/en/>



AN UNDERSERVED POPULATION

While the financially excluded and those with limited banking might be made up of minorities, when combined, those minorities account for a considerable proportion of the population that is currently being underserved.

Those who lack access to financial services are missing out on the many benefits financial inclusion has to offer, as they are unable to gain access to credit, overdraft facilities or the welfare needed to improve their financial circumstances.

Governments across the globe have a part to play in improving financial inclusion, but ultimate responsibility must sit with the banks and financial institutions to bridge the gap to the unbanked. The argument for the involvement of banks in this movement is twofold.

Not only do banks have the opportunity to benefit from additional revenue by reaching out to these individuals, but they also have the chance to build a relationship with these individuals and improve their quality of life. Banks must consider how they can make financial services accessible for all to help to strengthen and drive growth in emerging economies.

Is Biometrics a game changer for financial inclusion?

Biometric integration can bring forth a quantum leap to improve financial inclusion. Biometrics has already brought about a multi-paradigm shift in identity verification which involves the recognition of a physical feature such as a fingerprint. After its profound impact in many different environments, biometric technology is now gaining traction within the financial services industry. Biometrics is considered to be the

most powerful tool so far to validate the credibility of an individual. While PINs are subject to theft, interception, shoulder surfing or even guessing, fingerprint identification is uniquely personal to the user and is almost impossible to replicate. It can also break barriers and provide verification for individuals who can't read, write or have other forms of disabilities. There's nothing simpler than an impress of a finger.

FOR BANKS

Financial service providers can rely on this identification and authentication method to make their services easily accessible and drive growth in developing nations. Banks and financial institutions will be able to establish a system based on trust and security and serve the unbanked better. With the need for providing financial facilities to the unbanked as an emerging objective, this will not only ensure simple access to banking services but also significantly grow

the customer base. Revenues and margins will be boosted as the cost of deployment and maintenance is also relatively low compared to management of the PIN system. This will lead to a lower cost of service for the consumers making it achievable to reach the unbanked.



FOR CONSUMERS

The need for financial inclusion has accelerated with the individual's need for easy accessibility to financial services. With the advent of tech-led consumerism, people are looking for simple ways to access and pay for goods and services, be it online or offline.

Consumers will receive access and experience reliable and hassle-free payment transactions. The system requires the user to be physically present when making transactions or paying bills reducing the chances of any duplicity as it is almost impossible to simulate a unique fingerprint.

This will also not only mitigate the use of highly-vulnerable four-digit PINs and signatures but also enhance customer experience and broaden access to financial services.



Why Fingerprint authentication?

- ✓ The identification process is unique to the user making it highly secure, simple, and fast
- ✓ Removes the barriers that face those with literacy challenges, or encounter difficulty with memory, as card payments will no longer be about what you know, or what you can remember, but who you are
- ✓ Simple, secure and convenient solution eradicating the need for passwords and PINs as a form of authentication
- ✓ Remote enrolment for biometric payment cards prevents individuals from having to leave the house to visit a bank branch, meaning this solution will be accessible for all, including those who might have physical health limitations
- ✓ Financial institutions can be confident that the person they are extending credit to is the person intended, as ultimately nothing is more secure, or personally identifiable, than a fingerprint
- ✓ There is no need for traditional government identification as individuals will be personally linked to their card

Enhancing the Customer Experience

- ✓ The enrollment process for the user is simple, fast, and secure
- ✓ The user simply places their finger on the smart card and the sensor identifies them as the unique owner
- ✓ Users no longer need to use a four-digit PIN for making transactions
- ✓ Mitigates infringement or fraudulent activities linked to the user



Is the future already here?

Fingerprint sensor technology has already been leveraged in a number of environments such as access control and government ID to authenticate a user. However, it is no longer reserved for just these ecosystems and is ramping up to hit the financial services sector and serve the unbanked better than ever before.

Research by the 2017 Global Findex⁵ found recent progress in solving the issue of financial inclusion has been driven by digital payments, government policies, and a new generation of financial services accessed through mobile phones and the internet. With a need for simple, secure and convenient authentication solutions to bridge the gap to financial inclusion, biometrics is a proven technology to assist with this.

Implementing biometric authentication technology is all well and good but driving cost efficiency of this as a product is essential. While many banks may subsidize the charge for a biometric-enabled card, the price point must be one that means financial inclusion is available for all. The cost of biometric-enabled payment cards is much lower than traditional identification processes such as PINs and passwords. The best part is the on-card enrollment process which is as simple as the press of a finger on the fingerprint sensor where no additional applications or equipment are required from the user.

Key benefits of biometric-enabled payment cards

- ✓ Enhanced customer experience
- ✓ Supports people with communication and literacy challenges
- ✓ Streamlined financial operations
- ✓ Cost-effective implementation process
- ✓ Faster and more secure financial transactions

High customer interest and active engagements in Asia, Africa and Europe have been very encouraging for many financial institutions. Moreover, with a system as effortless as an impress of a finger, banks and financial institutions are already adopting fingerprint recognition technology to authorize a user's identity. However, this significant financial

breakthrough will take time to reach the unbanked since many governmental bodies and financial institutions are yet to understand and execute the system. Now the question arises if this system can bring a progressive change to financial inclusion. With the positive pilots and customer engagements run to date by leading financial service providers, it does not seem to be a far-fetched reality.

5.<https://globalfindex.worldbank.org/>



Stan Swearingen

CEO of IDEX Biometrics

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Biometric companies are already working alongside card manufacturers and financial institutions, paving the way for biometrics to have a real impact on financial inclusion over the next two years. Providing almost a third of the world's population with greater financial inclusion is a significant challenge that will not be accomplished overnight, but these advances in biometric technologies are set to make a real difference.

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Get in touch

Be part of the fingerprint authentication revolution:

Sales & Marketing Enquiries

E-mail: sales@idexbiometrics.com

Investor Relations Enquiries

E-mail: ir@idexbiometrics.com

General Enquiries

E-mail: mailbox@idexbiometrics.com

Follow us and join the conversation

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