FinTech for Social Good

Special Edition

OPPORTUNITIES, GOALS, OBSTACLES, INITIATIVES, TRENDS

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DEEP KNOWLEDGE ANALYTICS

FUTURE FINTECH

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Dignity Through Identity
BIMA
baobab
digit
humaniq
Trulioo The Identity Bureau
wala
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Dignity Through Identity
宜信 CreditEase
点融 DIANRONG
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DEEP KNOWLEDGE ANALYTICS

FUTURE FINTECH

Executive Summary

Scope and Purpose

The potential practical applications of FinTech in developing regions - which does not rely so heavily on highly advanced forms of IT-technologies and which has already achieved substantial practical applications - is fundamentally and categorically different from its use cases in the developed world, where its impact is limited for the most part to enhancing the quality of traditional financial services.

This report serves as a follow-up to our previous 450-page report “Financial Inclusion in the Developing World 2018 Q2”, which aimed to provide a detailed overview of the industry from an investment and commercial perspective, as well as major trends and a classification framework for the core technologies enabling the provision of financial services to the 2 billion unbanked.

This “Special Edition” focusing on FinTech and Financial Inclusion technologies being applied to developing regions and so-called “World of the Unbanked”, and the role of the suite of non-commercial and international development organizations in this sphere.

In this report our analysis focuses specifically on non-commercial activities, and on the crucial work being done by Non-Profits, Governmental Organizations, NGOs and International Organizations, and showing how FinTech in the developing world represents a clear means of enabling actionable humanitarian good towards accelerating the socio-economic development of underdeveloped countries to give them greater opportunities for access to basic human amenities, and the pathway for their integration into the modern global economy through financial inclusion initiatives and empowered by modern IT-technologies.

By the contrast to the developed world FinTech and Financial Inclusion technologies being applied to the developing world has the potential to solve crucial humanitarian issues and to leapfrog fundamental socioeconomic and infrastructural barriers and bottlenecks, giving citizens not only access to the global economy and potentials for remote employment under fair and equitable conditions, but access to basic human amenities as well. Its impact can be measured not only in the magnitude of the issues it has the potential to resolve, but also in the sheer number of humans afflicted by those issues, e.g. the more the 2 billion unbanked citizens lacking access to fundamental resources, amenities and opportunities that the citizens of developed nations have never lived without. For the developing world, FinTech can be considered as one of the leading forms of ImpacTech -- i.e., technologies which deliver an incredibly high level of impact per dollar spent.

Whereas progress at alleviating social issues in developing regions, such as financial inequality and access to basic human amenities, previously moved at the slow pace of regulatory change, dependant on policy changes by bureaucratic governments and international organizations, it is now poised to begin moving at the pace of technological change. A diverse array of advanced FinTech and IT-technologies enhanced by AI and Blockchain technologies have the power to act as an “Engine for Social Good”. The combination of mobile-app based solutions to many issues in developing regions, coupled with increasing rates of mobile phone and internet penetration in regions like Africa, Southeast Asia and Latin America, are now approaching a convergent inflection point whereby developing nations can leapfrog numerous systemic and infrastructural bottlenecks to quality-of-life and financial equality through the power of modern IT-technologies.

This first edition of “FinTech for Social Good” report aims to establish a framework that can be used to identify the most active and progressive organizations in this sphere, the technologies with the greatest potential impact and those closest to practical applications, and to create the tools necessary for charting the most optimal and synergetic road forward over the coming years, which can be used to shape the “FinTech for Social Good” landscape in such a way as to streamline its development substantially.

Subsequent editions of this report will strive to utilize the dialogue with active players and organizations in this sphere initiated with this first report to provide an even deeper analysis of the industry landscape and ecosystem and to assemble the tools required to allow the most relevant and active entities to conduct smart-matching, aggregating and integrating their resources in the most efficient way possible.

Financial Technologies can address socio-economic problems such as gender inequality and slavery. The roots of these problems are mainly based on poverty and the low level of education in developing countries.

We are facing a structural dichotomy where cultural diversity and customs became the reason for gender inequality. The best way to fight cultural barriers and traditionalism is globalization, which brings access to education, healthcare and financial inclusion. Unfortunately, sometimes globalization can have unintended consequences.

In developing regions, globalization has created an ecosystem in which citizens can and often are made to work in harsh and unhealthy work environments for very low pay, without access to the work-related rights, protections and amenities that are offered to workers in developed nations.

Fortunately, however, the tide seems to gradually be turning, with the rise of the notion of “impact investment” and the general trend of commercial enterprises working to not only turn a profit, but doing so in a humane manner, developing sellable solutions to social issues in developing countries.

FinTech for social good denotes the use of emerging FinTech solutions in order to improve quality of life for developing nations and enabling greater access to basic human amenities for their populations. The most prominent example of “FinTech for Social Good” is the use of FinTech solutions to deliver access to basic financial services, driven by the large numbers of unbanked people in developing nations, coupled with increasing rates of mobile phone penetration.

While these efforts technically lie outside the scope of FinTech proper, they are a natural extension of the primary impetus behind FinTech. This report explores ways in which the same technologies driving the FinTech revolution in developing nations, from mobile applications to advanced IT-infrastructures like blockchain and distributed ledger technologies, could be harnessed in order to promote social good and combat issues like lack of access to basic human amenities, education, healthcare services and to deter modern slavery in developing regions.

The Financial Stability Board defines FinTech as: “technologically enabled financial innovation that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services”. According to the United Nations report *Fintech, Green Finance and Developing Countries*, FinTech includes:

1. Financial sector
2. Banking;
3. Investments; and
4. Insurance.

The complex FinTech landscape could be understood as having two types of actors – FinTech and TechFin. ‘FinTech’ refers to technology companies developing new technologies to radically alter the financial landscape. In contrast, ‘TechFin’ refers to companies adapting existing financial capabilities to the technology wave – a less disruptive, incremental approach. These actors can face different levels of regulation, types of investors, and levels of risk. Developed and developing countries should consider which actor is best suited for their economic development pathway. This may require reflection on the different types of capital, types of risks and the range of technologies that would be involved.

Source: http://www.fsb.org/what-we-do/policy-development/additional-policy-areas/monitoring-of-fintech/
http://unepinquiry.org/wp-content/uploads/2017/06/Fintech_Green_Finance_and_Developing_Countries-input-paper.pdf

FinTech as an Engine for Social Good

FinTech for social good denotes the use of emerging FinTech solutions in order to improve quality of life for developing nations and enabling greater access to basic human amenities for their populations. The most prominent example of "FinTech for Social Good" is the use of FinTech solutions to deliver access to basic financial services, driven by the large numbers of unbanked people in developing nations, coupled with increasing rates of mobile phone penetration.

However, taking the same modus operandi behind FinTech - i.e., namely using existing and emerging IT-technologies that can be utilized as mobile applications to provide financial services, and applying it to other social and infrastructural issues and inequalities, like social inequalities, modern slavery, healthcare inequalities and lack of access to basic human amenities, yields an equally disruptive framework and platform through which the use of emerging IT-technologies can be harnessed to promote diverse forms of social good. While these efforts technically lie outside the scope of FinTech proper, they are a natural extension of the primary impetus behind FinTech.

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Report Organization and Structure

The report's **Executive Summary** gives a succinct overview of the report's structure, methodology, and primary conclusions, offering a concise overview of main industry trends a brief forecast of industry developments over the next several years.

Chapter I: Landscape and Regional Overview introduces the industry landscape in broad terms, and introduces its main constituents.

Chapter II: FinTech for Social Good: Goals & Opportunities serves as an introduction to the concept of FinTech for Social Good, and shows how FinTech is an emerging power for humanitarian action extending beyond the concrete context of the financial industry.

Chapter III: Obstacles for Financial Inclusion and Socio-Economic Development charts the landscape of issues and factors in developing regions that serve as the motivation behind FinTech, and the problems that it seeks to solve. By gaining a deeper understanding of economic inequalities and the systemic and infrastructural deficits that underlie them in developing regions, we can gain a better understanding of the exosystem that FinTech is poised to disrupt for the better.

Chapter IV: International Organizations and Financial Inclusion takes a deeper look at the specific international organizations making an impact and shaping discourse around FinTech for Social Good in developing regions.

Chapter V: Government Approaches and Initiatives to increase Financial Inclusion gives a deep overview of specific governmental policy statements, guidelines and initiatives that aim to increase financial inclusion in the developing world.

Chapter VI: The Role of Regional and Local Organizations in Increasing Financial Equality takes a more specific focus on region and local (i.e. region and country-specific) organizations taking part in the ongoing national dialogue of financial inequality in developing regions.

Chapter VII: FinTech for Social Good: Tendencies, Perspectives and Trends gives broader analysis to the ways in which FinTech can be an engine for humanitarian change and a driver for Social Good in the context of the preceding chapters' analysis. The Case Studies provide a closer look at the trends, issues and challenges discussed in the preceding chapters.

Case Study I: Gender Equality and Financial Inclusion: Trends and Perspectives gives an overview of gender-specific financial inequality in Africa, Asia and Latin America, and analyzes the extent with which FinTech and other advanced IT technologies can serve to lessen this gap.

Case Study II: Globalization and Modern Slavery: Prevention Technologies takes a focused look at the forms that slavery take today in developing regions, and assesses how FinTech and advanced IT technologies can (and already are being) leveraged in order to deter modern slavery for the empowerment of all.

Chapter I
Landscape and Regional Overview

Social Good - the concept

What is social good? Investopedia defines it as: *"...something that benefits the largest number of people in the largest possible way, such as clean air, clean water, healthcare and literacy. Also known as "common good," social good can trace its history to Ancient Greece philosophers and implies a positive impact on individuals or society in general. It also provides the basis for charity or philanthropic work."*

In practical terms, we can define social good as the levels of equality existing in society in terms of access to basic human amenities and to products, services, resources and/or rights that promote a higher quality of life for individuals, from basic human liberties and civil rights to clean water, adequate nutrition, modern healthcare services, economic opportunities, financial services, etc.

Active promotion of or investment in a particular industry not only for financial returns but also because of its potential to disrupt the infrastructural limitations and bottlenecks upholding different forms of societal inequality can be thought of as a form of impact investment.

Investopedia defines impact investment as: *"...investing that aims to generate specific beneficial social or environmental effects in addition to financial gain. Impact investing is a subset of socially responsible investing (SRI), but while the definition of socially responsible investing encompasses avoidance of harm, impact investing actively seeks to make a positive impact by investing, for example, in non-profits that benefit the community or in clean technology enterprises."*

"FinTech for Social Good" and "Blockchain for Social Good" are rising trends that are attracting significant attention from both governments, NGOs, companies and investors. It represents more than just financial inclusion; it represents a clear path toward humanitarian good, towards accelerating the socioeconomic development of underdeveloped countries so as to give them greater opportunities for acquiring basic human amenities and the pathway for integration into the modern global economy through financial inclusion initiatives and technologies.

Sources: https://www.investopedia.com/terms/s/social_good.asp#ixzz5NftoAocT

Financial inclusion in Developing Countries: Africa

The main barrier to financial inclusion is basic lack of money. The "Review of Development Finance" , Volume 6 issue 1 written by Alexandra Zins and Laurent Weill presented that:

> *"The Africa continent is at a leading position concerning mobile money banking, especially in East Africa where more than 73% of Kenyans are mobile money customers. In sub-Saharan Africa (SSA), 36 countries out of 54 have mobile banking services. 2.5 billion people in lower to-middle income countries have no access to banking services.*
>
> *Saving habits are different on the Africa continent in comparison to the world. The main motivations of saving in Africa are "for education" (21.3%) and "for farm or business" (19.6%). While 23.9% of individuals worldwide and 40% of individuals of high-income economies save for old age, which is their main saving motivation, only 10.3% of Africa individuals do so.*
>
> *The main source of credit in Africa is "family and friends" (37.5%). The second source of credit in Africa is "a store" (7.9%), in line with the global trend (7.9%). Borrowing formally (6.7%) and borrowing from another private lender (4.7%) are less common in Africa. 41% of Africa individuals reported having borrowed from an informal source. 51.4% of Africa individuals declared having borrowed from any source in the past 12 months, a figure which is higher than the 42.4 global percent".*

Mthuli Ncube, the current Managing Director and Head of Quantum Global Research Lab mentioned in the article "Digital Financial Services and Financial Inclusion in Africa" that:

> *"Kenya shows the highest level of financial inclusion at 67% rate and followed by Nigeria at 60%. Cameroon is at 47% inclusion rate, while the rest of the countries in the sample are all below 30% inclusion rate .The lowest rate is recorded in Mozambique at 13% inclusion rate".*

Sources: https://www.sciencedirect.com/science/article/pii/S1879933716300549
http://quantumglobalgroup.com/commodities_cat/digital-financial-services-and-financial-inclusion-in-africa/

Financial inclusion in Developing Countries: Asia

In an article entitled "Singapore Plans Blockchain Push to Boost Financial Inclusion" written by Wolfie Zhao, the author wrote that:

> "*The Singapore government is looking to boost blockchain development in an effort to improve financial inclusion for Southeast Asian countries. The neighboring nation of Malaysia is also moving to utilize blockchain technology to advance banking services across the region. Similarly, Thailand's Siam Commercial Bank is building out a Ripple-based blockchain remittance platform for cross border payments".*

Southeast Asian government officials are seriously considering using blockchain-based solutions to address financial inclusion. This is an increasingly trend as evidenced by research conducted by Oliver Wyman's, who states in a recent article that:

> "*Digital financial solutions could play a significant part in closing gaps in financial inclusion. They could address about 40% of the volume of unmet demand for payments services and 20% of the unmet credit needs in the BoP and MSME segments. Digital finance alone cannot entirely close the gaps in financial inclusion. But it is estimated that the cumulative effect of digitally driven acceleration in financial inclusion could boost GDP by 2% to 3% in markets like Indonesia and the Philippines, and 6% in Cambodia. For the population earning less than $2 a day, that would translate to a 10% increase in income in Indonesia and the Philippines, and an increase of around 30% in Cambodia. 99% of Indian adults with an account at a financial institution have a bank account. Kenya's extreme poverty is ranking 187 in per-capita GDP, of the country's 47 million people, seven in 10 adults (69%) have financial accounts. The percentage of Bangladeshis with formal financial services accounts almost doubled from 20% to 34% between 2013 and 2016. In 2016, only one in 10 adults (13%) had a registered account. Many Beninese adults are financially active, with 47 percent report having saved in some manner and 20 percent reporting have borrowed. Mobile money awareness is high, as is access to mobile phones*."

Sources: https://www.coindesk.com/singapore-plans-blockchain-push-to-boost-asean-financial-inclusion/
https://www.adb.org/sites/default/files/publication/222061/financial-inclusion-se-asia.pdf

Financial inclusion in Developing Countries: Latin America

Amanda Jacobson Manager of Latin America, Village Capital, wrote in a recent report titled "What does "financial inclusion" really mean, and how can entrepreneurs make the difference?" that

> "*Low-income unbanked and underbanked people, both from big cities and small towns, often have to struggle to work a half dozen jobs with little certainty of their cash flows. Entrepreneurs across Latin America are emerging quickly to address problems in financial inclusion*".

The authors of "Financial Inclusion in Latin America: Facts, Obstacles and Central Banks' Policy Issues" also indicate that:

> *"Latin American countries do not look good relative to their comparators. Among the region, Peru, Honduras, Guatemala and Nicaragua are among the countries with the lowest quality of institutions and a low value for financial inclusion. In contrast, Chile is the only country in the region where the indicator representing institutional quality is closer to those in high-income countries. Modern Latin America is home to over 600 million people across 20 nations. The percentage of the Latin American population with a bank account has gone from 39% to over 50% in just the last five years. Online sales don't make up as large a portion of total GDP as regions like Europe (2.5%, $523bn) or North America (2.6%, $562bn), but Latin America still has around 300 million internet users – 135 million of whom shop online. Over 400 million people in Latin America now own a mobile phone, and there has been significant regional investment in 3G services".*

Sources: https://vilcap.com/wp-content/uploads/2017/06/Latin-America%E2%80%99s-3-greatest-financial-inclusion-challenges.pdf
http://www.paymenteye.com/2017/03/23/financial-inclusion-in-latin-america-what-does-it-mean-for-e-commerce/

Main trends

A report entitled "The Mobile Economy Sub-Saharan Africa 2017" published by GSMA notes the following trends:

1. *At the end of 2016, there were 420 million unique mobile subscribers in Sub-Saharan Africa. The region will have more than half a billion unique mobile subscribers by 2020, by which time around half the population will subscribe to a mobile service.*

2. *3G will remain the dominant mobile broadband technology for the foreseeable future, but 4G adoption is rising rapidly following increasing network rollout. Smartphone connections in Sub-Saharan Africa have doubled over the past two years to nearly 200 million. Key factors supporting the growth of smartphone adoption in the region include the increasing affordability of new devices and a growing market for second-hand devices. This trend, along with the uptake of mobile broadband services, is driving demand for digital content and, consequently, an increase in mobile data traffic.*

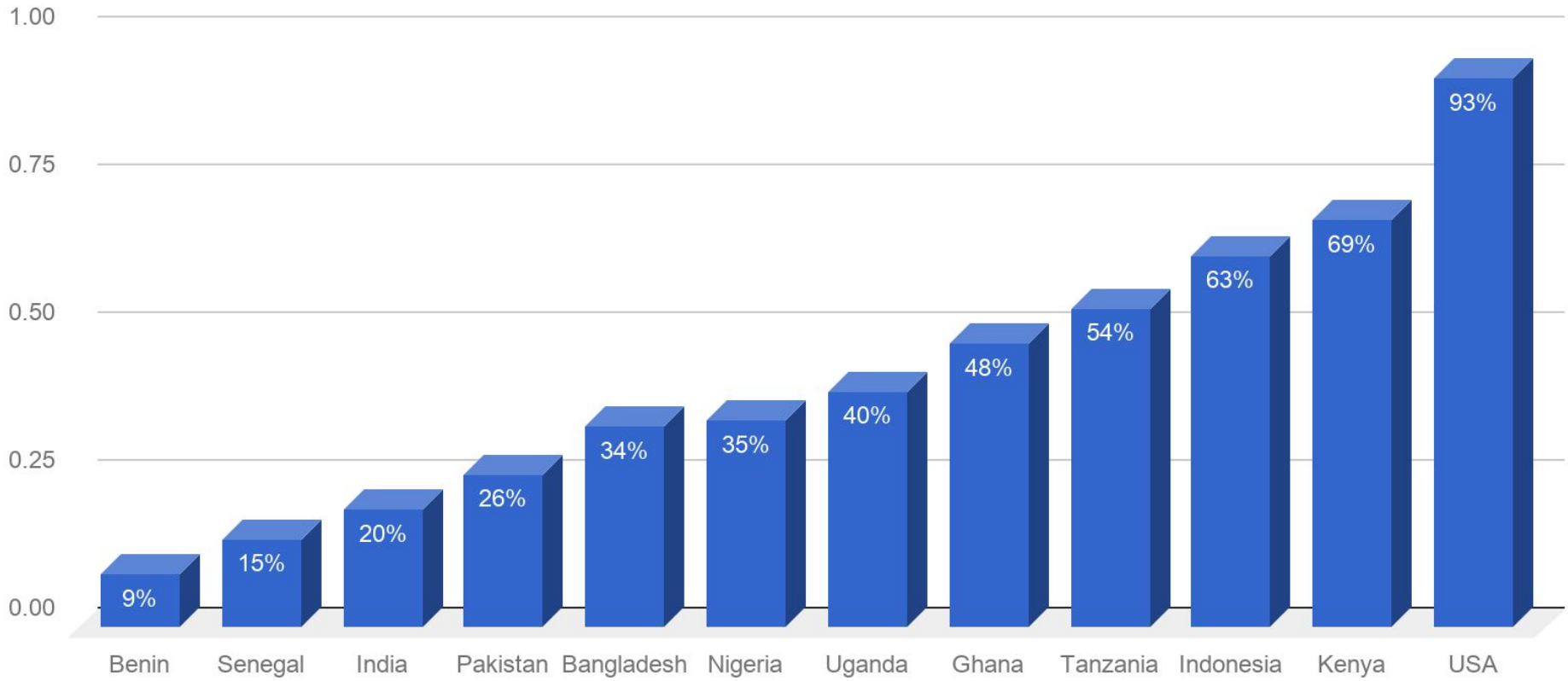
3. *Mobile's contribution to GDP is expected to rise to $142 billion, equivalent to 8.6% of GDP, by 2020 as countries benefit from improvements in productivity and efficiency brought about by increased take-up of mobile services. The mobile ecosystem also supported approximately 3.5 million jobs in Sub-Saharan Africa in 2016.*

4. *Mobile internet penetration in Sub-Saharan Africa doubled over the past three years to 26% by the end of 2016, with 120 million new mobile internet subscribers added over the period. Mobile technology is the only available platform for the majority of the population to get online; mobile networks cover a wider area than any other technology in the region.*

5. *Over the next four years, an additional 155 million people are expected to subscribe to a mobile internet service, bringing the total to 411 million and a penetration rate of around 38% by the end of 2020.*

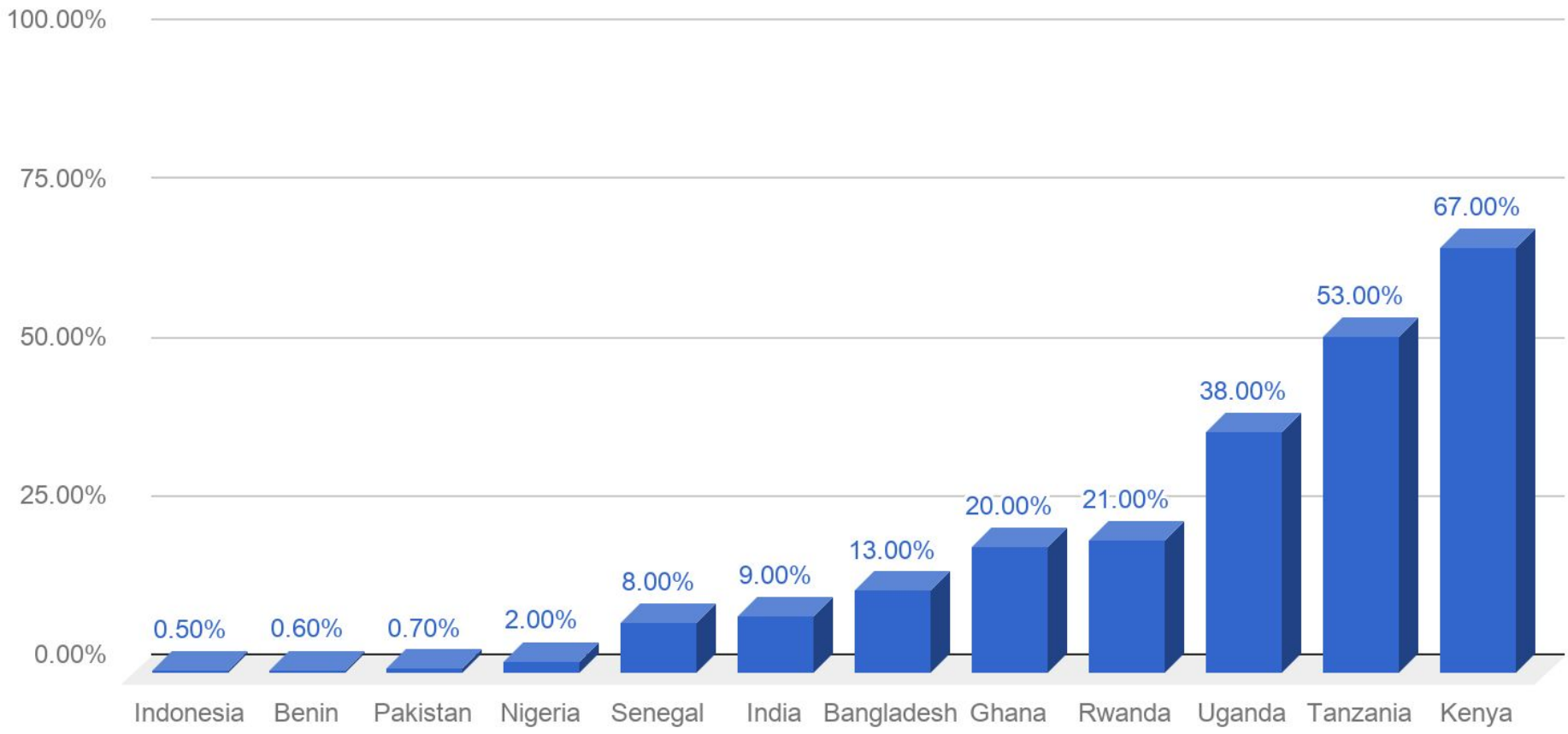
Source: https://www.gsma.com/mobileeconomy/sub-saharan-africa-2017/

Financial Inclusion in Developing Countries / Comparison



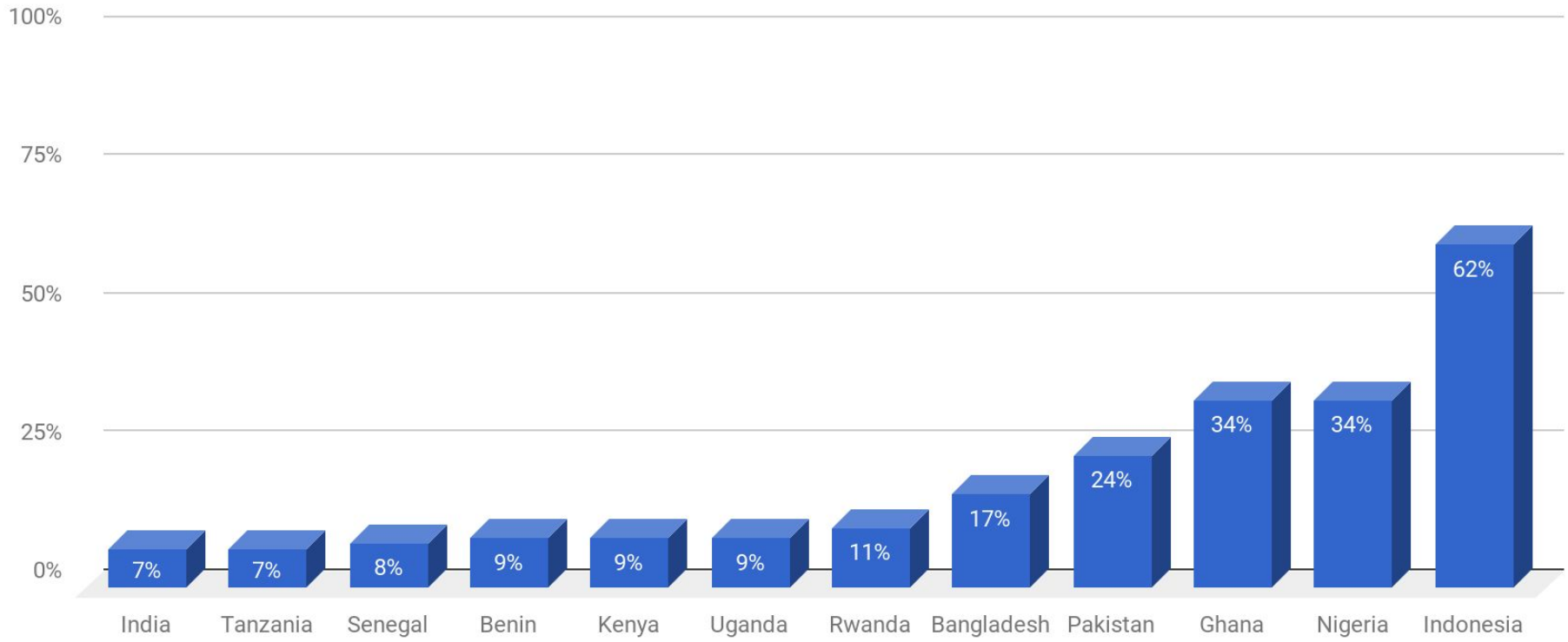
Source: [InterMedia's Financial Inclusion Insights]

Registered Mobile Money Accounts in Developing Countries



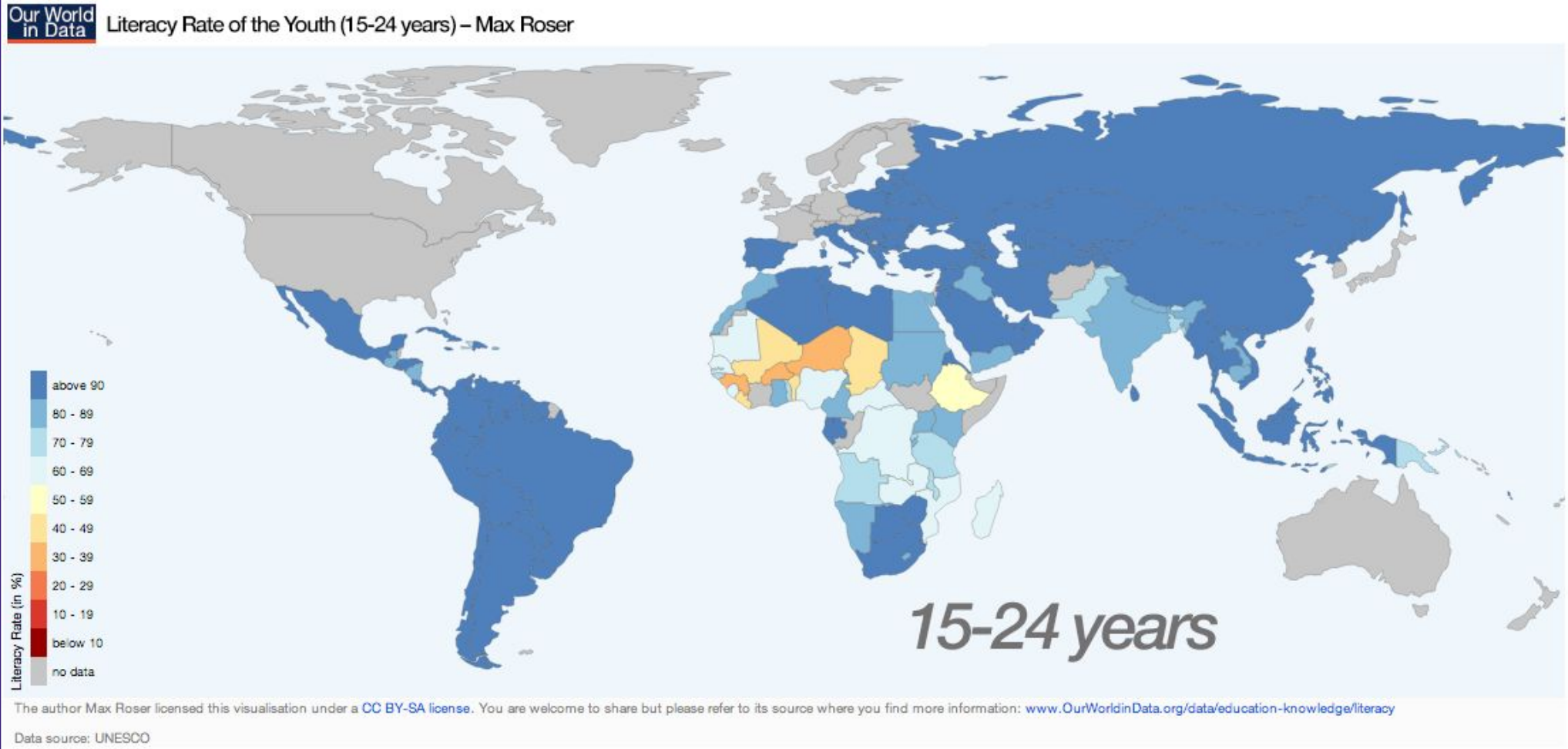
Source: [InterMedia's Financial Inclusion Insights]

Full service bank accounts in Developing Countries



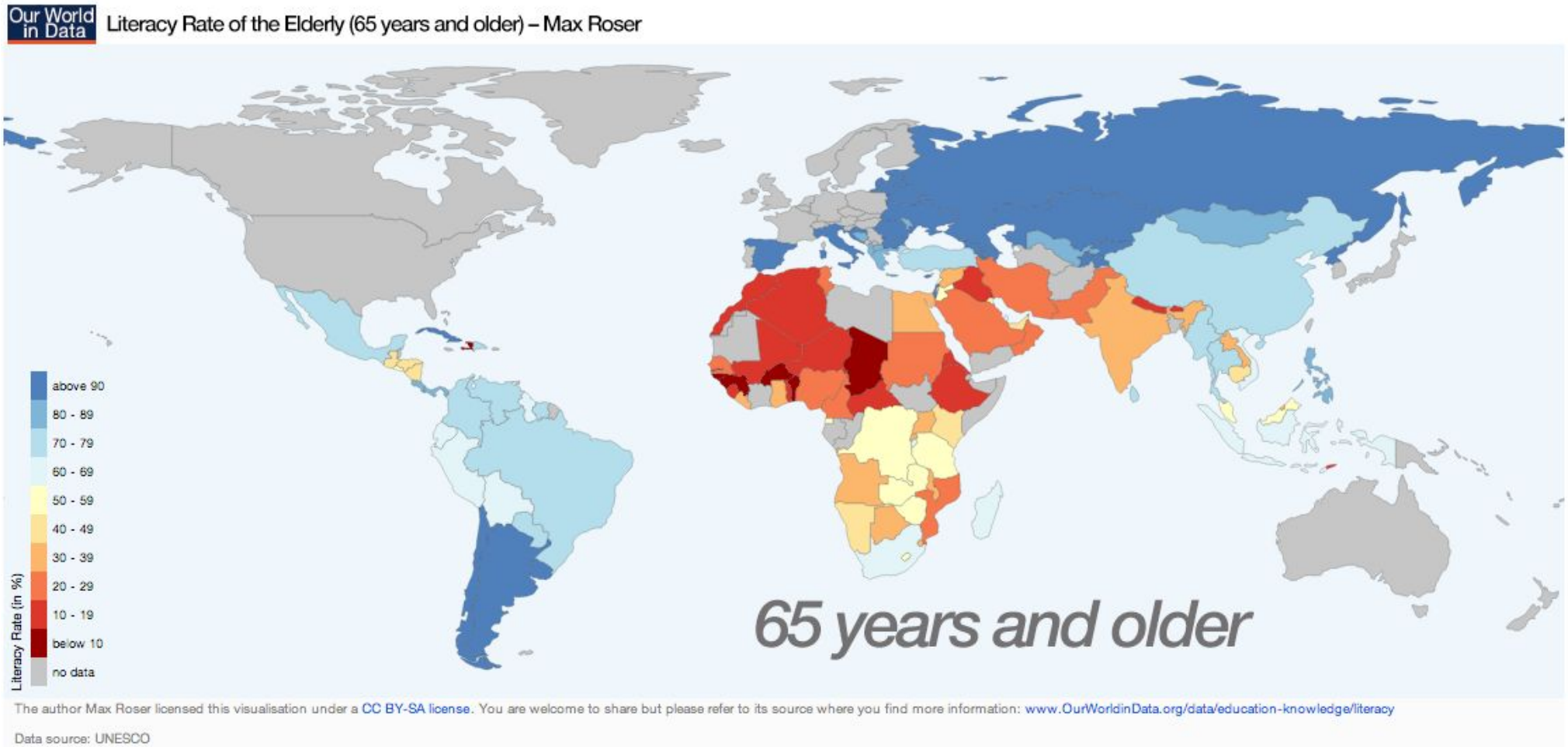
Source: [InterMedia's Financial Inclusion Insights]

The young generation in Developing Countries is much better educated than before



Source: https://ourworldindata.org/wp-content/uploads/2014/07/ourworldindata_world-maps-of-the-literacy-rate-by-age-group_max-roser.png

The young generation in developing countries is much better educated than before

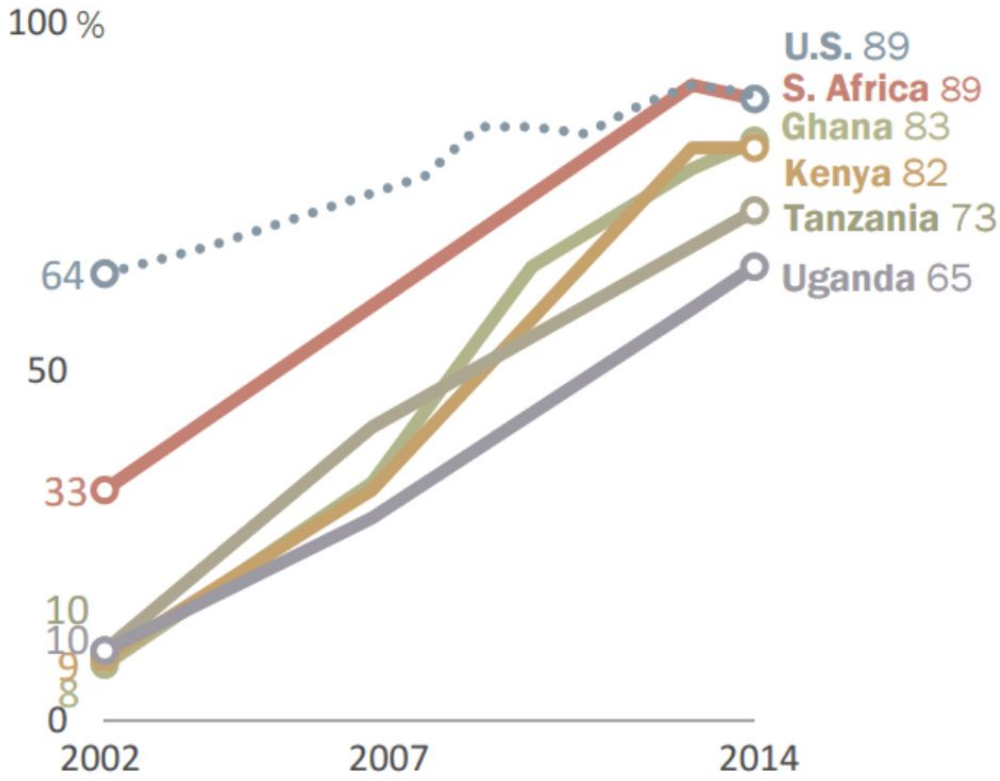


Source: https://ourworldindata.org/wp-content/uploads/2014/07/ourworldindata_world-maps-of-the-literacy-rate-by-age-group_max-roser.png

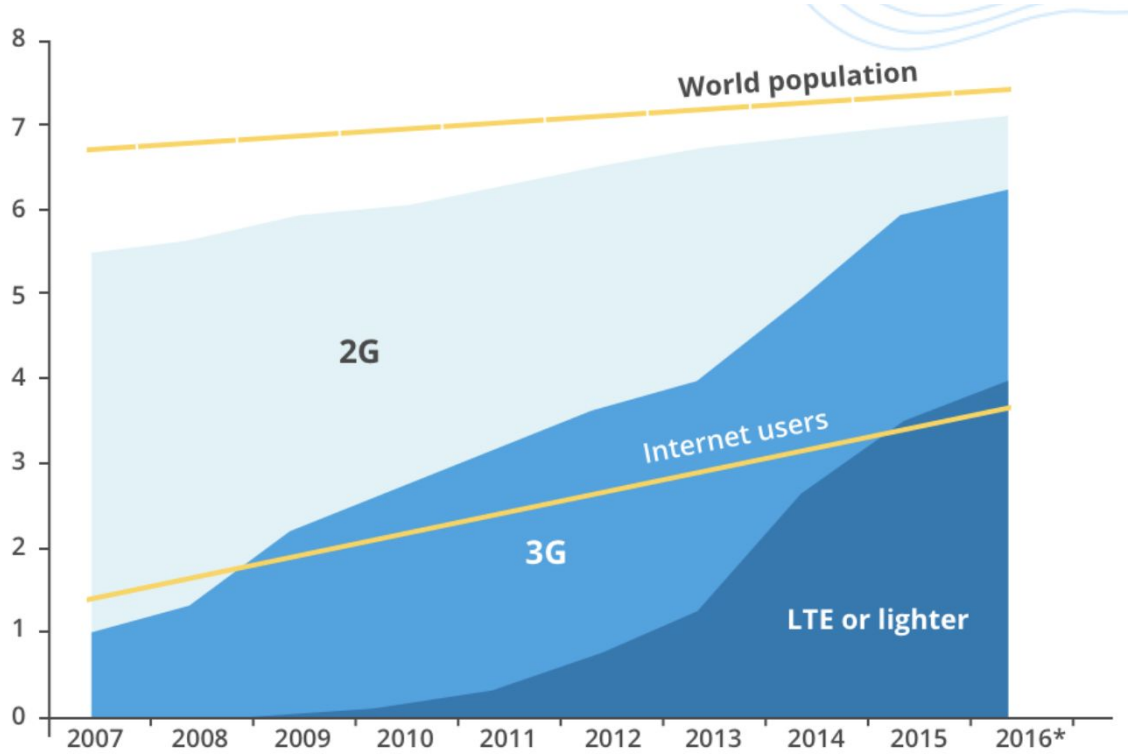
Mobile penetration in some Africa countries is as high as in the United States

Sub-Saharan Africa remains the region with the highest growth rate in mobile subscriptions globally

In 2002 roughly one-in-ten owned a mobile phone in Tanzania, Uganda, Kenya and Ghana followed by exponential growth



The Mobile Network is a Gateway to the Global Economy



95% of the global population live in areas with mobile network coverage

Mobile phones enable Humaniq to reach the unbanked population and provide financial inclusion

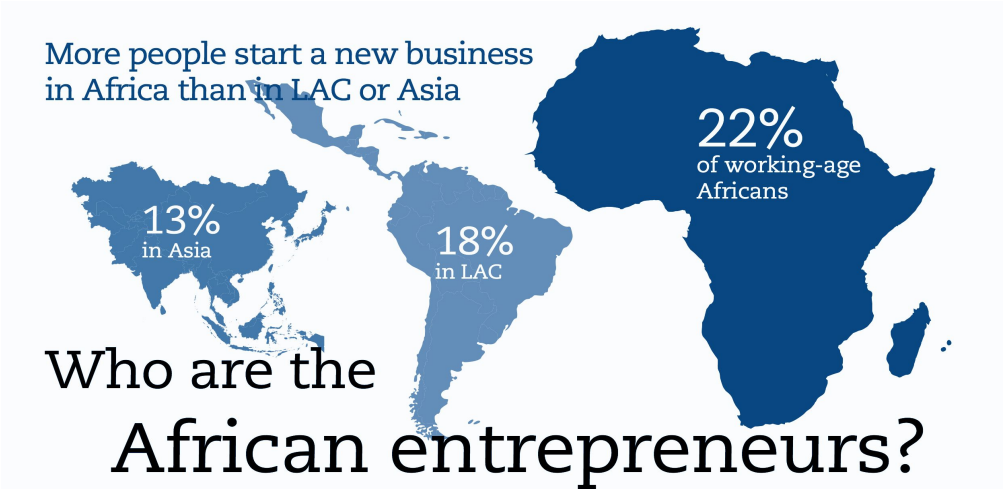
Source: ITU

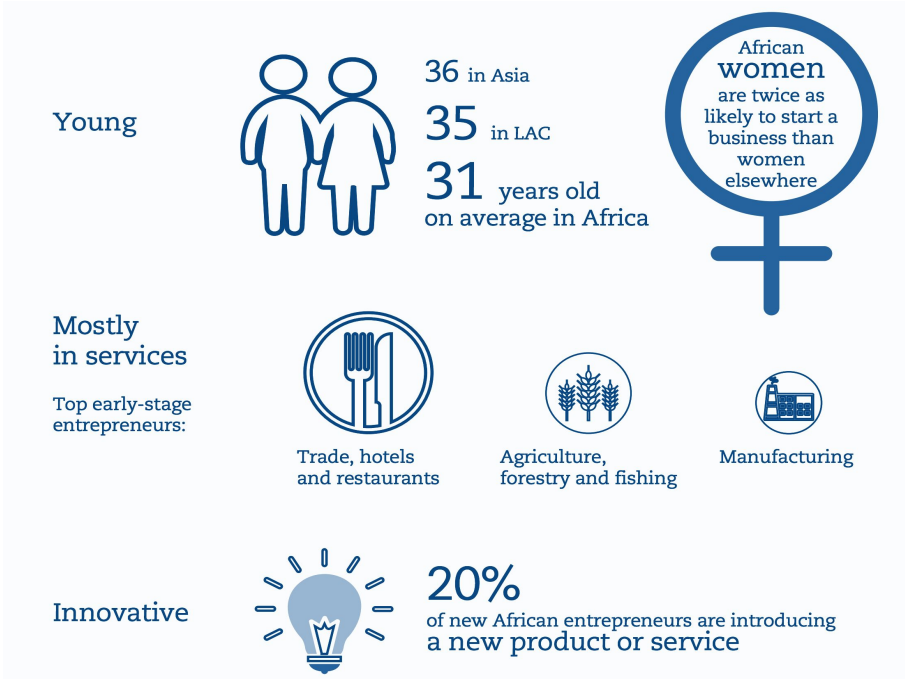
Entrepreneurial Activity in Africa is Higher than in Asia and Latin America

Entrepreneurship levels in Africa are the highest in the world

22% of Africans are starting new businesses

Loan providers will need to increase their lending by at least $135 billion to meet demand by Africa SMEs





Source: Africa Development Bank

The Financial and Digital Inclusion Project

The Financial and Digital Inclusion Project (FDIP) team has published an annual report that evaluates the progress that various developing countries are making toward broader and more inclusive financial inclusion.

The 2017 Brookings Financial and Digital Inclusion Project (FDIP) report was written by Robin J. Lewis, John D. Villasenor, and Darrell M. West, and evaluates access to and usage of affordable financial services by underserved people across 26 geographically, politically, and economically diverse countries.

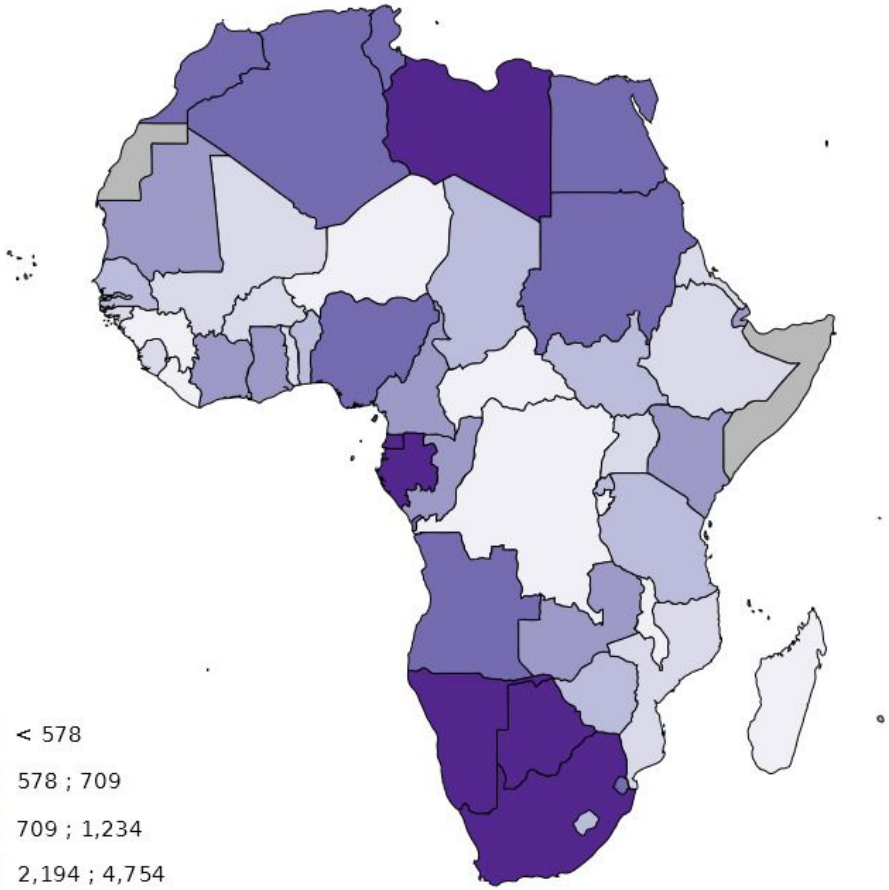
The 2017 report "*assesses these countries' financial inclusion ecosystems based on four dimensions of financial inclusion: country commitment, mobile capacity, regulatory environment, and adoption of selected traditional and digital financial services*".

> "*For the third year in a row, Kenya ranked at the top of the FDIP scorecard, driven by its robust commitment to advancing financial inclusion, widespread adoption of mobile money services among traditionally underserved groups, an increasingly broad range of mobile money services (including insurance and loan products), and an enabling regulatory environment for digital financial services. In addition to Kenya, the other top-scoring countries were distributed across Latin America and Sub-Saharan Africa: Brazil and Mexico tied for second place, and Colombia, South Africa, and Uganda tied for third.*
>
> *Countries in Asia were also represented near the top of the scorecard, with the Philippines scoring only two percentage points behind Colombia, South Africa, and Uganda. Examples of countries that have improved their country commitment scores since 2016 include Egypt, the Dominican Republic, and Mexico*".

Source: https://www.brookings.edu/wp-content/uploads/2017/08/fdip_20170831_project_report.pdf

GDP in Africa 2016

Gross domestic product per capita (Dollars)



< 578

578 ; 709

709 ; 1,234

2,194 ; 4,754

1,234 ; 2,194

> 4,754

Source : IMF - 2015

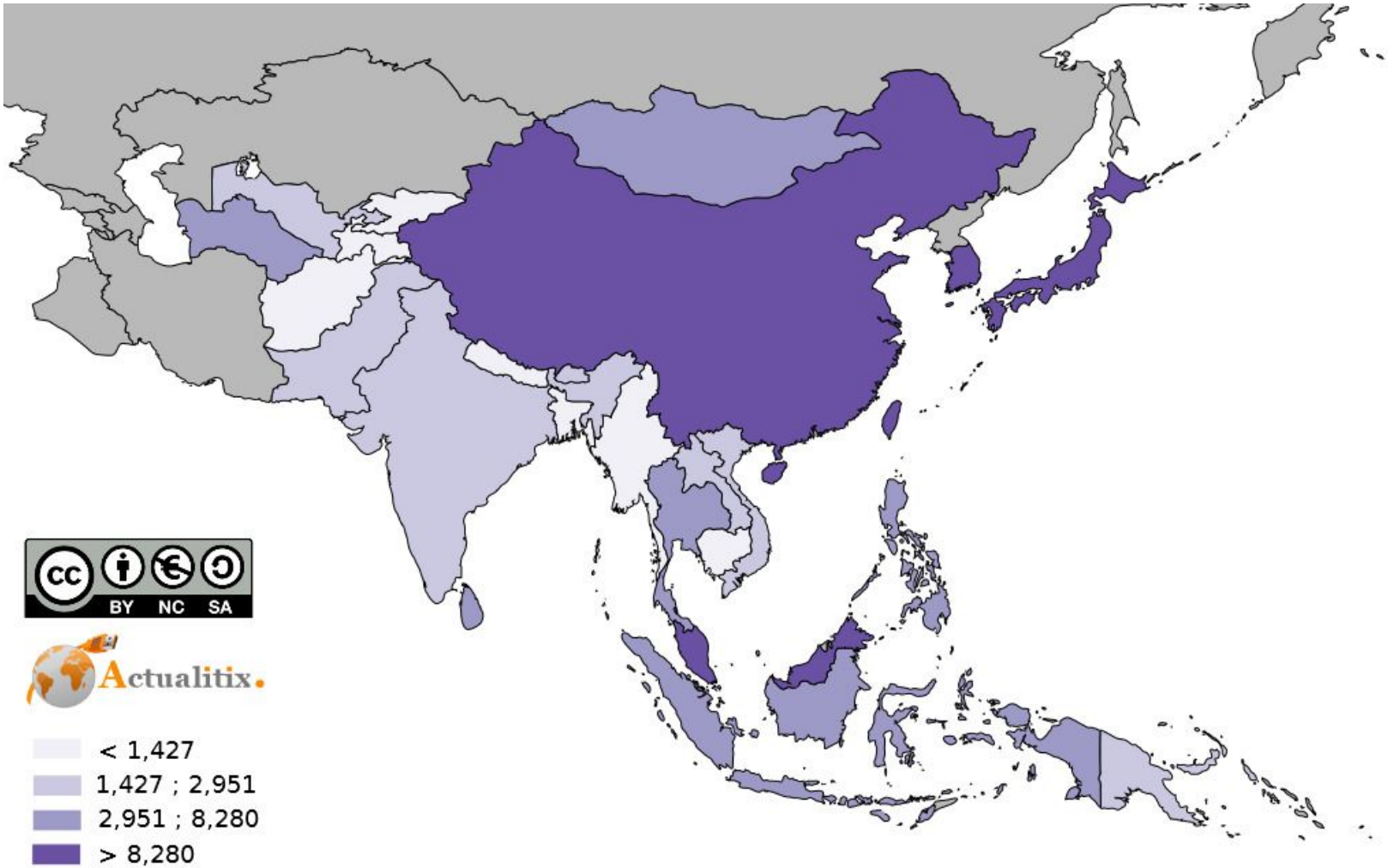
GDP in Latin America 2016

Gross domestic product per capita (Dollars)

< 4,263
4,263 ; 6,077
6,077 ; 13,331
> 13,331

Source : IMF - 2015

GDP in Asia 2016



Chapter II: FinTech for Social Good: Goals and Opportunities

FinTech Opportunities in Asia-Pacific

The Asia-Pacific region's growth of mobile phone penetration and digital adoption in recent years, in combination with its high proportion of unbanked people, has made it ripe for the adoption of FinTech solutions to banking. Asian regulators have been taking important steps toward fostering an ecosystem favourable for the growth of local FinTech industries. A 2017 report by Frost & Sullivan projects that the Fintech industry in the Asia-Pacific region is expected to grow at a CAGR of 72.5% from 2015 to 2020, reaching US$72 billion.

Malaysia: The Malaysian government and associated organizations are working to create a more flexible regulatory landscape for FinTech innovation through the implementation of a regulatory sandbox (where FinTech innovations can be tested in controlled environments), as well as putting forward FinTech-relevant guidelines for cryptocurrencies and e-KYC procedures.

Singapore: The Monetary Authority of Singapore has also taken steps to initiate a regulatory sandbox, and the Singaporean government has worked to put forward an increased focus on FinTech-related job creation and public-private collaboration.

Vietnam: In 2017 the State Bank of Vietnam and National Payment Corporation of Vietnam established a Steering Committee on FinTech to "advise on solutions to build an appropriate ecosystem, including a legal framework to facilitate the development of FinTech companies in Vietnam." The committee will "formulating and submitting an annual action plan to the SBV Governor, advising the Governor on solutions to build an appropriate ecosystem, including a legal framework to facilitate the development of FinTech companies in Vietnam in line with the guidance and orientation of the government, overall strategy and plans for accelerating the development of FinTech in Vietnam."

Sources: http://www.cfte.education/blog/asia-land-fintech-opportunities/
https://ww2.frost.com/news/press-releases/asia-pacific-fintech-market-reach-us72-billion-2020-finds-frost-sullivan/
https://www.opengovasia.com/articles/7432-vietnam-central-bank-establishes-steering-committee-on-fintech
http://www.mas.gov.sg/Singapore-Financial-Centre/Smart-Financial-Centre/FinTech-Regulatory-Sandbox.aspx
https://www.pwc.com/my/en/assets/publications/2016-pwc-aicb-catching-the-fintech-wave.pdf

FinTech Opportunities in Africa

Africa, with its high proportion of unbanked people and its large degree of mobile phone penetration, is another very fertile ecosystem ripe for the adoption of FinTech solutions.

According to a 2017 report entitled *Finnovating for Africa: Exploring the African Fintech Ecosystem Report 2017*, there are now more than 300 FinTech startups active in Africa, collectively funded to the tune of $92 million USD, with many of them launching in just the past two years. The report also shows that South Africa is the region with the most FinTech startups active, home to 31.2% of active companies in this sphere, with Nigeria and Kenya following in second and third. Interestingly, the report also notes that FinTech solutions to payments and remittances comprise 41.5% of the space.

The rise of FinTech in Africa is also placing pressure on the continent's traditional banking and financial services institutions to adopt FinTech solutions of their own in order to keep the pace and match the innovative solutions offered by FinTech startups. An increasing number of banks and financial institutions are now actively seeking to invest in, acquire or collaborate with FinTech startups.

FinTech is also one of the largest sources of investment for the continent, with over 30% of the $195 million VC funding flowing into Africa being acquired by FinTech companies.

Sources: https://medium.com/syncedreview/african-fintech-startups-are-revolutionizing-banking-b726a1b4ccfe
http://disrupt-africa.com/2017/06/over-300-fintech-startups-active-in-africa/
http://disrupt-africa.com/finnovating-for-africa/

FinTech Opportunities in Latin America

Two years ago more than half of the Latin American population lacked access to banking, and even more lacked access to credit, posing significant challenges for a region in which micro, small and medium-size enterprises comprise 99% of the private sector.

Roughly 50% of Latin Americans own a mobile phone today, allowing for financial institutions in Latin America to enable digital banking, digital identity authentication, blockchain-enabled smart contracts, and electronic invoicing to give the unbanked people of Latin America access to financial services.

2016 was a watershed year for FinTech investments in Latin America, and the past few years have seen a steady growth in the size and diversity of Latin America's FinTech industry.

Latin America's FinTech ecosystem was previously dominated by cross-border payments and processing, which enabled $74 billion worth of remittances to flow into the region.

However, great strides have been made in the past five years to diversify the region's FinTech ecosystem, with startups now offering smart contracts, electronic payments and online lending.

This, in turn, has engendered healthy levels of regional competition and economic growth.

Sources:
https://publications.iadb.org/bitstream/handle/11319/8265/FINTECH-Innovations-You-May-Not-Know-are-from-latin-America-and-the-Caribbean.pdf?sequence=7&isAllowed=y
https://www.nathanlustig.com/2018/03/26/fintech-in-latin-america/

Financial Inclusion Landscape Q2 2018 Companies Specialization

200 - Companies
30 - Research Centers

DEEP KNOWLEDGE ANALYTICS

FUTURE FINTECH

Social Projects Using Digital Technology

Digital technologies are being used for the purpose of social good, and increasing the quality of life for developing regions, in ways beyond banking as well.

For instance, in 2012 an organization called War Child launched an initiative that provided teachers in South Sudan with tablets read-made with scholastic packages, exercises and lesson plans that could be utilized by teachers and students without an internet connection. These tablets were updated monthly by supervisors. This is in stark contrast to many other digital learning projects, which often require access to the internet, and which have therefore been hampered in terms of effective penetration in areas without the digital infrastructures required to access the internet.

Another project aimed at leveraging the high rates of mobile phone penetration in developing regions in order to give citizens greater access to education is The Zooniverse, which is one of the world's largest citizen science projects that offers users a free learning resource.

Vodafone has launched a mobile-phone based ambulance and taxi program in the rural Lake Zone of Tanzania, where individuals in health emergencies can call a hotline that connects them to a network of pre-vetted taxi drivers to assist them in getting to a local clinic when the number of available ambulances is low. This service is free for users as well, because the taxi drivers are paid through the mobile-based money transfer and micro financing system, M-Pesa.

Another project that uses the power of mobile phones to increase access to basic human amenities and health services if RefAid, an app that connects refugees with local services in the areas of health, legal aid, shelter and education. The project is now used regularly by more than 400 refugee aid programs, including Doctors of the World and Red Cross.

Sources: https://whitefusemedia.com/blog/10-projects-using-digital-technology-social-good
https://mashable.com/2017/12/23/social-good-innovations-2017/#pHyz3B_d.mqh
https://mashable.com/2016/10/17/poverty-innovations/#d4Mj.ANpzkqp

Chapter III: Obstacles for Financial Inclusion and Socio-Economic Development

Economic problems in the developing countries

Many causes of economic issues in developing nations can be tied to corruption, political instability, weak intellectual property rights, and lack of skilled labour.

The 47 countries ranked as the Least Developed Countries (LDCs) still very much depend on agriculture as a primary source of economic activity and contributor to GDP. However, agriculture is being impacted by climate change. This has a direct result on the peoples of developing nations because agriculture is one of their predominant sources of income.

Sources: http://unohrlls.org/custom-content/uploads/2017/09/Flagship_Report_FINAL_V2.pdf
http://factsanddetails.com/world/cat57/sub383/item2135.html

Challenges faced by Africa

According to the citizens in the 44 countries surveyed in World Happiness Report 2017 the major problems facing the continent are: healthcare, security, political stability, and development projects are all affected by poor governance. Corruption has permeated all life facets from simple things like access to medical care, schools and jobs, to the grand scale of it all like award of contracts and use of public resources. The effect has been great inequalities both in access of services from government offices as well as opportunities for investment with many local and foreign firms discouraged and forced to close business.

Africa's poor infrastructure is slowing its economic development, but foreign investment is helping fill in some of the gaps. The poor state of Africa's infrastructure becomes obvious when traveling, disused wagons are a common sight and the train makes several unexplained stops. The majority of countries in sub-Saharan Africa still experience regular power-outages, which of course contribute to a low productivity of many firms. According to a 2010 report by the World Bank and France's development agency, power is Africa's biggest infrastructure weak point, with as many as 30 countries facing regular power outages. High energy costs combined with other infrastructure deficits, such as rail and road problems, have lowered productivity rates at African companies by as much as 40 percent.

The need for infrastructure improvements in the developing world is critical. Untold numbers of businesses suffer from lack of reliable power for industrial processes or because they cannot get their goods to the market. Africa’s current state of infrastructure calls for massive adoption of the Public-Private Partnerships (PPPs) model to accelerate infrastructure delivery. Yet PPPs in Sub-Saharan Africa remain a very small market, with projects concentrated in only a few countries, namely, South Africa, Nigeria, Kenya, and Uganda. Together these account for 48% of the 335 total PPP infrastructure projects in the region in the past 25 years. In the past five years, PPP infrastructure projects in the region have mainly been concentrated in the energy sector (78%)—mostly renewables—followed by transport (22%) and water and sanitation (0.5%).

Sources: https://www.dw.com/en/poor-infrastructure-is-key-obstacle-to-development-in-africa/a-15264436
https://blogs.worldbank.org/ppps/infrastructure-africa-s-development-ppp-imperative

Challenges faced by Asian Pacific region

The majority of Asian countries require substantial amounts of spending directed towards infrastructure that will allow for growth in their economies. Power generation capacity, clean water, effective utility networks and much needed improvements in transportation networks are essential for ensuring Asia is able to fulfil its potential. Without these key ingredients, economies stagnate. Without sustained, intelligent investment in needed infrastructure, it is unlikely that the region would achieve its full potential.

The "*Developing Infrastructure in Asia Pacific: Outlook, Challenges and Solutions*" report noted that there is sufficient capital within the market to fund the projects that are currently being procured across the region. The current pool of equity and debt liquidity is sufficient for what is currently being procured – but not enough to satisfy US$10 trillion to US$20 trillion of investment. A far lower proportion is invested into the infrastructure that drives economic growth – roads, railways, power and water.

Infrastructure projects are large and complex, but there is a lack of experience in procuring such projects. Public sector officials require technical, legal and financial skills which must be supported by rigorous procurement processes which allow for decisions to be made and conclusions as well as recommendations to be challenged.

Both mature and emerging markets need to urgently address the infrastructure deficit that has developed over time, emerging markets need new infrastructure while mature markets need to refurbish and refresh old, inefficient infrastructure. Capital is needed from the government and the private sector in order to deliver on the infrastructure promise. At a very basic level, governments should develop rigorous procurement processes that are transparent: pipeline management should focus on priority and developing projects effectively using precedents from past transactions, but then adapted for local regulations. The opportunities across the Asia Pacific region are substantial when considering the need for infrastructure. Much needs to be done to grow the power and utility capabilities of emerging market economies, the transportation networks that connect economic activity within a country and those that allow for effective trade between nations.

Source: https://www.pwc.com.au/industry/infrastructure/assets/developing-infrastructure-asia-pacific-sep14.pdf

Challenges faced by women

What specific financial challenges and inequalities are faced by women in developing countries?

Women have less access to technologies like mobile phones. According to GSMA estimates, 200 million fewer women own a mobile phone than men in low and middle income countries. Even in India a country acively promoting the adoption of digital finance, woman are 36% less likely to own a mobile phone than men.

Gender gaps in entrepreneurship and employment opportunities also come into play. Estimates by Cuberes and Teignier state that the average income loss resulting from gender gaps are 38% for Middle East and North Africa, 25% for South Assia and 17.3% for Latin America and the Caribbean.

Social norms can also limit the deman for access to finacial services by women. Women are often not expected or encourages to seek financial inependence. Women, Business and Law notes 17 economies in which husbands have a legal right to constrain their wive's mobility outside of the hosuehild..

Financial service providers have less incentive to market toward women because the margins are smaller and because on average their trasaction volumes are lower than men.

Employment inequalities that impact women also make them more difficult to reach through the usual channels that market toward men, like wage payments and remittance channels. Only 18% of women in Eastern Europe and Central Asia report recieving wages via transfer to an account. In South Asia, men are twice as likely to have sent domestic remittances within the past year than women. Findex data does, however, indicate that mena nd women are equally as likely to have recieved government pension transfers.ducation, employment and entrepreneurship, financial inclusion underpins statistics on issues such as income.

Source: http://www.cgap.org/blog/5-challenges-women%E2%80%99s-financial-inclusion

Challenges to financial inclusion in South Africa

The World Economic Forum sates that fee structures used by banks in South Africa as as much as four times greater than other countries, which is partly due to the the high operating costs of South African banks and the abundance of cybercrime (e.g. South African businesses lost roughly $450 million to cybercrime in 2015, prompting banks to spend as much as three times as much on security measures against cybercrime than other non-financial institutions of comparable size). Nonetheless, while 70% of adults have transaction accounts, less than 25% make more than three monthly transactions. People often deal in cash instead (e.g. for as much as 60% of purchases). Individuals in low-income bracketes have a deep-seated distrust of formal financial institutions, in turn rooted to more general fears of exploitation engendered by past abuses. And this is not without reason. Deceptive and coercive activities by banks have occurred before. For instance, South Africa recently begain paying social grants directly into bank accounts, which incentivized banks to try and sell products like funeral coverage and microloans to these grants' recipients. Payment for these products and services were deducted directly from the indviduals' bank accounts, leaving many of them with very little to survive. This resulted in public outrage and a government investigation into the legality of such tactics. The National Stokvel Association of South Africa claims that more than 40% of South African households use trust-based models such as stokvels (i.e. a savings or investment society where members regullarly contribute an agreed-upon amount divided amongst them equally, according to rules agreed-upon by the members of the society). For many of their members, these societies are more than a means to save money, and provide a safety net for emergencies as well as a facet of social interaction relating to advise and entertainment. Unfortunately, the formal banking industry has erected too many barriers to access services like loans. Institutiosn require payslips and bank statements, and approval times can be long. Meanwhile, those in low-income brackets often lack such required documents, and often need access to loans faster than the processing times allow.

Source: https://www.weforum.org/agenda/2017/04/financial-inclusion-south-africa/

Challenges to financial inclusion in South Africa

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Source: https://www.weforum.org/agenda/2017/04/financial-inclusion-south-africa/

Challenges to financial inclusion in South Africa

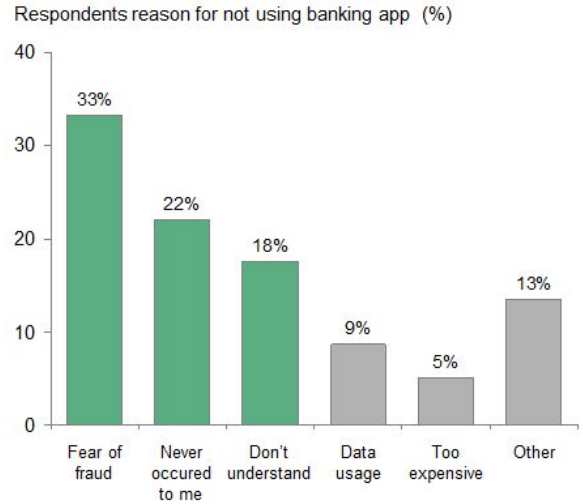
Concerns of fraud negate the convenience of cashless transactions.

The Word Economic Forum cites fear of ATM and mobile/internet banking-related fraud as the primary concern people have for preferring to transact in cash in the developed world. They also found that people expressed a strong preference for transacting face-to-face for issues of trust and because it offers a better environment for recourse in the event of issues arising. Lack of familiarity with mobile and internet banking among low-income populations was also cited as a concern by a minority of those surveyed.

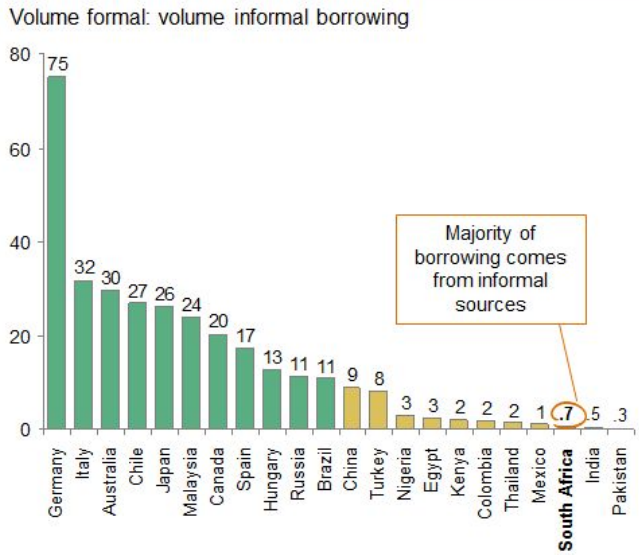
A significant amount of business is conducted informally.

Statistics South Africa estimates that 1.5 million+ people run small, informal businesses in South Africa. Such businesses do not satisfy the formal requirements to be considered a legal entity of the financial sector, and banks often require formal registration s a business in order to open accounts, and qualify for loans, despite the fact that the fees for registration are prohibitively high for small businesses.

South Africans do not use mobile banking due to mistrust and lack of knowledge



Most South Africans choose informal borrowing



Source: https://www.weforum.org/agenda/2017/04/financial-inclusion-south-africa/

Chapter IV: Government Organizations and Financial Inclusion

Introduction

This chapter takes a deeper look at the ways in which developing nations' governments are working to solve the problem of financial inclusion on their own soil.

The number of developing nations putting forward actionable financial inclusion development strategies are increasing, as are the tangibility and actionability of those proposals.

The standards for such national financial inclusion development strategies are guided by a number of international organizations, who assist nations' governments in developing clear strategies with measurable milestones and quantifiable target objectives, and who assist in making such strategies maximally participatory, by promoting dialogue between governmental bodies and multiple relevant stakeholders including both public and private-sector organizations and companies.

Source: Global Panorama on Postal Financial Inclusion (2016)

This is an increasingly important concern, given that financial product and service providers themselves have an almost equal role to play in fostering financial inclusion in developing nations.

A growing number of technological solutions to financial inclusion are rising, and if companies can work with governments to adopt such solutions, under the help of governmental bodies via guidance, standard-setting and regulation, then the gap between the financial included and the financially excluded can be narrowed all the faster.

Mitigation of Risk on a National Level

The lack of standardized, national identification frameworks (such as government-issued ID) in developing regions increases the risk of identity fraud.

This situation is exasperated by the fact that mobile money channels are typically dependent on large networks of third-party service providers, agents, and ATMs to serve as cash in and out points, which complicates the reporting of suspicious transactions in light of a lack of national identification frameworks.

This creates worry among regulators with regards to business models for mobile finance businesses, who are concerned that the Financial Action Task Force (FATF) will not look kindly upon the levels of risk inherent in such business models.

These and other concerns have stalled the formulation of coherent regulatory frameworks for mobile money service providers.

The FAFT initially responded by defending its own standards, pointing out that many of regulators concerns would be remediated if they took a "risk-based approach" (RBA).

Their 2003 recommendations allowed financial institutions to utilize RBA in certain aspects of the AML/CTF framework.

This permits countries to exclude activities from AML/CTF regulation wherever the activities are limited and pose a low level of MT/TF11 risk, and urged institutions to consider adopting a RBA by grouping customers, transactions and serviced into high, standard and low risk groups, applying enhanced due diligence to high risk groups, and simplified due diligence to low-risk groups.

While there is much agreement on the basic principles of a RBA, the actual risk mitigation and assessment procedures by which a RBA could be implemented remained unclear and could not find a consensus agreement.

Source: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2639462

Mitigation of Risk on a National Level

Countries and institutions were concerned that the FAFT could disagree with some specific implementation and list that country as non-compliant, and this seemed to impede the implementation of effective RBA measures in smaller countries.

Beginning in 2007, the FAFT released new RBA guidance that clarified some of the implementation and assessment issues. However, this guidance appeared to apply largely to high ML-risk management and assessment, and did not bring much clarity to actual means of risk assessment and mitigation relating to TF risk.

Furthermore, since financial inclusion service business models often focus on smaller transactions, under the FAFT's framework they can be classified as low risk, and a large number of clients could be services without the need for national identity frameworks in place, and without government-issued identification documentation.

Furthermore, the FAFT provided greater clarity regarding implementation of RBA in relation to low-risk products compared to higher-risk ones, in the Interpretive Note to Recommendation 10, which lists non-binding examples of low-risk scenarios for different customers, countries, regions, products, services and delivery channels.

The Interpretive Note to Recommendation 10 also gives guidance for simplified CDD measures, including:

- verification of the customer and the beneficial owner identity after establishing the business relationship (e.g. when transactions exceed a defined threshold)
- a reduction in the frequency of customer identification updates;
- limiting ongoing monitoring of low-volume transactions.

This would presumably apply to all low-volume transactions, except in cases when transactions appear to apply to high-risk scenarios like fraud, money laundering or terrorist financing.

Source: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2639462

National Financial Inclusion Strategies
National Banks and Ministry of Finance

Central banks appear to have taken the lead in terms of efforts to promote a more financially inclusive banking ecosystem for 12 of the 24 African countries we analyze in this chapter. Such countries include Belarus, Brazil, Liberia, Nigeria, Papua New Guinea, Malaysia, Morocco, Tanzania and Solomon Islands. Moreover, in those countries in which the formation of a national financial inclusion strategy is in the process of formation, central banks are also playing a central role in the process alongside governmental bodies; countries to which this case applies include Nepal, Samoa, Ethiopia, Fiji and Trinidad and Tobago.

As AFI's Pacific Islands Working Group (now the Pacific Islands Regional Initiative) has noted: "*Central banks are well positioned to take a leadership and coordination role to help maximize efforts, overcome barriers and steer activities towards shared goals*." **Alfred Hannig**, Executive Director of AFI, stated that a central bank: "*typically has the respect of other government agencies and greater political independence allowing it to overcome barriers and steer activities towards shared goals.*"

An AFI/FISPLG report entitled "*National Financial Inclusion Strategies: Current State of Practice*" mentions that in counties such as Colombia, India, Malawi, Thailand and Swaziland, it is the Ministry of Finance, rather than central banks, that take the lead role in the development of national financial inclusion strategies, and that in certain other countries, Ministries of Finance take an equal role in formulating the country's national financial inclusion strategy alongside central banks. For instance, Burundi's Central Bank took an equal position in formulating the country's national financial inclusion strategy alongside the Ministry of Finance and Economic Development Planning.

Mounting data appears to show that the phenomenon of central banks taking a leading role in the development of national financial inclusion strategies is less common in the Latin American and Caribbean region than in the Asia Pacific region. And in still other countries, the process is led by an interagency committee under the guidance of ministries of finance and/or central banks. In Paraguay, for example, their strategy was formulated by Bank of Paraguay, Ministry of Finance, National Institute of Cooperatives and the Ministry of Planning.

Source: https://www.afi-global.org/sites/default/files/publications/fisplg-state_of_practice.pdf

National Financial Inclusion Strategies Consultations

According to the Alliance for Financial Inclusion, the development of a successful national financial inclusion strategy requires the use of participatory approaches, with consultation from both public and private-sector stakeholders.

In a country profile survey held at the sixth meeting of the AFI Financial Inclusion Strategy Peer Learning Group (FISPLG) revealed that consultation with relevant stakeholders is widely-practiced, and that fifteen countries with national financial inclusion strategies consulted with other private sector agencies, government institutions, and providers of financial products and services.

Prior to the Maya Declaration, the first generation of national financial inclusion strategies failed to use such a participatory approach. Following the Maya Declaration, reports by the AFI indicate that consultation with relevant stakeholders has increased substantially, especially with regards to mobile network operators and insurance service providers, which they feel is indicative of a growing consensus that the private sector can play an important role in coordination with government to promote financial inclusion through the use of new technology and innovative business models.

As an example, the private sector was involved in formulation Tanzania's National Financial Inclusion Framework (NFIF), so much so that the Tanzania National Council for Financial Inclusion called it a "a public-private stakeholders' initiative."

The AFI also promotes consultation and participation with financially excluded groups (in the form of focus groups) in the formulation of national financial inclusion strategies, but actual data on to what extent this is carried out is not available.

Source: https://www.afi-global.org/sites/default/files/publications/fisplg-state_of_practice.pdf

National Financial Inclusion Strategies
Government Strategies

In May of 2011, the Alliance for Financial Inclusion (AFI) released the Maya Declaration, which encourages member countries to make quantifiable and measurable changes toward greater financial inclusion, and to prioritize them in their national strategies as concrete targets.

Prior to this, when a given country put forth a national financial inclusion strategy, it was common to do so only as a headline target lacking clear and measurable milestones by which to judge whether their target was met.

The national financial inclusion strategy launched by Nigeria is a good example of a strategy formulated with measurable targets, crafted in light of the 2011 Maya Declaration.

Nigeria's strategy includes both a headline target (reducing financial exclusion from 46% of the adult population to 20% by 2020), as well as a number of sector-level targets (a target of 40% for insurance and credit access, 70% for savings and 60% for payments).

NIGERIA: NATIONAL FINANCIAL INCLUSION STRATEGY TARGETS

UNIT	TARGETS	2010	2015	2020
% of Adult Population				
	Payments	21.6	53	70
	Savings	24	42	60
	Credit	2	26	40
	Insurance	1	21	40
	Pensions	5	22	40
Units per 100,000 Adults				
	Branches	6.8	7.5	7.6
	MFB Branches	2.9	4.5	5
	ATMs	11.8	42.8	59.6
	POS	13.3	442.6	850
	Mobile Agents	0	31	62
% of Population				
	KYC ID	18	59	100

Source: https://www.afi-global.org/sites/default/files/publications/fisplg-state_of_practice.pdf

National Financial Inclusion Strategies
International Actors Involvement

Given the extensive and deep interest in financial inclusion among the global and regional development community, and the strong endorsement it has given to strategic approaches to financial inclusion, it is natural to expect a degree of country-level involvement from funding agencies in the formulation of national strategies.

Evidence indicates there is strong demand for assistance with strategy formulation from these agencies from a growing number of countries.

Moreover, funding agencies and other stakeholders in the global development community must seriously examine how to best support the strategy development process without undermining local ownership and involvement and the powerful incentives these create to implement national strategies successfully.

The World Bank Group is working with more than 20 countries to support the design or implementation of National Financial Inclusion Strategies or Action Plans. To fit each country context, the WBG provides tailored solutions and approaches in agreement with the national stakeholders. In addition, the WBG is uniquely well placed to leverage cross-sectoral collaboration and draw together expertise ranging from rural/agricultural finance, social transfers, and digital IDs, to investments and risk sharing, among others.

The 2017 Global Findex revealed that an additional 515 million people have opened an account since 2014, however key metrics for usage and savings have declined. During **Financial Inclusion Week 2018** from 29 October till 2nd November, partner organizations around the globe will hold conversation focused on how to bridge this gap and get inclusion right. In 2018, Centre for Financial Inclusion aims to continue the conversations from last year and engage an even wider community of stakeholders to discuss this year's theme *Getting Inclusion Right*.

Source: https://www.afi-global.org/sites/default/files/publications/fisplg-state_of_practice.pdf
http://financialinclusionweek.org/

Strategies on National Level

Achieving sustainable development within the needed timeframe calls for strategic action from policymakers. Fintech's impact on the achievement of the sustainability goals will depend on implementing policy interventions.

The *Fintech Green Finance and Developing Countries* report states that policymakers should ensure that fintech is an integral part of financial system development plans and roadmaps focused on financing sustainable development. While most green finance will come from the private sector, a combination of public finance and policy frameworks are needed to ensure that capital does indeed flow.

Policymakers should also enhance the role of the private sector in helping advance sustainable development. Non-financial corporations, as users of financial services, can pursue natural resource light, climate resilient business strategies and practices. They can also measure and disclose information on their practices in ways that signal the role that sustainability considerations are playing in their business success. Policymakers should also increase public education on fintech.

The Inquiry report "Fintech and Sustainable Development: Assessing the Implications" highlighted some key actions on fintech for sustainable development and the private sector:

- Establish a platform of leading fintech companies, working with others to influence the right enabling businesses, policies and standards to effectively connect fintech and sustainable development;
- Use regulatory 'sandboxes' to test new ideas;
- Incentivize fintech aligned with sustainable development by: supporting venture capital and social impact funds to fund start-ups with specific sustainable development ambitions. Also creating a 'challenge fund' which would seek to create a global community of purpose that can pilot and create replicable solutions over time.

Source: http://unepinquiry.org/wp-content/uploads/2017/06/Fintech_Green_Finance_and_Developing_Countries-input-paper.pdf

Strategies on International Level

Every country will drive the fintech agenda using their preferred regulatory instruments, but international harmonization will be essential for economic success, and for achieving sustainability. The World Economic Forum called for a regulatory response for fintech in the financial sector that focuses on key issues such as financial stability, the ethical use of consumer data, and the suitability of existing regulations, and creating a framework that allows for continued growth and innovation.

The following recommendations are relevant to a discussion on international action for fintech in all sectors and industries:

- Foster a debate on ethical use of data;
- Promote public-private dialogue on the fintech transformation;
- Develop new standards with a view to monitoring and understanding technology-enabled innovation;
- Promote proactive standard setting by the fintech industry.

While international cooperation is essential for green fintech development, the agenda already has many competing priorities.

In addition to the work of the G20 and the GreenInvest Platform, other key international bodies could include: fintech hubs and financial centres, the Financial Action Task Force (which develops standards to combat money laundering), the International Monetary Fund, the World Bank and the Financial Stability Board.

Action by bodies within the United Nations system, such as UN Environment and the UN Development Programme, or intergovernmental organizations such as regional development banks will also be needed.

Source: http://unepinquiry.org/wp-content/uploads/2017/06/Fintech_Green_Finance_and_Developing_Countries-input-paper.pdf

Case study: “Digital India” Project

The "Digital India" project is an initiative aiming to modernize India according to three primary principles:

- Making a digital infrastructure that can be used by every one of the nation's 1 billion citizens;
- The creation of governance and service son demand;
- The digital empowerment of citizens.

The program, launched in 2015 by Prime Minister Narendra Modi, aims to provide broadband highways, universal access to mobile connectivity, public access to the internet and an effective digital infrastructure for E-governance (including services across multiple sectors including education, banking and healthcare). Its broader aim is to create a more effective and transparent infrastructure for governance, reduce corruption, and promote inclusive economic growth.

The primary agency tasked with implementing the program is the Indian Ministry of Communications and IT.

Part of the program involves the web service MyGov.In, where citizens can participate in dialogue with the government.

Another aspect of the program is the Online Registration System (ORS) under the eHospital application, which gives citizens online access to registration, payment of fees, appointment booking, online diagnostics reports and more.

A third aspect of the program is the National Scholarships Portal, a platform that handles all aspects of the scholarship application and awarding process, from application to verification to sanction and disbursal.

Source: http://www.arabnews.com/saudi-arabia/news/904256

Case study: Aadhaar (the Indian identification program)

In an effort to bolster the transition toward a more digitized economy, the Indian government took 86% of cash out of circulation in March 2018.

Underlying this action is a digital identity program titled Aadhaar, which seeks to collect various types of data that could be used for the purpose of bio identification from all Indian citizens, including fingerprints and eye scans, but also information such as bank account numbers, cellphone numbers, voter IDs and income tax filings.

This would presumably allow the government to reduce identity fraud and welfare corruption while also enabling a more inclusive means to accessing financial services than government-issued ID.

The government made the program mandatory in order to receive a number of government-subsidised products and services such as food rations.

However, the program is not without its detractors, who are concerned that the initiative poses privacy issues. Others are concerned that limited digital literacy will prevent some citizens from accessing these services, thereby depriving people of roof radions, fuel subsidies and pensions. And still others argue that the program poses significant cybersecurity concerns.

Nonetheless, the program has received acclaim internationally. A report by the Bill and Melinda Gates Foundation, for instance, stated that the program "*makes it simpler and more secure for poor people to do business with banks.*"

Meanwhile, a report from the World Bank in 2016 states that the program could potentially save India $11 billion per year.

Source:
https://www.washingtonpost.com/world/asia_pacific/indias-vast-biometric-program-was-supposed-to-end-corruption-but-the-neediest-may-be-hit-hardest/2018/03/24/bb212a86-289c-11e8-a227-fd2b009466bc_story.html?noredirect=on&utm_term=.e8489dd98079

Case study: Huduma Kenya Programme

In February 2017 the Kenyan government officially released Huduma cards, a fintech initiative aimed at bolstering government services in the country and digital financial inclusion. The program leverages partnerships with Mastercard and a handful of prominent banks. Huduma cards are issued throughout the country at the government's preexisting Huduma Centres, which provide citizens with the gambit of government services. The cards will also be available at the partner banks, which include the Commercial Bank of Africa, Diamond Trust Bank, Equity Bank, and Kenya Commercial Bank.

The new cards will simultaneously improve the government's functioning, enroll more citizens in key government services like health insurance and social security, and provide digital financial services to many unbanked Kenyans. Those who register for Huduma cards will use them to receive social benefits and other payments from the government, as well as to pay for government services. Once funds are loaded to the prepaid card, cardholders can use their Huduma Card to pay for goods and services in store, online, by phone or to withdraw cash from ATMs – anywhere Mastercard is accepted locally or at millions of locations worldwide. The prepaid card ensures flexibility, convenience and security and is easily obtained from one of the issuing banks. Applicants do not require a credit check or bank account to apply.

Kenyans will be able to pay for an array of Government services such as the National Hospital Insurance Fund (NHIF), National Social Security Fund (NSSF) amongst others. Citizens issued with the smart prepaid card will automatically be enrolled in vital government services such as the National Social Security Fund and the National Hospital Insurance Fund, ensuring all Kenyans benefit from these initiatives.

The secure payment solution supports Kenya's Vision 2030 that calls for reforms in public services to enhance accountability, transparency and efficient service delivery, with focus on developing a cashless economy.

Sources: https://cfi-blog.org/2017/02/15/kenyan-government-expands-insurance-and-social-security-via-digital-finance/
https://newsroom.mastercard.com/mea/press-releases/huduma-card-delivers-cashless-efficiency-powered-by-mastercard-technology/

Case study: Brazil using blockchain for social good

The Central Bank of Brazil looks into 4 different blockchain platforms to analyze the possibilities the technology offers. The federation of banks FEBRABAN created a blockchain working group to assess impacts of DLT and has run tests on the exchange of client information between banks.

An example is a digital wallet, developed by Bradesco and the Brazilian start-up eWally. This digital wallet, a mobile app, targets the more than 50 million people in Brazil who do not have a bank account today, including millions of micro-entrepreneurs. Users of the digital wallet can transform cash into digital money and then deposit, transfer, pay bills, withdraw or top-up prepaid debit cards or mobile phones. Furthermore, the app allows the user to deposit and withdraw money through any of their contacts.

Online currency exchange brokers, such as Brazil's BeeTech and Câmbio Store, are also looking into blockchain technology to further decrease their operational costs and increase transparency on financial operations (for regulatory bodies).

The Brazilian Ministry of Planning, Budget, and Management (MP) has successfully completed a proof of-concept with the American companies Microsoft and ConsenSys to provide services to citizens with certified ID and documents. Blockchain technology could help overcome the practical issues of the logistics of getting millions of voters to sign a document in a country of continental size and the verification of signature authenticity. This potential is also being considered by Brazilian legislators, who are working on electoral reforms.

Through its Innovative Research in Small Business program (PIPE), the São Paulo Science Foundation FAPESP is supporting the company Complied Computação Aplicada to develop a blockchain system for tracking and intermediation of agricultural operations and transactions. Using IBM's Agritech platform, the Brazilian company Belagricola is developing a system to track the origin and quality of soy and corn. Blockchain technology will be used to document all data, from harvest to industry. The project is mainly driven by demands from their foreign customers who require such transparency.

Source: https://www.rvo.nl/sites/default/files/2018/02/brazils-beginning-blockchain-business.pdf

Chapter IV
International Development Organizations and Financial Inclusion

International Development Organisations in Developing Countries

The topic of financial inclusion has become one of great concern for a large number of major International Development Organizations.

> *"Today, there is widespread understanding that financial inclusion, stability and integrity and consumer protection are not just compatible, but mutually reinforcing. Moreover, the role of inclusive financial systems in fostering economic growth, job creation and resilience is far more widely recognized."*
>
> ***G20 Financial Inclusion Action Plan (FIAP) 2014***

One of the most influential among these is The World Bank, which is formulating and implementing solutions to a lack of financial inclusion in developing nations.

In November of 2010, the G20 leaders reiterated their ongoing concern with and commitment to increasing levels of financial inclusion in developing nations by approving a Financial Inclusion Action Plan.

They also launched a new body to implement their action plan: the G20 Global Partnership for Financial Inclusion (GPFI). Since their launch, the GPFI has become a recognized global force for increasing financial inclusion in developing nations, and its guidelines and recommendations have been reiterated at all subsequent G20 summits.

At the Brisbane G20 summit in November 2014, the G20 leaders reaffirmed the goals of the GPFI as one of the most important elements in their broader development agenda, and approved a revised Financial Inclusion Action Plan which has in subsequent years kept a strong focus on regulation, guidance and the setting of actionable standards.

International Development Organisations in Developing Countries

The GPFI is currently comprised of the following Subgroups, charged jointly with implementing the revised G20 Financial Inclusion Action Plan:

- Regulation and Standard-Setting Bodies
- SME Finance
- Financial Consumer Protection and Financial Literacy
- Markets and Payment Systems

The Consultative Group to Assist the Poor (CGAP) interfaces with all of the above subgroups, and is the lead implementing partner for the subgroup on Regulation and Standard-Setting Bodies (SSBs), the objective of which is to support the SSBs the group puts forth, as well as to craft all of their normative standards and advisory guidance in light of its new commitment to improving financial inclusion in the developing world.

The Implementing Partners of the GPFI include the Alliance for Financial Inclusion (AFI), the Better Than Cash Alliance, the Consultative Group to Assist the Poor (CGAP), the International Finance Corporation (IFC), the International Fund for Agricultural Development (IFAD), the Organisation for Economic Co-operation and Development (OECD), the SME Finance Forum, and The World Bank. These Implementing Partners work to coordinate the activities of each subgroup with several other relevant stakeholders, including the participating G20 and non-G20 countries.

Sources: http://www.cgap.org/topics/global-bodies-and-financial-inclusion
https://www.gpfi.org/implementing-partners

International Development Organisations in Developing Countries: The World Bank Group

As mentioned previously, The World Bank is one of the most action-oriented and reputable international organizations advocating for increased financial inclusion in the developing world. They world to engage with specific countries and initiate dialogue with country representatives as to how they can work together to foster increased access to financial services, as well as to share their financing and risk-sharing instruments, unique datasets and research, as well as shape the standards held by standard-setting bodies and the G20 leaders. The World Bank also works in other relevant development areas, such as moving social transfer payments away from cash toward digital standards, the support of SMEs and agriculture, and their Identity for Development (ID4D) initiative.

The World Bank has two specific initiatives designed to promote greater financial inclusion in the developing world:

Universal Financial Access (UFA) by 2020: "The UFA goal is that by 2020, adults, who currently aren't part of the formal financial system, are able to have access to a transaction account to store money, send and receive payments as the basic building block to manage their financial lives. The World Bank Group – the World Bank and IFC – has committed to enabling 1 billion people to gain access to a transaction account through targeted interventions. Over 30 partners have pledged commitments toward achieving universal financial access."

Financial Sector Assessment Programs (FSAPs): "The global financial crisis showed that the health and functioning of a country's financial sector has far-reaching implications for its own and other economies. The Financial Sector Assessment Program (FSAP) is a comprehensive and in-depth analysis of a country's financial sector. FSAP assessments are the joint responsibility of the IMF and World Bank in developing economies and emerging markets and of the IMF alone in advanced economies. The FSAP includes two major components: a financial stability assessment, which is the responsibility of the IMF, and a financial development assessment, the responsibility of the World Bank. To date, more than three-quarters of the institutions' member countries have undergone assessments."

Sources: http://www.worldbank.org/en/topic/financialinclusion/overview#2
http://www.worldbank.org/en/topic/financialinclusion/brief/achieving-universal-financial-access-by-2020;
https://www.imf.org/en/About/Factsheets/Sheets/2016/08/01/16/14/Financial-Sector-Assessment-Program

Universal Financial Access (UFA) By 2020

2 Billion

Unbanked adults worldwide

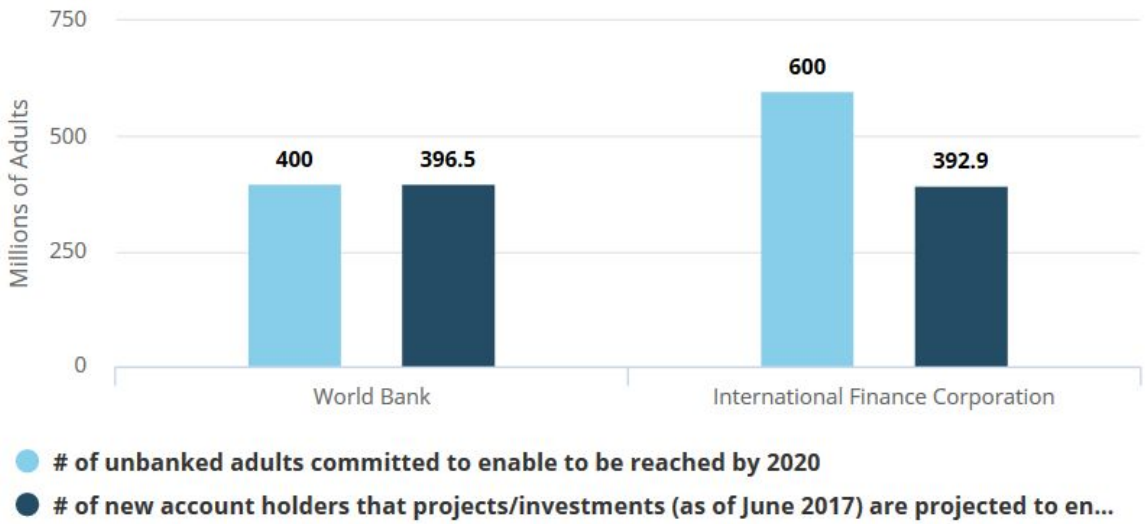
1 Billion

Unbanked adults that the WBG has committed to enable to be reached

32 Partners

Made commitments towards the UFA goal

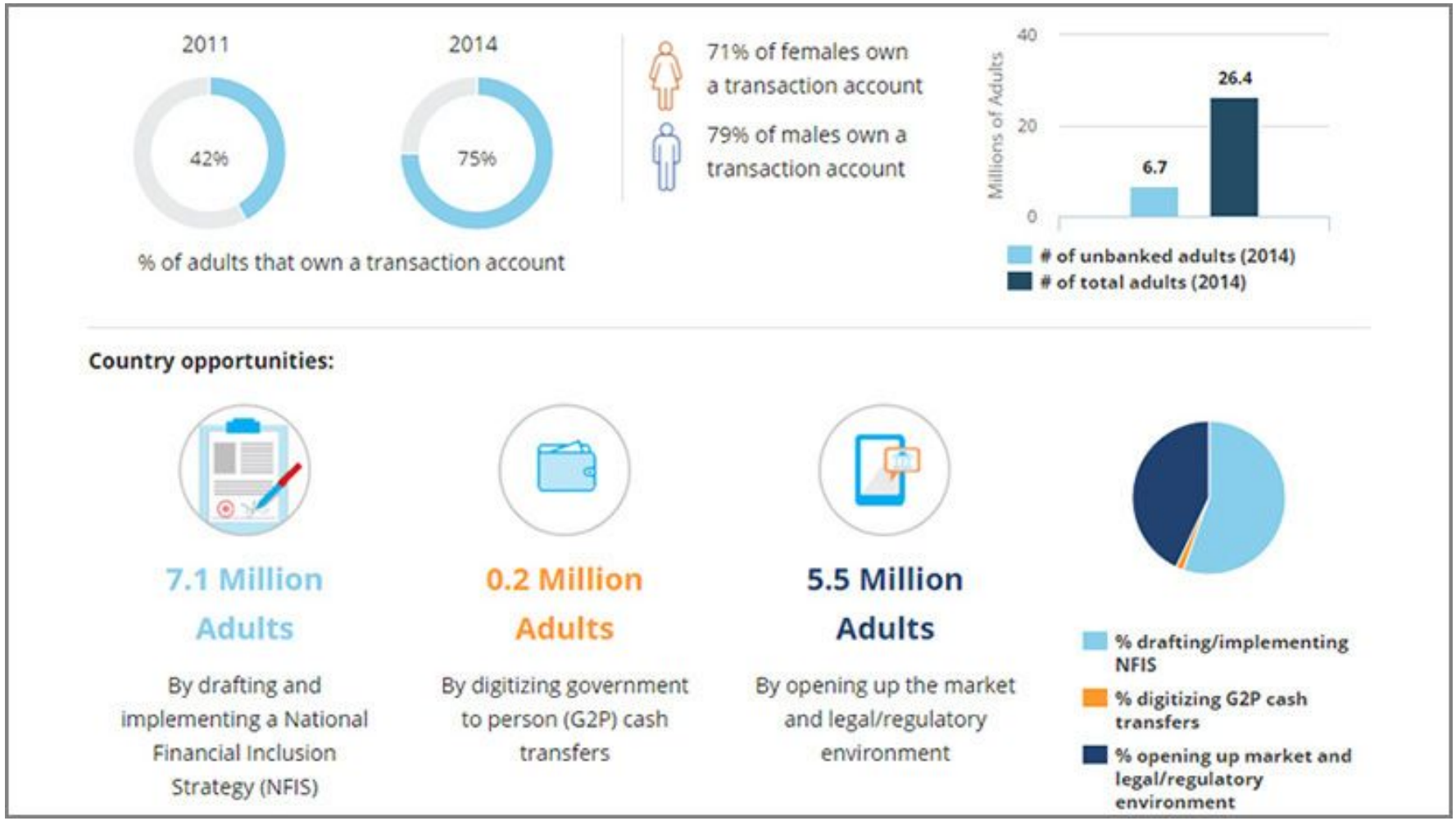
Select Key Indicators: projected enabled reach by 2020 (#)



Increase in banked adults over time:

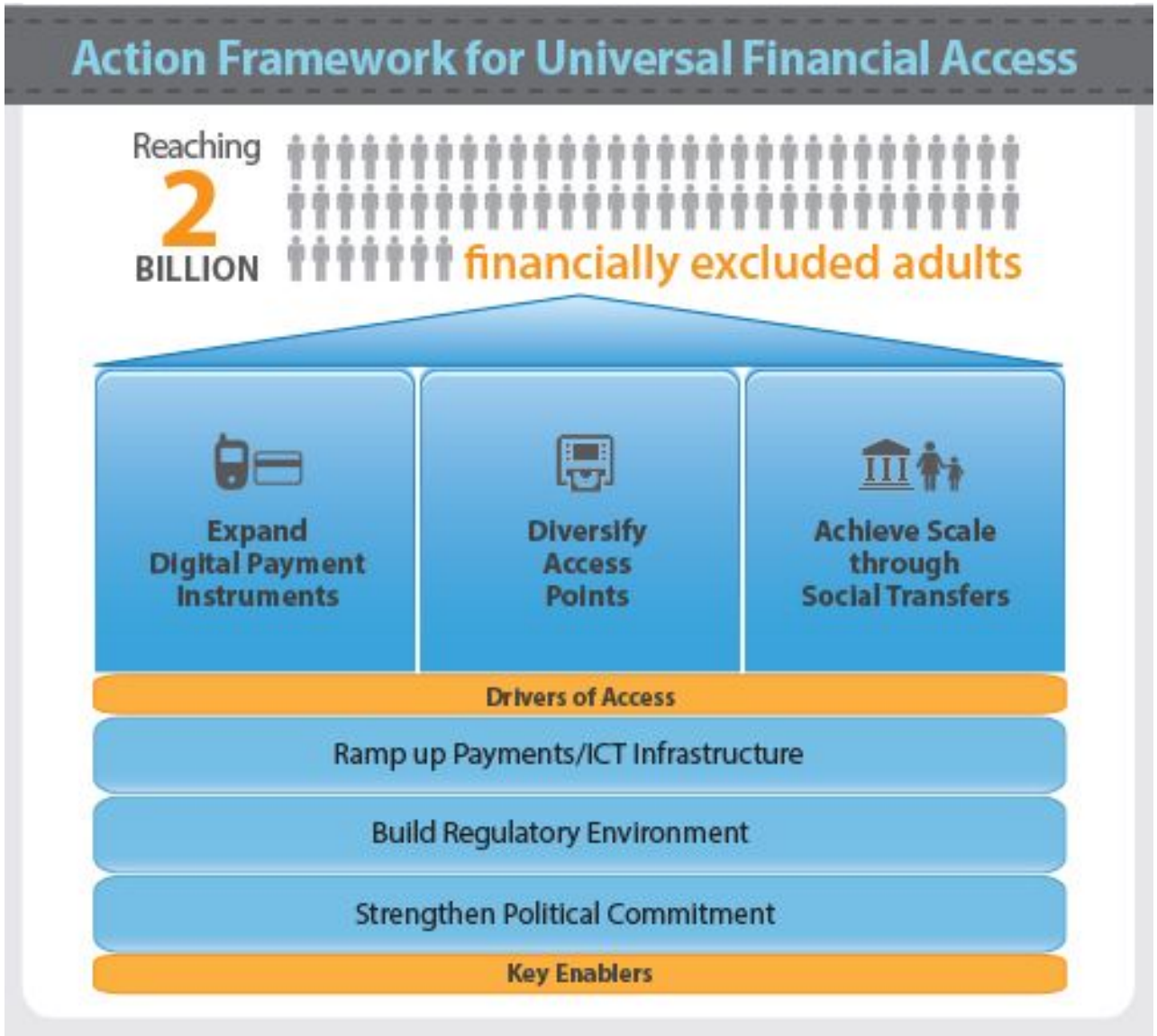
Source: http://ufa.worldbank.org/

Universal Financial Access (UFA) By 2020



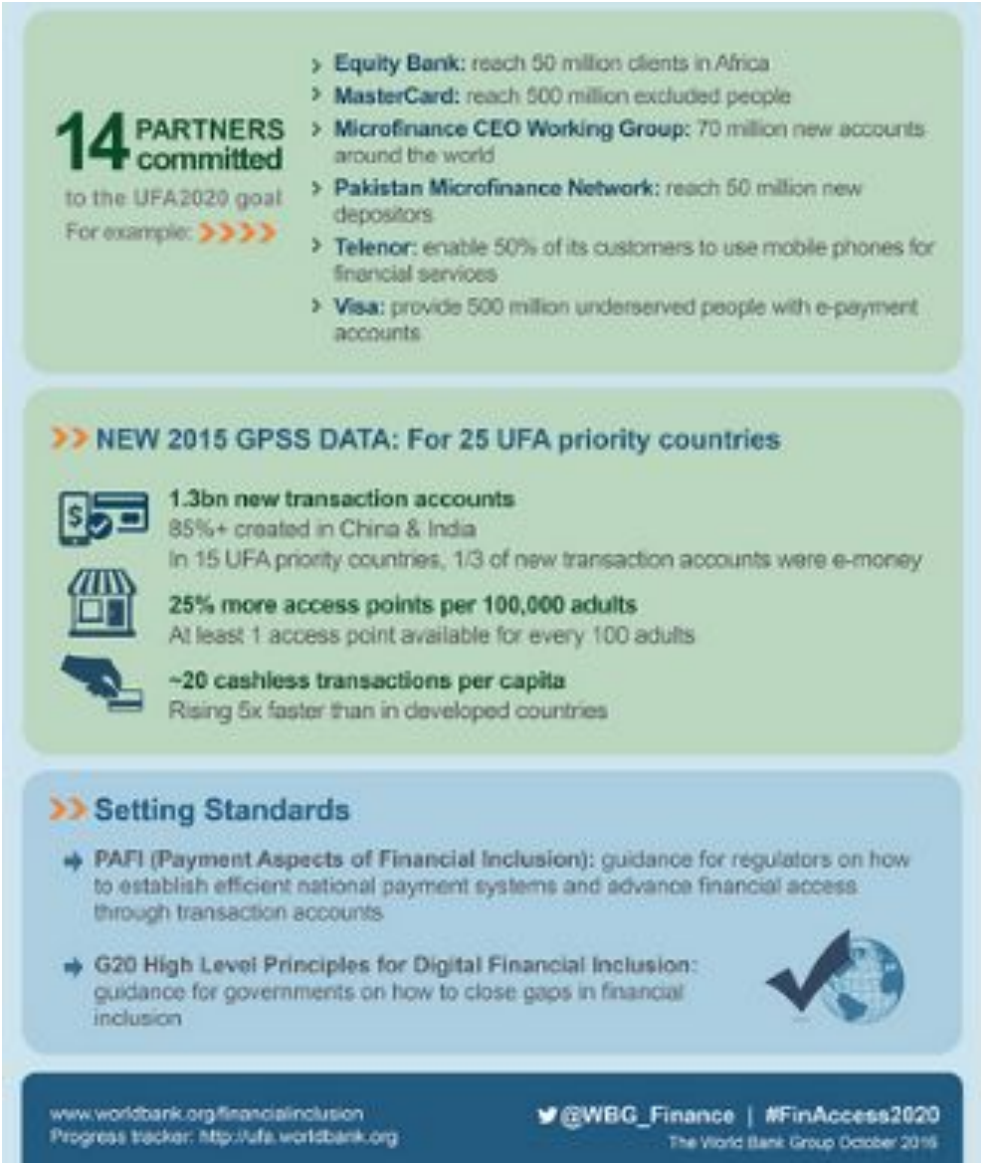
Source: http://ufa.worldbank.org/

Universal Financial Access (UFA) By 2020



Source: http://ufa.worldbank.org/country-progress

Universal Financial Access (UFA) By 2020



Source: http://ufa.worldbank.org/country-progress

International Development Organisations in Developing Countries: The World Bank Group

The World Bank's broader approach to increasing financial inclusion in developing countries and helping developing nations achieve financial success focuses on nine key areas:

1. **National financial inclusion strategies (NFIS):** offer governments technical assistance to design and implement national or subnational roadmaps and action plans to achieve their financial inclusion objectives.
2. **Modernize retail payment systems and government payments:** help countries design strategies to promote the use of electronic payments, instead of cash and paper-based instruments.
3. **Reform national payments systems (NPS), including remittance markets**: conduct a comprehensive diagnostics of countries' payments and settlement systems, including remittance markets, and make recommendations to improve NPS.
4. **Diversify financial services for individuals:** support legal, regulatory and policy reforms, capacity building for supervisors, design of government programs to open up access to a range of financial services, including savings, insurance and credit, so that transaction accounts provide a pathway to full financial inclusion.
5. **Leverage technology for financial inclusion:** work with national authorities to create an enabling environment to take advantage of "fintech" opportunities and new technology, level the playing field, and expand financial access. We also support G20-led work-streams relevant for "fintech."
6. **Strengthen competition and expand access points:** support regulatory and supervisory reforms to open up access and ensure level playing field for banks and non-bank (or non-traditional service providers), such as telecoms companies, "fintech" firms, post offices, cooperatives and agent networks.
7. **Financial consumer protection**: work on building legal and regulatory framework for financial consumer protection, disclosure and transparency, including advising on institutional arrangements and redress mechanisms, and building capacity.
8. **Financial capability:** work with governments to design national financial education strategies (NFES), collect data and create surveys to measure the level of financial literacy, capability and awareness, and design and evaluate financial capability programs.
9. **Financial inclusion data:** Our global and country-level surveys provide data and insights on financial inclusion.

Sources: http://www.worldbank.org/en/topic/financialinclusion/overview#2

International Development Organisations in Developing Countries
The World Bank Group

The World Bank Group is working through several global trust fund programs on financial inclusion:

Financial Inclusion Global Initiative (FIGI), launched in 2017, is "a global program to advance research in digital finance and accelerate digital financial inclusion. This program focuses on three pilot countries, China, Egypt, Mexico, and is supported by the International Telecommunication Union (ITU), the Committee on Payments and Market Infrastructures (CPMI), and the Bill & Melinda Gates Foundation."

Financial Inclusion Support Framework (FISF), launched in 2013, "supports reforms and other country-led actions to achieve national financial inclusion goals and targets. FISF scales up and leverages the World Bank Group's policy dialogue, analytical work and financing for financial inclusion. The program currently covers eight countries and is supported by the Ministry of Foreign Affairs of the Netherlands and the Bill & Melinda Gates Foundation."

Harnessing Innovation for Financial Inclusion (HiFi) program "gives technical assistance to financial service providers to help them develop technology-driven business models to deliver financial services to the underserved. It also provides expertise to help developing countries modernize government, retail and remittance payment systems. It's supported by the UK Government Department for International Development (DFID) and implemented by the World Bank Group. "

Consumer Protection and Financial Literacy (CPFL) Trust Fund "provide[s] technical assistance through existing financial consumer protection and literacy programs to improve laws and regulations that strengthen consumer disclosure, prohibit abusive business practices, and establish effective out-of-court mechanisms to address consumer disputes as well as to enhance consumer knowledge and awareness of financial services, especially for the poor and vulnerable. It's supported by the Swiss State Secretariat for Economic Affairs (SECO)."

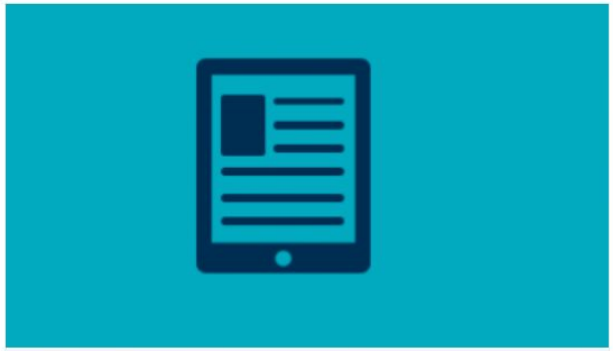
Sources: http://www.worldbank.org/en/topic/financialinclusion/overview#2

International Development Organisations in Developing Countries: World Bank Group's Identity for Development (ID4D)

ID4D is an initiative managed by The World Bank to help developing nations transition to digital systems of identity documentation. It helps countries create more inclusive identification systems through "*analytics, assessment and financing*".

"ID4D brings global knowledge and expertise across sectors to help countries realize the transformational potential of digital identification systems. It operates across the World Bank Group with global practices and units working on digital development, social protection, health, financial inclusion, governance, gender, and legal issues. ID4D also focuses on ensuring integration of digital identification systems with civil registration and vital statistics (CVRS)."

It's three main pillars include:



Thought leadership

ID4D advances the understanding of identification: its role in advancing sustainable development; good practices on design and implementation; and standards and emerging technologies

Research ›

Global Platforms & Convening

With its multi-sectioral approach ID4D unifies and drives the indentification agenda at global, regional, and country levels by raising awarenes, harmonizing interests, and strengthening coordination among a range of actors, and facilitates South-South knowledge sharing.

Principles on Identification ›

Technical Standards for Digital Identity ›

Country & Regional Engagement

ID4D provices technical assistance to countries and regional organizations through a range of instruments in three stages: assessment and roadmap; design and dialogue; and implementation.

Country & Regional Engagement ›

International Development Organisations in Developing Countries: World Bank Group's Identity for Development (ID4D)

ID4D is Filling Gaps in Critical Analytics and Research

Why identification systems are important

- Synthesis of Africa ID4D diagnostics
- Potential public and private sector savings
- Linkages with delivery of services (e.g. health, education, financial sector)
- End user research for vulnerable populations
- ID in the context of forces displacement
- The role of ID and ending child marriage

How to build robust identification systems

Operational Guide

- ID Enabling Environment Assessment
- Integration of CR & ID
- Technologies
- Costs of ID Systems

- Country cases: India, Thailand, South Africa, Estonia and Korea
- Public-Private Partnerships

Tracking of progress toward our goals

- Impact evaluations of ID
- Global dataset & trend analysis
- Findex survey results
- Africa country briefs

International Economic and Trade Organizations

Africa

UN Economic Commission for Africa (UNECA)

Asia & Asia-Pacific

Asia-Pacific Economic Cooperation (APEC)
UN Economic and Social Commission for Western Asia (UN ESCWA)
UN Economic and Social Commission for Asia and the Pacific (UN ESCAP)

CIS

Eurasian Patent Organization (EAPO)
EuroAsian Interstate Council for Standardization, Metrology and Certification (EASC)
Interstate Statistical Committee of Independent States (ISCIS)

Europe

European Atomic Energy Community (EU EURATOM)
European Bank for Reconstruction and Development (EBRD)
European Free Trade Association (EU EFTA)
EUROSTAT (EU)
UN Economic Commission for Europe (UNECE)

Latin America

UN Economic Commission for Latin America and the Caribbean (ECLAC)

International

Consumers International (CI)
Economic Cooperation Organization (ECO)
International Air Transport Association (IATA)
International Atomic Energy Agency (IAEA)
International Bank for Reconstruction and Development (IBRD) - World Bank Group
International Chamber of Commerce (ICC)
International Energy Agency (IEA)
International Finance Corporation (IFC) - World Bank Group
International Monetary Fund (IMF)
International Trade Centre (ITC)
Multilateral Investment Guarantee Agency (MIGA) - World Bank Group
Nuclear Energy Agency (NEA) - OECD
Organisation for Economic Co-operation and Development (OECD)
Organization of the Black Sea Economic Cooperation (BSEC)
Organization of the Petroleum Exporting Countries (OPEC)
Research fund for Coal and Steel (EU RFCS)
UN Commission on International Trade Law (UNCITRAL)
UN Conference On Trade and Development (UNCTAD)
UN Food and Agriculture Organization of the United Nations (UN FAO)
UN Industrial Development Organization (UNIDO)
UN International Fund for Agricultural Development (UN IFAD)
UN International Labour Organization (UN ILO)
UN World Food Programme (UN WFP)
UN World Intellectual Property Organization (UN WIPO)
UN World Tourism Organization (UNWTO)
World Bank Group
World Customs Organization (WCO)
World Economic Forum
World Trade Organization (WTO)

International Development Organisations

1. ACORD (Agency for Cooperation and Research in Development)
2. ACTION AGAINST HUNGER UK
3. ACTION AID
4. Action for Economic Reform
5. Acumen
6. Africa Development Interchange Network (ADIN)
7. Africa Infrastructure Foundation
8. African Forum and Network on Debt and Development (AFRODAD)
9. African Human Rights Campaign
10. African Network for Environmental and Economic Justice
11. AGA KHAN FOUNDATION (UK)
12. Agricultural Cooperative Development International and Volunteers in Overseas Cooperative Assistance (ACDI/VOCA)
13. AllianceSud
14. APT ENTERPRISE DEVELOPMENT
15. Association for Enterprise Opportunity
16. Bangladesh Support Group
17. Bank Rakyat Indonesia (BRI)
18. Banking with the Poor
19. Berne Declaration
20. Bill and Melinda Gates Foundation
21. CAFOD
22. CALMEADOW
23. CARE INTERNATIONAL UK
24. Caritas del Peru
25. Center for Environmental Economic Development
26. Center For Global Development (CGD)
27. Centre for International Sustainable Development Law Commission (CISDL)
28. Centre for Youth and Social Development (CYSD)
29. CHRISTIAN AID
30. CHRISTIAN OUTREACH (CORD)
31. CMS (CHURCH MISSION SOCIETY)
32. COMMONWEALTH YOUTH EXCHANGE COUNCIL
33. CONCERN WORLDWIDE
34. Congregation of the Mission
35. Consorzio Etimos
36. Consultative Group to Assist the Poorest (CGAP)
37. Coordination SUD
38. Council for International Development
39. CROWN AGENTS
40. Danish Association for International Cooperation
41. DD INTERNATIONAL
42. ECORYS
43. El Centro de Investigaciones de la Economía Mundial (CIEM)
44. Emerging Africa Infrastructure Fund
45. European Network on Debt and Development (EURODAD)
46. EVERYCHILD
47. Finnish United Nations Association
48. Focus on the Global South
49. Foundation for Democracy, Governance and Endowment
50. Foundation for Development Cooperation
51. Global Impact Investing Network (GIIN)
52. HAREWELLE GROUP
53. HELP AGE INTERNATIONAL
54. IIED (International Institute for Environment and Development)
55. IMA INTERNATIONAL
56. Institute for International Economics
57. Integritas360
58. Inter-American Development Bank's Microenterprise Unit
59. International Centre for Enterprise and Sustainable Development
60. INTERNATIONAL RESCUE COMMITTEE
61. INTRAC
62. ITAD (Information Training & Development
63. KULU - Women and Development
64. MANGO (Management Accounting for NGOs)
65. Medicus Mundi
66. Microenterprise Fund for Innovation, Effectiveness, Learning and Dissemination (FIELD)
67. MicroFinance Network
68. Moksha-Yug Access
69. New Economics Foundation (NEF)
70. Norwegian Forum for Environment and Development (ForUM)
71. Oikocredit
72. Opportunity Finance Network
73. OVERSEAS DEVELOPMENT INSTITUTE
74. OXFAM
75. OXFORD POLICY MANAGEMENT
76. PLAN INTERNATIONAL
77. PROGRESSIO
78. RAILWAY CHILDREN
79. SAVE THE CHILDREN FUND
80. SEWA UK
81. Small Enterprise Education and Promotion Network (SEEP)
82. SOS CHILDREN
83. South African Human Rights Commission
84. TEARFUND
85. THE SPRINGFIELD CENTRE
86. theIDLgroup
87. TROCAIRE
88. Unitus
89. Volontari nel Mondo
90. WAR ON WANT

Chapter VI
The Role of Regional and Local Organizations in Increasing Financial Equality

Introduction

This Chapter looks at organizations related to research of the financial inclusion process in developing countries, namely access (making financial services available and affordable to users), usage (making customers use financial services frequently and regularly) and quality (making financial services tailored to clients' needs).

As was mentioned previously, financial inclusion is necessary to ensure that economic growth is inclusive and sustained.

The importance of research in the area of financial inclusion is extra important for the national governments of developing countries as well as international organizations, and local companies providing services to the population. One of the problems institutions are facing on the ground are cultural and religions specifics which precludes people from obtaining IDs and banking accounts, the first step which must be made in order to address this problem is sociological research, which in turn will provide with necessary information and help government to elaborate policy initiatives.

Another important issue, which is addressed in this chapter is promotion of knowledges about possibilities of integration into economical and social live of the country.

Thus, research organizations provides financial institutions with relevant information about the state of financial inclusion process as well as promoting ideas of financial education and financial inclusion on the ground.

Source: https://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Financial_Inclusion_in_Africa.pdf

30 Research Centers and Organizations Promoting Financial Inclusion

1.	Bank Rakyat Indonesia (BRI)	http://www.ir-bri.com/
2.	Better Than Cash	https://www.betterthancash.org/
3.	Bharat Financial Inclusion	http://www.bfil.co.in/
4.	Consultative Group to Assist the Poor	http://www.cgap.org/
5.	EFInA	http://www.efina.org.ng/
6.	EPPI Centre	http://eppi.ioe.ac.uk
7.	EY building a better working world	http://www.ey.com/
8.	FIBR	http://www.fibrproject.org/
9.	Financial Inclusion Commission	www.financialinclusioncommission.org.uk
10.	Financial Inclusion Insights	http://finclusion.org/
11.	FINCCLUDE Incorporated	http://www.fincclude.org
12.	Finclusion Mexico	http://www.finclusion.com/
13.	Fintec Labs' OptiCollect - Fintec Labs	http://www.finteclabs.com/
14.	FinTech4Good	https://www.fintech4good.co/
15.	FinTechStage	https://www.fintechstage.com/

30 Research Centers and Organizations Promoting Financial Inclusion

16.	FSD Africa	http://www.fsdafrica.org/
17.	Global Impact Investing Network (GIIN)	https://thegiin.org/
18.	GPFI	http://www.gpfi.org
19.	IFMR Holdings	http://www.ifmr.co.in/
20.	International Monetary Fund	http://www.imf.org
21.	ITU	www.itu.int
22.	Mastercard Labs for Financial Inclusion	https://www.mastercard.com
23.	MCKinsey & Company	https://www.mckinsey.com/
24.	MIX	www.Themix.org
25.	NSW Council of Social Service	www.ncoss.org.au
26.	The Center for Financial Inclusion	http://www.centerforfinancialinclusion.org
27.	The Identity Institute	http://www.identitymanagementinstitute.org
28.	Unitus	http://unituslabs.org/
29.	University of Birmingham	www.birmingham.ac.uk
30.	University of Bristol	http://bristol.ac.uk/

Examples of Financial inclusion Research Organizations

The Partnership for Financial Inclusion is a $37.4 million joint initiative of IFC and the Mastercard Foundation to expand microfinance and advance digital financial services in Sub-Saharan Africa. It is also supported by the Bill & Melinda Gates Foundation and the Development Bank of Austria, OeEB. IFC is a sister organization of the World Bank and a member of the World Bank Group, is the largest global development institution focused on the private sector in emerging markets. The Mastercard Foundation seeks a world where everyone has the opportunity to learn and prosper. The Foundation's work is guided by its mission to advance learning and promote financial inclusion for people living in poverty. One of the largest foundations in the world, it works almost exclusively in Africa.

Philippe Le Houerou

IFC's Chief Executive Officer Philippe Le Houerou and Mastercard Foundation President and Chief Executive Officer Reeta Roy stated:

Reeta Roy

"*Financial inclusion is one of Africa's great success stories of this decade. Mobile money solutions and agent banking now offer affordable, instant, and reliable transactions, savings, credit, and even insurance opportunities in rural villages and urban neighborhoods where no bank had ever established a branch*".

Over nearly six decades, IFC has invested more than $25 billion in Africa businesses and financial institutions. IFC is a leading provider of advice to promote a sustainable private sector and mobilize capital from other investors who invest alongside IFC in critical sectors for Africa's future. **Riadh Naouar, the head of IFC's Financial Institutions Group Advisory in Sub-Saharan Africa**, said:

Riadh Naouar

"*Looking ahead, we can see some interesting trends for the future. While East Africa has long been the star performer in terms of the evolution of digital financial services, West Africa is the new growth market. Not only in terms of reach, but also for innovation.*"

Examples of Financial inclusion Research Organizations

Cenfri is an independent, not-for-profit think-tank and supports financial inclusion and financial-sector development through facilitating better regulation and market provision of financial services. Cenfri does this by conducting research, providing advice and developing capacity-building programmes for regulators, donors, financial service providers (FSPs) and other parties that operate in the low-income market.

Barry Cooper

Barry Cooper, Technical Director of the Centre for Financial Regulation and Inclusion (Cenfri) said:

"*You need legal certainty around an identifier, and many of the jurisdictions don't have that. Some of them don't even have population registration legislation, so there's a big gap,so nobody really knows, and it causes a lot of confusion, a lot of court cases, so I would say that it needs to be underpinned at the legislative level.*"

Northern Arc Capital is a Non-Banking Finance Company that provides access to debt for under-banked individuals and businesses in India. Through a combination of capital, products and partnerships, Northern Arc have created a platform that connects millions of borrowers to mainstream debt investors.

Kshama Fernandes

Kshama Fernandes, Managing Director & CEO of Northern Arc Capital:

"*There is a lot more we can do in these domains. The number of new institutions and clients we are working with has increased significantly over the last quarter. That gives a sense of opportunities that exist. We want to go deeper in these existing sectors. We believe there are other opportunities as well. We have been looking closely at corporate finance.*"

Chapter VII: FinTech for Social Good: Tendencies, Perspectives, Trends

Case study: Fintech, Green Finance and Developing Countries

In May 2017, UN Environment issued the report “Fintech, Green Finance and Developing Countries”, which gives a following definition of **green finance.**

Green finance is a strategy for financial sector and broader sustainable development that is relevant around the world. But the context differs considerably for different countries. Developing countries, notably those with underdeveloped financial systems, face particular challenges in financing national development priorities.

Financial development shapes the context for green finance. Different sources of capital and financial institutions are particularly relevant in different countries. Financial systems in developing countries tend to be characterized by a dominant banking sector, and have large areas of the economy that remain unserved by the formal financial sector. Public finance and foreign direct investment can be particularly important as sources of long-term investment.

The report states that many innovations have emerged in developing nations such as Kenya, Bangladesh, Mongolia, Colombia, Chile and Peru, rather than wealthier developed nations. Fintech innovations are improving the ability of public authorities to monitor pollution and expanding civic engagement in many areas of environmental policy making, including forest monitoring, water quality assessments, identification of natural hazard risk, and air quality management. It also mentioned that at global and local levels, fintech can help build a “trusted MRV infrastructure” that can assimilate and analyse the disparate data sets that are held in public and private databases into an AI-powered distributed ledger for full end-to-end auditability.

The report concludes that the new emerging world looks set to run almost entirely on digital technologies, with smarter and increasingly interconnected computers operating on a global scale. This transformation will have to be sustainable – in its energy usage and its impact on the planet.

Source: http://unepinquiry.org/wp-content/uploads/2017/06/Fintech_Green_Finance_and_Developing_Countries-input-paper.pdf

Case study: Universal Financial Access by 2020

According to the Global Findex database, more than half a billion people gained a financial transaction account over the last three years, thanks to a combination of technology, private investment, policy reforms, and support from the global community.

The UFA goal is that by 2020, adults, who currently aren't part of the formal financial system, are able to have access to a transaction account to store money, send and receive payments as the basic building block to manage their financial lives. Through the Universal Financial Access 2020 initiative, the World Bank Group – the World Bank and IFC – has committed to enabling 1 billion people to gain access to a transaction account through targeted interventions.

The UFA 2020 envisions that adults worldwide, women and men alike, will be able to have access to a transaction account or an electronic instrument to store money, send payments and receive deposits as a basic building block to manage their financial lives. The World Bank has set a target to help enable 400 million adults to be reached through knowledge, technical and financial support, while IFC has set a target to help enable 600 million adults to be reached through investment and advisory services.

While the UFA 2020 initiative focuses on 25 priority countries where 73% of all financially excluded people live, the World Bank Group is working with more than 100 countries to advance financial access and inclusion. The rest of the focus countries include: Bangladesh, Brazil, Colombia, Cote d'Ivoire, DRC, Egypt, Ethiopia, Indonesia, Kenya, Mexico, Morocco, Mozambique, Myanmar, Nigeria, Pakistan, Peru, Philippines, Rwanda, South Africa, Vietnam, Tanzania, Turkey, and Zambia.

The World Bank Group also works with countries to strengthen the following key building blocks: public and private sector commitment, enabling legal and regulatory framework, and bolstering financial and ICT infrastructure.

Source: http://www.worldbank.org/en/topic/financialinclusion/brief/achieving-universal-financial-access-by-2020

Case study: TransferTo and Fern Software granted by the SHIFT Challenge Fund

In 2017 TransferTo and banking software provider Fern Software have both been awarded a grant as a part of the United Nations Capital Development Shaping Inclusive Finance Transformation (Shift) Challenge Fund.

The goal of the SHIFT Challenge Fund is to leverage remittances to improve the economic power of women in Cambodia, Lao PDR, Myanmar, and Vietnam. TransferTo and Fern Software have been summoned to deliver seamless money transfer solutions to underbanked individuals in this region.

The two will use the funds to combine TransferTo's global network, which links mobile operators, money transfer operators, digital wallet providers, financial institutions, NGOs, and merchants, with Fern Software's global microfinance solution software. Ultimately, the companies plan to accelerate TransferTo's entry into Cambodia, Lao PDR, Myanmar, and Vietnam and enable microfinance institutions to become money transfer recipients on TransferTo's cross-border money transfer network. In June, TransferTo partnered with the MallforAfrica to provide African shoppers with access to retailers in Europe and the US.

The prize money will assist to:

- Accelerate TransferTo's entry into CLMV to bring the benefits of a more available, accessible and affordable Money Transfer Network to the women living in these countries.
- Enable microfinance institutions to become money transfer recipients on TransferTo's Cross-Border Money Transfer Network.

Source: https://www.bankingtech.com/2017/11/transferto-and-fern-software-get-un-funding-for-payments-push/
https://www.fintech.finance/01-news/transferto-and-fern-software-awarded-grant-during-the-singapore-fintech-festival/

Case of Humaniq (Africa)

Humaniq is operating in 16 Africa countries and has more than 400.000 users.

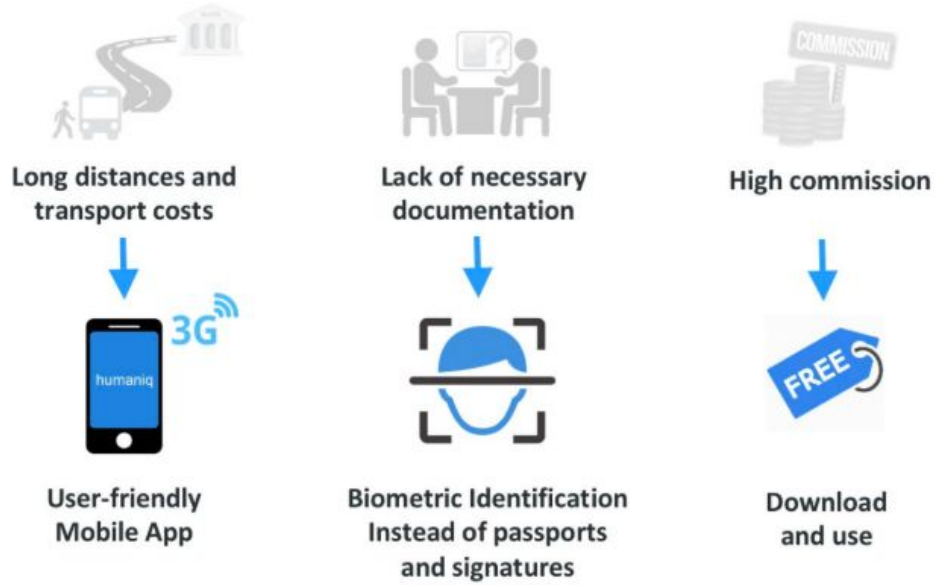
This is notable example of a project specifically focused on financial inclusion in the most problematics regions

Case of Humaniq (Africa)

What makes Humaniq a Big Thing?
The Humaniq team has launched a powerful, next-generation financial services model which is based on Blockchain technology, mobile devices and biometric identification systems, with its own cryptocurrency. Our project is aimed to provide comprehensive solution to help eradicate poverty amongst millions of people living in the emerging economies delivering financial inclusion to the 2 billion unbanked globally.

4 distinct elements of Humaniq Mobile app

- Simplicity: The interface is simple and user-friendly;
- Biometric authentication: Humaniq system enables face and voice verification, eliminating the need for formal documentation;
- Blockchain protocol: Our Etherium-based protocol provides guaranteed security against hacking, corruption and loss of information thanks to complete decentralisation;
- Independent HMQ currency: Every new user receives $20 worth of HMQ in their account.

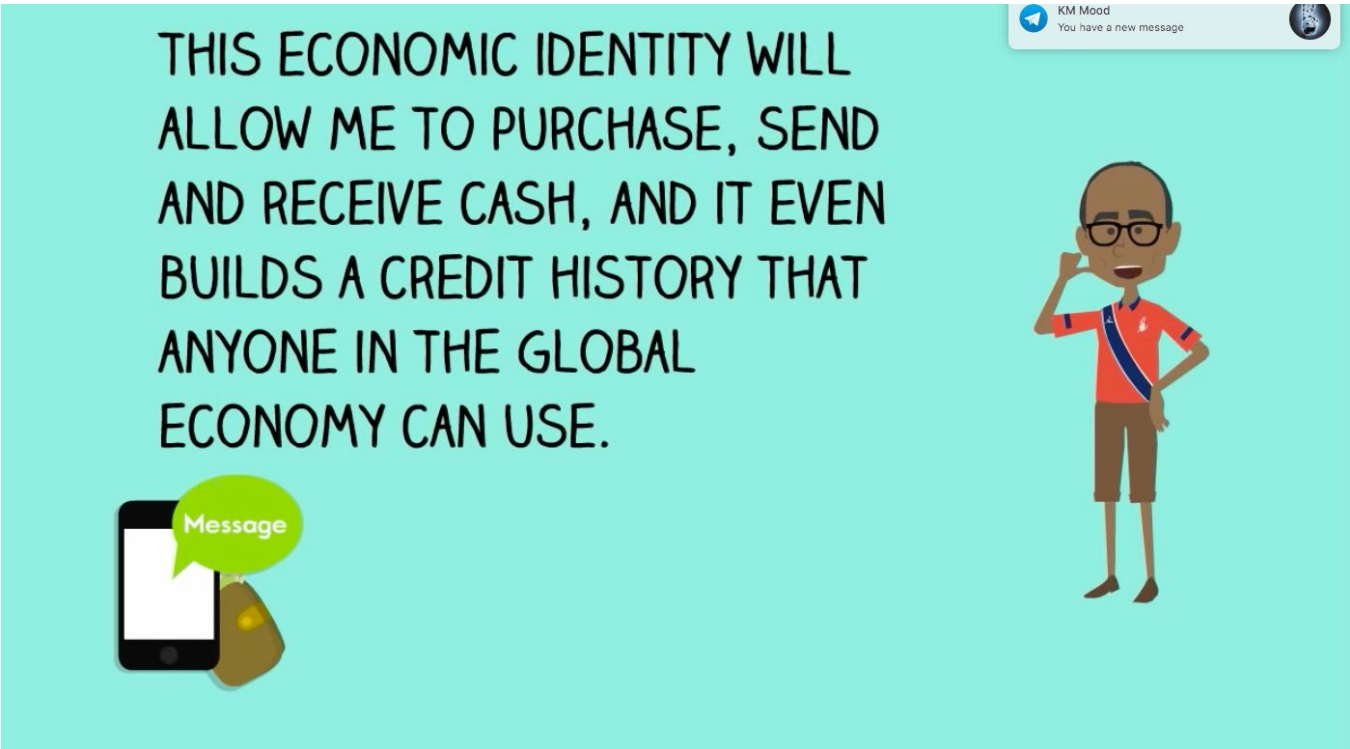


How it works

- A user downloads a free Humaniq app;
- A user takes a selfie with the app which becomes their biometric ID;
- Now each Humaniq user can: transfer money, earn money remotely, access loans, receive donations.

Case of BanQu (Latin America)

BanQu allows the unbanked to set up a personal digital identification profile while connecting to their banked network including family, friends, small businesses, and associated NGOs. As they start accumulating a transaction history on the BanQu blockchain, the unbanked also develop a tractable, vetted financial and personal history. Our blockchain platform allows people to record a variety of transactions including remote purchases, funded wallets, term purchases, cash disbursements, property records, health records, education records, and credit histories among others. This Economic Identity provides a baseline for the unbanked to participate in the global economy.



Source: http://www.banquapp.com/

Case of BanQu (Latin America)

BanQu's platform allows financial institutions to leverage its preventive and detective capabilities to assist them with the regulatory and compliance financial issues when dealing with the unbanked. By providing the institutions with the user's global financial identity components as captured in the blockchain, practices like anti-money laundering (AML), know your customer (KYC), and suspicious activity reporting become infinitely more cost effective. BanQu also enables shared KYC, allowing for banks to share in the costs of verifying individual identities and in turn expanding the scope of who is a bankable individual. Shared KYC combined with individuals having accessible Economic Identities will allow for billions of the world's unbanked to enter the global economy.

Source: http://www.banquapp.com/

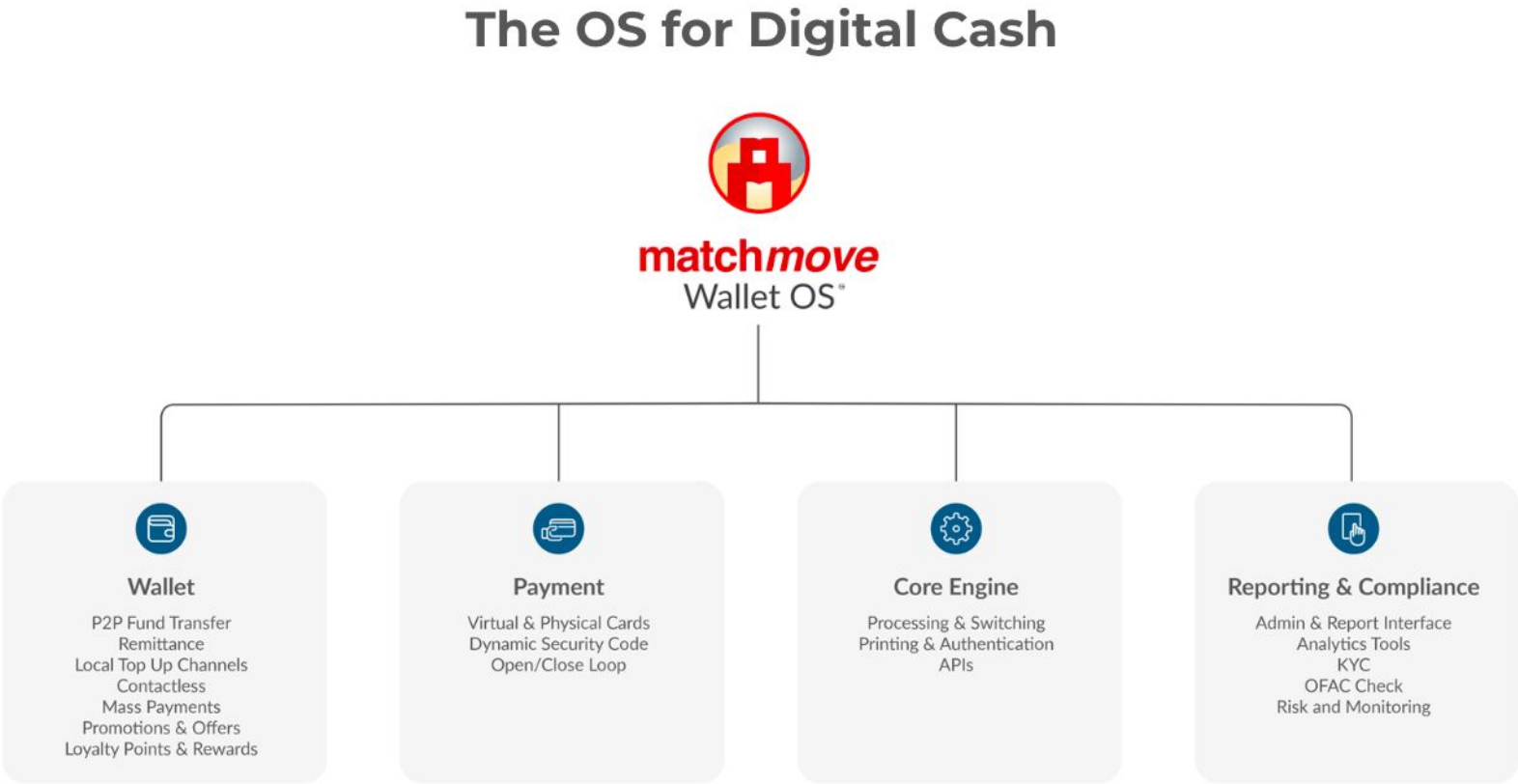
Case of Matchmove (Asia)

MatchMove enables companies to offer a fully branded secure mobile wallet solution, increasing revenue and user engagement. MatchMove proprietary Wallet OS™ is built with the vision of strengthening financial inclusion through enabling its Spend, Send, Lend™ capabilities across developed and developing markets. MatchMove Wallet OS enables any company to easily offer their customers a fully branded, secure mobile wallet solution that includes P2P transfer, Cross-Border Money Transfers, Top Up channels, Virtual Payment Cards, Loyalty Points & Rewards, Promotions & Offers amongst many other features. Wallet OS fully customizable platforms are cloud-based and PCI-DSS compliant.

Source: https://www.matchmove.com/

Case of Matchmove (Asia)

MatchMove launched myWallet in 2016 and Boss Mobile Money in 2017. myWallet, a virtual wallet application, enables consumers who do not own credit cards or online banking facilities to make payments with a pre-paid Mastercard. Boss Mobile Money is a cross-border money transfer application that allows anyone in Singapore to remit money back home through a smartphone in a Safe, Easy, Fast™ manner.



Source: https://www.matchmove.com/

Examples of Technologically Progressive Solutions
Case of Humaniq Mobile app

4 distinct elements of Humaniq Mobile app

- Simplicity: The interface is simple and user-friendly;
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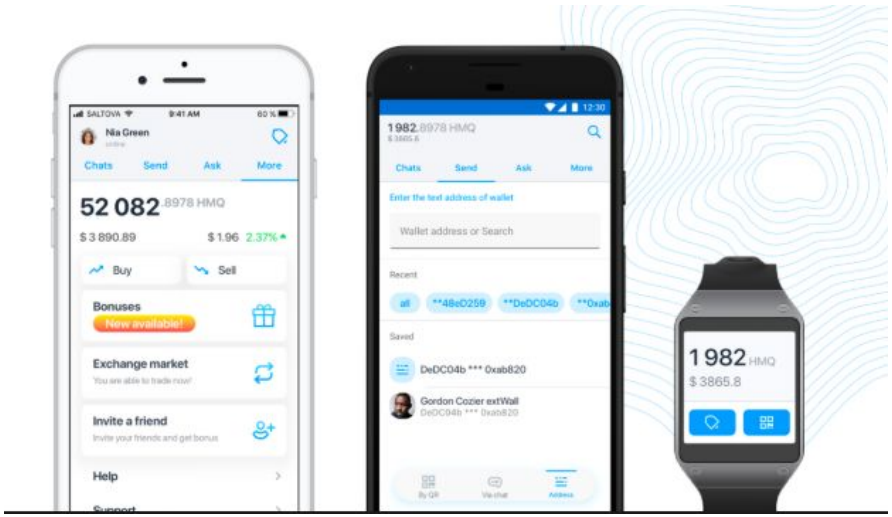
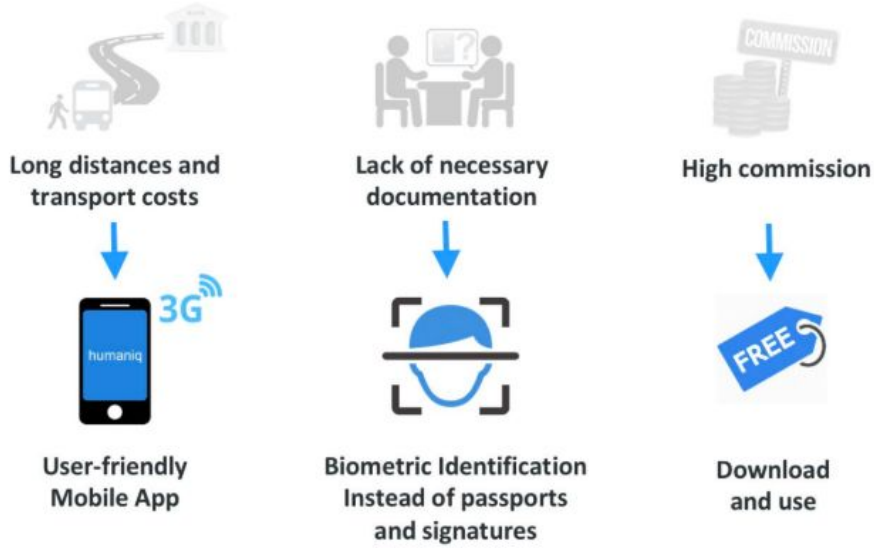
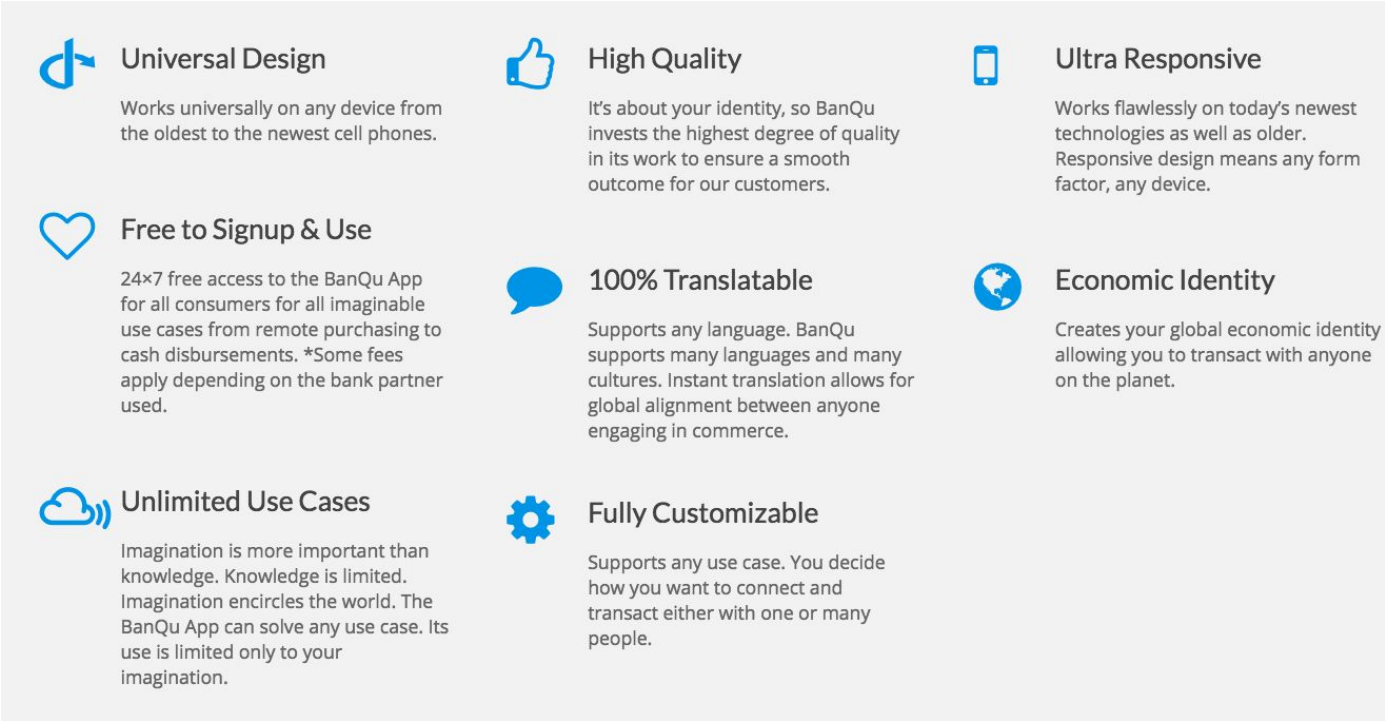




Examples of Technologically Progressive Solutions
Case of BanQu Mobile App

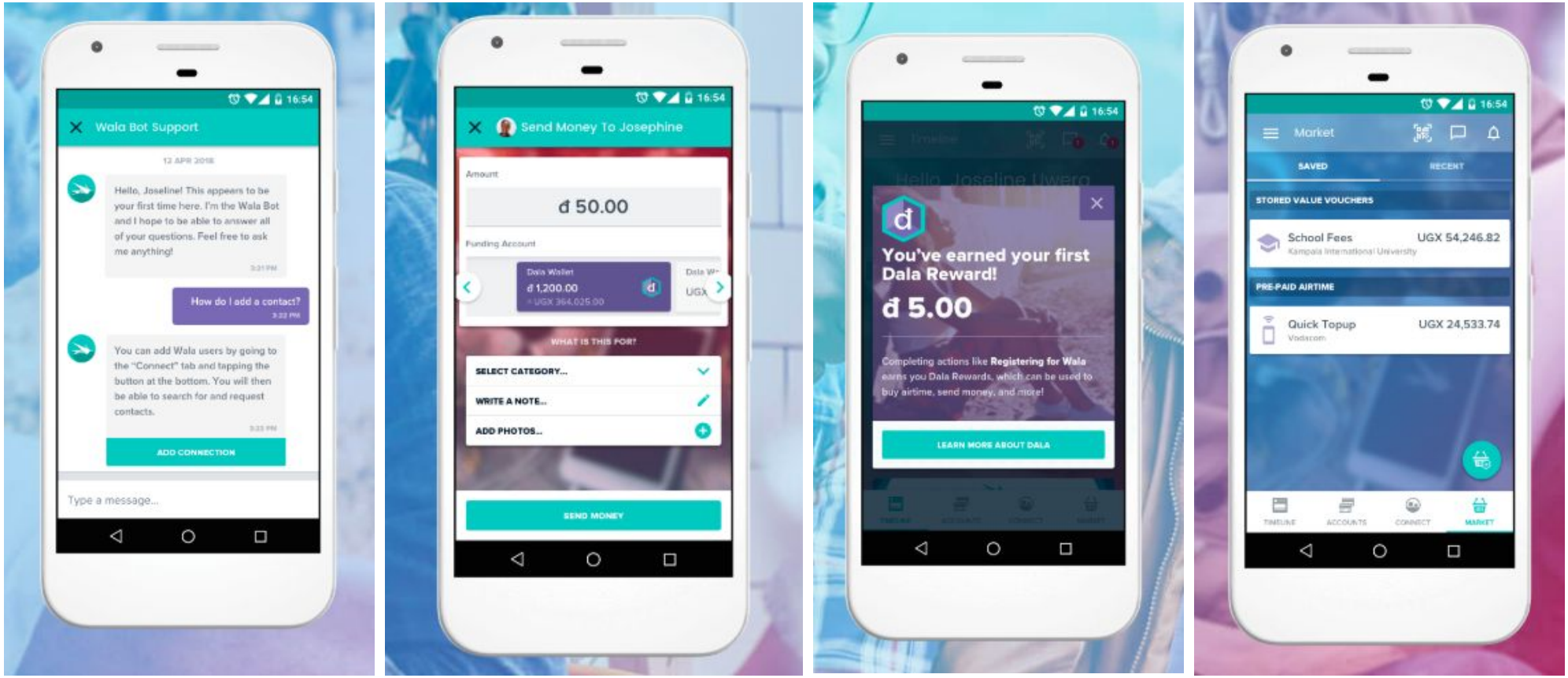
- Immutable human-characteristics based (selfie) ID owned by the user who creates it.
- Access to this identity without any need for physical documentation.
- Portability; existing on a private permissioned blockchain enables the systematic buildup of transaction history for refugees and people experiencing extreme poverty, creating a reliable profile for a path out of hardship.
- No central database – all data is stored on our permissioned private blockchain.
- Built-in geo-location tag on all transactions.
- Not tied to a cryptocurrency. The speed and security of transactions won't be impacted by the volatility of Bitcoin or any other cryptocurrency.



Source: http://www.banquapp.com/

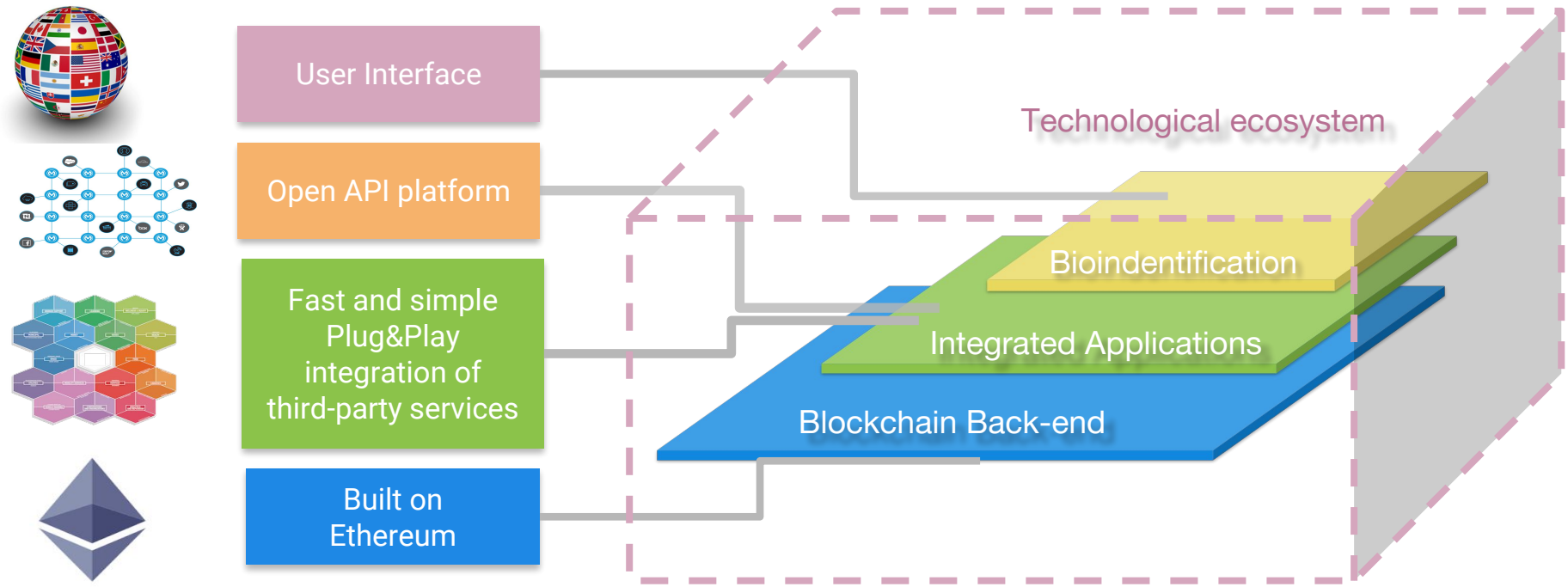
Examples of Technologically Progressive Solutions
Case of MatchMove Mobile app

Our full-suite of APIs cover a wide range of features that can be easily plugged into your own system or mobile app. Our end-to-end solution does not require any additional support from your technical team. No need to build from scratch, just plug-and-play with quick and easy integration.

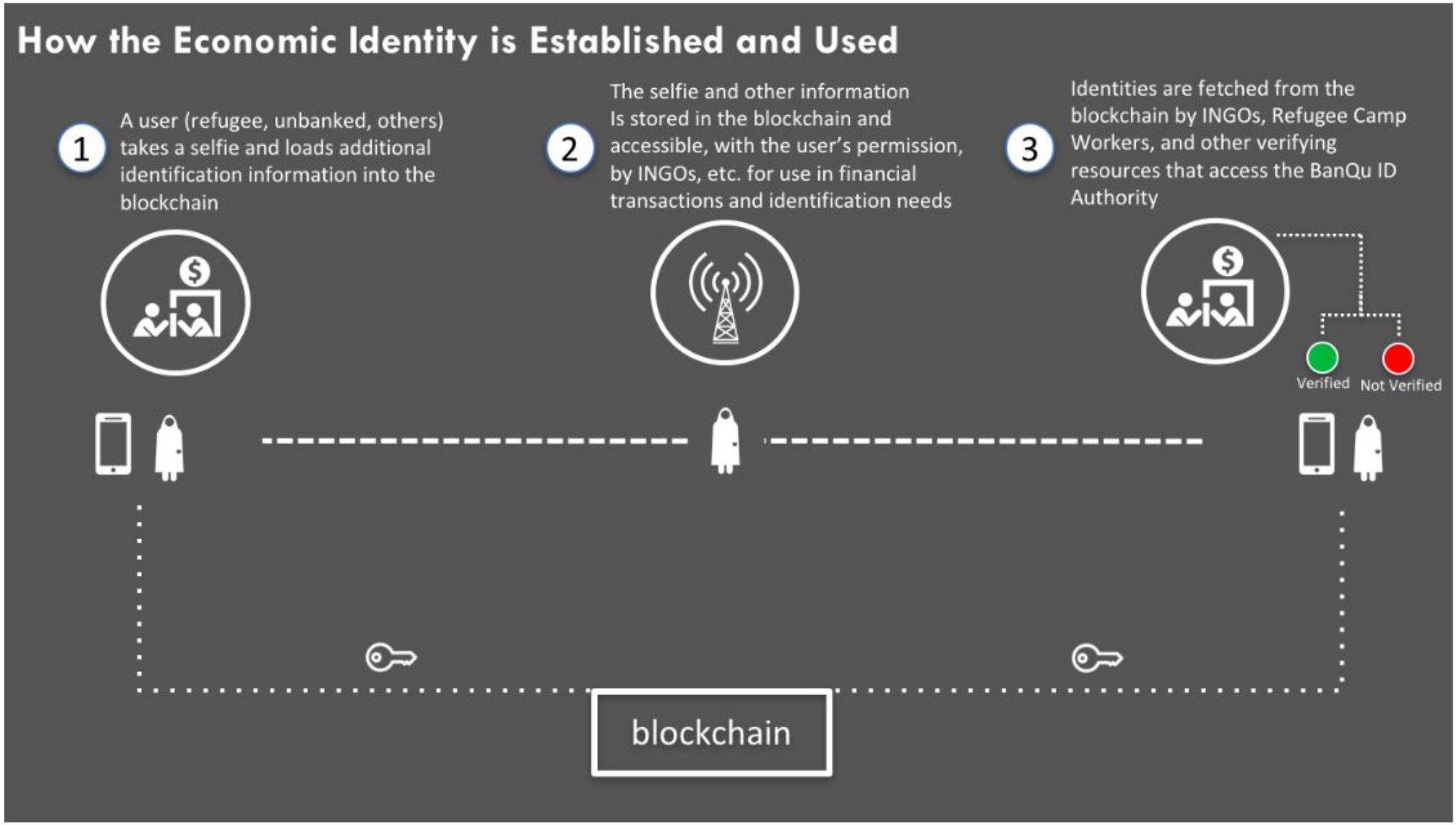


Source: https://www.matchmove.com/

Layers of technological ecosystem
Case of Humaniq



Bio-identification
Case of BanQu



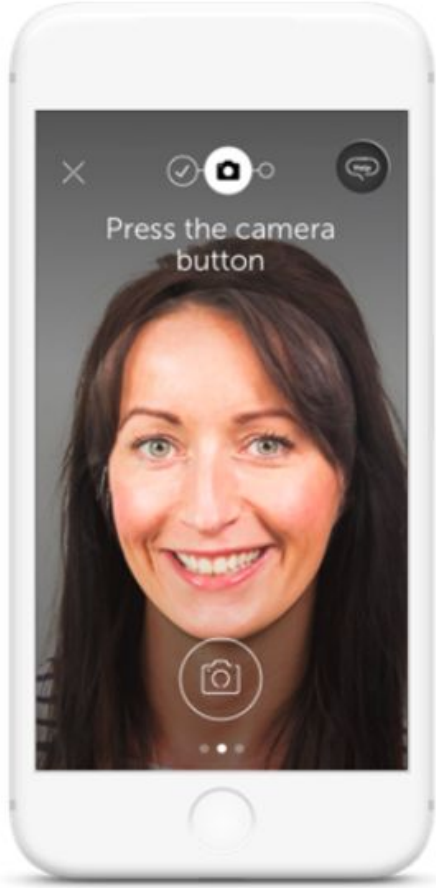
Bio-identification
Case of Atom

Easy access whenever, wherever

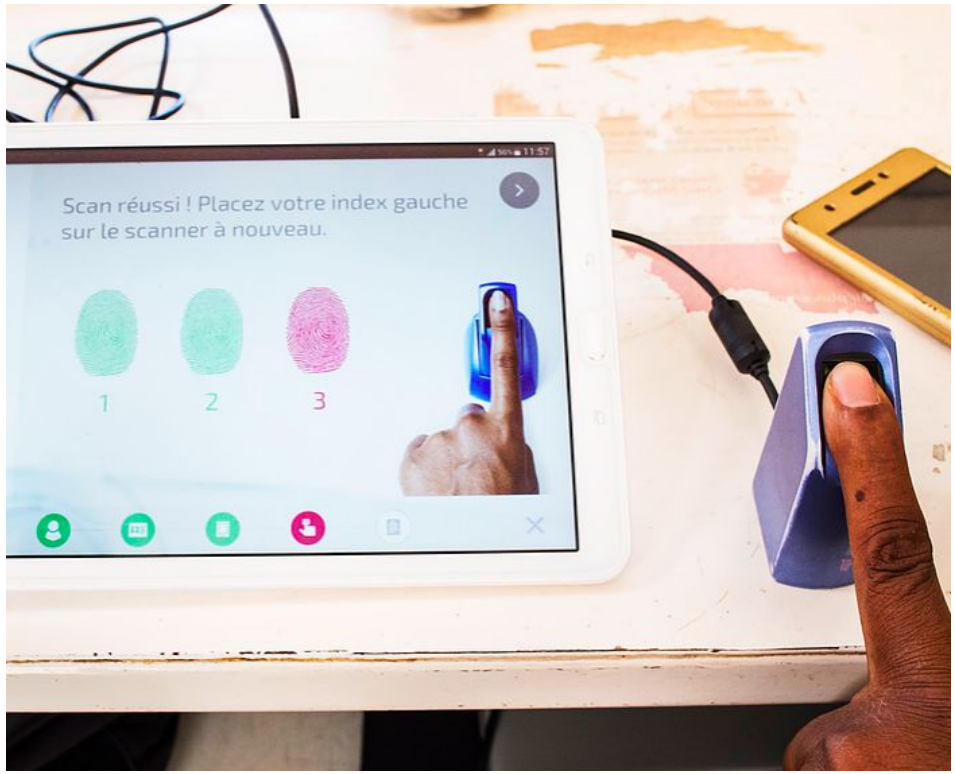
Smile. You can login using face and voice recognition. Easy. What's more, you'll have 24/7 support from our team standing by at Atom HQ.

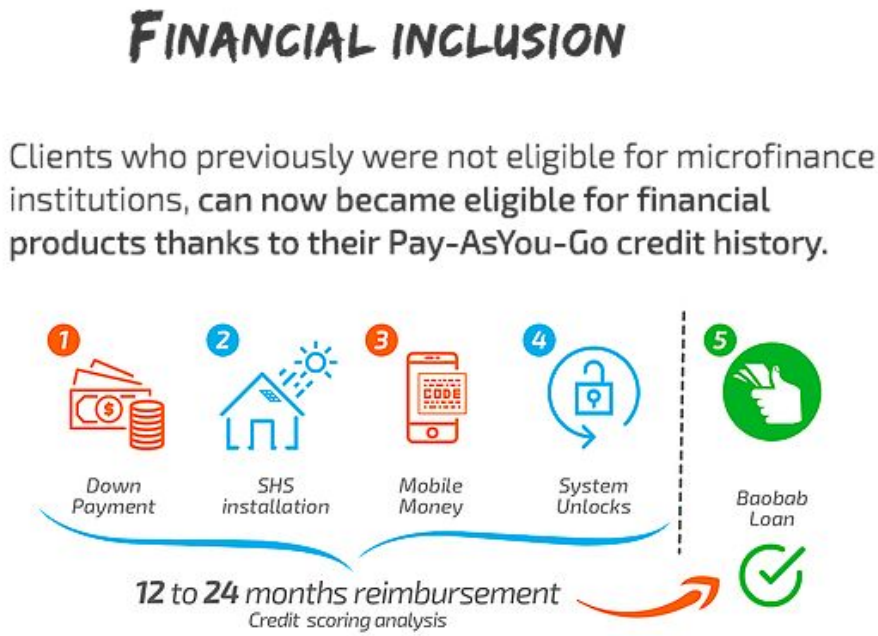
"10/10 - Very easy to use. Setup through the app is very user friendly. Security seems to be top priority with the 3 various ways to access the information." - Mornay (30.08.17)

→ Get the app



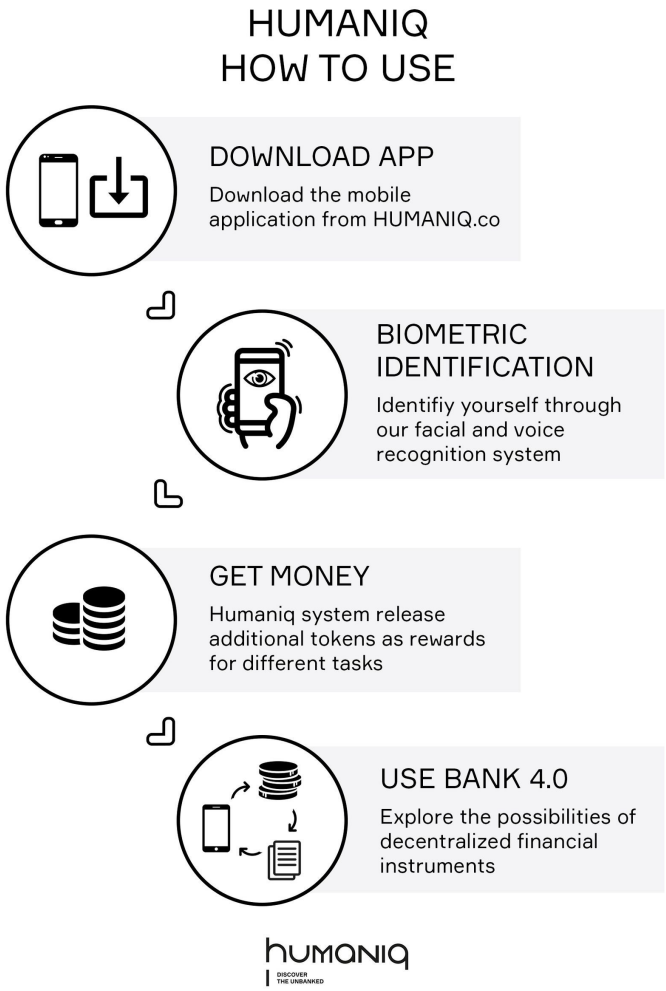
Bio-identification
Case of BanQu



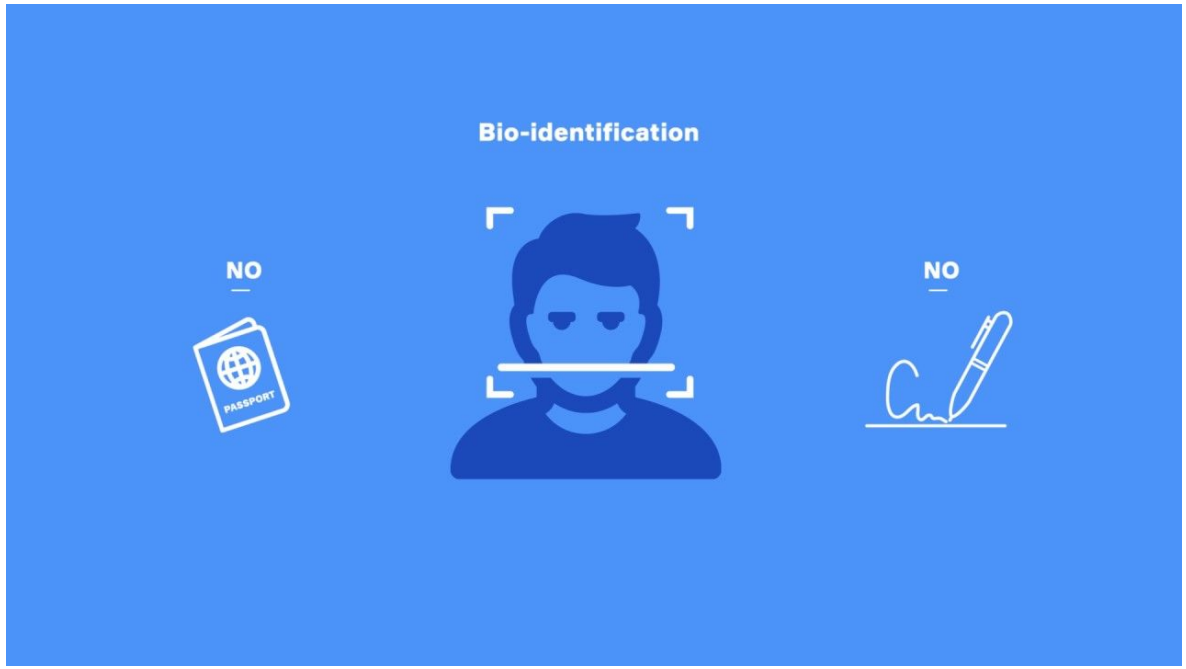


Source: https://baobab.bz/

Bio-identification
Case of Humaniq



Humaniq adopted the dio-identification in order to avoid the problem of lack of ID in Africa countries.



Case Study I: Gender Equality and Financial Inclusion: Trends and Perspectives

Gender Equality and Financial Inclusion in the Asia-Pacific region

In April 2018 McKinsey Global Institute published "*The Power of Parity: Advancing Women's Equality in Asia Pacific*" report, which estimates that economies in the Asia-Pacific region could boost their collective GDP by **$4.5 trillion** by 2025 if they improve gender equality. The report states that some of the biggest gender gaps are in Bangladesh and India, where concerns have been raised previously about the economic damage from the lack of women in the workforce. The report also praised countries including the Philippines, New Zealand and Singapore for achieving greater gender equality at work.

The report suggested 5 areas for change in Asia Pacific:

- Focus on higher female labour-force participation in quality jobs as a priority to boost economic growth;
- Address the pressing regional and global issue of women's underrepresentation in business leadership positions;
- Capture the economic and social benefits of improving women's access to digital technology;
- Shift attitudes about women's role in society and work, in order to underpin progress on all aspects of gender equality;
- Collaborate on regional solutions, such as financing and knowledge-sharing, as powerful catalysts for gender equality.

In 2017 the *Global Gender Gap Index* showed that while the region has become a major driver of the global economy, most countries still remain behind in terms of gender equality. Of the 25 Asia-Pacific nations surveyed in 2017, 13 lost ground compared with 2016. Based on the "Economic Participation and Opportunity" criteria, the countries were ranked in the following order: China (**86th**), Japan (**114th**), India (**139th**) and South Korea (**121st**), the region's top economies, all dropped in the ranking. Among Southeast Asian countries: Singapore (**27th**), Vietnam (**33rd**) and Thailand (**24th**), Indonesia (**108th**) and the Philippines (**25th**). By region, East Asia and the Pacific, which includes Southeast Asia, closed 68% of the gap, while South Asia managed 66%. At the current rate of progress, the report says it will take 62 years to achieve equality in South Asia and 161 years in East Asia and the Pacific.

Sources: The Power of Parity: Advancing Women's Equality in Asia Pacific report
http://www3.weforum.org/docs/WEF_GGGR_2017.pdf

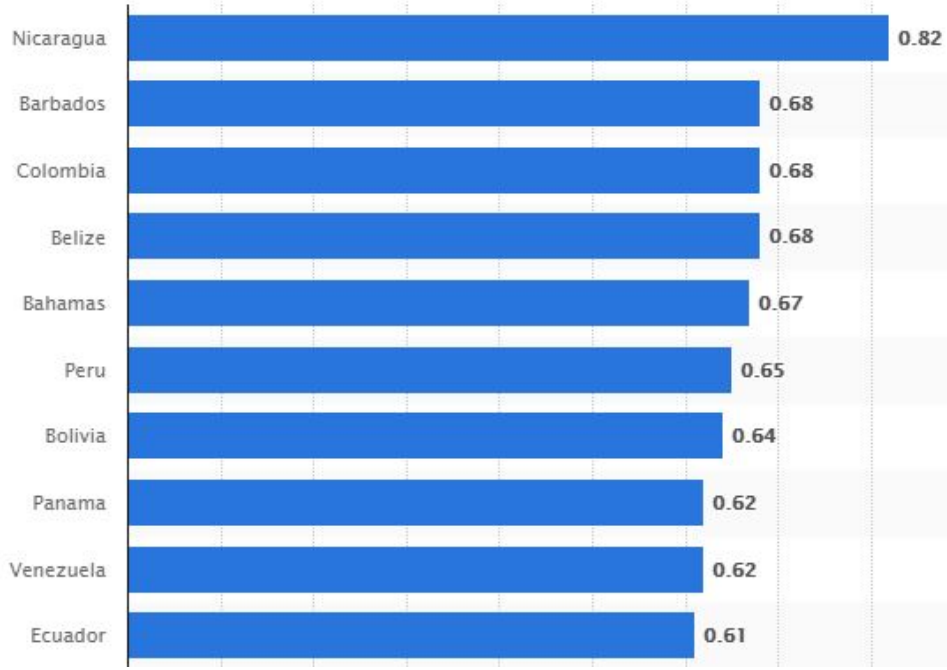
Gender Equality and Financial Inclusion in Latin America

With an average remaining gender gap of 29.8%, the Latin America and Caribbean region scores in the middle of the range of the Global Gender Gap Index 2017, behind the Eastern Europe and Central Asia region. Of the 24 countries in the region that were covered by the Index in 2017, 18 have improved their overall score compared to 2016, while six have regressed.

Based on the "Economic Participation and Opportunity" criteria, "The Global Gender Gap Report" ranked: Nicaragua (**54th**), Bolivia (**60th**), Barbados (**2nd**), Bahamas (**3rd**), Jamaica (**39th**), Cuba (**99th**), Argentina (**111th**), Colombia (**32nd**), Costa Rica (**104th**), Ecuador (**93rd**), Panama (**62nd**), Peru (**98th**), Uruguay (**91st**), Honduras (**74th**), El Salvador (**97th**), Venezuela (**67th**), Chile (**117th**), Dominican Republic (**95th**), Belize (**21st**), Suriname (**105th**), Mexico (**124th**), Brazil (**83rd**), Paraguay (**90th**), Guatemala (**101st**).

Central America's lack of financial inclusion is particularly stark for women, who have less opportunities for employment, who earn less than male colleagues in the same positions, and who have less opportunities for advancement and promotion.

Furthermore, maternity leave laws are often disregarded, and while many countries in the region do have explicit laws against sexual harassment in the workplace, it remains a prevalent issue, with 90% of women in Honduras reporting having been sexually harassed in the workplace.



Gender pay gap index based on estimated earned income in selected countries of Latin America and the Caribbean in 2017. Statista

Sources: http://www3.weforum.org/docs/WEF_GGGR_2017.pdf
https://www.weforum.org/agenda/2018/03/gender-equality-latin-american-business/

Gender Equality in Africa

Ernst & Young published “Women of Africa: A powerful untapped economic force for the continent” report which states that women make up just over 50% of Africa’s growing population and their under-representation in social, political and economic spheres must be addressed if Africa is to leverage fully off the promise and potential that it holds.

According to the UN Food and Agriculture Organization, women in Africa are responsible for 70% of crop production, 50% of animal husbandry and 60% of marketing. Women undertake nearly 100% of food processing activities, in addition to child care and other responsibilities in households. Because of limited possibilities for advancement in their home continent, a significant proportion of degreed African women, nearly a third at 28%, migrate out of Africa in search of suitable job opportunities. This is in contrast with only 17% of educated men.

Women face gender biases in legal and macroeconomic frameworks, as well as more limited human, social, and financial assets than men. Currently, African women constitute the majority of workers in the informal economy, and only about a third of women across the continent participate in formal economic activity. In the seven largest economies in Africa, the average participation of women in the labor force is 32.7%. Just over a third of women are actively involved in the production of goods and services, leaving a significant group of untapped potential outside the economy.

Women’s rights are still in their infancy in large parts of Africa. Women cannot inherit, own land or own property in many cases. In Swaziland, women require the permission of husbands or fathers to open a bank account or business, obtain a passport or enforce a contract.

In 2017 according to the World Economic, North Africa will take 157 years to close their gender gaps. About 12% of women in Africa are self-employed though only about 1% of women actually employ others. While women account for 40% of the non-agricultural labor force, they make up 50% of the self-employed but only 25% of employers.

Sources: https://www.ey.com/Publication/vwLUAssets/Women_of_Africa/%24FILE/Women%20of%20Africa%20final.pdf

Education comparison

According to *Global Education Monitoring Report Gender Review 2018* only 66% of countries have achieved gender parity in primary education, 45% in lower secondary and 25% in upper secondary. Globally, a gap exists only in primary education: 9.7% of primary school-age girls and 8.1% of boys are out of school, or 5 million more girls than boys.

In parts of Northern Africa and Western Asia, 12% of adolescent boys and 18% of adolescent girls have already let school, compared to 25% of male adolescents and 19% of female adolescents in Eastern and Southeastern Asia. In sub-Saharan Africa, 86 females completed the lower secondary education level for every 100 males, and in Latin America and the Caribbean, 93 males completed the same for every 100 females.

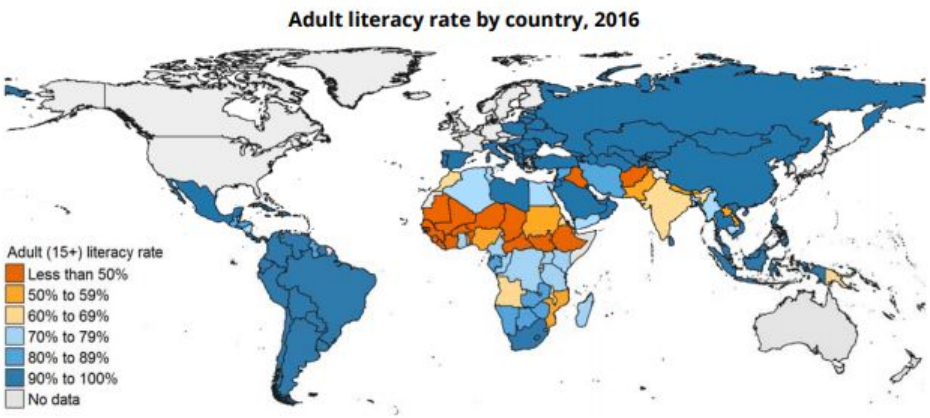
In terms of tertiary education, only 4% of countries have achieved gender parity in education. For the most part the number of females in tertiary education compared to males is much higher for the majority of regions. While Southern Asia is moving towards closing this gender gap, sub-Saharan Africa remains one of the only regions in which women enrol in or graduate from tertiary education at significantly lower rates than men.

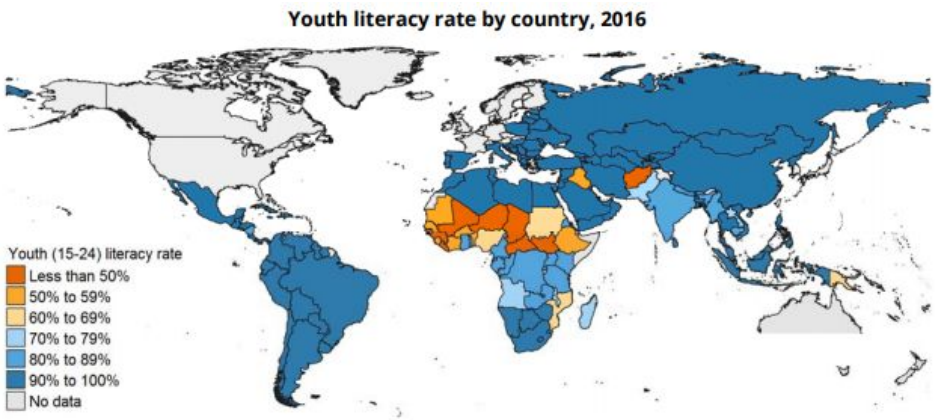
Interestingly, while the adult literacy rate worldwide grew from 81.5% to 86% between 2000 and 2015, the proportion of illiterate women remained constant during this period, at 63%. Meanwhile, women comprise 57% of the total of youth illiterates worldwide. North Africa, Western Asia, Southern Asia and sub-Saharan Africa are all particularly distinguished by lower female youth literacy rates.

According to UNESCO estimates, 130 million girls between the age of 6 and 17 are out of school and 15 million girls of primary-school age—half of them in sub-Saharan Africa— will never enter a classroom. More than 41,000 girls under the age of 18 marry every day and putting an end to the practice would increase women's expected educational attainment, and with it, their potential earnings. According to estimates, ending child marriage could generate more than $500 billion in benefits annually each year.

Sources: http://unesdoc.unesco.org/images/0026/002615/261593e.pdf
http://www.worldbank.org/en/topic/girlseducation

Literacy rate comparison

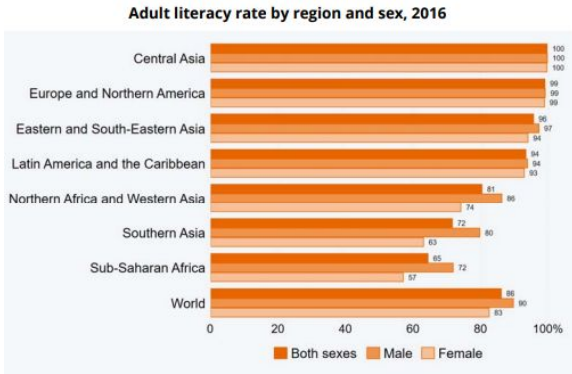


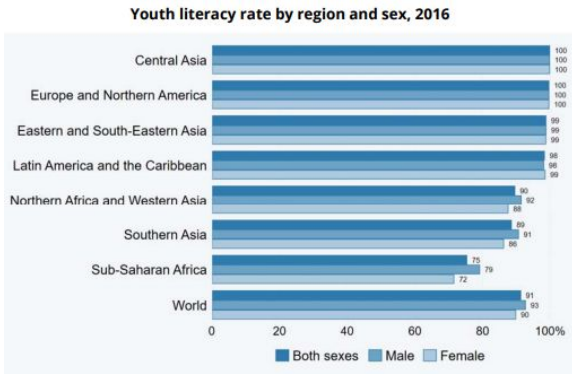


In Southern Asia, the adult literacy rate rose from 46% in 1990 to 72% in 2016. For the other regions, the change in adult literacy over the same period was as follows: Northern Africa and Western Asia from 64% to 81%, Eastern and South-Eastern Asia from 82% to 96%, sub-Saharan Africa from 52% to 65%, and Latin America and Caribbean from 85% to 94%.

The youth literacy rate increased the most in Southern Asia (from 59% in 1990 to 89% in 2016), Northern Africa and Western Asia (from 80% to 90%) and sub-Saharan Africa (from 65% to 75%). 27% of all illiterate adults live in sub-Saharan Africa, 10% in Eastern and South-Eastern Asia, 9% in Northern Africa and Western Asia, and about 4% in Latin America and the Caribbean.

UNESCO Institute for Statistics reported in 2017 that there are 750 million illiterate adults, two-thirds of whom are women. 102 million of the illiterate population were between 15 and 24 years old. The global adult literacy rate was 86% in 2016, while the youth literacy rate was 91%.

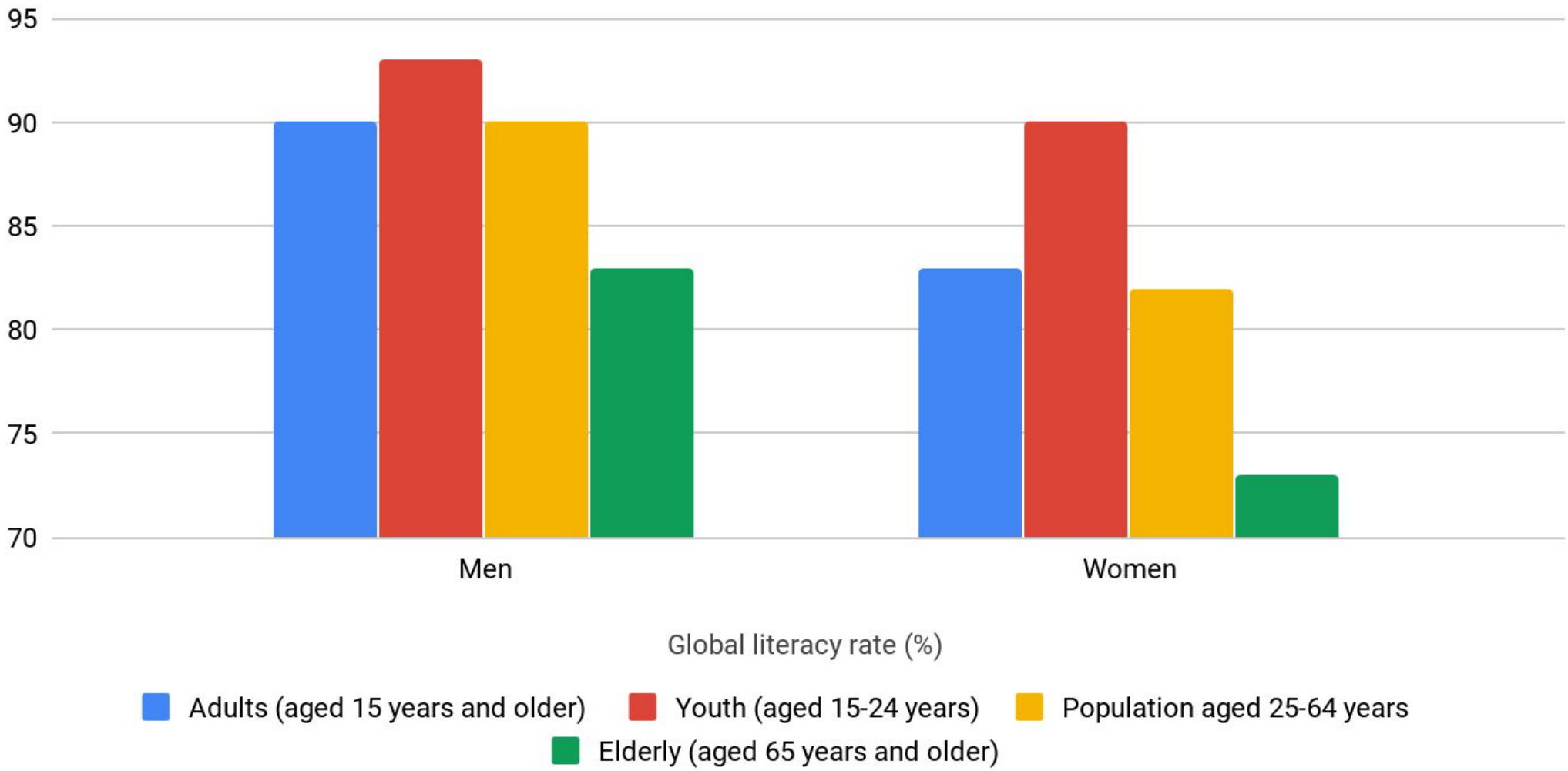




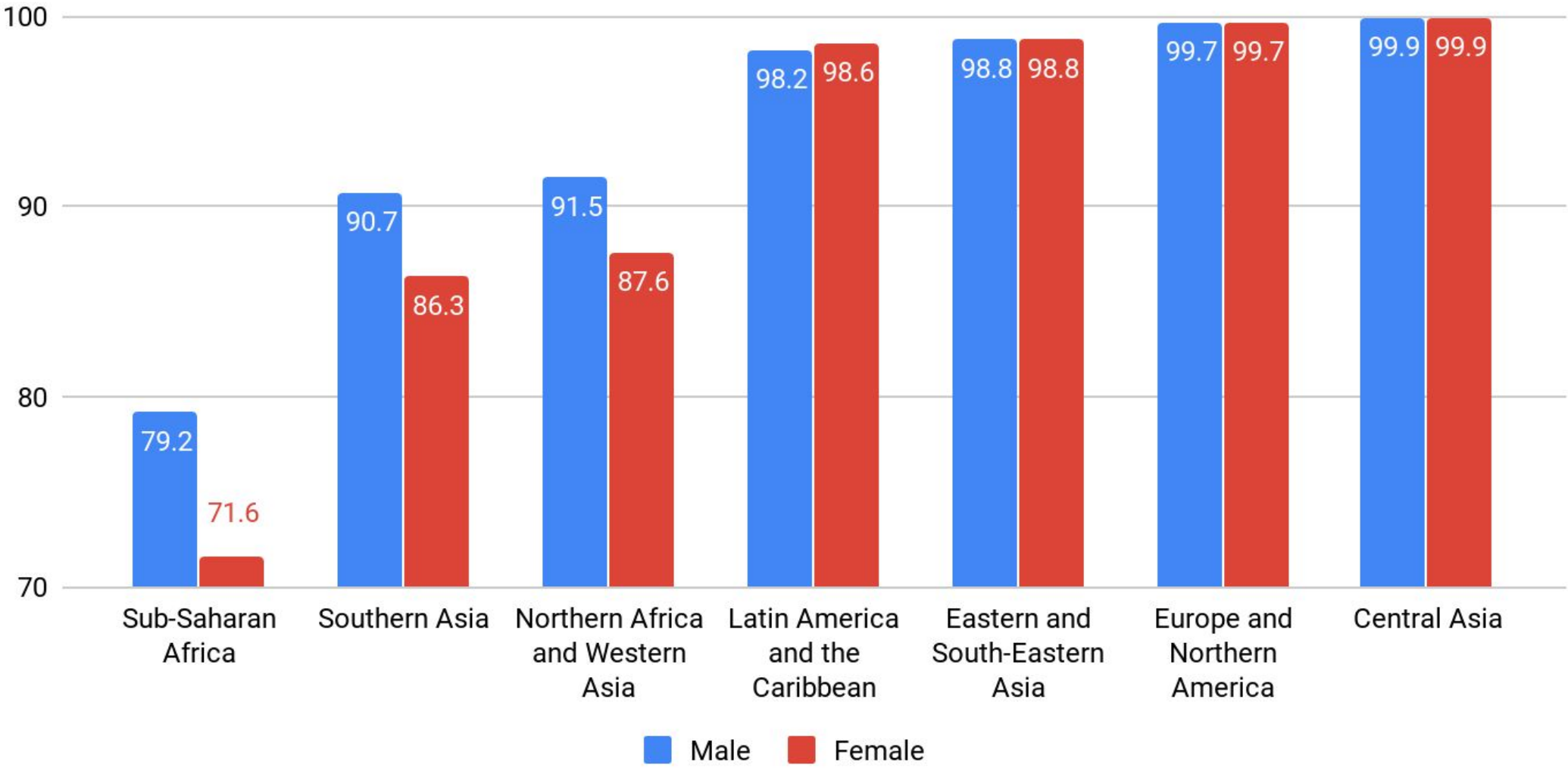
Source: UNESCO Institute for Statistics, July 2017

Sources: http://uis.unesco.org/en/news/international-literacy-day-2017
http://uis.unesco.org/sites/default/files/documents/fs45-literacy-rates-continue-rise-generation-to-next-en-2017.pdf

Global literacy rate (%)



Youth literacy rate (%)
2016



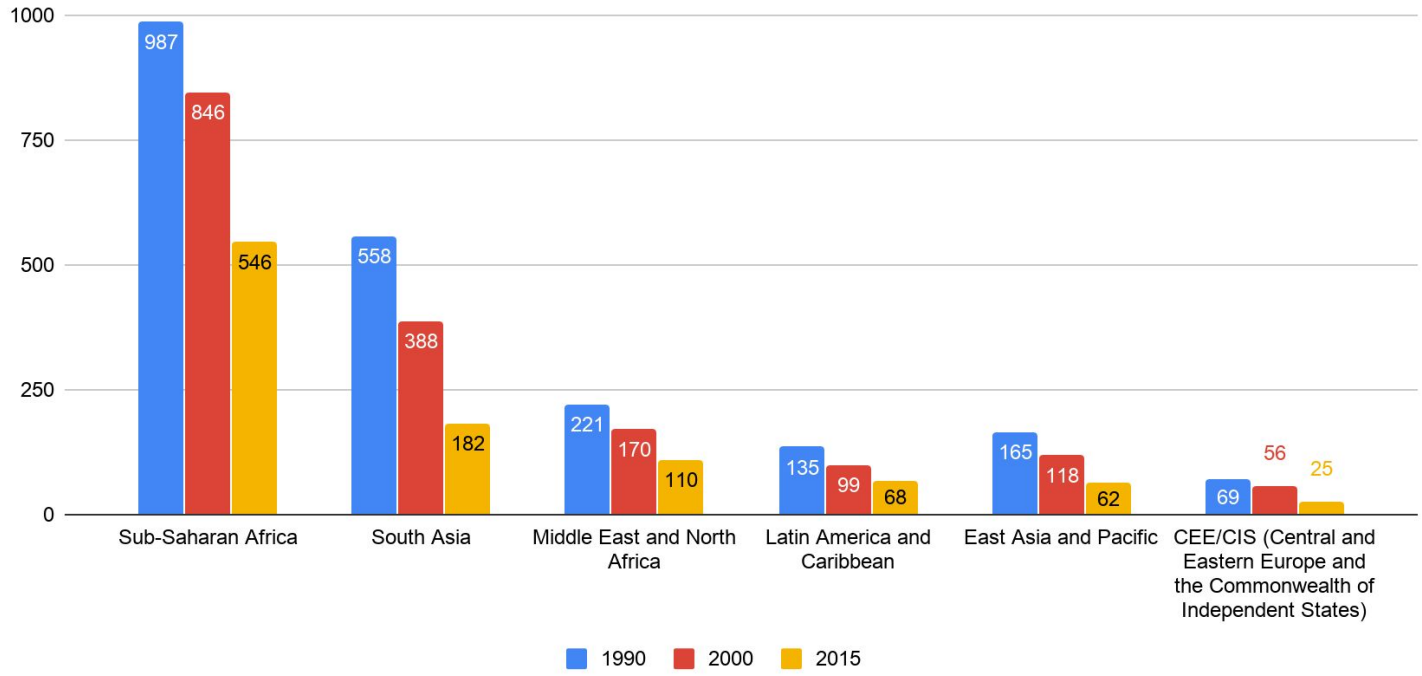
Source: UNESCO Institute for Statistics, July 2017

Healthcare access comparison

African women are at a higher risk of dying from communicable diseases, pregnancy and childbirth, and nutritional deficiencies than women in other regions. Of the global 468 million anemic women, nearly half (48-47%) are African women.

Many African women still lack access to modern methods of contraception. In Cameroon, Guinea, Niger, and Nigeria, the use of contraceptives remains less than 20% among the poorest women compared to 70% among the wealthiest.

The global maternal mortality ratio declined by 44% from 1990 - 2015. However, levels of maternal mortality still remain high in sub-Saharan Africa.



Sources: https://reliefweb.int/report/world/inequality-beyond-wealth-gaps-women-s-health
https://data.unicef.org/topic/maternal-health/maternal-mortality/
http://www.who.int/news-room/fact-sheets/detail/women-s-health

Women in Agriculture

Women's contribution to the labour force in African agriculture is often stated to be in the range of 60-80%.

Women working in emerging and developing countries are also more likely to live in a household with a per capita income of more than $13 USD (19.7% for women, compared to 16.3% for men).

An EFA global monitoring report entitled Teaching and learning: achieving quality for all (2014) states that reduced agricultural productivity of women due to gender inequality in terms of access to financial resources costs Malawi 100 million USD, Tanzania 105 million USD, and uganda 67 million USD annually. Neutralizing this gender gap could bring as many as 238,000 people in Malawi, 119,000 people in Uganda and 80,000 people in Tanzania out of poverty

On average, women comprise 43% of the agricultural labour force in developing countries, ranging from 20% in Latin America to 50% in Eastern Asia and sub-Saharan Africa. If they had the same access to productive resources as men, they could increase yields on their farms by 20–30%. Compared to men, women and girls are still more severely affected by poverty, hunger and disease. Women in Africa and Asia who live in rural areas are often doubly affected by discrimination.

Sources: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---inst/documents/publication/wcms_557245.pdf
https://www.globalagriculture.org/report-topics/women-in-agriculture.html

Gender Equality and Financial Inclusion Bangladesh

Financial inclusion benefits individuals and households and well-functioning financial systems benefit whole countries. There is enough evidence to suggest that access to finance has a lot of positive benefit, not only excluded one but also economy around them.

But where we are? As of today, in Bangladesh half of the population is women and 50% of adult is financially included but female is only 35% i.e. access to financial services is unequal for women – frequently they least served by existing institutions and systems. But, economy could not be grown up in full swing, if you don't properly emphasis to include women in financial system or serve for the women.

Thus to promote access to finance and to make sure women benefit as much as possible from our program, first we try to understand why women are currently financially excluded? Certainly it is different from financial exclusion for men. So we (SME Café BD) designed and implemented our projects in a way that include women in Financial systems and enhance women's economic empowerment.

Shafiqur Rahman Khan SME Café Bangladesh

Women and Banking System

The nature of the customer identification systems in place at most large banks in developing regions are shaped in large part my the AML and CTF regulations that these banks must operate by. These regulations, in turn, are set by the Financial Action Task Force (FATF) and the Basel Committee on Banking Supervision.

These regulations require that banks have robust customer identification and verification measures in place to prevent identity theft and anonymous accounts. Banks must also have higher due diligence standards in place for clients who pose a crime risk.

New risk standards put forth by the FATF in 2012 allow countries with lower crime rates. to simplify customer identification and verification measures. For instance, such countries may forego verification of customers' residential addresses in areas where that is otherwise a requirement, and may accept a letter from a community leader verifying a person's identity as an alternative to government-issued ID.

Women account for roughly 55% of the total global unbanked population, and the total number of women without access to banking globally exceeds 1 billion. This state of affairs is further exacerbated by gender inequalities in South Asia, where roughly 37% of women (in comparison to 55% of men) have a bank account. This issue is further exacerbated by the fact that women are less likely to have access to government-issued identity documents, a trend that has been well documented in Africa, Southern Asia, the Middle East and South America.

While the number of countries launching large-scale identity programmes is increasing, the number of programmes that specifically include measures to increase the number of women with access to identify documents appears to be low.

Sources: https://www.weforum.org/agenda/2015/09/why-are-women-in-developing-economies-excluded-from-banking/

The effects of the Fintech Revolution on employment

In 2016 FinTech startups accounted for 24% of total startup funding raised by Africa, which is home to more than 300 FinTech companies, 3 of which were ranked in the top 50 FinTech startups list by KPMG in 2017.

As the working population in Africa ages, unemployment rates grow. Currently sub-Saharan Africa has an unemployment rate of 7.5% on average, and 12-14% for youth aged 15-24. Meanwhile, 53% of all African countries have unemployment rates above 10%.

StatsSA estimates that 37.5 million people are of working age (aged 15-64) in South Africa, whereas 15.5 million people do not work. The rate of unemployment is higher for women than men, with black women being the most affected (34.2% compared to just 6.7% for white women).

The growing African FinTech industry is helping to create jobs, however. In 2016 the number of FinTech jobs posted by the job site Adzune grew from 5 to 100 by September 2016. Disrupt Africa reports that 2016 saw a 16.8% increase in FinTech funding, with the majority coming into South Africa.

Sources: http://blog.directpay.online/how-fintech-revolution-changing-employment-in-africa
https://mg.co.za/article/2018-02-13-unemployment-lower-but-black-women-the-youth-remain-the-most-vulnerable

The effects of the Fintech Revolution on healthcare

Africa's healthcare spending is low compared to other countries, accounting for roughly 1% of the world's total healthcare expenditure. However, the roughly 40% of Africa's population that are aged 15 or under are rapidly embracing disruptive healthcare technologies according to the World Bank.

One notable example of a disruptive healthcare company in Africa is ConnectMed, the Kenya-based online medical service that allows users to access doctors via video teleconference via computers, tablets and smartphones, in order to obtain prescriptions and referrals. The company even plans to launch physical stations with computers at pharmacies for those who lack access to an internet connection.

Another notable company is Kangpe Health, a mobile app that allows users to type medical questions and have their questions addressed by remote medical staff. Other similar African-based mobile apps include MedAfrica out of Kenya, Matibabu out of Uganda and Hello Doctor out of South Africa.

While payments and remittances still dominate the African FinTech market, a growing number of FinTech companies are collaborating with healthcare startups to facilitate payments.

While the trend is growing strong, the African healthcare system still has several aspects poised for disruption. In a South African seminar, HAVIAC identified four specific areas that are most likely for disruption, including " 1. improving communication – particularly via mobile – between patients and their doctors, as well as between healthcare practitioners; 2. diagnostic support – the utilization of technologies to assist in diagnosis; 3. consumerization of healthcare, ensuring patients are informed, increasing transparency and choice, as well as creating the ability to individually monitor patients and access personalised health records; 4. disruption in particular around Protection of Personal Information, compliance, potential liabilities of new technologies, and the use of data and underwriting implications."

Sources: http://disrupt-africa.com/2017/05/african-healthcare-ripe-for-disruption/
http://www.itnewsafrica.com/2018/06/what-investors-are-looking-for-in-africas-fintech-sector/

Fintech startups in Africa

The African FinTech industry is booming. The main industry use-cases for African populations are mobile wallets, payments, core banking services and wealth management. The growth of FinTech in Africa is fueled by the fact that 80% of adults still lack access to basic banking services.

Africa leads the world in terms of mobile wallet adoption, with over 220 million registered mobile wallet accounts, and 80 new users every 3 months. Mobile wallets serve as the easiest and most basic means of banking services in the continent.

Remittances also garner a large amount of funding for the continent. Transferring money into Africa remains costlier than many other countries, and as such the continent is poised for disruption by FinTech-based solutions to remittances.

Indeed, African Banks have in the past several years been compelled to collaborate with FinTech startups in fear of being disrupted by them, and are now collaborating, investing in and acquiring significant numbers of FinTech startups.

FinTech and Financial Inclusion technologies being applied to the developing world has the potential to solve crucial humanitarian issues and to leapfrog fundamental socio-economic and infrastructural barriers and bottlenecks, giving citizens not only access to the global economy and potentials for remote employment under fair and equitable conditions, but access to basic human amenities as well. Its impact can be measured not only in the magnitude of the issues it has the potential to resolve, but also in the sheer number of humans afflicted by those issues, e.g. the more the 2 billion unbanked citizens lacking access to fundamental resources, amenities and opportunities that the citizens of developed nations have never lived without. For the developing world, FinTech can be considered as one of the leading forms of ImpacTech -- i.e., technologies which deliver an incredibly high level of impact per dollar spent.

Source: https://www.seedstars.com/magazine/fintech-africa-much-more-mobile-money-and-remittances/

Case Study II: Globalization and Modern Slavery: prevention technologies

Introduction

According to an estimate by the Walk Free Foundation and the United Nations' International Labour Organization (ILO) more than 40 million people were enslaved around the world as of 2016. The 2018 Global Slavery Index determined that North Korea and Eritrea have the world's highest rates of modern slavery. China, Pakistan, North Korea and Nigeria rounded out the top five nations with the largest number of slaves, accounting for about 60 percent of victims globally. India is home to the largest total number with an estimated 8 million slaves among its 1.3 billion population. Other countries with the highest rates of slavery were the Central African Republic, Afghanistan, South Sudan and Pakistan.

With more than nine million people living in slavery, nearly eight in every 1,000 people, Africa has the highest rate of enslavement of any region. The 2016 Global Slavery Index estimated that close to 250,000 modern slaves exist in South Africa. About 103,461 victims of this practice were identified to have been subjected to commercial sexual exploitation. Among the most common forms of slavery in SA include forced labor, human trafficking, debt bondage, child exploitation, and forced marriage. According to the U.S. State Department about 1 million street children in the North African country, both boys and girls, are exploited with prostitution and forced begging.

Of the 40 million victims of modern slavery worldwide, almost two-thirds are exploited in Asia and the Pacific. The region accounts for 73 per cent of all victims of forced sexual exploitation, 64 per cent of those in forced labour exploitation, and 68 per cent of those subjected to state-imposed forced labour. Tomoko Nishimoto said that although the share of people in extreme poverty in Asia and the Pacific has been cut by about 70 per cent over the past 10 years, 62 million children must still work so they and their families can survive.

In 2016, Interpol rescued, through the operation “Spartacus III” more than 2,700 people who were victims of trafficking. They also detained 134 subjects and dismantled at least 7 organized crime networks in an operation in South and Central America. In Central America, as of recent years, Costa Rica and Nicaragua have become one of the main hotspots when it comes to trafficking teenagers. Countries like Honduras, Guatemala, and Mexico are following in very closely.

Sources: https://www.weforum.org/agenda/2018/07/these-countries-have-the-highest-rates-of-modern-slavery
https://face2faceafrica.com/article/slavery-africa-today
https://www.scmp.com/comment/insight-opinion/article/2119890/modern-slavery-and-child-labour-asias-unacceptable-record
https://qcostarica.com/is-there-slavery-in-latin-america/

Slavery is an extreme form of inequality, and exists within a competing matrix of political, economic, social, cultural and religious pressures. Different countries use different legal terminologies, but “modern slavery” includes the crimes of human trafficking, slavery and slavery like practices such as servitude, forced labour, forced or servile marriage, the sale and exploitation of children, and debt bondage.

Slavery tends to exist in cycles: poverty, lack of education and lack of political, economic or any kind of freedom - all are both causes and effects of the modern slavery. As Kevin Bales said “This is an economic crime. People do not enslave people to be mean to them; they do it to make a profit.” Poverty, corruption, gender inequality in society, and domestic violence drive women to take risks to change their fates; traffickers exploit their economic desperation and vulnerability.

Half of all victims of modern slavery are in debt bondage. Women and girls make up 71 percent of all victims. 1 in 4 victims of modern slavery is a child. About 765 million people worldwide live in extreme poverty, making less than $1.90 per day. Those in destitute conditions have limited means to support their families. In the absence of alternatives, many people, taking risks, are lured by sham offers of better futures. Groups that face discrimination, including ethnic and religious minorities, women and children, and migrants and refugees, are vulnerable to enslavement. Slavery generates $150 billion for traffickers annually.

Foreign Affairs has stated that one the the primary causes behind the modern international slave trade is globalization. While globalization has created wealth and improved quality of life for many, it has also enabled the enslavement of others.

Global supply chains have grown exponentially, and create employment opportunities and add to economic and social development, yet when managed poorly, unregulated markets can have negative side-effects, including creating an environment of high risk for individuals being subjected to forms of modern slavery.

Sources: https://www.walkfreefoundation.org/understand/
https://www.cfr.org/interactives/modern-slavery/#!/section1/item-1

The Walk Free Foundation published the Global Index of Slavery for 2018. From a methodological point of view, and also in terms of the quality of the statistics used, the index leaves much to be desired. The researchers extrapolate data from one country to another, use unverified information, and assign different weights to different subindexes, which does not allow for an adequate comparison of countries among themselves.

Take, for example, "export risk," indicated as a driver of slavery on the report. Of course, it's easy to write that slavery is flourishing in the CAR and North Korea, and that the the Netherland and UK governments are taking additional measures to eradicate it on their own territory. However, the OECD countries remain key drivers of slavery practices, as they are the largest importers of goods, the production of which is carried out using slave-owning labor.

International value chains are built in such a way that the use of another mode of production is simply economically impractical.

It is especially symbolic that the largest category of goods produced using slave labor are computers and smartphones. But for many, they are the symbol of the onset of a new, more just era.

In general, the case of modern slavery fits into a series of other cases of human rights and civil rights violations. After all, often these violations are not the result of the actions of those who perpetrate them, but the result of economic and political expediency created by those who condemn these practices.

At the same time, when building hope for a technological revolution as a liberating force, it is important to understand slavery not only as a consequence of economic activity, but also as a consequence of political expediency. Creating new chains of value will turn the world political hierarchy upside down. Who said that yesterday's slaves will not want to change places? Is it advisable to provide capital and technology to those who are destroyed for decades by volley fire systems and unmanned aircraft?

Types of Modern Slavery

It is estimated that modern slavery encompasses more than 40 million people today, including 10 million children, 25 million individuals under forced labour, and 15 million in forced secual exploitation.

Whereas slavery has historically centered upon physically owning people as a form of legal property, today it takes the shape of control and exploitation of groups by other groups.
Today they are the children forced to work in sweatshops, the female adolescents forced to marry older men, the women forced into prostitution, and the men forced to work in factories, construction sites or agricultural sites.

The predominant forms of modern slavery include forced labour (in which people are forced to do work under threat of punishment), debt bondage and bondage labour (the world's most widespread form of slavery today, characterised by individuals borrowing more than they can repay and being forced to work in order to pay their debt), human trafficking (kidnapping, recruiting and transporting people for one form of exploitation or another - most often secual exploitation - via cioersion or under the threat of punishment), child slavery (the exploitation of children for an adult's gain, which can take the form of child trafficking, child soldiers, child marriage or domestic child slavery), and forced marriage (i.e when an individual is forced to marry someone against their will).

Some prominent organizations combating modern slavery include:

- DARPA's Memex program, which tried to fight against human trafficking via the use of an advanced search engine
- Spotlight, a tool created by Thorn: Digital Defenders which are used by law enforcement officials to aggregate data from online sex advertisements (and which has led to an average 43% reduction in investigation time for those who use it)
- Microsoft's PhotoDNA, which is being used to identify children being sexually exploited online via facial recognition technology, and a tool that is available free of charge to qualifying organizations.

Sources: https://www.antislavery.org/slavery-today/modern-slavery/
https://www.forbes.com/sites/rebeccasadwick/2016/01/11/tech-fighting-human-trafficking/#71a263e86cac

Corporations and modern slavery

The vast majority of modern slaves in developing nations are those working under very poor conditions in factories.

Unfortunately, slave labour is very much still a part of the global supply chain, and is estimated to be a $150 billion business managed by shell corporations that serve as a front for drug cartels, terrorist organizations and organized crime networks.

There are laws in place in order to help prevent multinational corporations doing business with third parties engaged in criminal activities, such as the UK Modern Slavery Act, French Corporate Duty of Vigilance Law, U.S. Foreign Corrupt Practices Act (FCPA), UK Bribery Act.

Additionally, the large majority of regions have KYC and anti-money laundering procedures in place to prevent the transfer of funds to and from such entities.

Unfortunately, the perpetrators of these forms of modern slavery are big brands that many readers will recognize. Nestle, for instance, has been accused of tracking children and forcing them to work on Nestle farms in Cote d'Ivoire.
A 2014 lawsuit filed against NEstle stated that "Studies by International Labour Organization, UNICEF, the Department of State, and numerous other organizations have confirmed that thousands of children are forced to work without pay in the Ivorian economy".

In 2016 the Fair Labour Association claimed that 70% of farms under Nestle's management were not trained to prohibit forced labour.

In contrast, in 2017 Adidas won the Thomson Reuters Foundation's Stop Slavery Award for enacting strict guidelines against forced labour, and have established hotlines where citizens in Southeast Asia can report concerns anonymously.

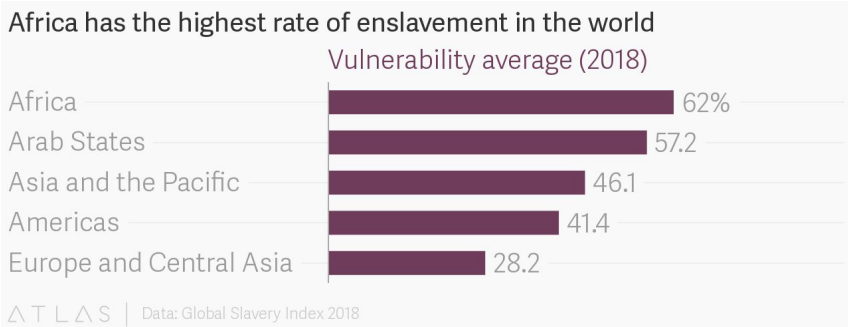
Sources: https://www.theodysseyonline.com/5-companies-using-slave-labor

Africa

According to the 2018 Global Slavery Index armed conflict, state-sponsored forced labor, and forced marriages are the main causes behind the estimated 9.2 million Africans who live in servitude without the choice to do so.

Modern slavery in Africa has attracted international attention recently when videos surfaces showing Libyan slave markets where Africans were being auctioned off in public squares, garages and car parks. Nigerian women migrating to Libya have also allowed them to be captured and sold into Italy's sex traffick market. Recently, in the World Cup games in Russia, anti-slavery group Alternativa reported that sec traffickers were planning to pimp Nigerian women during the World Cup games due to Russia's comparatively relaxes visa laws.

Mauritania is one of the last countries to officially abolish slavery. Prior to this, black Haratins were trapped in inherited servitude, in which their slave status was inherited from their parents.



Sources: https://qz.com/africa/1333946/global-slavery-index-africa-has-the-highest-rate-of-modern-day-slavery-in-the-world/

Asia

The 2016 Global Slavery Index had noted that two thirds of the victims that live in modern slavery are in Asia. Half the population of modern slaves are in five countries: India, China, Pakistan, Bangladesh and Uzbekistan. Among Southeast Asian countries, Indonesia has highest number of victims of modern slavery. Myanmar has significant discrimination against minorities while Thailand is unable to protect migrant workers on fishing trawlers from starvation and murder, with trafficking and forced labour.

Every year, 600-800,000 people are trafficked across borders. About 76% are women and children. Girls can be taken as young as 10 and often are taken straight go into brothels. There is a strong correlation between illiteracy and trafficking, 70% of trafficked girls in India are illiterate. 40% of victims that get trafficked are later re-trafficked. Lack of opportunity and education is a problem as long term support is rare.

Domestic workers are frequently excluded from formal labor protections in many Asean countries. They are often misinformed about their conditions of employment and the work required of them. They usually work very long hours, are denied rest days and freedom of movement, not provided with suitable accommodation or sleeping areas, and paid late, or less than the agreed amount, or sometimes, not at all.

Joining the global initiative to end this modern-day slavery, the Asean member countries have signed the Asean Convention Against Trafficking in Persons, Especially Women and Children (ACTIP) on 21 November 2015 in Kuala Lumpur and came into force in March 2017.

Sources: http://www.nationmultimedia.com/detail/breakingnews/30323392
https://www.manilatimes.net/modern-slavery-asia/332485/

Technologies & Slavery

IT technologies have grown to play a part in modern slavery, whether through online "grooming", controlling victims through webcam or mobile phone surveillance, and the sale of sexual materials through secual exploitation. Encrypted messaging systems like WhatsApp are also used to discuss human trafficking outside the eyes of government surveillance. Cryptocurrencies can be used for payment without being traced.

Services like the dark web - i.e., the un-indexed portion of the internet - creates a market whereby perpetrators of modern slavery can traffick slaves, and access a larger, global pool of potential buyers. Modern IT technologies help the perpetrators of modern slavery find, monitor and exploit victims, and help them buy, sell and communicate outside of the eyes of government surveillance.

But, IT and modern technologies also have the potential to help deter modern slavery. Technology has a proven ability to increase transparency in global supply chains, collect and analyse patterns to identify offenders. Utilising technology can help understand where the vulnerable populations are, and increase the ability of policy makers, NGOs and law enforcement understand the issue, intervene to help victims and disrupt the whole chain of modern slavery. Some of the most promising opportunities are:

1. Basic technology and training make more easily available by technology providers to the many front line civil society organisations supporting vulnerable groups, victims and survivors;
2. Smartphone Apps help first line responders and vulnerable workers take some control of the modern slavery environment; enabling them to report concerns and providing easier access to training resources and language translation services;
3. Blockchain, distributed ledger technology improve traceability and transparency of supply chain labour standards and workers' identity papers;
4. Biometric identity management to help identify and empower victims to protect themselves from exploitation, in particular at border controls. Blockchain technology has many use-cases that could be directed toward deterring modern forms of slavery.

Sources:
https://www.reuters.com/article/us-technology-trafficking-fight-insight/chasing-shadows-can-technology-save-the-slaves-it-snared-idUSKBN1JH005

Technologies & Slavery

They could be used as an alternative form of human tracking (e.g. human traffickers often confiscate forms of personal identification like government-issued ID and other documents to prevent the identification of those they are trafficking). Blockchain projects such as the Provenance and SmartFreeTrade can be very helpful in countries such as Libya where immigrants in transit continue to be hijacked and sold into slavery.

For instance, they could be used as an immutable and transparent means of recording supply chain movements and transactions in order to open businesses' supply chains to the public eye as a means of deterring slave labour. They could be used to track things like the location, health-status and working hours of labourers in order to track parameters that would be indicative of abuse.

Sources: https://www.techuk.org/insights/news/item/11039-techuk-and-wilton-park-modern-slavery-conference https://themarketmogul.com/blockchain-modern-day-slavery/;

Conclusions

Conclusions

This report explored the ways in which FinTech can be leveraged as a driver of social good in developing countries, and aimed to chart the landscape of FinTech for Social Good, with a particular emphasis on Africa, Latin America and Asia.

It provided overviews of the various international organizations involved in increasing financial inclusion, the role of regional and local organizations, and the main obstacles and roadblocks to progress in this space.

It also aimed to illustrate its main findings and conclusions concretely through two case studies, the first on gender equality and financial inclusion (illustrating examples of gender gaps in financial inclusion, and how FinTech and other advanced IT-technologies can be leveraged to lessen this gap), and the second on modern slavery, showing how FinTech solutions and other advanced IT-technologies can be leveraged in order to help reduce forms of modern slavery and exploitation in the developing world.

One of the strongest conclusion of this report is that FinTech driven by advances in IT technologies is more than just an emerging set of novel financial products and services. It represents a clear means of enabling actionable humanitarian good, towards accelerating the socio-economic development of underdeveloped countries to give them greater opportunities for access to basic human amenities, and the pathway for their integration into the modern global economy through financial inclusion initiatives and technologies.

The potential practical applications of FinTech in developing regions is fundamentally and categorically different from its potential applications in the developed world, where its impact is limited for the most part to enhancing the quality of financial services. By contrast, in the developing world it has the potential to solve crucial humanitarian issues and to leapfrog fundamental socioeconomic and infrastructural barriers and bottlenecks, giving citizens not only access to the global economy and potentials for remote employment under fair and equitable conditions, but access to basic human amenities as well. Its impact can be measured not only in the magnitude of the issues it has the potential to resolve, but also in the sheer number of humans afflicted by those issues, e.g. the more the 2 billion unbanked citizens lacking access to fundamental resources, amenities and opportunities that the citizens of developed nations have never lived without. For the developing world, FinTech can be considered as one of the leading forms of ImpacTech -- i.e., technologies which deliver an incredibly high level of impact per dollar spent.

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