

A Work Project, presented as part of the requirements for the Award of a Master's degree in Finance from the Nova School of Business and Economics.

# How can Fintech serve the unbanked in Sub-Saharan Africa?: Sub-Saharan Africa: Land of opportunities for Fintech

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# How can Fintech serve the unbanked in Africa?



How is the Fintech market developing and what do we expect for the future?

- The market gained traction *circa* 2005 and the United States of America (USA) are it's biggest geography
- It is expected to triple in size and we believe there will be a *survival of the fittest* phase, with players already financed and with positive cash-flows in the forefront



How is Fintech shaping the financial industry business models?

- Fintech complements banks' strengths by meeting new digital customer preferences
- Synergies between incumbents and new players can lower the cost to serve the unbanked



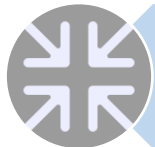
What are the opportunities for Fintech in Sub-Saharan Africa (SSA)?

- Sub-Saharan Africa is a land of opportunities for Fintech where it can have a positive impact in financial inclusion
- Only a restricted lot of countries in Sub-Saharan Africa have the required resources to make Fintechs thrive in the near future



How is Fintech creating value in SSA?

- Mobile network operators's (MNOs) large customer base allows them to lead the transition from informal finance to formal financial services
- Network effects accelerate financial inclusion: financial services finance technology and technology can deliver financial services faster



Challenges and Recommendations

- Countries would benefit if government focused on strengthening education, improving infrastructures, regulations and creating conditions for investment
- Fintechs would gain from focusing on customer-product fit and building partnerships, while improving country knowledge and decision making

Fintech can leverage the widespread smartphone adoption to offer financial services in Africa. However, governments must reduce barriers to improve financial inclusion through economic digitalization.

# Executive Summary

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## 3.1. Fintech Market in Sub-Saharan Africa

- The African Fintech market is still small in comparison with the rest of the world
- Nigeria, South Africa and Kenya have a major share of Sub-Saharan Fintech transactions volume, in a market dominated by digital payments



## 3.2. The Unbanked in Sub-Saharan Africa

- Financial development and financial inclusion in Sub-Saharan Africa remain low, with almost 70% of the population being unbanked
- Sub-Saharan Africa lags behind the rest of the world in terms of internet penetration and technological readiness; However, there are differences throughout the region



## 3.3. Analysis of Fintech Enablers in Sub-Saharan Africa

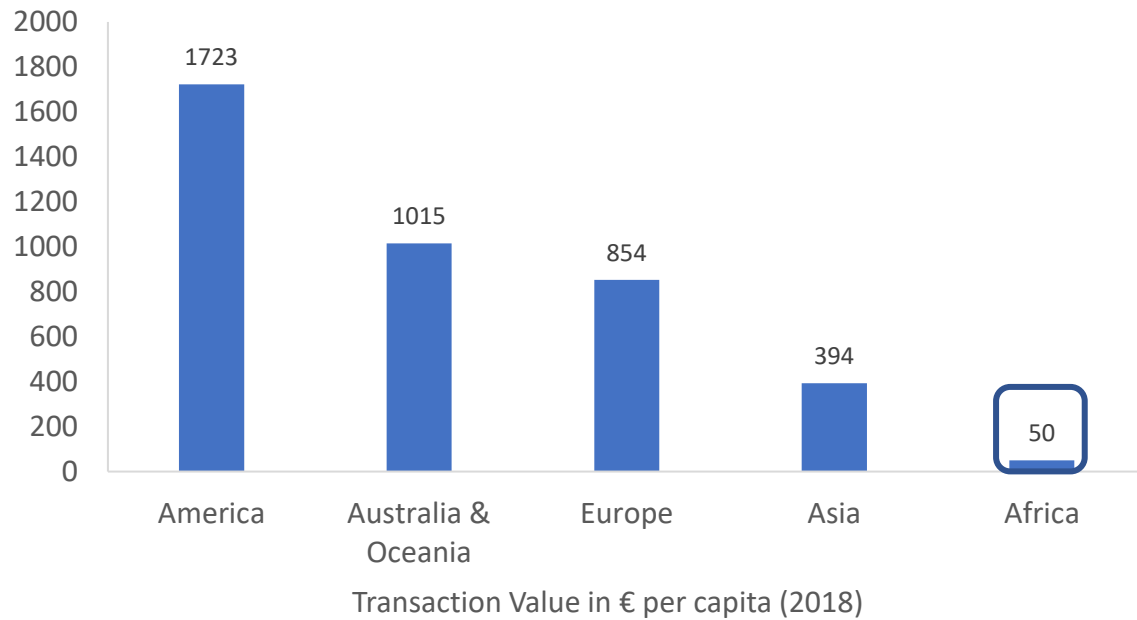
- To enable and foster Fintech firms, countries must be prepared in four core attributes: demand, technology, talent, capital and policy
- Overall, Nigeria and Kenya provide the most fertile ground to FinTech firms' prosperity - an underserved market to target and a favorable legal framework

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Keywords of module 3: unbanked, inclusion, enablers, framework

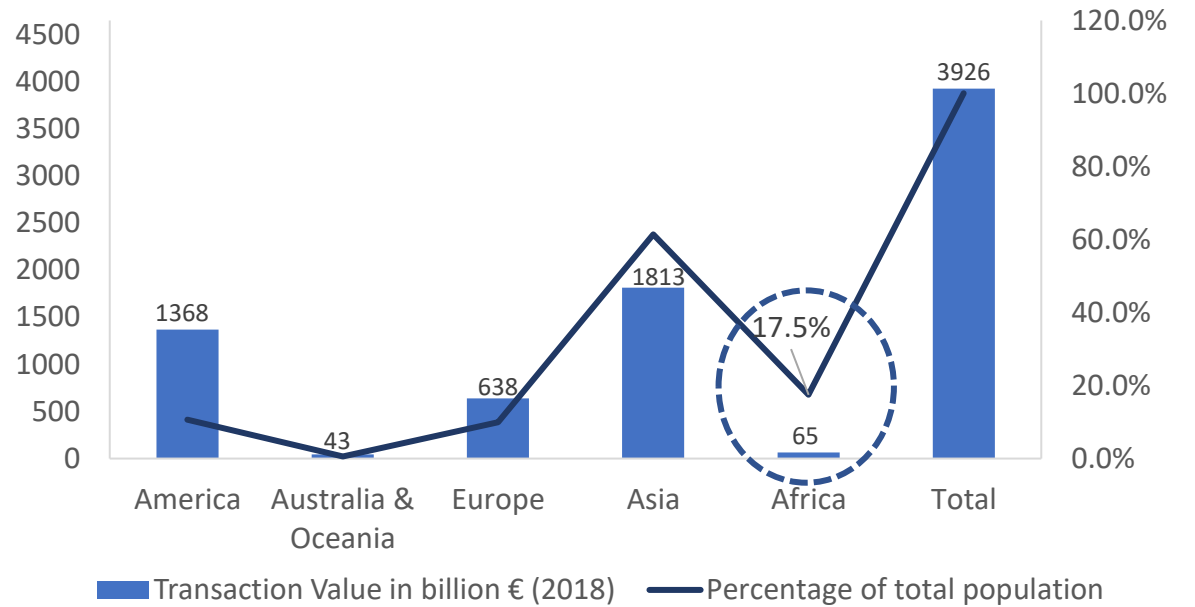
## The African Fintech market is still small in comparison with the rest of the world

37. Africa sits at the bottom of the world in Fintech usage with under € 50 of transactions volume in 2018.



- The figures above express **potential transaction volumes and not corporate revenue.**
- Africa has the **lowest amount of users** per 1000 inhabitants, and the **lowest transaction value per user**, resulting in the **lowest transaction value per capita.**

38. While SSA represents 17.5% of the world's population, it only accounts for a 1.7% share of the total transaction value.

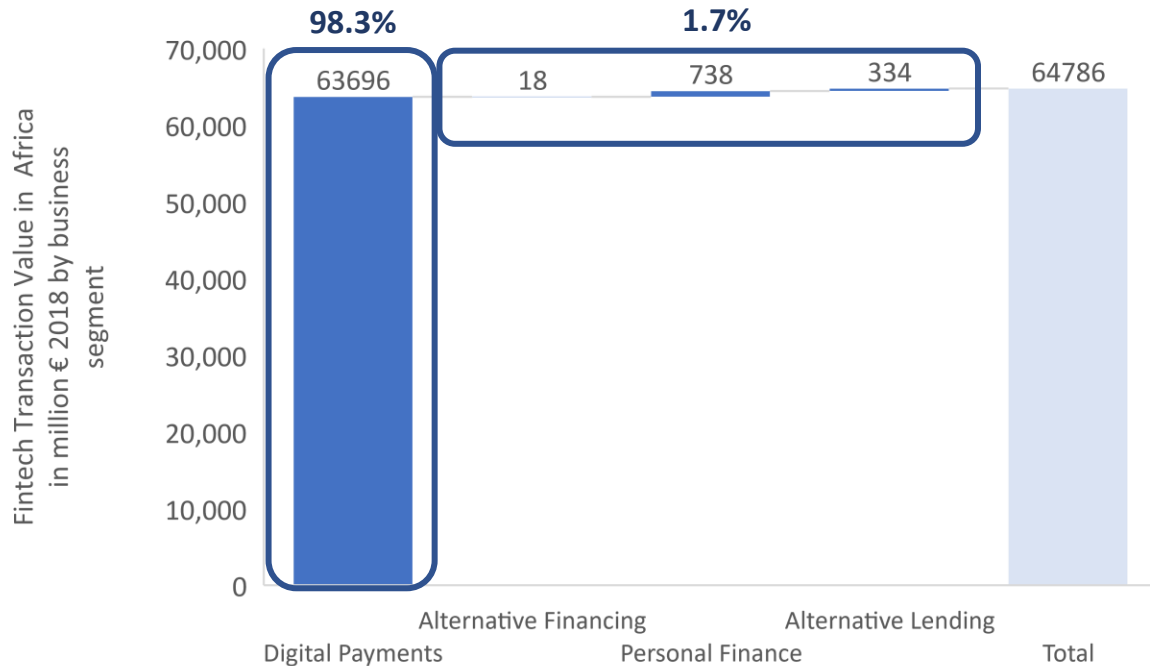


- Africa's share of world's fintech market is **well below its share of the world's population.**
- This is a hint that, while Fintech has been gathering attention in the region, it is still in an **early stage in comparison with its peer continents**

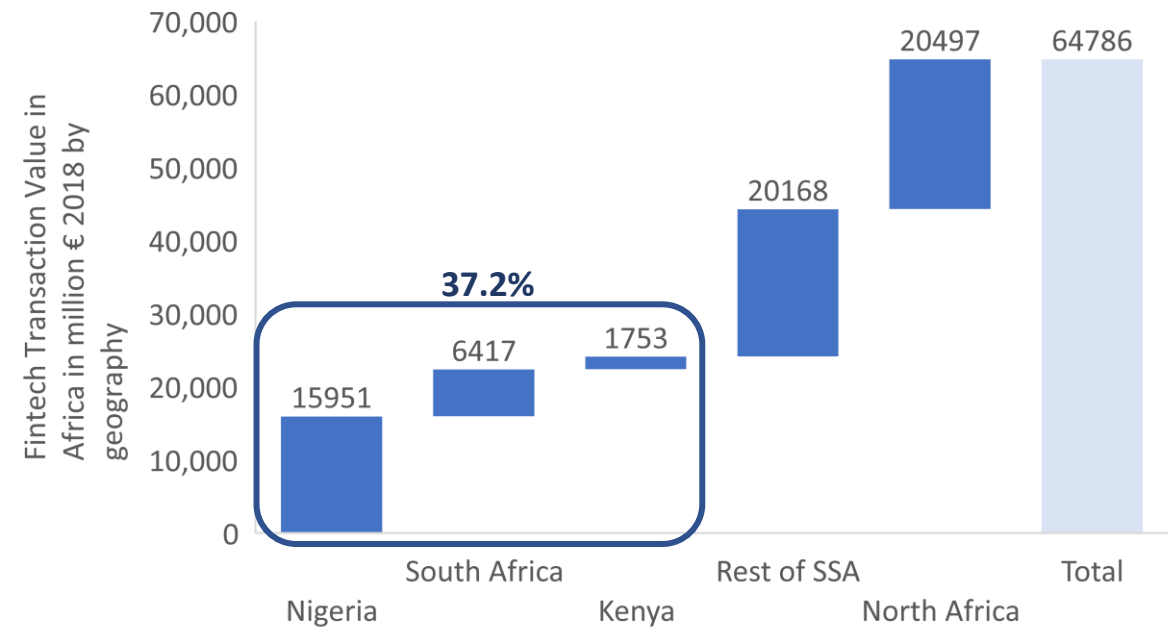
### 3.1 FINTECH MARKET IN SUB-SAHARAN AFRICA (1/2)

## Nigeria, South Africa and Kenya have a major share of the Sub-Saharan Fintech transactions volume, in a market dominated by digital payments

39. The Fintech landscape in Africa is heavily dominated by Digital Payments, accounting for 98.3% of the total transaction value in 2018.



40. Nigeria, South Africa and Kenya represent more than 33% of Africa's Fintech market and more than 50% of Sub-Saharan African's FinTech market.



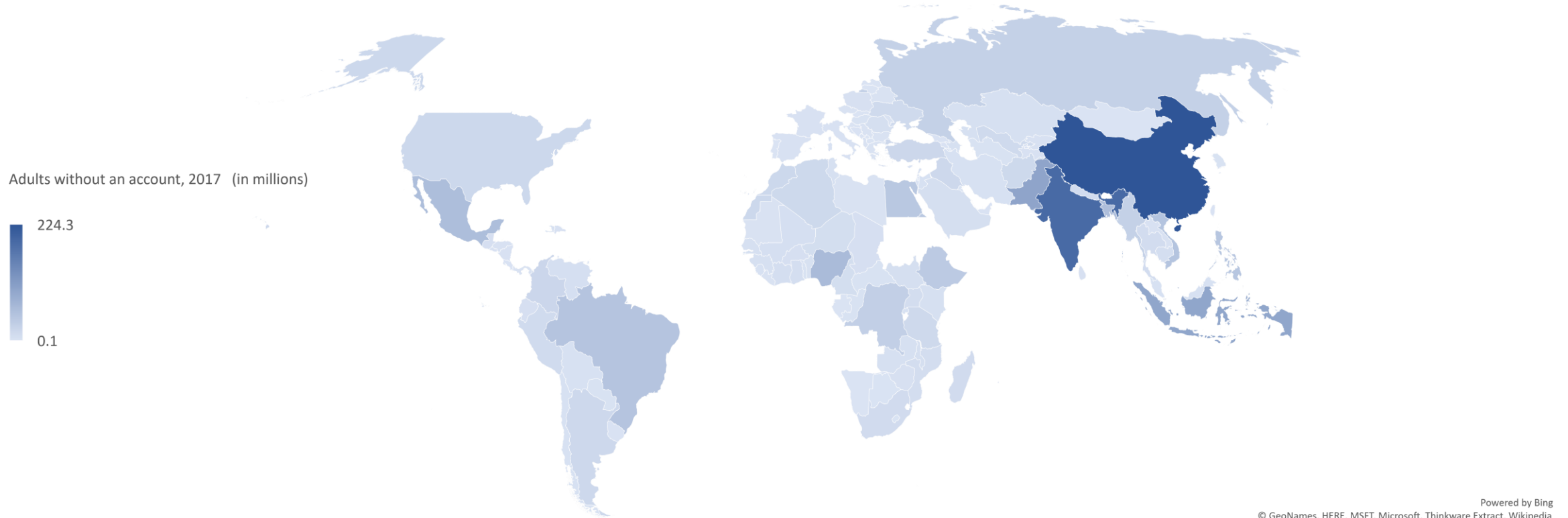
- **Digital Payments are dominant** within the African fintech space.
- **Digital Commerce account for almost the entirety** of Digital Payments transactions, leaving only a small fraction to Mobile POS Payments.

- African Fintech market is **highly concentrated around three major economies** – Nigeria, South Africa and Kenya.

### 3.2. THE UNBANKED IN SUB-SAHARAN AFRICA (1/5)

## Globally, about 1.7 billion adults remain unbanked — 350 million of these live in Sub-Saharan Africa

41. Globally, 31% of adults are unbanked<sup>1</sup>. Most live in India and China, but a significant part lives in SSA.



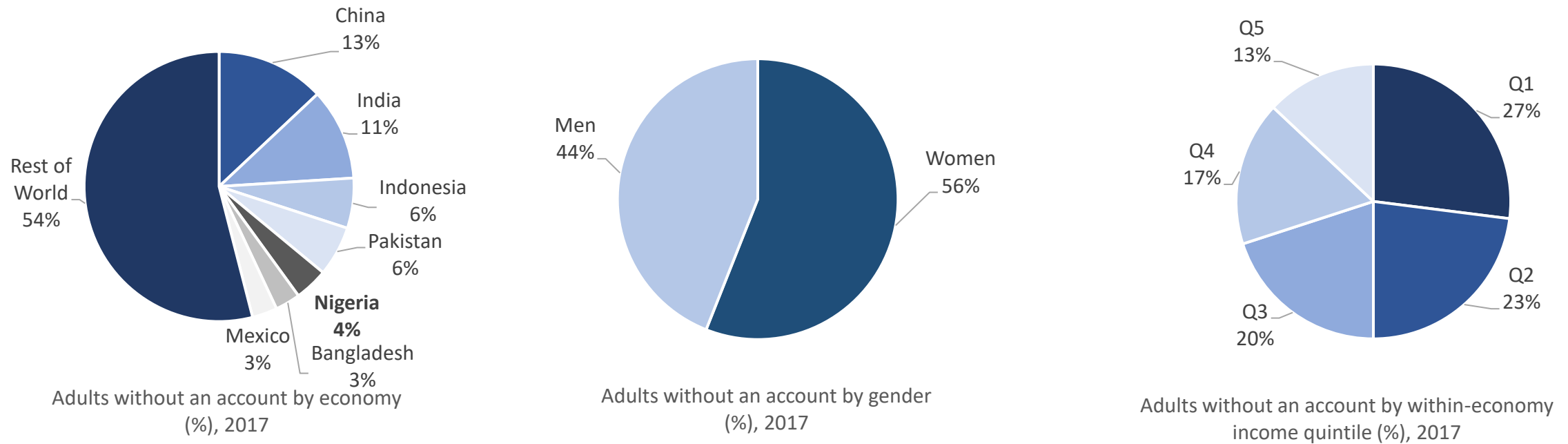
- The **share of adults with access to an account as of 2017 was 69%**, an increase of 7 percentage points from 2014, translated in 515 million.
- The vast majority of account owners have an account at a bank, a microfinance, institution, or another type of regulated financial institution.
- Out of 590 million adults in SSA, c. **345 million remain unbanked** - this **represents almost 70% of the SSA's population**.

<sup>1</sup>The unbanked are defined by “the people without access to an account (by themselves or together with someone else) at a bank or another type of financial institution or report personally using a mobile money service in the last 12 months”

### 3.2. THE UNBANKED IN SUB-SAHARAN AFRICA (2/5)

## Women and the poorest people within an economy are overrepresented among the unbanked, but the pattern varies among economies

42. There is wide variation in account ownership across geographies, genders and levels of income



- Almost **50% of all unbanked live in just seven economies**. China and India are the most represented.

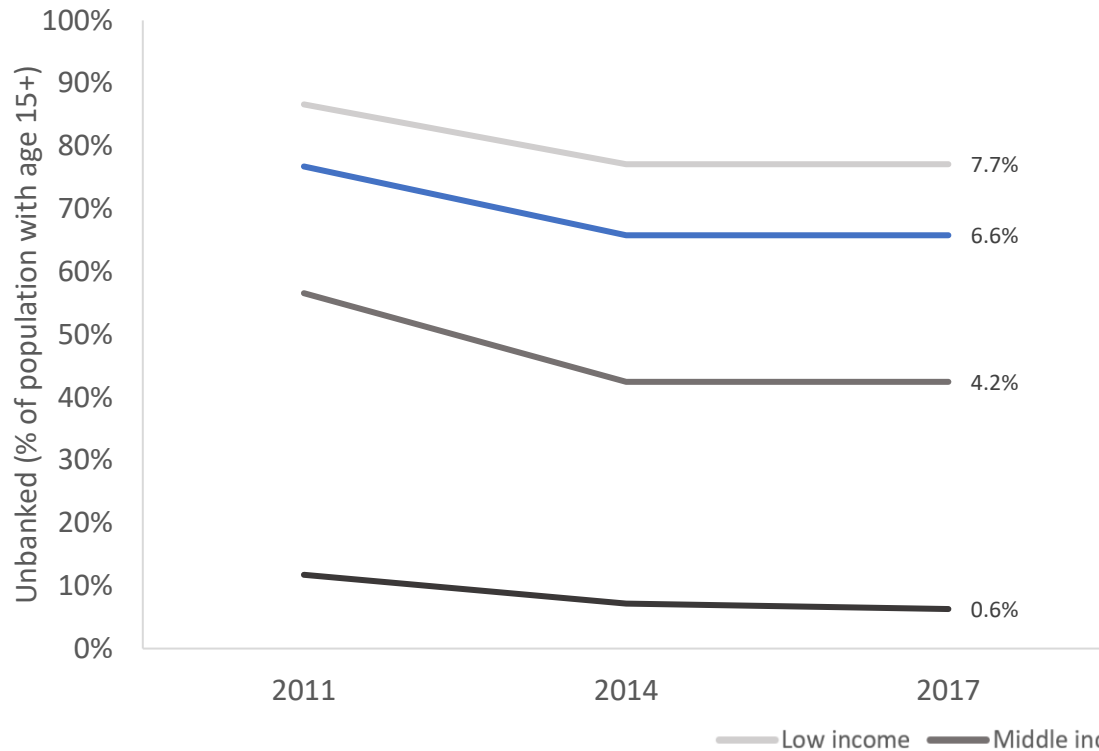
- **56% of all unbanked adults are women.**

- **About 50% of unbanked adults come from the poorest 40% of households** within their economy, the other half from the richest 60%.

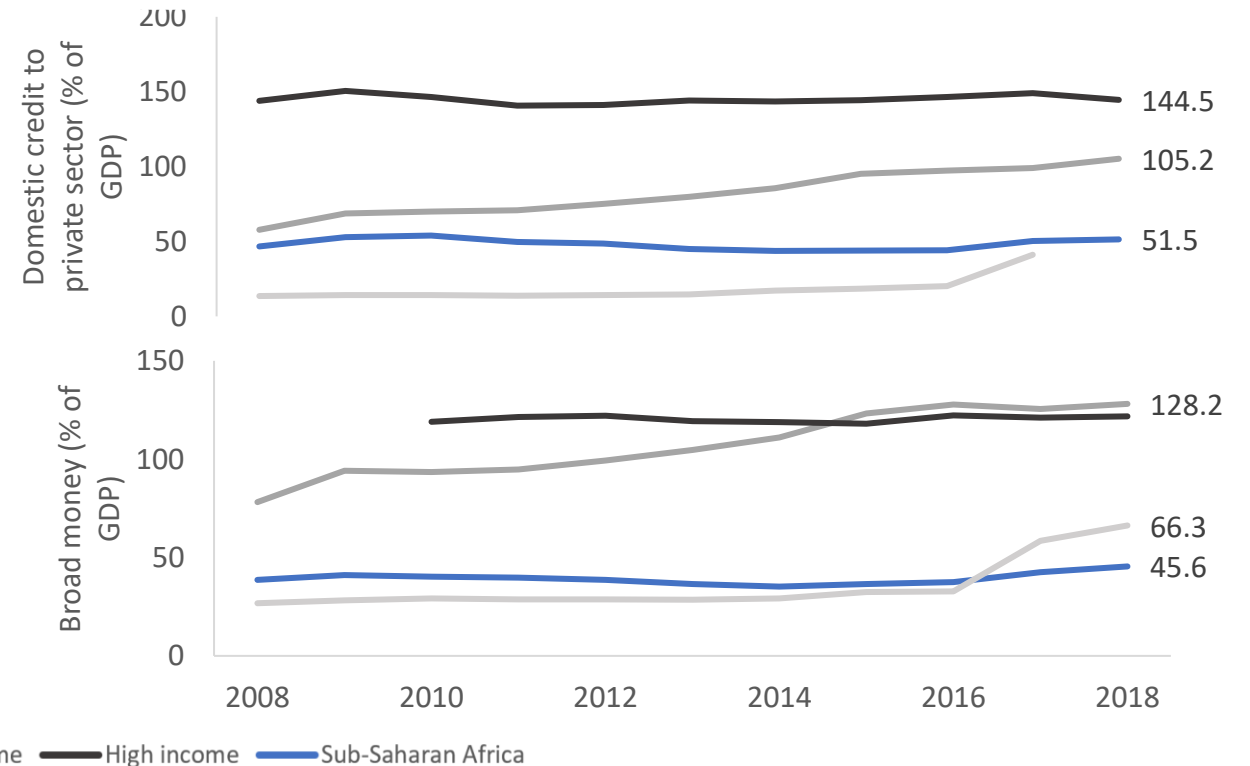
### 3.2. THE UNBANKED IN SUB-SAHARAN AFRICA (3/5)

## Financial development and financial inclusion in Sub-Saharan Africa remain low, with almost 70% of the population being unbanked

43. Low-income people represent the biggest share of unbanked in SSA



44. Credit to private sector and broad money in SSA is close to low-income countries' average



- Although the unbanked decreased over the six-year period to 2017, their **proportion in SSA is still close to the low-income countries' average.**

- Despite the improvement of financial development indicators, such as the ratios of domestic credit to private sector and broad money (as % of GDP) have improved over the last ten years, **countries in SSA still have an underdeveloped financial system compared to the rest of the world.**

### 3.2. THE UNBANKED IN SUB-SAHARAN AFRICA (4/5)

## Sub-Saharan Africa lags behind the rest of the world in internet penetration and technological readiness. However, there are differences throughout the region

45. Nigeria, Kenya and South Africa stand out as the most technologically ready for a Fintech revolution, although Ghana follows closely behind.



- Most Sub-Saharan African countries have a low score on technological readiness. This poses an **obstacle as a FinTech disruption requires technological infrastructure and internet penetration to be successful.**
- The existence of a leapfrog in financial services on the back of Fintech is contingent on the existence of multiple technological requirements. As of now, **only Nigeria, Kenya and South Africa seem to have sufficient population base with access to internet and mobile devices to sustain such revolution.**

### 3.2. THE UNBANKED IN SUB-SAHARAN AFRICA (5/5)

## SSA's Fintech landscape is led by 3 hubs (South Africa, Kenya and Nigeria), having c. 50% of the region's GDP. These could be the incubator for SSA's Fintech revolution



#### SOUTH AFRICA

- **Largest** SSA Fintech hub
- **Cape Town** and **Johannesburg** are the home to c. 30% of SSA's Fintech firms
- It has a well-developed financial system. Financial services are mainly provided by financial institutions, with **fintechs acting mainly as coadjutants in the value chain**



#### KENYA

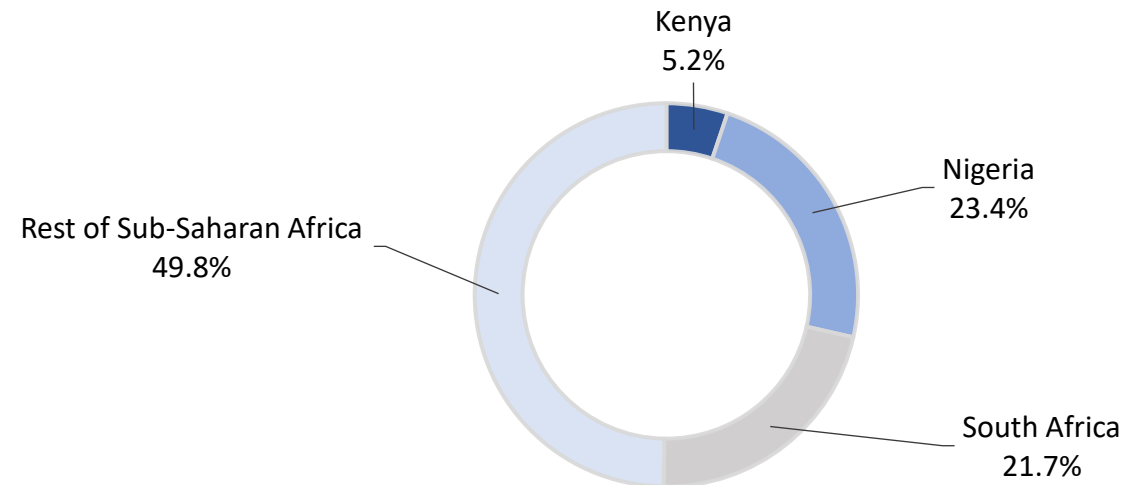
- **Second largest** Fintech hub
- Home to around **20%** of SSA's Fintech businesses, with **Nairobi** hosting more than 50 FinTech firms
- **Fintechs tend to be the provider of financial services**, with a strong focus on the **payments segment**.



#### NIGERIA

- **Third largest** Fintech hub in SSA
- Most fintechs firms are based in **Lagos**
- Like Kenya, the Nigerian Fintech sector is **dominated by the payments segment**

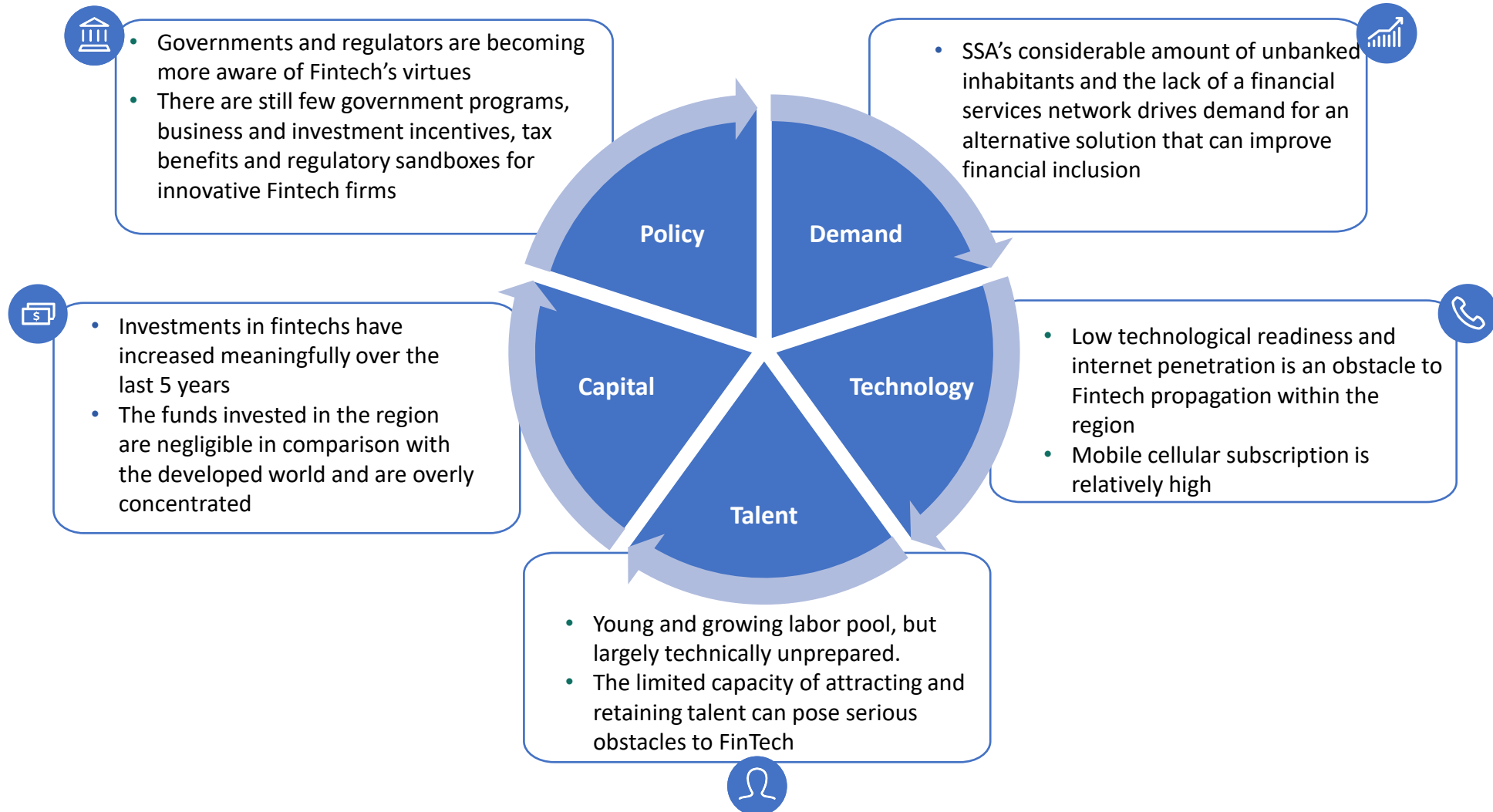
46. Together, South Africa, Kenya and Nigeria represent more than half of the SSA's GDP



GDP (current US\$) in Sub-Saharan Africa (% of region total GDP)

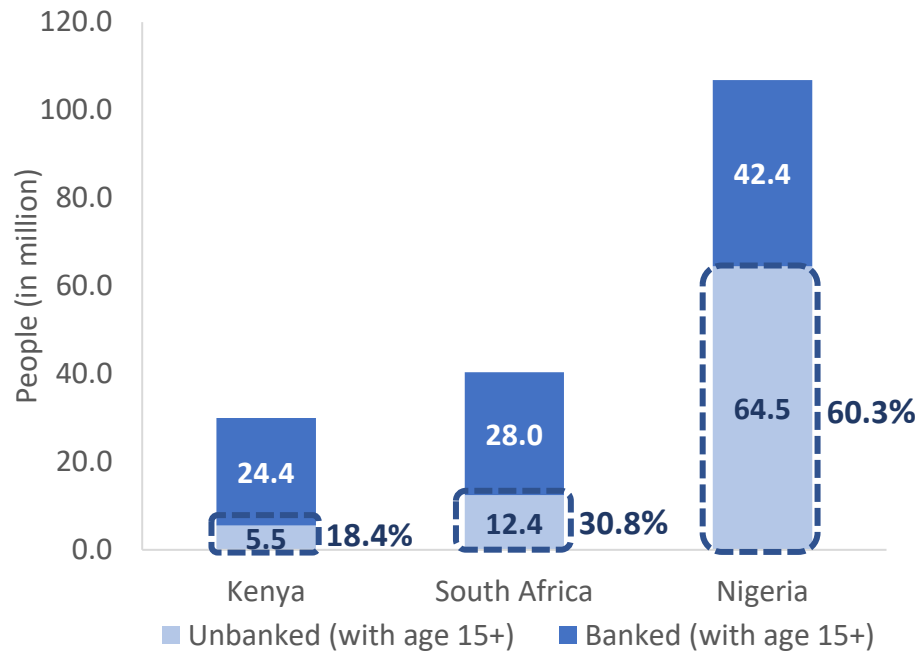
### 3.3 FINTECH ENABLERS (1/9)

## To enable and foster FinTech firms in Sub-Saharan Africa, countries must be prepared in five core attributes: demand, technology, talent, capital and policy

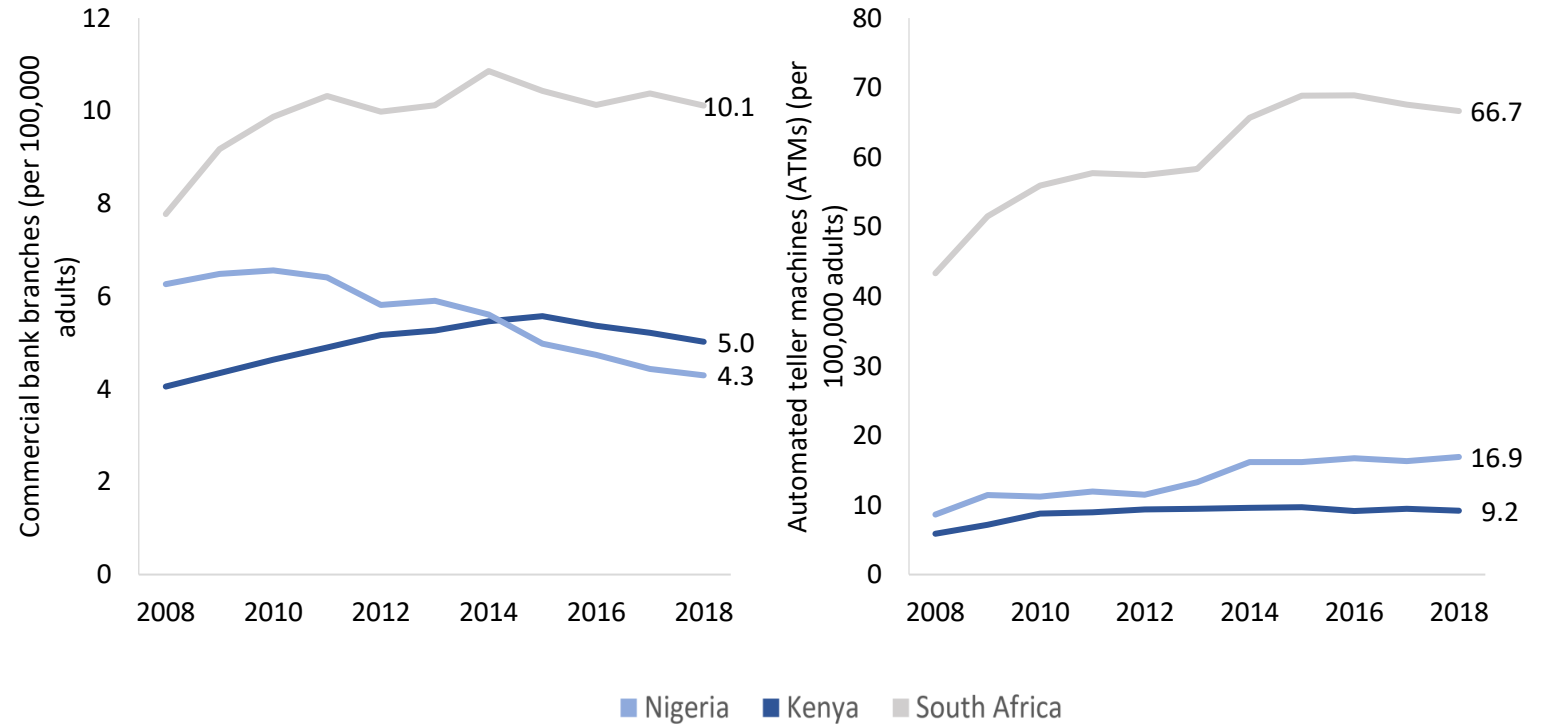


## Nigeria’s substantial amount of unbanked inhabitants and lack of competition makes it a desirable market for fintechs to pursue

47. Nigeria has the biggest market to explore – 106.9 million people, of which 64.5 (c. 60%) do not have access to a financial account.



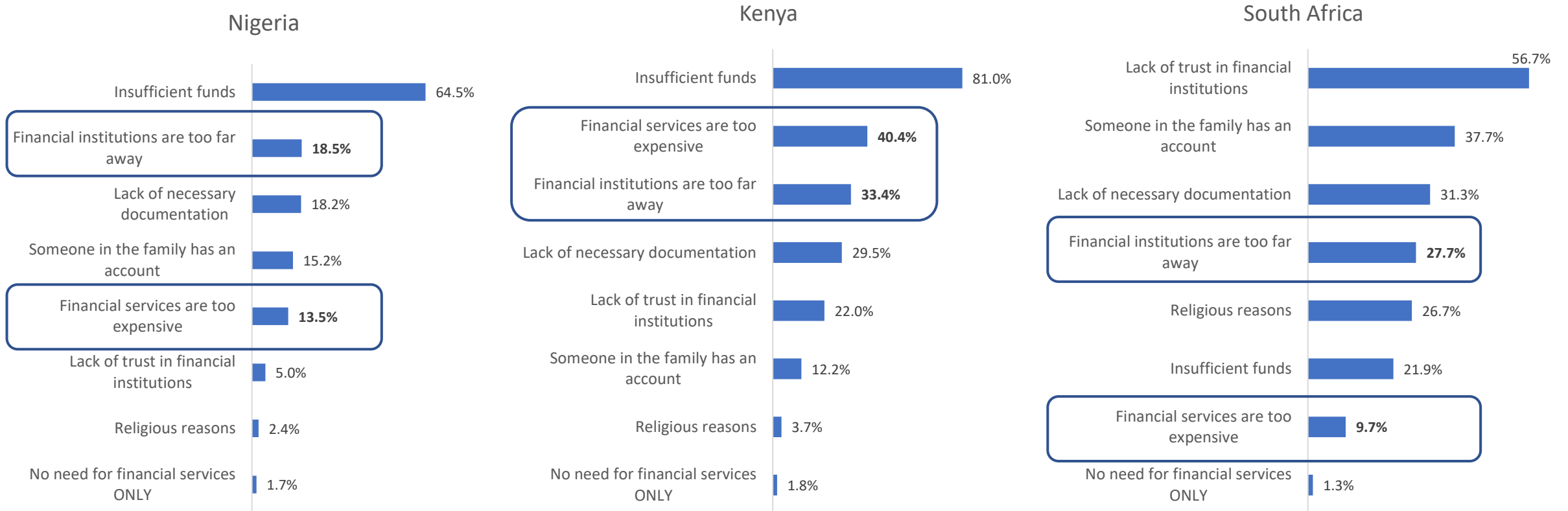
48. South Africa has a more developed financial services network in place compared to the other two. Kenya and Nigeria, with an underdeveloped banking system, have a stronger need for Fintech services.



- There is an **opportunity for Fintech firms to target this underserved segment of the market and contribute to financial inclusion in this space**
- Kenya and South Africa, with c. 18% and 31% of unbanked population, also have considerable demand for financial services and Fintechs can benefit from addressing this gap

## Kenya’s unbanked tend to report the cost of financial services and distance to bank branches as the reason for not having an account

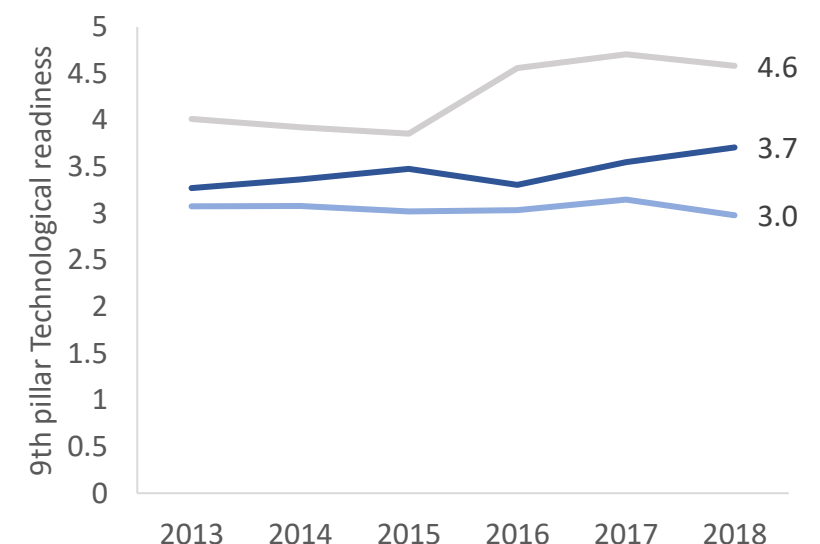
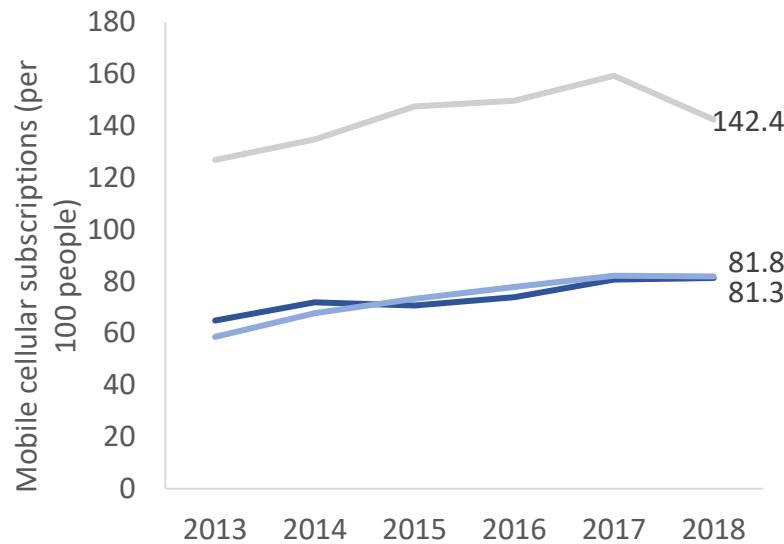
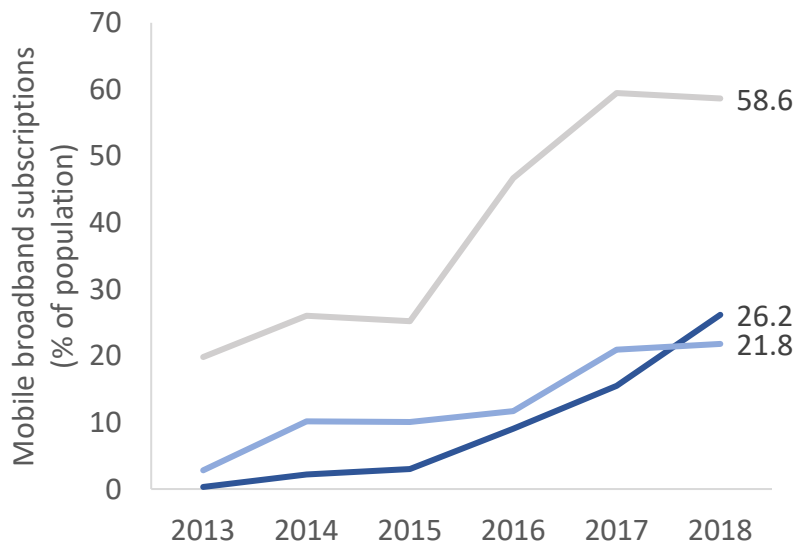
### 49. Reasons for not having an account at a financial institution



- **Fintech can provide financial services** to underserved people that report financial institutions being “**too expensive**” and commercial branches being “**too far away**”.
- **Kenya unbanked population**, having the **largest percentage** of people reporting these reasons for not having an account, **could benefit the most** from Fintech’s penetration.

## Technology-wise, South Africa is the readiest for Fintech’s evolution, with a technological infrastructure more able to sustain it

50. South Africa leads the way in technological readiness, also having the highest percentage of internet users and mobile subscriptions. However, both Kenya and Nigeria seem to have sufficient technological infrastructure to sustain a fintech revolution.



■ Nigeria ■ Kenya ■ South Africa

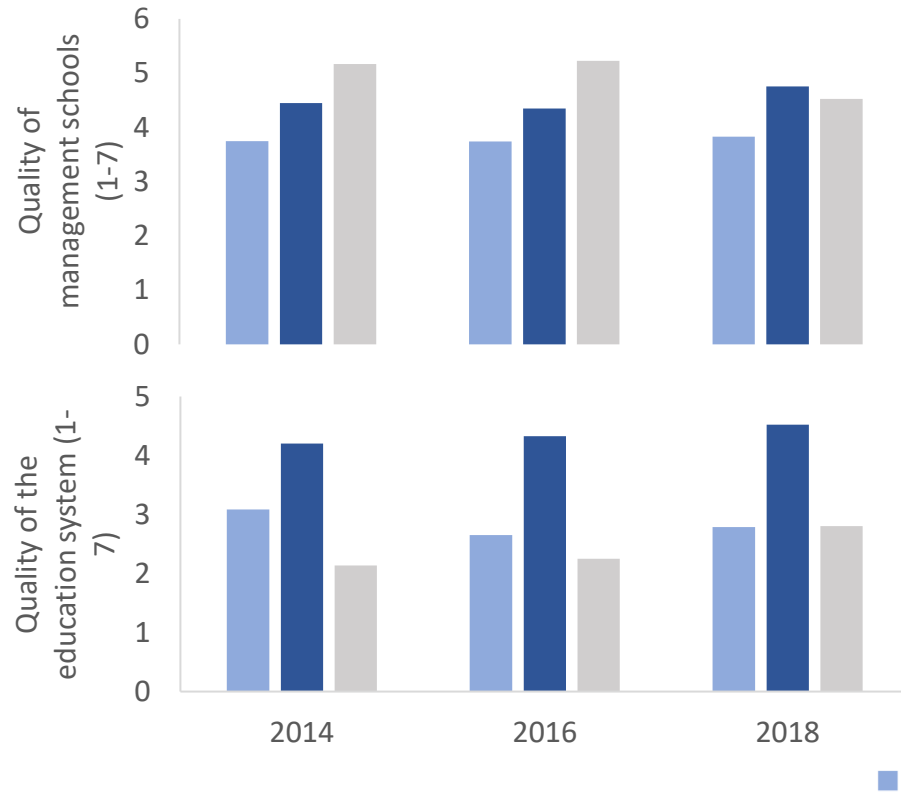
- Mobile broadband subscriptions are a requirement to make use of the **full range of Fintech products and services**.
- **Kenya and Nigeria are lagging** in this department and rely on more primitive Fintech forms

- **Mobile cellular subscription penetration is gradually progressing to 100%**.
- Despite this, smartphone penetration in Africa is still **sub-par in comparison with the rest of the world**, which compromises the implementation of Fintech's more recent developments

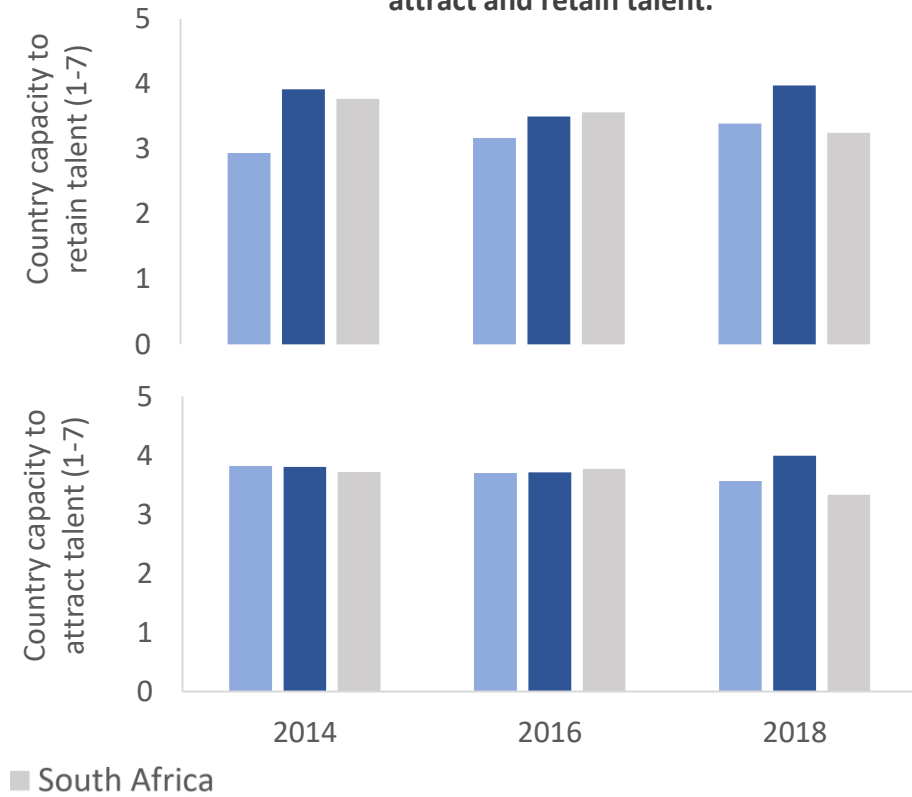
- The technological readiness pillar measures the **ability to adopt and leverage existing technologies of a given country**.
- **Nigeria’s lower score** may suggest more difficulties in promoting access and increasing usage of new financial technologies.

## Kenya stands out with a differentiated talent pool while being more habilitated to retain and attract talent

51. Kenya has the best education system and management schools compared to its peers. Nigeria and South Africa's education system quality falls behind



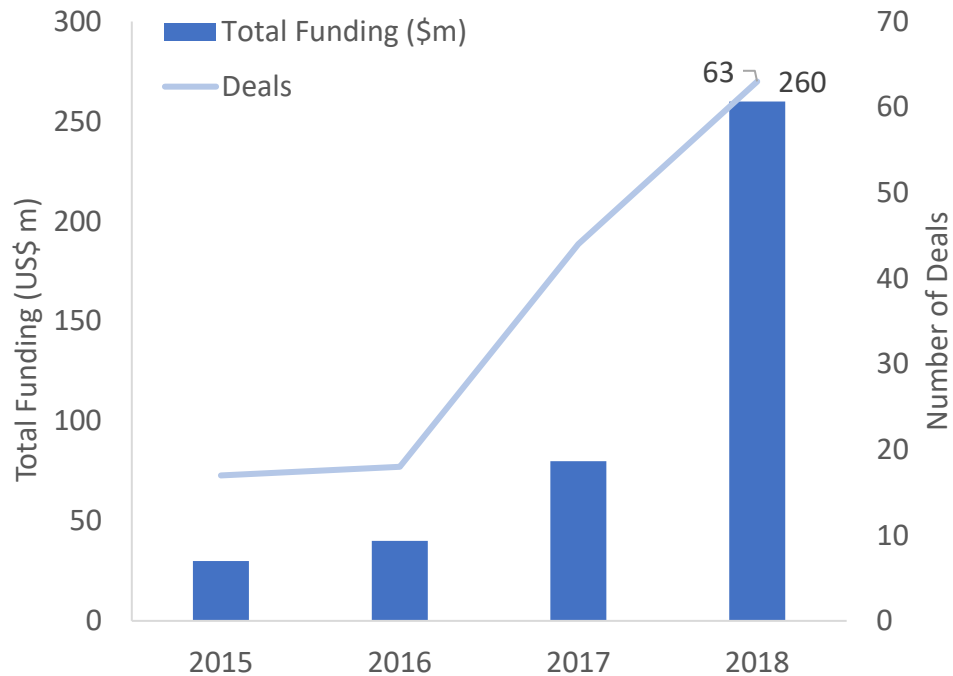
52. Despite being the most developed economy out of the three, South Africa struggles to attract and retain talent. Oppositely, Kenya has the best capacity to both attract and retain talent.



- The **quality of management schools** and the **quality of the education system** is an appropriate **proxy of the overall skills and training in a country's workforce**.
- In particular, Fintech companies with innovative business models and disruptive technology, **require highly trained staff with a focus on management and technology fields**.

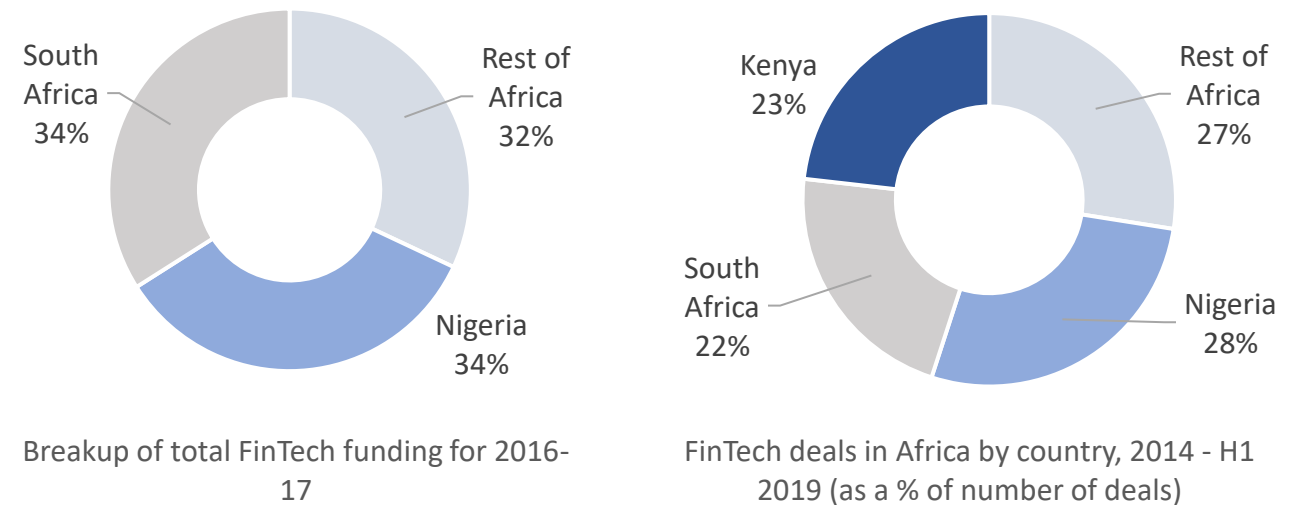
## Fintech funding and deal activity have been increasing in SSA, with Kenya, South Africa and Nigeria collecting a considerable portion of the funds

53. Investment in fintechs in Sub-Saharan Africa have increased significantly since 2015



- **142 Fintech deals** occurred in Africa since 2014, corresponding to a total of **US\$850 million** that was invested in Africa since 2014.
- Out of these, **63 took place in 2018**, representing an enormous leap from the previous years.

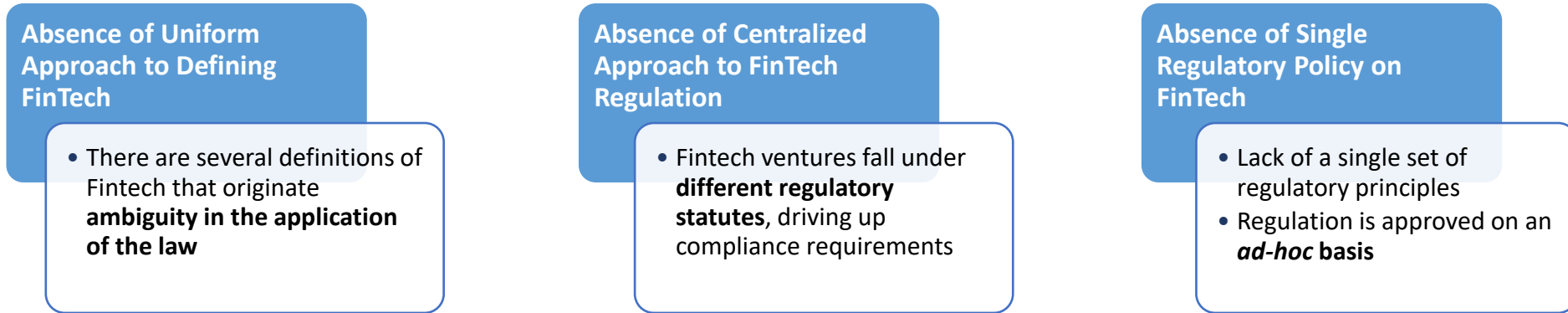
54. Investment in fintechs is concentrated in only three countries in SSA



- Almost **75% of the cash flows** invested went into **Nigerian, Kenyan and South African** firms
- Despite having the **lowest venture capital (VC) availability**, **Nigeria** still manages to capture a major stake in Africa's Fintech investment.

# Nigeria has a legal system that promotes fintechs' inception and growth through investment incentive schemes and regulatory sandboxes

Fintech regulation in Sub-Saharan Africa faces many challenges that are common to most of the countries within the region. Regulation, that often lags behind innovation, has exposed different shortcomings:



Nevertheless, there are country-specific legal framework particularities that may fuel Fintechs inception and development:

Country	Special investment incentive schemes	Financial regulators and policy-makers receptiveness	Regulatory Sandboxes
Nigeria	●	●	●
Kenya	●	●	●
South Africa	●	●	●

● Positive   ● Neutral   ● Negative

### 3.4 FINTECH ENABLERS - SUMMARY ( 8 / 8 )

## Overall, Nigeria and Kenya provide the most fertile ground to Fintech firms' prosperity - an underserved market to target and a favorable legal framework

SOUTH AFRICA		
<b>Demand</b>		The existence of a developed financial services network, with enough bank branches and ATM's coverage to serve the population, drives Fintech demand down.
<b>Technology</b>		The most technologically developed country among the group, with the highest number of mobile telephone and broadband subscriptions and technological readiness
<b>Talent</b>		Although management schools are almost on par with Kenya's, the education system's lack of quality and the inability to attract and retain the best, more educated and brighter people diminishes the operational feasibility for fintechs.
<b>Policy</b>		The existence of some investment incentive schemes (not Fintech-specific) and the financial regulators and policy-makers' receptiveness to new Fintech businesses are positive for fintechs' growth. However, the lack of proper regulatory sandboxes may challenge the implementation of more disruptive ideas.
<b>Capital</b>		Responsible for 22% of Fintech deals over the last five years and 34% of Fintech funding during 2016-2017. There is venture capital availability.
KENYA		
<b>Demand</b>		Mobile payments success story has addressed most of the unbanked problem, leaving only c. 18% of the population without access to an account and decreasing demand-
<b>Technology</b>		The country's technology should be able to accommodate a Fintech disruption.
<b>Talent</b>		Kenya has the best education system of the group and the best ability to attract and retain talent.
<b>Policy</b>		The Financial regulators and policy-makers' receptiveness to Fintech and the existence of regulatory sandboxes may favor fintechs' success in this geography. However, the inexistence of special investment incentive schemes sets it back.
<b>Capital</b>		Venture capital availability is the highest of the group and a significant portion of fintech deals in the SSA occurred in Kenya.
NIGERIA		
<b>Demand</b>		Nigeria's' considerable amount of unbanked people (c. 4% of the world's unbanked population) and the lack of competition makes it a desirable market for fintechs
<b>Technology</b>		Nigeria has the lowest technological readiness of the group, which may pose a challenge to fintechs' success.
<b>Talent</b>		Nigeria management schools' quality falls short when compared to its peers and so does the ability to retain talent.
<b>Policy</b>		The existence of special investment incentive schemes and regulatory sandboxes and the financial regulators and policy-maker's receptiveness to innovative Fintech ideas makes it a good legal environment for FinTech to prosper.
<b>Capital</b>		There have been a great number of deals during recent years and Nigerian fintechs collected roughly 33% of the total funding in the SSA space. However, venture capital availability is the lowest of the group.

# How can fintech serve the unbanked in Sub-Saharan Africa?



How is the Fintech market developing and what do we expect for the future?

- The market gained traction *circa* 2005 and the United States of America (USA) are it's biggest geography
- It is expected to triple in size and we believe there will be a *survival of the fittest* phase, with players already financed and with positive cash-flows in the forefront



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- Sub-Saharan Africa is a land of opportunities for Fintech where it can have a positive impact in financial inclusion
- Only a restricted lot of countries in Sub-Saharan Africa have the required resources to make Fintechs thrive in the near future



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Challenges and Recommendations

- Countries would benefit if government focused on strengthening education, improving infrastructures, regulations and creating conditions for investment
- Fintechs would gain from focusing on customer-product fit and building partnerships, while improving country knowledge and decision making

# Countries would benefit if government focused on strengthening education, improving infrastructures, regulations and creating conditions for investment

	Challenges	Recommendations
Governments	<ul style="list-style-type: none"> <li><u>Education</u>: Lack of <b>financial and digital literacy</b></li> </ul>	<ul style="list-style-type: none"> <li>Strengthen the financial education of populations by facilitating the creation of education centers</li> </ul> <p><i>"(...) include the masses and educate them by creating awareness regarding finance and how technology can make huge strides at addressing poverty"</i> Gareth Liddell, Head of Delivery of BNRy in South Africa</p>
	<ul style="list-style-type: none"> <li><u>Infrastructures</u>: <b>Limited internet access</b> and reliance on traditional USSD communication</li> </ul>	<ul style="list-style-type: none"> <li>Improve financial and technological infrastructures: incentivise service providers to deliver the <b>widest possible "internet broadband and mobile coverage"</b> and <b>reduction of smartphone's cost of acquisition</b></li> </ul>
	<ul style="list-style-type: none"> <li><u>Regulation</u>: <b>non-uniform, hindering digital economy</b>, with MNOs being subject to considerably more scrutiny than their competitors and some Fintech segments being highly unregulated</li> </ul>	<ul style="list-style-type: none"> <li>The Government's approach should <b>promote the digital economy</b>, and thus create a <b>uniform and specific regulatory framework</b> for all fintech products</li> </ul> <p><i>"(...) clarifying the regulatory framework regarding consumer protection and financial liability and facilitating the establishment of tech clusters."</i> João Gaspar Marques, Member of the Board of Advisors at the Africa Fintech Summit</p>
	<ul style="list-style-type: none"> <li><u>Investment</u>: Not enough <b>venture capital investment</b> and market dominance by few players</li> </ul>	<ul style="list-style-type: none"> <li>Governments should create and increase incentives to venture capital to foment competition and efficiency</li> </ul> <p><i>"Providing tax benefits during the start-ups' first years (...) is also of paramount importance."</i> João Gaspar Marques, Member of the Board of Advisors at the Africa Fintech Summit</p>

## Fintechs would gain from focusing on customer-product fit, on building partnerships, while improving country knowledge and decision making

	Challenges	Recommendations
Companies	<ul style="list-style-type: none"> <li><b>Partnerships:</b> differences in the organizational structure between fintechs and traditional institutions</li> </ul>	<ul style="list-style-type: none"> <li><b>Focus on synergies</b> which might help banks reducing costs and fintechs gaining scale</li> </ul> <p><i>"(...) find partnerships with other companies that share your goals and can help you achieve them"</i> João Gaspar Marques, Member of the Board of Advisors at the Africa Fintech Summit</p>
	<ul style="list-style-type: none"> <li><b>Country knowledge:</b> lack of geography-specific knowledge regarding African countries</li> </ul>	<ul style="list-style-type: none"> <li><b>Hire country-specific experts</b></li> </ul>
	<ul style="list-style-type: none"> <li><b>Product:</b> Lack of customer-product fit, lack of focus on customers' demand and over-focusing on profits</li> </ul>	<ul style="list-style-type: none"> <li><b>Focus on the real necessities of customers</b> while having the flexibility to change when customer demands shift</li> </ul> <p><i>"(...) be transparent and adaptable and mostly, listen to your user's feedback"</i> João Gaspar Marques, Member of the Board of Advisors at the Africa Fintech Summit</p>
	<ul style="list-style-type: none"> <li><b>Management decisions:</b> Sometimes decisions are made based on success stories in other countries, and not in the specific country</li> </ul>	<ul style="list-style-type: none"> <li>Country-specific study and focus, not considering Africa as one cultural identity but multicultural</li> </ul> <p><i>"business decisions need to be made within the context of the country the solution will apply to (...) the African market cannot be addressed with a cut and paste solution"</i> Gareth Liddell, Head of Delivery of BNY in South Africa</p>

## We may conclude that Fintechs which partner with existing financial institutions have a higher chance of thriving

### Better Product suitability

*“Fintechs that partner with local financial institutions I believe have a **much greater chance of success**. I would recommend finding a country specific partner that can have some influence in terms of making the product suitable for their market and share insights into how the market adopts certain solutions.”*

Gareth Liddell, Head of Delivery of BNRV in South Africa

### Greater security and exposure

*“There is certainly a lot to benefit from building multi-level partnerships (...) a fintech start-up that is given enough operational freedom while securing financial backing from an established institution can benefit from greater security, exposure, and market outreach”*

João Gaspar Marques, Member of the Board of Advisors at the Africa Fintech Summit

### Reduce costs and improve quality

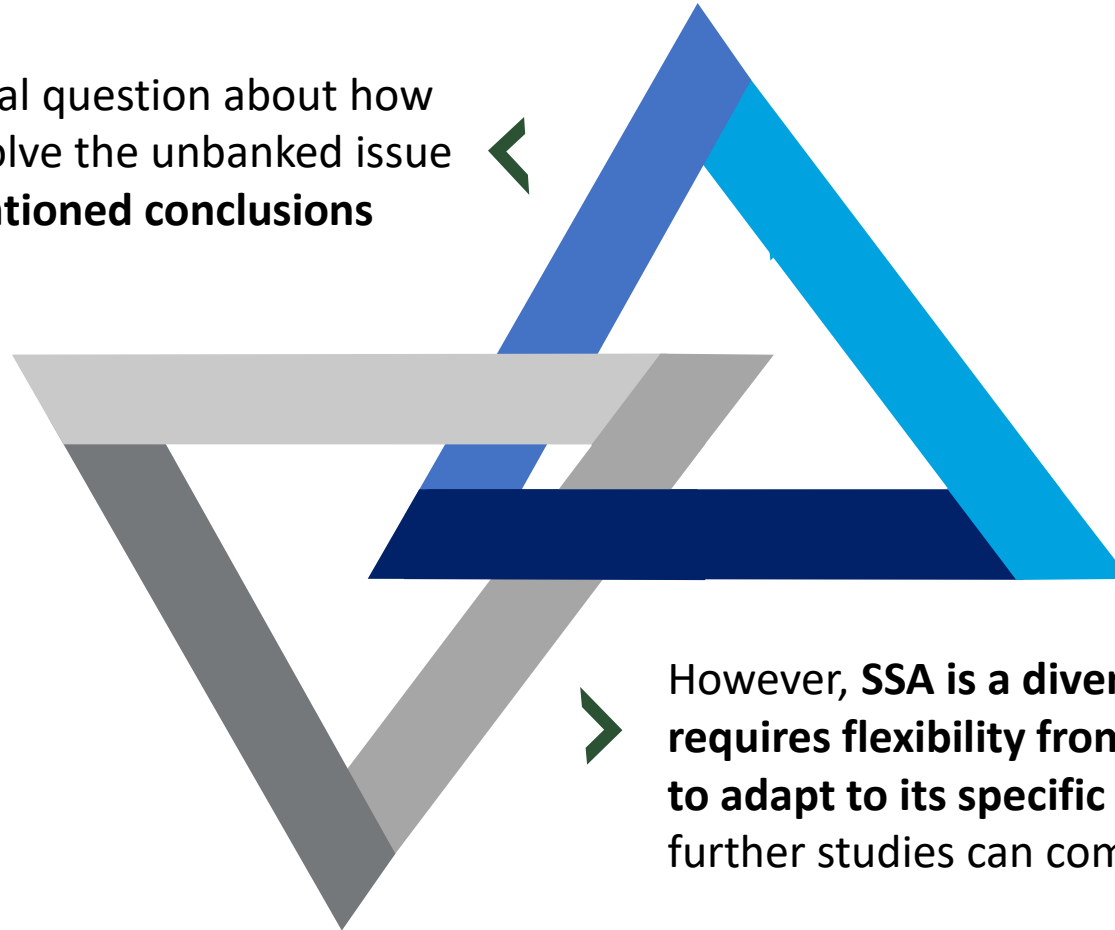
*“(...) some Financial institutions have the advantage of having a **license** that other Fintechs don't have, as well as experience. Yes I believe it would be an advantage and they will have a higher chance of thriving as they can also share costs/overheads to improve the quality of service and get more profits.”*

Ashley Chengeto Rusike, Head of Payment Relations of Mukuru in South Africa

## While our conclusions provide the foundations to government and companies' action plans, these should be tailored to meet country-level specific needs

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We answered our initial question about how Fintech may help to solve the unbanked issue through the **aforementioned conclusions**



However, **SSA is a diverse region that requires flexibility from Fintech companies to adapt to its specific and local needs**, thus further studies can complement this analysis

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## Questionnaire used in the interviews

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1. What internal factors related to companies will have the biggest impact on financial inclusion and financial performance of fintechs which are serving the unbanked and underbanked?
2. Do you believe that fintechs that partner with existing financial institutions have a higher chance of thriving? Why?
3. Which recommendations would you make to Fintech firms?
4. How does the market/environment affect the Fintech landscape in Sub Saharan Africa, and what other factors may have an impact?
5. Which recommendations you would give to governments to enhance the potential of Fintech?
6. And the most important question, do you think Fintech can reduce poverty? How?