

AFRICA

The Next Digital Payments Revolution

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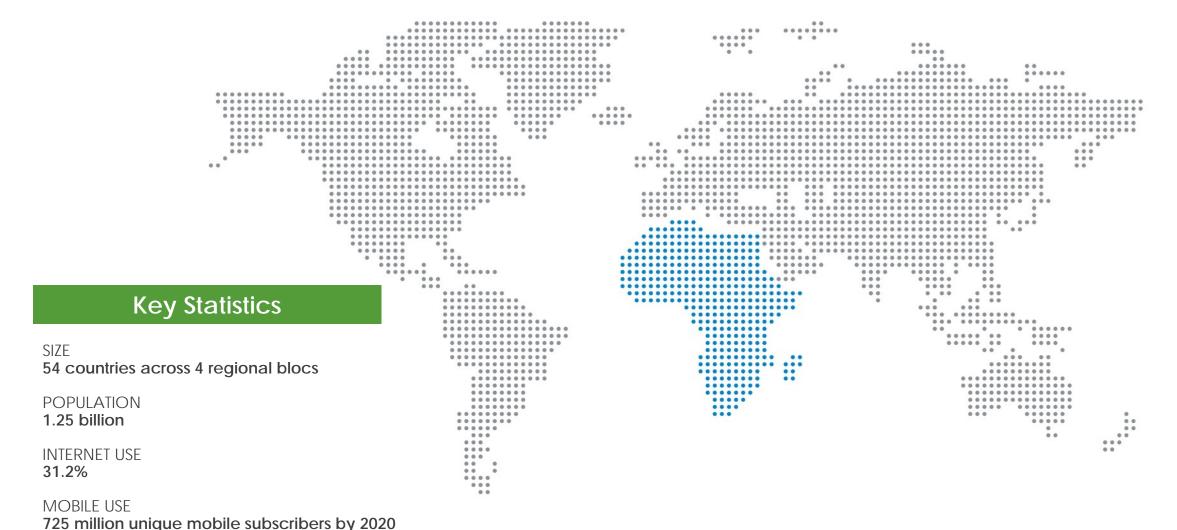
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Why Africa? Why Now?

- Emerging middle class
- Exponential population growth
- Power of young consumers
- Technology "leap frog" effect
- E-commerce habits being formed not changed
- Swift urbanization and infrastructure development



Market Overview



Market Readiness



Market Indicators

Country	Population	Internet Penetration (%)	Internet Growth % (2000 - 2017)	Cellular Subscriptions per 100 inhabitants
Algeria	41,063,753	45.2	37,060.0	120
Cameroon	24,513,686	25	24,445.9	67
Egypt	95,215,102	39.2	8,196.4	103
Ghana	28,656,723	34.7	33,017.6	142
Ivory Coast	23,815,886	26.5	15,695.9	116
Kenya	48,466,928	89.4	21,564.7	83
Morocco	35,241,418	58.3	20,435.2	123
Nigeria	191,835,936	47.7	45,699.4	83
Senegal	16,054,275	25.7	10,198.8	106
South Africa	55,436,360	54	1,147.3	141



The African Consumer

- Average age millennial (19.4 years)
- First generation to have an education, a salary and a bank account
- Consume content and access social media on smartphone devices only
- Six times more likely to have a mobile wallet than the world average
- Heavily influenced by U.S. popular culture and media



Opportunities



- 16 out of 26 of the world's fastest growing economies. Ghana in contention to take top position (World Bank, African Development Bank, IMF)
- Many markets have better Ease of Doing Business ranks than other major emerging markets e.g. Brazil



- Fastest growing population and fastest growing workforce. Exponential middle class growth expected
- High share of younger age groups 50% of the population is under 20



- Mobile adoption showing no signs of slowing down despite remarkable growth in recent years, still huge potential for more
- Major investment in telecommunication infrastructure and greater smartphone affordability driving adoption

Challenges



- Local currency volatility
- Limited liquidity
- Conditions for repatriation



- Political influence
- Legislative and regulatory changes
- Reach limitations outside of metropolitan areas



- Infrastructure and distribution gaps
- Fintech understanding gaps
- Language and cultural barriers

The Mobile Payments Boom

Record Growth and Social Impact

Mobile Connectivity

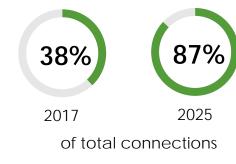
Unique Mobile Subscribers

444 million (2017) Penetration Rate (% of population) 52%

634 million (2025)

Mobile Broadband Connections





690 million smartphones by 2025

Digital Inclusion

300 million additional people to come online by 2025

Financial Inclusion

135 live mobile money services in 39 countries **helping deliver financial inclusion to the unbanked**

Innovation

44 million cellular IoT connections by 2025 **helping deliver innovative new services and apps**

Mobile Payments

What are Mobile Payments?

- Enable consumers to **send**, **receive and store money** using their mobile device
- Increasing adoption helped by expansion of mobile networks to underserved communities and increasing affordability of services and devices
- E-commerce and m-commerce powered by mobile payments are well placed to succeed where physical bricks-and-mortar retail infrastructure is less developed
- The two most common types of mobile payments in Africa are **mobile money** and **mobile wallets**





Mobile Money

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Mobile Payments

Benefits

- Drives the technology revolution
- Democratizes financial services for greater business expansion
- Sparks GDP growth
- Expansion of digital payments market
- Increases financial inclusion

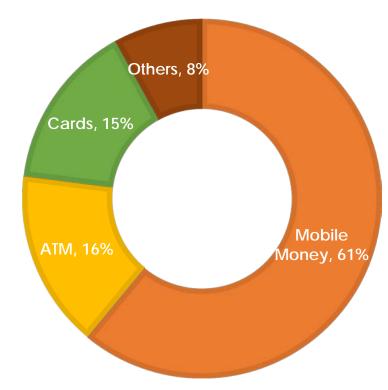


The rise of mobile money

Market Statistics

- **Population:** 29.4 million and grows at 2.5% annually
- Language spoken: official language is English. French and Hausa are two major foreign languages spoken. There are also 56 Ghanaian dialects
- GDP growth: 8.5% (2017)
- Local currency: Ghana Cedi (GHS)

Payment Method Mix



	Ghana	Kenya	
MM % of GDP	36% (\$44 billion)	66% (\$70 billion)	
Active Subscribers	9.4 million	34 million	
Active Agents	122,000	165,000	
Value in Transactions	\$15 billion	\$47 billion	
Digital Channels	5 banks	11 banks	



Source: Jotis 2017

Market Complexity

- Purchase Amount Limits: mobile money usually has limits imposed on single transactions, which cannot exceed 10,000 GHS
- Recurring Model: most widely used payment methods support recurring model, but require active consent for subsequent transaction
- 3D Secure: optional for online transactions, but highly recommended

Unique Payment Feature

- Before SIM cards are enabled for mobile money use each consumer must register for the service
- All consumers must meet KYC requirements based on the size of the wallet. These range from:
 - Minimum (any ID)
 - Medium (government approved ID)
 - Enhanced (2nd ID such as utility bill, bank reference letter)

How Does It Work?

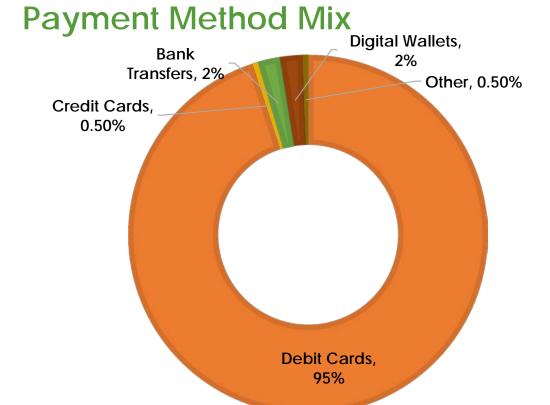
- The most common way consumers in Ghana add money to their mobile money accounts is direct cash deposit at a mobile money agent kiosk
- Funds can also be transferred from a bank account to a mobile money account or also received directly from another mobile money account



Slow infrastructure limits growth

Market Statistics

- **Population**: 190 million and grows at 2.6% annually
- Language spoken: official language is English. Hausa, Yoruba and Igbo are three major regional languages spoken
- GDP growth: 1.9% (2017)
- Local currency: Nigerian Naira (NGN)



Opportunities

- Tremendous growth in mobile penetration enabling major increase in cashless economy and new opportunities for global merchants
- High debit card use extends beyond immediate card authorization with immediate fulfillment to pay later options

Challenges

- Very low credit card penetration, conditions attached to apply for a credit card are very stringent
- Adoption of alternative payment methods like mobile money have been slow due to infrastructure limitations

Market Complexity

- Purchase Amount Limits: minimum limit imposed on single transactions is 100 NGN
- Recurring: not supported, all cards are PIN-based
- 3D Secure: optional for online transactions, but highly recommended

Liquidity of NGN

- Access is heavily restricted to official exchange rate
- Around \$200-300mm transacts daily at a higher market clearing rate, but there is a maximum limit
- Liquidity is improving FX reserves dropped to low of \$24 billion in 2016. They have now reached \$49 billion, but still far off \$64 billion peak in 2008
- Until Nigeria fixes its oil income and keep proceeds at home, Naira is expected to remain mostly unchanged

Not All Cards Are Created Equal

- 99% of all cards in Nigeria are locally issued and are only enabled for purchase from local entities
- The dominant local card brand,
 Verve, is issued by 18 banks and has 45% market share
- The most popular payment channel, Quickteller.com, has 1.6 million monthly active users



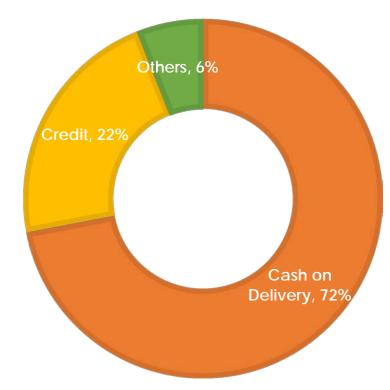


A different kind of wallet

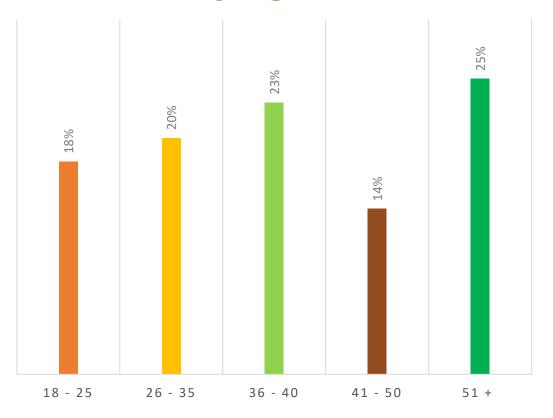
Market Statistics

- **Population:** 99.3 million and grows at 1.8% annually
- Language spoken: official language is Arabic. English and French are two major foreign languages spoken
- GDP growth: 5.3% (2017)
- Local currency: Egyptian Pound (EGP)

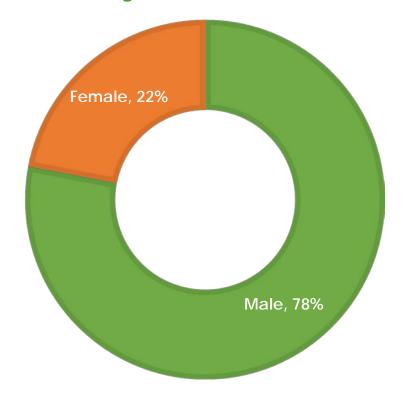
Payment Method Mix



Consumers by Age



Consumers by Gender



Opportunities

- High mobile penetration 138%
- Financial reforms supported by World Bank and other Arab nations
- Government initiative to push towards credit cards as payroll instrument

Challenges

- High share of unbanked citizens
- Volatile political environment

Market Complexity

- Purchase Amount Limits: limits usually imposed on single transaction for mobile wallets cannot exceed 10,000 EGP. But there are kiosks which accept higher amount deposits
- **Recurring**: not supported for mobile wallets
- 3D Secure: Optional for online transactions, but highly recommended
- Liquidity of EGP: Central Bank of Egypt lifted its only remaining official foreign currency control in November. Had imposed limits on deposits and withdrawals by importers of nonessential goods

Mobile "Wallet" - Not As We Know It

- Mobile wallet models are unique in Egypt – value is not stored
- The wallet acts as a channel for value to pass through from consumer to merchant
- The two major mobile wallet brands are:





How Does It Work?

- Fawry is accepted by:
 - 70,000 kiosks
 - 1,500 post offices
 - 7,500 ATMs
 - 23 banks
 - Myfawry.com website
- Consumers use a payment reference number to make a payment at one of the above acceptance points



Summary & Key Takeaways

- 1. African markets are open for business for cross-border merchants
- 2. Understanding of how mobile is used unique to each market is crucial to success
- 3. Market complexity should not be daunting and can be overcome



Thank you

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