Payments System for Financial Inclusion and to Support E-Commerce

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What will Facilitate E-Commerce in Developing Countries?

- An important ingredient of E-Commerce is Financial Inclusion and a national payments and settlement system
- An appropriate infrastructure – like mobile phone network and internet supported by fibre-optic network accessibility.
- Financial inclusion brings household to the financial market – especially banks – accessibility and affordability become important.
- It is accessibility to the financial market that allows capital accumulation via savings and affordable credit
- National payments and settlement system must be efficient, effective, transparent and safe to attract potential participants
- The poor households as well as SMEs in developing and emerging economies are transactions heavy and are sensitive to costs
- In recent years, we have witnessed developments in the retail payments system covering the poor and unbanked due to advances in financial inclusion.
- So the natural starting point for E-commerce is to encourage financial inclusion – how to deliver financial services to different market segments efficiently – low costs, and safe

Recent Advances in Support of E-Commerce

- RTGS – A real time payments platform globally - easy to link up
- The basis for regional payments systems like COMESA and EAPS – they facilitate regional trade, they are quick wins for regional integration if supported by currency convertibility platforms.
- The M-Pesa retail payments system - real time and with a turn-round time of 5 seconds! Tigo-Pesa linking Tanzania and Rwanda on the same principal
- Uber Tax system that use Google maps to locate and pick clients and paid for via retail real time settlements – M-Pesa in Kenya or credit/debit cards – efficiency and effectiveness
- Virtual savings products and virtual credit supply platforms like M-Shwari and KCB M-Pesa in Kenya and M-Pawa in Tanzania with less than 15 seconds of turn-round time
  - **What has made all these possible – core infrastructure in place**

Financial Inclusion for E-Commerce and Financial Development

- Inclusive growth works with access to markets – financial markets are critical: savings; investments; poverty reduction, trade finance, etc.
- Banks need deposits to grow their intermediation capacity, lower unit costs and barriers to entry
- Developing economies with nascent financial sectors have recognized that different market participants in different market segments are sensitive to costs as well as the delivery channels of financial services
- Then what viable solutions – deliver these services via a viable technological platform - the mobile phone – beginning of Digital Financial Services (DFS) revolution 10 years ago and now showing very positive results
- DFS solves the problem of physical distance, mass market will solve the unit costs issues but more importantly it is a platform to innovate and reach the target market niches required.
- DFS has become a platform for a menu of financial services to reach the poor and also the well-to-do populace at the same time and in real time.
- DFS has now the backbone and the solution to E-commerce at the national level, regional and international levels:

Why has Financial Exclusion Persisted in Developing Economies?

- Barriers to entry into the banking system
  - Introduction to the bank by existing account holders; Minimum balance requirements; Cost of maintaining accounts – high ledger fees; Restrictions on withdrawals from savings accounts
- Low levels of income and irregular flows of that income and absence of retail payments system and legal framework to support national payments
- History of weak regulatory technology and capacity that led to collapse of banks: a dark history of institutional failure, policy failure leading to market failure
- Weak legal framework and incomplete financial infrastructure – e.g. no deposit insurance or information on borrowers
- Information asymmetry on how banks operate/presence of segmented markets and preference of informal market – run away from costly formality
  - The operators in these market segments, especially the poor, are sensitive to financial products and their delivery mechanism
- Distance to the financial service access points
  - A trip to the bank is expensive – either to deposit or to withdraw or make enquiries; - physical barriers to entry

Financial Inclusion Leads to Vibrancy in the Financial Markets – Supports E-Commerce

- Different initiatives for financial inclusion - The **DFS** has taken the market by storm and pushed the financial inclusion frontier

1. Accessibility to the market via the mobile phone – retail national payments platforms have emerged
2. This technological platform has allowed banks, MFIS and SACCOs to develop new products and manage micro accounts - hence capacity to expand and grow
3. This has created an endogenous demand to complete the financial infrastructure.
4. The poor have increased their savings and their capital base – To escape cycles of poverty
5. Financial Inclusion is consistent with inclusive growth: A game-changer for a variety of opportunities: Accelerated Financial inclusion produces positive growth outcomes
6. Allowed a better environment for forward looking monetary policy.
7. Allowed a better environment for monitoring transactions and to improve AML/CFT Regime.
8. Allowed a platform to design tax payments and government revenue administration that will minimize leakages

The DFS Has been a Success in some countries – what factors?

- Facilitating and at the borderline innovative regulations
- Available infrastructure – Phone network and network of agents that is also scalable
- Existing vector of agents and potential agents that forms the Point of Service or Financial access touch point.
- Marketing design to target early adopters – they became the network builders
- Consumer receptiveness driven by:
  1. Spatial demographics – Urban-Rural links and pattern of financial flows
  2. Cost, Reliability and Real Time
  3. Potential positive effects – business opportunities
  4. Reducing potential negative effects – reduced urban- rural trips or family visits
  5. Trust in the system – institutional (Regulator and regulated) and inter-personal (agent level)

An Example: Kenya's M-Pesa - The Frontier Endogenous Development of DFS for FI

- M-Pesa started as a money transfer platform in 2007 - I argued then that it would become a technological platform for a menu of financial services – this has now become the digital financial services (DFS) - Four stages:
- **First Stage** – Technological platform for money transfer, payments and settlement – Trust accounts in specific banks that developed into transactions platforms supported by a network of Telco Agents.
  - Other commercial banks, MFIs and SACCOs were integrated with this platform.
- **Second Stage** –Telcos and Banks moved to the next stage and partnered to develop **Virtual savings accounts** –a technological platform to manage micro accounts – A virtual banking service has developed.
- **Third Stage**: Transactions and savings data used to generate credit scores for use as the basis to evaluate and price short-term micro credit.
  - Changing and transforming the costly collateral technology that forms the major obstacle in the credit market development, especially in Africa.
- **Fourth Stage:** Developments in cross-border payments and international remittances.
- **Regulatory flexibility, reforms and capacity have been a major catalyst to this evolution**

M-Pesa and the Impact on Financial Inclusion

- First, accessibility to financial services – Transactions is the entry to banking services.
- Second a retail payments system has emerged that is efficient, Effective and real time
- Third, commercial banks and microfinance banks have been provided with a ready platform for managing micro-accounts – personal savings have increased.
  - Banks have built huge mountains of deposits that has given them power to intermediate in the market and the capacity to grow.
- Fourth, has lowered cost of financial services both at the transactions cost level and time to visit the bank, the physical distance level.
  - In Africa, a trip to the bank to transact - to deposit, transfer or to withdrawal money is a very expensive affair both in time and physical distances. In short it has helped to lower barriers to entry into the banking sector.
- Finally, Supported trade **–** accessibility of financial services, the ease of transactions – SMEs and households are transactions heavy and finally, the credit facilities developed within the ecosystem.

The Kenya's DFS a Successful Case?

- Endogenous demand for regulatory reforms, regulatory capacity and regulatory technology
- Retail national payments system that is efficient, effective, real time and trnasparent
- Endogenous demand to complete the financial infrastructure:
  - Information capital – Credit Reference Bureaus; Deposit insurance; Competition policy; Consumer protection/financial literacy, etc
- Commercial banks' heavy investments on the technological platform: Financial inclusion has allowed banks to develop capacity to grow and to serve their market niches – strong banks can weather shocks and roll out competitive products for their market niches.
- Changing Collateral technology in the credit market
- Different actors at different market segments: Microfinance, Saccos and Agency banking
- Fiscal policy design as well as Governments targeted intervention on social protection programs.
- Improved the environment for monetary policy
- Improved the environment for e-commerce and facilitated new products in the market

The Role of the Government

- The digital economy requires a strong analog foundation, consisting of regulations that create a vibrant environment for economic agents to leverage on digital technologies (World Bank, 2016).
- The rapid digital revolution in Kenya's financial sector was supported by "test-and-learn" approach adopted by the Central Bank of Kenya and the telecommunication (Telco) regulator, Communication Authority of Kenya.
- The guidelines set for the network of M-Pesa agents were agreed between the Communication Authority of Kenya (CAK), and the Central Bank of Kenya (CBK) – no room for regulatory arbitrage.
- Kenya's combination of a supporting policy environment with a sound regulatory and supervisory framework allowed space for innovators and entrepreneurs to introduce financial innovations and a diversification of products into the market – so did not stifle innovations
- The Government gradually moved out of cash and cheque payments to online payments platform such as RTGS, Electronic Funds Transfers and G-Pay system to eliminate cash payments and thus supporting DFS
- The Government also used M-Pesa for targeted social protection program and as payment gateway for eCitizen service charges – provides a widespread use of M-Pesa and DFS.

Figure 1. DFS has supported Financial Inclusion

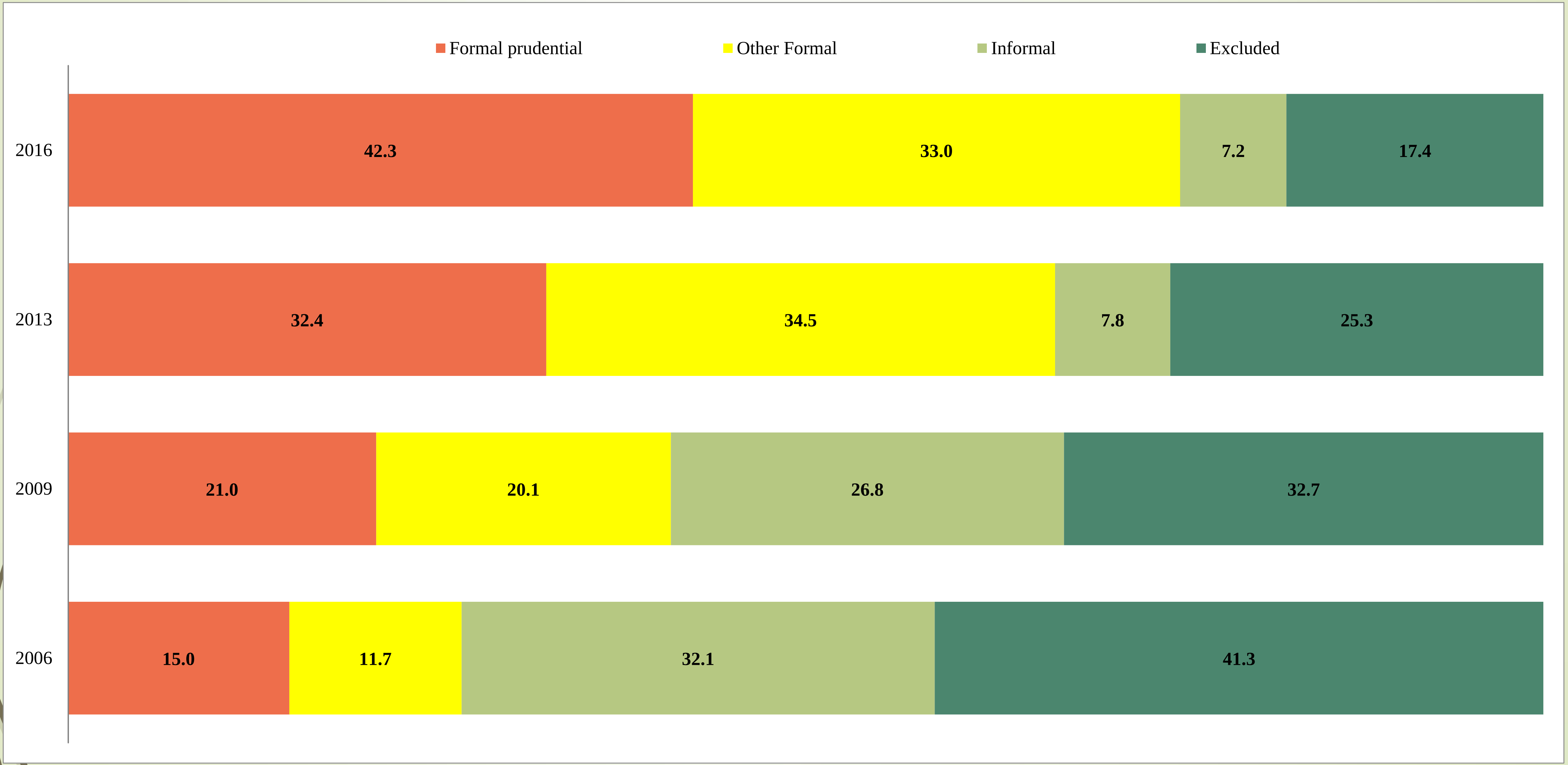


Figure 2 - FI Regional Comparison

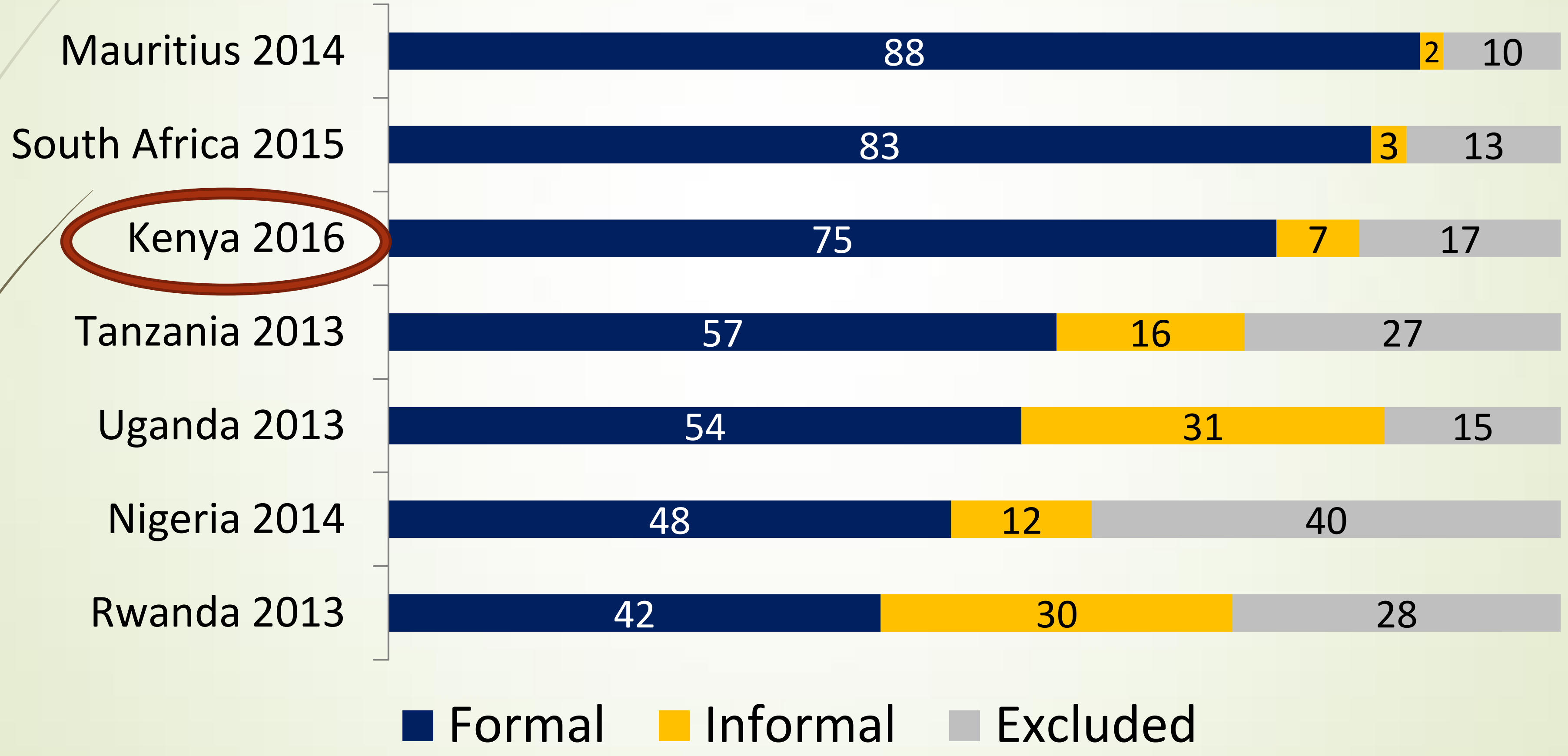
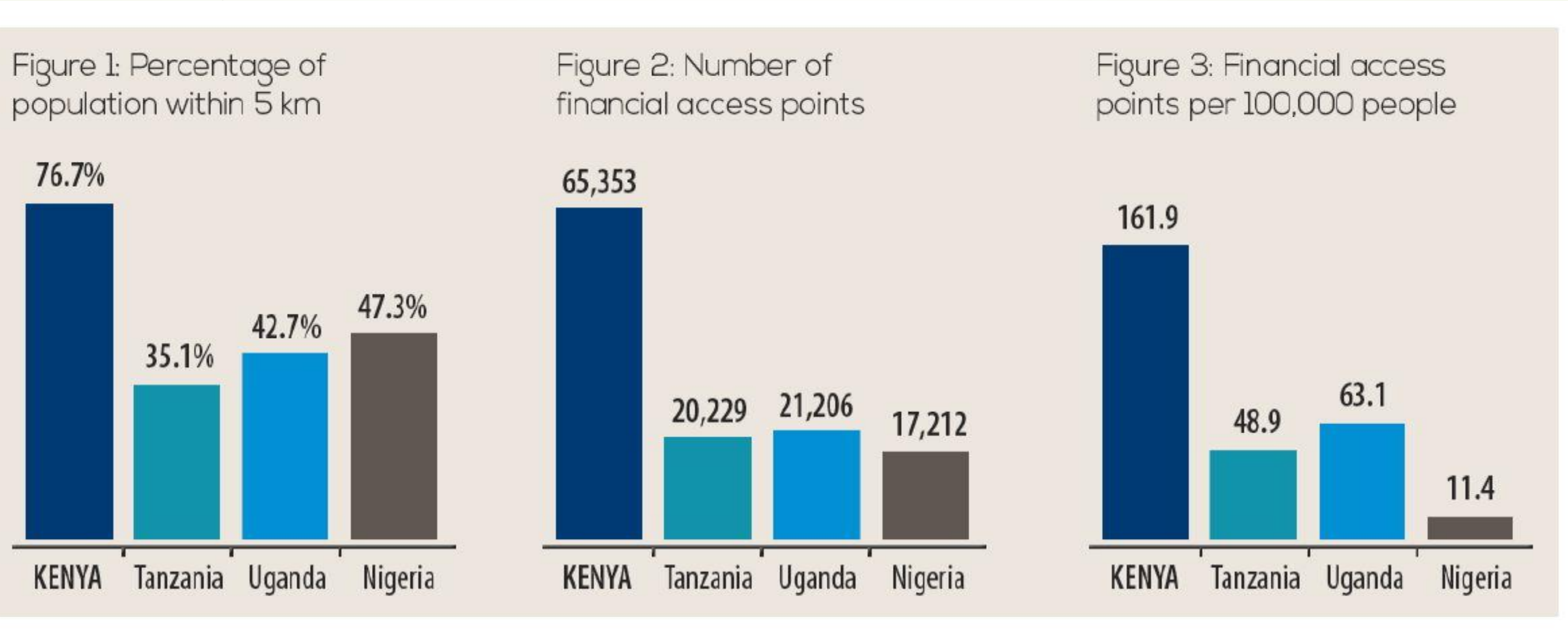


Figure 3 - Financial Access Touch Points have Expanded – Financial services at the door step



Source: Country Geospatial Surveys, 2013

Some Lessons too

- **Better regulation** to build strong institutions that define the rules of the game as well as appropriate incentives (penalties) to encourage prudent behavior in the market thereby ensuring financial system stability and integrity.
- **Better regulation –** know the financial system vulnerabilities and be able to deal with them appropriately – especially risk assessment and appropriately pricing the risks
- Financial innovation is followed by **financial deepening and financial development**, which is welfare improving, enhances efficiency in E-commerce
- Regulators should allow financial innovation to take place - allow the market and the regulator to partner and achieve **sustainable public policy outcomes.**
- **E-commerce and facilitating trade at national, regional and international levels will be efficient**

E-Commerce has wider Developmental Outcomes for Developing Economies

- Financial sector growth and financial deepening are evident – financial development
- Efficient, effective, transparent and real time national payments systems have emerged
- Savings will no doubt increase and so will investments – inclusive growth
- Credit market development with information capital – information asymmetry problems will be solved
- Governments role as a participant is crucial and use for targeted social protection
- Efficiency in tax designs and government revenue administration – reduce leakages – So new fiscal policy designs.

The Body of Knowledge is expanding

- Njuguna Ndung'u (2017) ; **Boosting Transformational Technology:** Creating supportive environments for game-changing innovations; Brookings Foresight for Africa 2017; https://www.brookings.edu/multi-chapter-report/foresight-africa/
- Njuguna Ndung'u, Armando Morales, and Lydia Ndirangu (2016) **Cashing In on the Digital Revolution; IMF** FINANCE & DEVELOPMENT, June 2016, Vol. 53, No. 2,.
- CGD Task Force Report on Financial Regulation for Financial Inclusion (2016): https://www.cgdev.org/publication/financial-regulations-improving-financial-inclusion
- Emily Jones, Ngaire Woods and Njuguna Ndung'u (2016) **CONSOLIDATING AFRICA'S MOBILE BANKING REVOLUTION;** Blavatnik School of Government, May 2016