Payments System for Financial Inclusion and to Support E-Commerce

Presentation for The Friends of E-Commerce, WTO, Geneva
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March 13, 2017
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**
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 transparent
- 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

<table>
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<th>Year</th>
<th>Formal prudential</th>
<th>Other Formal</th>
<th>Informal</th>
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<td>2013</td>
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<tr>
<td>2009</td>
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<td>2006</td>
<td>15.0</td>
<td>11.7</td>
<td>32.1</td>
<td>41.3</td>
</tr>
</tbody>
</table>
Figure 2 - FI Regional Comparison

- Mauritius 2014: 88 (Formal), 2 (Informal), 10 (Excluded)
- South Africa 2015: 83 (Formal), 3 (Informal), 13 (Excluded)
- Kenya 2016: 75 (Formal), 7 (Informal), 17 (Excluded)
- Tanzania 2013: 57 (Formal), 16 (Informal), 27 (Excluded)
- Uganda 2013: 54 (Formal), 31 (Informal), 15 (Excluded)
- Nigeria 2014: 48 (Formal), 12 (Informal), 40 (Excluded)
- Rwanda 2013: 42 (Formal), 30 (Informal), 28 (Excluded)
Figure 3 - Financial Access Touch Points have Expanded – Financial services at the door step

Source: Country Geospatial Surveys, 2013
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/

