

Mobile Financial Services

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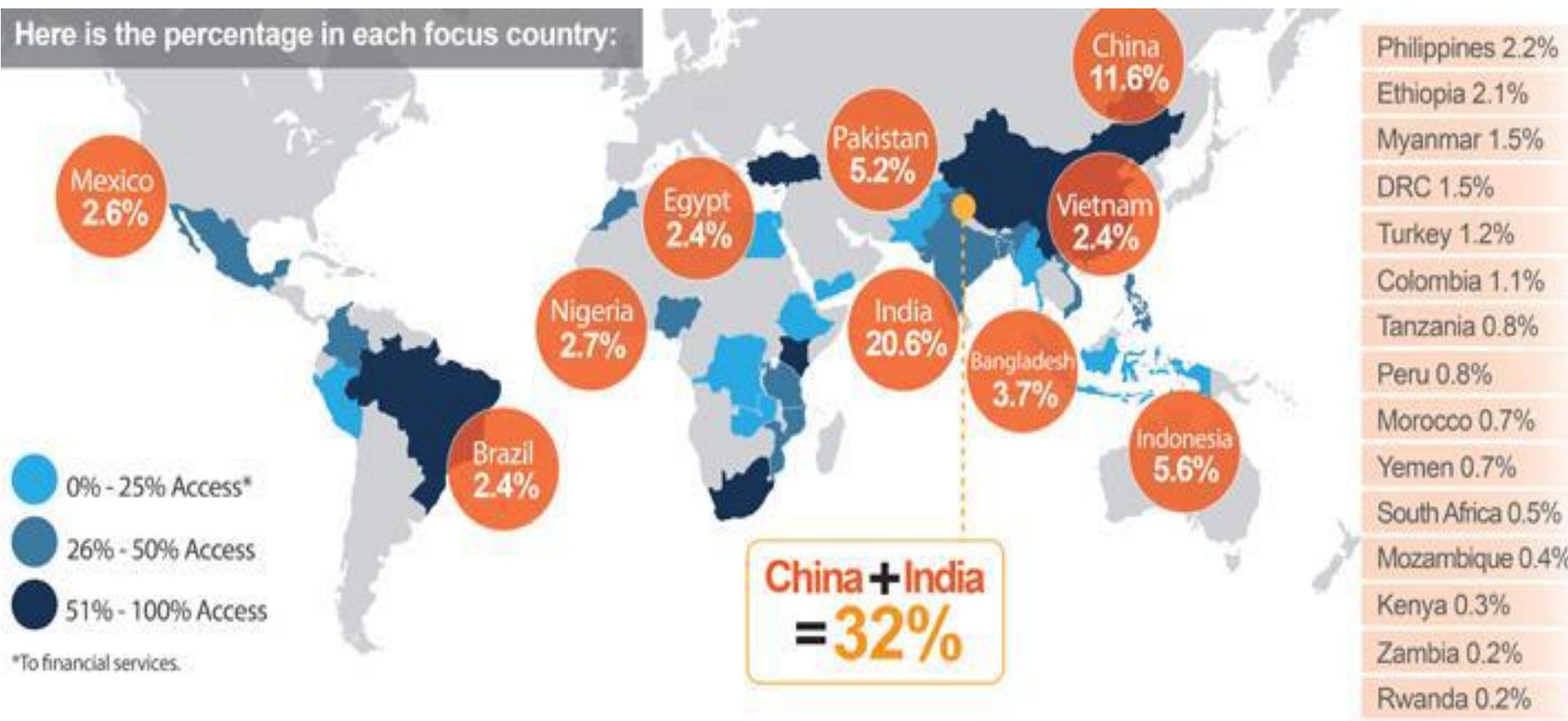
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25 countries account for 73% of the world's unbanked

Here is the percentage in each focus country:



*To financial services.

Financial Inclusion vs. Universal Financial Access

- **Financial Inclusion** : Universal access to a wide range of financial services at a reasonable cost or as the process of ensuring ***access*** to financial services and ***timely and adequate credit*** where needed by vulnerable groups such as ***weaker sections and low income groups*** at an affordable cost
- **Universal Financial Access (UFA) by 2020**: By 2020, adults globally have **access** to an account or electronic instrument to store money, send and receive payments as the basic building block to manage their financial lives
- Gap is narrowing, but still substantial (World Bank Findex 2014)
- The number of people worldwide having an account grew by 700 million between 2011 and 2014
- 62 percent of the world's adult population has an account; up from 51 percent in 2011
- Still, 2 billion adults remain without an account

Disruptive power of Technology to achieve UFA

- Universal financial access is ambitious, yet achievable for the majority of the world's population by 2020, full financial inclusion will take longer
- Herein, steps-in technology as it is allowing many developing countries to “leapfrog” in many spheres
- ICT, particularly is breaking many barriers

Digital Financial Inclusion (DFI)

- Digital Financial Inclusion: The rapid scaling in multiple markets of innovative **digital approaches** to reaching excluded and underserved households and micro and small enterprises—referred to as “digital financial inclusion
- Key elements of Digital Financial Inclusion Model: Mobile phone or payment card or POS device; Agents; Digital Transactional Platform; offer of additional financial products and services through the combination of banks and non-banks
- Enabling to reach customers in remote, hard-to-reach areas, reducing costs, making services both more sustainable to providers and affordable to consumers
- Mobile Financial Services are a subset of DFI and also mark the entry of new actors-MNOs, Non-Banks etc.

Four major innovations in digital payments

World Bank Development Report, 2016 on “Digital Dividends”

- ***Wrappers*** create a digital interface with traditional payment systems such as bank accounts or credit cards. For example, from Indian perspective, Mobile banking would be classified here. Many are also offered by nontraditional providers, including internet intermediaries
- ***Mobile payment systems*** store money in the national currency as credit on smart cards or a system provider’s books, and enable payments online or through mobile phones. For e.g., M-Pesa of Vodafone or Airtel Money of Airtel

Continued...

- **Credits and local digital currencies** are alternative units of account (not in national currency) designed to promote spending in local economy or as a means of exchanges in computer games
- ***Digital currencies*** are both a new decentralized payment scheme and a new currency. Such schemes record transactions in a publicly visible ledger. Most digital currencies, including Bitcoin, are cryptocurrencies because they use cryptographic techniques to ensure secure validation of transactions.

Why Mobile Phones?

- “To see a World in a Grain of Sand and a Heaven in a Wild Flower, Hold Infinity in the palm of your hand And Eternity in an hour”-William Blake
- Increasingly ubiquitous mobile services
- Low cost mobile handsets
- Technological advancements at the back-end



Telecom Communication Channels for Mobile Financial Services

SMS

- Simple key words sent via an SMS
- Instant replies for all queries or requests including alerts

USSD

- Instant menu based service that runs on any GSM handset
- Fastest and simplest form of mobile banking

WAP

- Structured banking through specially customized WAP sites
- Simplified menu based banking, easy to use and navigate

IVRS

- Banking Application prompts customer to enter ID & Password
- Customer's request serviced based on the option selected

Mobile Application Clients

- Access possible with a Java based downloadable application
- Requires a Java Enabled handset

SIM application tool kit

- Set of commands programmed into the SIM card
- Initiates commands independently of the handset and the network

Services offered through Mobile Financial Services

Account information

- *Mini-statements and checking of account history
- *Alerts on account activity or passing of set thresholds
- *Monitoring of term deposits
- *Access to loan statements
- *Access to card statements

Payments and Transfers

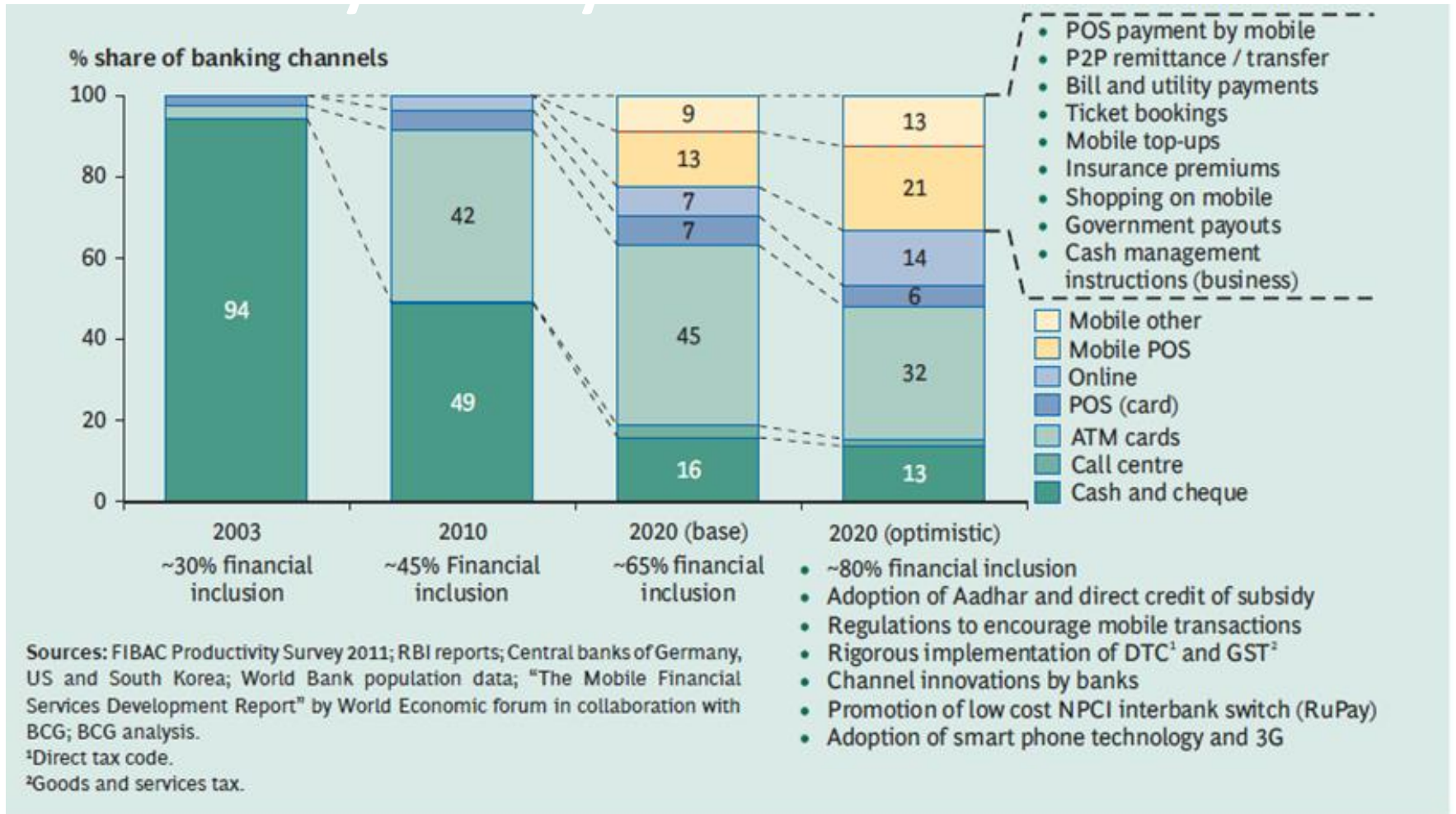
- *Domestic and international fund transfers
- *Micro-payment handling
- *Mobile recharging
- *Commercial payment processing
- *Bill payment processing
- *Peer to peer payments

Support

- *Status of requests for credit, including mortgage approval, and insurance coverage
- *Cheque book and card requests
- *Exchange of data messages and email, including complaint submission and tracking
- *ATM Location

Content services

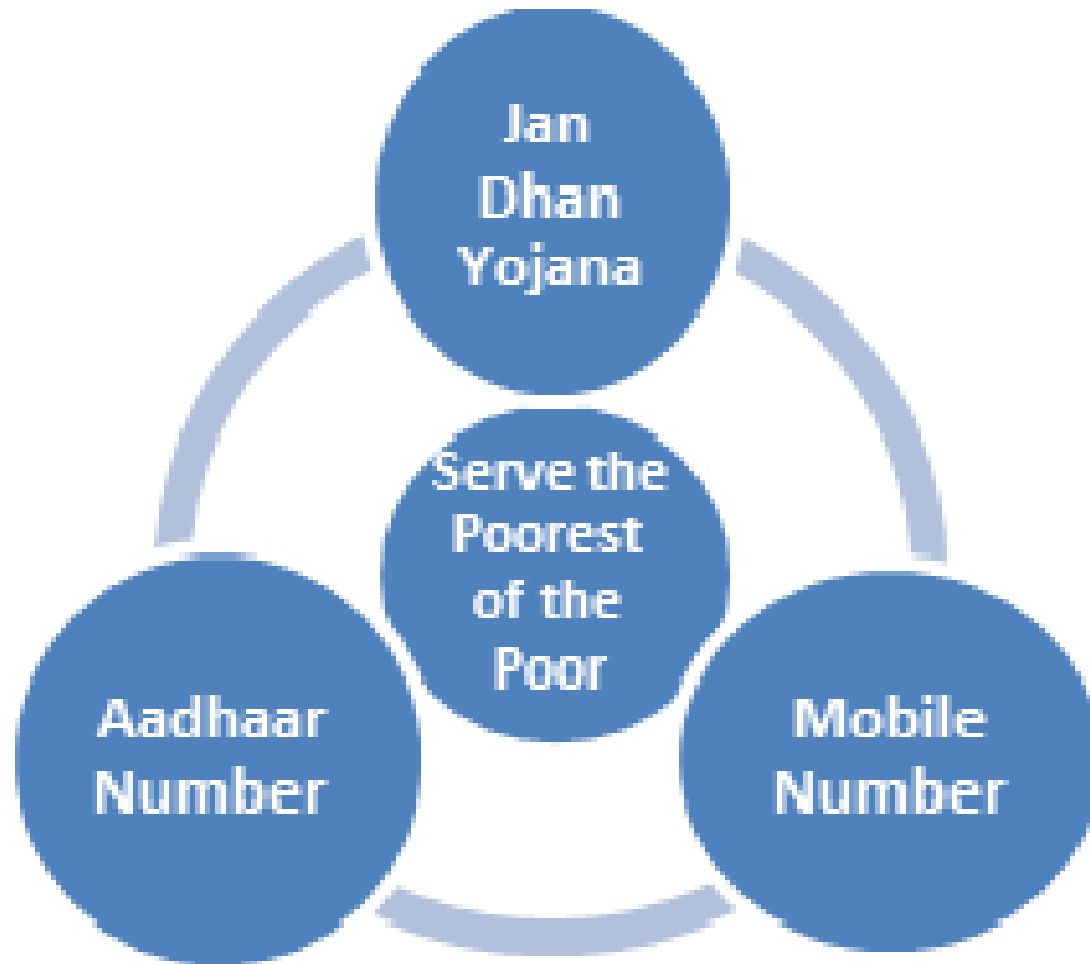
- *General information such as weather updates, news
- *Loyalty-related offers
- *Location-based services



Source: BCG Report

Transaction profile in India is expected to change dramatically from 4 % in 2010 to 22-34% by 2020

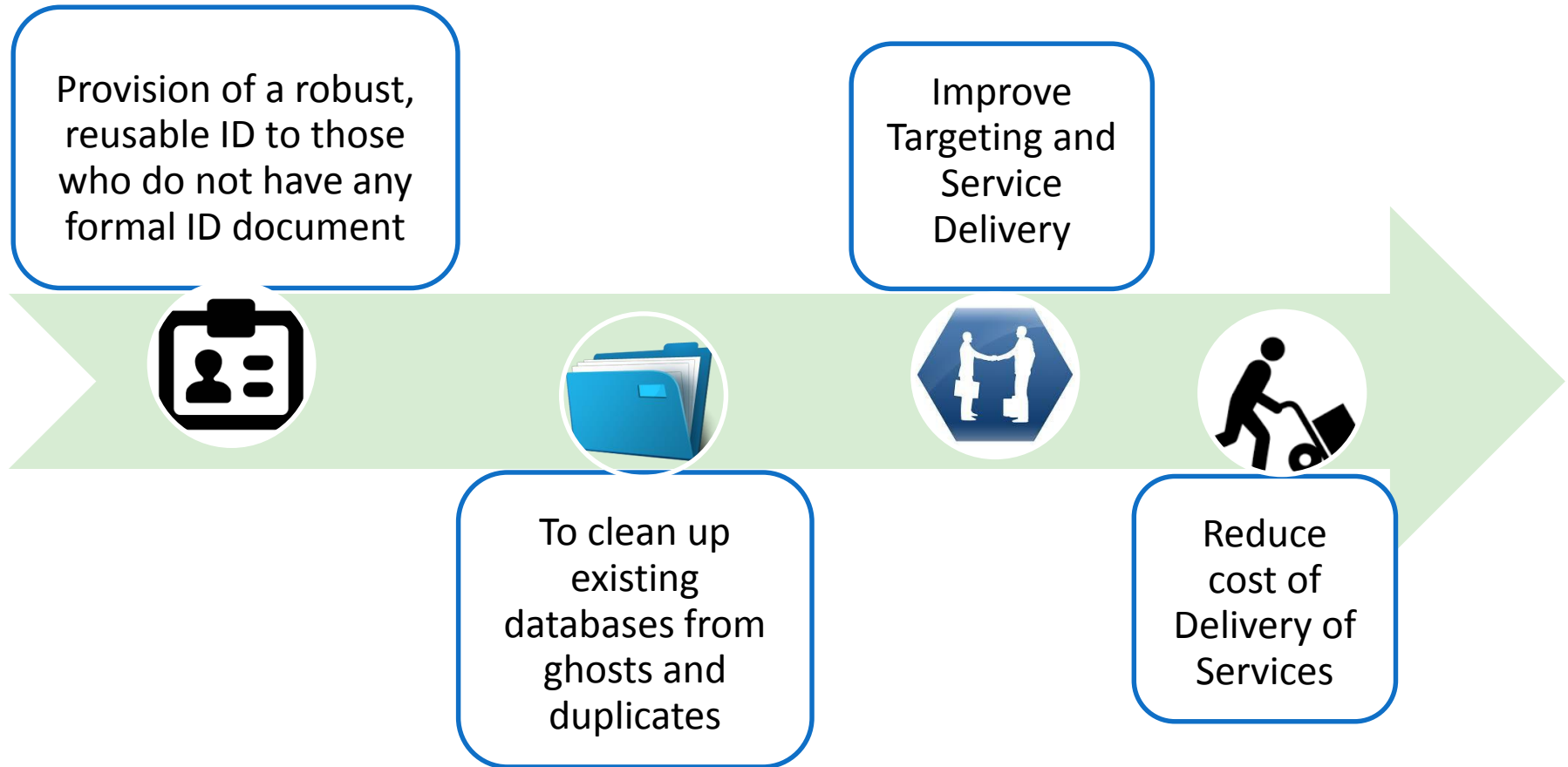
Jan Dhan - Aadhar - Mobile (JAM) trinity



India's Digital ID Infrastructure



Digital ID Infrastructure : The Context



Service Delivery Potential of Aadhaar



- **Uniqueness and Existence** ensures no fakes or duplicates
- **KYC for multiple services** : Bank accounts, Financial inclusions, Mobile Connections, Social Assistance Programs
- Entitlements should reach the intended beneficiary – **non-transferability** can be ensured by **authentication at the point of service delivery**
- Many domains will be able to use as a **proof of presence** for the beneficiary

- **Identity platform** for various domains
- Aadhaar online authentication provides a **common platform** which can be used across all applications.



TRAI Regulations

- Through Mobile Banking (Quality of Service) Regulations, 2012, TRAI has mandated the banks to use SMS, IVR and USSD while WAP, Mobile Apps and STK are optional
- **Response time** is the total amount of time the medium takes to respond to a request for service.
 - ✓ SMS Response time ≤ 10 seconds
 - ✓ USSD Response time ≤ 2 seconds
 - ✓ IVR Response time ≤ 10 seconds
 - ✓ WAP Response time ≤ 10 seconds
 - ✓ STK Response time ≤ 10 seconds
- Through 56th amendment of the TTO has laid down charges for outgoing USSD session for USSD based banking services



Standards on Mobile Financial Services

- ITU Recommendation ITU-T Y.2740, “Security requirements for mobile remote financial transactions in next generation networks,”
- ITU’s Recommendation ITU-T Y.2741, “Architecture of secure mobile financial transactions in next generation networks (NGN),”
- ISO Standard ISO 12812, “Core Banking—Mobile Financial Services,” Parts 1–5, is currently under development
- Work going on in ITU SG3 and FG DFS

Challenges

- **Role of Regulators:** The traditional regulatory paradigm of regulating the conventional provider of financial services has to change and the regulators will have to shift from regulating the entities to regulating the activities as there is overlap in functions-MNOs, Banks, Agents etc.
- Mobile financial services are bringing in large number of people in its fold; hence there has to be strong consumer education and protection, including promoting financial literacy and fraud prevention

Challenges

- Risks emanating from fraud and theft are a reality when it comes to mobile financial services and need to be addressed effectively. With the increase in number of transactions through digital means and primarily the mobile, considerable investment would need to be made in the security systems
- Besides fraud and theft, digital financial services could facilitate financial flows for illegal or illicit purposes (AML/CFT)-Put in place systems to check and control

“The test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have too little”

Franklin D. Roosevelt



**THANK
YOU**