Mahindra COMVIVA

Driving Financial Inclusion Initiatives Using Mobile Technologies

Contents

"What tends to do away with poverty is not the getting of pictures of poverty into your mind but getting pictures of wealth into the minds of the poor. You are not deserting the poor in their misery when you refuse to allow your mind to be filled with pictures of that misery. Poverty can be done away with, not by increasing the number of well to do people who think about poverty, but by increasing the number of people who purpose with faith to get rich. If you want to help the poor, demonstrate to them that they can become rich; prove it by getting rich yourself." - The Science of Getting Rich by Wallace D. Wattles

Financial inclusion or inclusive financing is the delivery of financial services at affordable costs to sections of disadvantaged and low-income segments of society. An estimated 2.5 billion working-age adults globally have no access to the types of formal financial services delivered by regulated financial institutions. It is argued that as banking services are in the nature of public good; the availability of banking and payment services to the entire population without discrimination is the prime objective of financial inclusion public policy.

It is easier to understand inclusion, from an understanding of what it is not. Those that do not have financial inclusion are said to be financially excluded. Inclusion has failed when poverty, combined with the high cost of delivery of inclusion and lack of regulation, makes it unviable for financial services to be provided or are underserved. In a way, the excluded are seen as 'not worthy' of these services.

Financial Exclusion

While exclusion and poverty are not technically the same, they are deeply connected. Indeed the grinding poverty for a large part of the developing world keeps them out of any formal financial activity.

Access to Money: Poverty

Poverty and exclusion are 'causal' - one causes the other and vice-versa. Financial exclusion makes living in poverty even more expensive, unstable, and stressful. It further acts as a barrier to personal development and economic progress. Conversely, access to financial services allows the poor to save money outside of the home, safely, prevents concentration of economic power with a few individuals and helps in mitigating the risks that the poor face as a result of economic shocks and environmental, cultural, and sociological stereotypes.

Evidence abounds that the financial repressions, from both formal and informal sources of finance, interact with many other economic, social, and demographic factors. This causes a vicious circle of poverty and financial exclusion is one of the most often-quoted factors that impede micro-entrepreneurial development.[1]

The world is coming out of poverty, but clearly, some parts slower than others. Interestingly, it is the Sub-Saharan Africa where poverty is the highest and poverty alleviation rate the lowest that has the highest rate of adoption of financial transactions through mobiles.

> "It is shocking to have a poverty line as low as $1.25 per day, it is even more shocking that 1/7th of the world's population lives below this line. The levels of inequality and poverty that prevail in the world today are totally unacceptable.", Kaushik Basu, Senior Vice President and Chief Economist (2014), World Bank Group.

[1] "A Measurement Model of the Determinants of Financial ..." 2011. 1 Jan. 2015 **http://conference.qfis.edu.qa/app/media/206**

% of population below US$1.25 a day (2005 PPP)						Projections		
Region	1990	2005	2008	2010	2011	2015	2020	2030
East Asia and Pacific	58.2	16.7	13.7	10.3	7.9	4.1	1.5	0.1a
Eastern Europe and Central Asia	1.5	1.3	0.4	0.6	0.5	0.3	0.2	0.1b
Latin America and the Caribbean	12.0	7.4	5.4	4.8	4.6	4.3	3.8	3.1
Middle East and north Africa	5.8	3.0	2.1	1.7	1.7	2.0	1.8	2.4
South Asia	53.2	39.3	34.1	29.0	24.5	18.1	13.8	2.1
Sub-saharan Africa	56.6	52.8	49.7	48.2	46.8	40.9	34.2	23.6
Total (developing world)	43.5	24.8	21.8	19.1	17.0	13.4	10.5	5.7
Total	36.4	21.1	18.6	16.3	14.5	11.5	9.1	4.9

Figure 1: Poverty & Poverty alleviation by region (source: World Bank Global Monitoring Report 2014)
a. The statistic has been rounded to 0.1 in the table for East Asia and Pacific.
b. The statistic has been rounded to 0.1 in the table for Eastern Europe and Central Asia.

Access to Banking

It can be said that an individual is financially included when they have access to a list of basic financial services considered essential to daily life: a bank account to receive income; a transaction account to make payments from; a savings account to store money; and access to unsecured credit to manage temporary cash shortages and unexpected expenses. [2]

Access to banking (and transaction banking services in particular) is considered a basic necessity. The provision of transaction banking services is vital in accessing other financial services such as credit and savings. Lack of transaction banking services runs parallel with social exclusion, as people are not able to receive salaries or remittances, pay bills by direct debit or use safe means of payment. This distorts their access to broader economic opportunities and enhances poverty.

An inclusive banking system also helps financial institutions and markets mobilize savings which would be channeled to the most productive users for investment, thereby providing more growth opportunities to individuals and entrepreneurs fostering private sector growth. Therefore, a good reckoner of exclusion is the levels at which populations keep bank accounts.

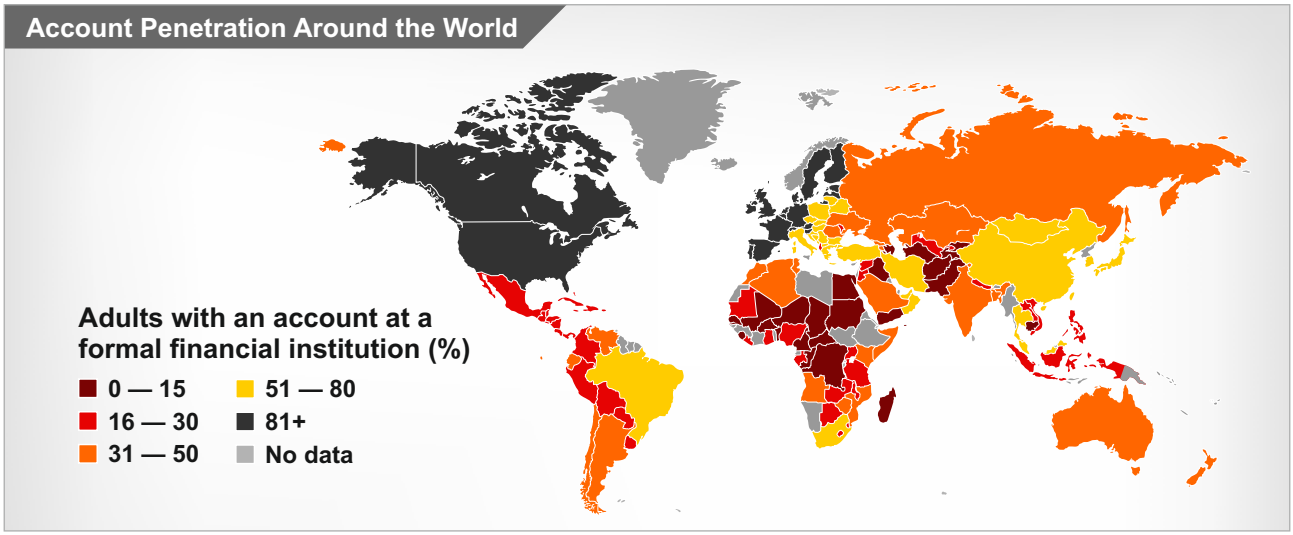

Figure 2 : Account Penetration around the World

[2] Financial services provision and prevention of financial exclusion (Réseau Financement Alternatif 2008)

Level of Financial Exclusion

As can be seen, exclusion is highest in developing and underdeveloped economies.

- In Sub-Saharan Africa only 24% of adults have a bank account even though Africa's formal financial sector has grown in recent years[3]
- In Africa, the use of cash is dominant because of the low level of penetration of the banking system. From statistics, the average level of those who maintain accounts in Banks in Africa is not more than 39% leaving about 61% unbanked[4]
- The absence of a clear vision regarding financial inclusion by most African countries is a great limitation for the access to financial services by poor people, and current conditions of access to finance are favorable only for the privileged class
- India has struggled with financial inclusion—just 400 million of the 1.2 billion[5] populations have bank accounts and millions more are under-served because of both access and process issues
- The Reserve Bank of India (RBI) set up the Khan Commission in 2004 to look into financial inclusion and the recommendations of the commission were incorporated into the mid-term review of the policy (2005–06). In the report, RBI exhorted the banks with a view to achieving greater financial inclusion to make available a basic "no-frills" banking account. In India, financial inclusion first featured in 2005, when it was introduced by K.C. Chakraborthy, the chairman of Indian Bank[6]
- Combined regulatory pressure from RBI and efforts of Rural Banks, MFI, NBFCs, NGOs, and new regimes of Business Correspondents have made considerable progress, but still lag far behind the stated objective
- The unbanked in all LATAM countries show characteristics of marginality: lower incomes and lower educational levels than the population at large; higher representation among minority and immigrant population groups, and among those dependent on the informal sector and living in informal settlements[7]
- Less than one quarter of families in Columbia and Mexico in the lowest 40 per cent of income distribution (those earning less than half a minimum wage) are banked, the data also show that even extremely poor households can be interested in holding bank accounts[8]
- The unbanked tend to work in areas with lower job security and beyond social safety networks. The unbanked are more likely to be self-employed—generally a euphemism for informal sector workers (72 per cent of self-employed are unbanked, as are 81.5 per cent of domestic workers and 78 per cent of unpaid workers in family businesses. That informal, or irregular, workers tend to be unbanked could also be a function of banks' preference for clients with steady employment, reflected in the requirement for references and proof of work[9]

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[3] World Bank – The Little Data Book of Financial Inclusion **http://siteresources.worldbank.org/EXTGLOBALFIN/Resources/8519638-1332259343991/LDBFinIncl_Apr16.pdf**

[4] "Presentation - Technology Advancement & Payment - African." 2014. 1 Jan. 2015 **http://www.manualden.com/download/379676/**

[5] Livemint, January, 2014 **http://www.livemint.com/Money/1rXJgh059UMoCCHRKtog8H/Payment-banks-for-inclusion.html**

[6] "Journal of Business Management & Social Sciences Research", June 2013 **http://borjournals.com/Research_papers/Jun_2013/1294M.pdf**

[7] Solo, Tova Maria. "Financial exclusion in Latin America — or the social costs of not banking the urban poor." Environment and Urbanization 20.1 (2008): 47-66.

[8] Solo, Tova Maria. "Financial exclusion in Latin America — or the social costs of not banking the urban poor." Environment and Urbanization 20.1 (2008): 47-66.

[9] Solo, Tova Maria. "Financial exclusion in Latin America — or the social costs of not banking the urban poor." Environment and Urbanization 20.1 (2008): 47-66.

Causes of Financial Exclusion

It is not just poverty but also the nature of populations, demographics, and opportunities that define exclusion. Causes of exclusion may include:

1. Individual factors: This group of factors includes income levels (poverty) and other individual factors such as disability
2. Environmental, market, and societal factors: This includes the broader socio-economic and demographic trends such as the ageing population, changing labor market structures, and political trends such as the transfer of risk and responsibility from state and employers to individuals
3. Demand Side or Behavioral factors: Barriers to access which can undermine consumers' willingness to engage with financial services and/ or affect capacity and ability to make effective, informed choices and decisions, including:
   - low levels of consumer awareness of the need to plan and provide for the future
   - low levels of financial literacy and capability
   - low trust in the 'system'
   - inertia and behavior
4. Supply Side factors: There are other factors that influence inclusion for instance
   - complex products and the consumer does not understand
   - inefficient regulation & public policy interaction

The Role of Regulation & Governance

Just as weak regulation encourages reckless lending or risk-taking behavior, by some parts of the financial services industry, overregulation compounds the behavior of the industry becoming more risk averse. Effective regulation is therefore critical as it needs to strike the right balance between providing an appropriate degree of financial cover and protection. Risk aversion from unnecessary regulation benefits no one as it adds to costs for industry which are passed onto consumers, so creating even further exclusion.

Driving Financial Inclusion through Policy, Regulation & Technology

Part of the exclusion is because providing financial services to poor people is costly, both because provisioning is expensive and because they have small amounts of money. The poor rarely have documented credit histories. Numerous approaches have been adopted to address this.

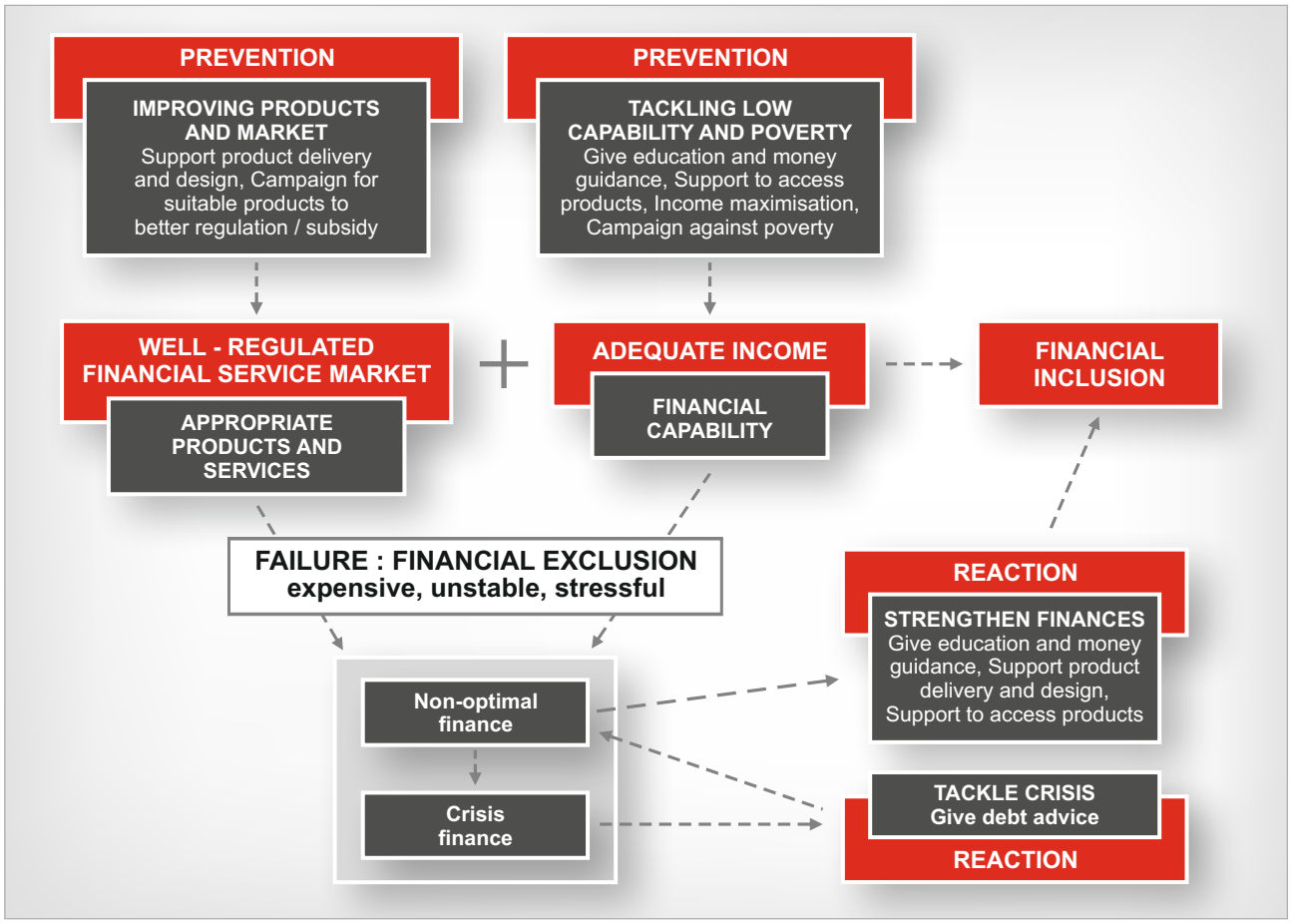

Figure 3: Path to financial inclusion from "Financial exclusion: A guide for donors and funders July 2008" Simon Blake & Esther de Jong

Global experience shows that less endowed segments of the population are best serviced by specialized institutions with a cost structure and business model adapted to their needs. There could be high payoff from introducing a tiered licensing system that opens the market to institutions that can service unbanked and under-banked individuals and small and microenterprises." - Michael Fuchs, World Bank Advisor on Finance and Private Sector Development, Africa Region.

Government Mandates on Banking

Most Central Banks have some focus on increasing access to finance through the following means:

- Mandatory location of bank branches in specified areas of the communities or enrollment for inclusion in the banking system with compulsory bank account opening mandates. This is financial inclusion by Executive Fiat requiring Banks to open their branches in specified areas to provide access to finance to people within that community
- Community Banks: Licenses are given to establish community banks to ensure wider bank presence in most rural communities. Most of these institutions were easily run aground due to the weak capital base and low staff capacity

One of the largest inclusive mandates has been in India with the Pradhan Mantri Jan-Dhan Yojana (PMJDY) run by Department of Financial Services, Ministry of Finance. PMJDY is part of India's National Mission for Financial Inclusion and an enabler for inclusive growth. It ensures access to financial services including banking, remittance, credit, insurance & pension in an affordable manner. It involves an integrated approach to include complete financial inclusion of all the households in the country by providing an opportunity to the poor for including their savings into an official financial system and a path to send money to their families in villages.

PMJDY accounts are being opened with Zero balance. An account can be opened in any bank branch or Business Correspondent outlet. If the accountholder wishes to get a Checkbook, he/she will have to fulfill minimum balance criteria. [10]

The scheme was announced on 28 August 2014 and on the same day 15 million bank accounts were opened under this scheme. By 10 January 2015, 117.6 million accounts were opened, with a total of US$1.4 billion in deposits.

Microfinance Institutions (MFIs)

MFIs have begun to solve the financial exclusion problem by developing techniques that permit safe lending in the absence of borrowers' credit histories. However, MFIs must charge relatively high interest rates to cover administrative costs of handling small transactions for dispersed populations. MFIs with operating costs of 12–15 percent of assets are considered efficient, while the similar ratio for banks rarely exceeds 5 percent.

Despite significant inroads in microfinance in recent years, such as through widespread wholesale lending to MFIs, most commercial banks still view microfinance as unprofitable. Unlike MFIs, many commercial banks cannot compensate for high costs by charging high interest rates. Banks in many developing countries are legally required to limit interest rates on loans to low-income and rural borrowers, particularly when they use government funds. In India, most commercial banks cannot charge more than their prime lending rate (roughly 11%) for loans below Rs. 200,000 (US$ 4,500). Public-sector banks are particularly sensitive to the political implications of charging poor borrowers relatively high interest rates. [11]

We must remember that the purpose of microcredit is to eliminate poverty in the shortest possible period of time–Mohammed Yunus, Nobel Peace Prize winner for founding the Grameen Bank and pioneering the concepts of microcredit and microfinance.

[10] "Pradhan Mantri Jan-Dhan Yojana | Department of Financial ..." 2014. 16 Jan. 2015 **http://www.pmjdy.gov.in/**

[11] Littlefield, BH. "Using Technology to Build Inclusive Financial ... - CGAP." 2006. **https://www.cgap.org/sites/default/files/CGAP-Focus-Note-Using-Technology-to-Build-Inclusive-Financial-Systems-Jan-2006.pdf**

Business Correspondents as Banking Extensions

In India for instance, after the Khan Commission report of RBI in 2006, the major experiment on the supply-side enabler for financial inclusion has been the ICT-based Business Correspondent (BC) model. The BC model is meant to be a low cost alternate to the brick and mortar banking network with an ability to reach the unbanked/ under-banked population. By 2012, banks had opened 150,000 plus BC outlets providing access to financial services. This approach extended the reach of financial services significantly with over 200 million new accounts for people below the poverty line (BPL).[12]

Private and state-owned banks in Brazil pioneered the use of POS devices at retail outlets to deliver banking services to previously unbanked low-income and rural people. Since about 2000, two private-sector banks (Banco Bradesco and Lemon Bank) and two state-owned banks (Banco do Brasil and Caixa Economica Federal) have developed about 27,000 "banking correspondents." These correspondents are lottery outlets, post offices, supermarkets, grocery stores, petrol stations, and other retail outlets that are present in every municipality in the country, including very rural areas where bank branches would probably be too costly to set up. In small shops, the shopkeeper handles banking services for customers, and in larger stores, a store employee is dedicated for this purpose.[13]

With close to 400,000 banking correspondents as of November 2013, Brazil has the largest agent network in the world. Currently there is a financial services access point in 100% of the 5,564 municipalities in Brazil.[14]

The BC model with traditional Point of Service/Sale (PoS) devices and cards is used in Brazil and China. Mobile-based payments are extensively used in Cameroon, the Democratic Republic of Congo, Kenya, Madagascar, Tanzania, Uganda, Zambia, Zimbabwe, Philippines, and Pakistan. A few countries like the USA and China use prepaid payment cards and mobiles as an instrument to provide payment and banking services to the unbanked population.

Broadly, there are three BC models:

- Bank-led model (e.g. Brazil/South Africa)
- Non-bank led model (e.g. Kenya)
- Hybrid model (e.g. Philippines). These models have evolved taking into account the factors like banking penetration in a country, levels of literacy, and availability of necessary ecosystem

Leveraging Technology for Financial inclusion

Some of the innovations commercial banks need to service poor clients may be found in information and communication technologies (ICTs). In developed countries, low-cost "direct banking" technology channels, such as Internet banking and automated teller machines (ATMs), process transactions at only one-fifth the cost of a branch teller. Banks in Brazil use point-of-sale (POS) terminals, such as bankcard readers, at retail and postal outlets, to deliver bill payment, savings, credit, insurance, and money transfer products in nearly every municipality in the country. These terminals can be set up at a cost of less than 0.5 percent the cost of setting up a typical bank branch.[15]

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[12] Helms, Brigit. "Access for all: building inclusive financial systems." Washington, DC, C-GAP (2006).

[13] Ivatury, Gautam. "Using technology to build inclusive financial systems." New Partnerships for Innovation in Microfinance (2009): 140-164.

[14] Bankable Frontier Associates, November, 2013. **http://bankablefrontier.com/wp-content/uploads/documents/BFA-Focus-Note-Do-agents-improve-financial-inclusion-Brazil.pdf**

[15] Littlefield, BH. "Using Technology to Build Inclusive Financial ... - CGAP." 2006. **<https://www.cgap.org/sites/default/files/CGAP-Focus-Note-Using-Technology-to-Build-Inclusive-Financial-Systems-Jan-2006.pdf>**

In a recent CGAP survey,[16] 62 financial institutions in 32 countries report using technology channels to handle transactions for poor people. 75 percent of the respondents were banks that operate in both large markets (e.g., India, Brazil, and South Africa) and small markets (e.g., Malawi, Namibia, and Guatemala).

Lowering Provisioning Costs with Mobiles

In developing economies on the other hand banking penetration is low while there is high penetration of mobile phone users. This presents mobile phones as an ideal platform to increase the outreach of financial services. For a Bank to reach its customers, as well as to widen its customer base without investments in physical infrastructure like branches and ATMs, mobile banking presents a good opportunity to undertake branchless banking.

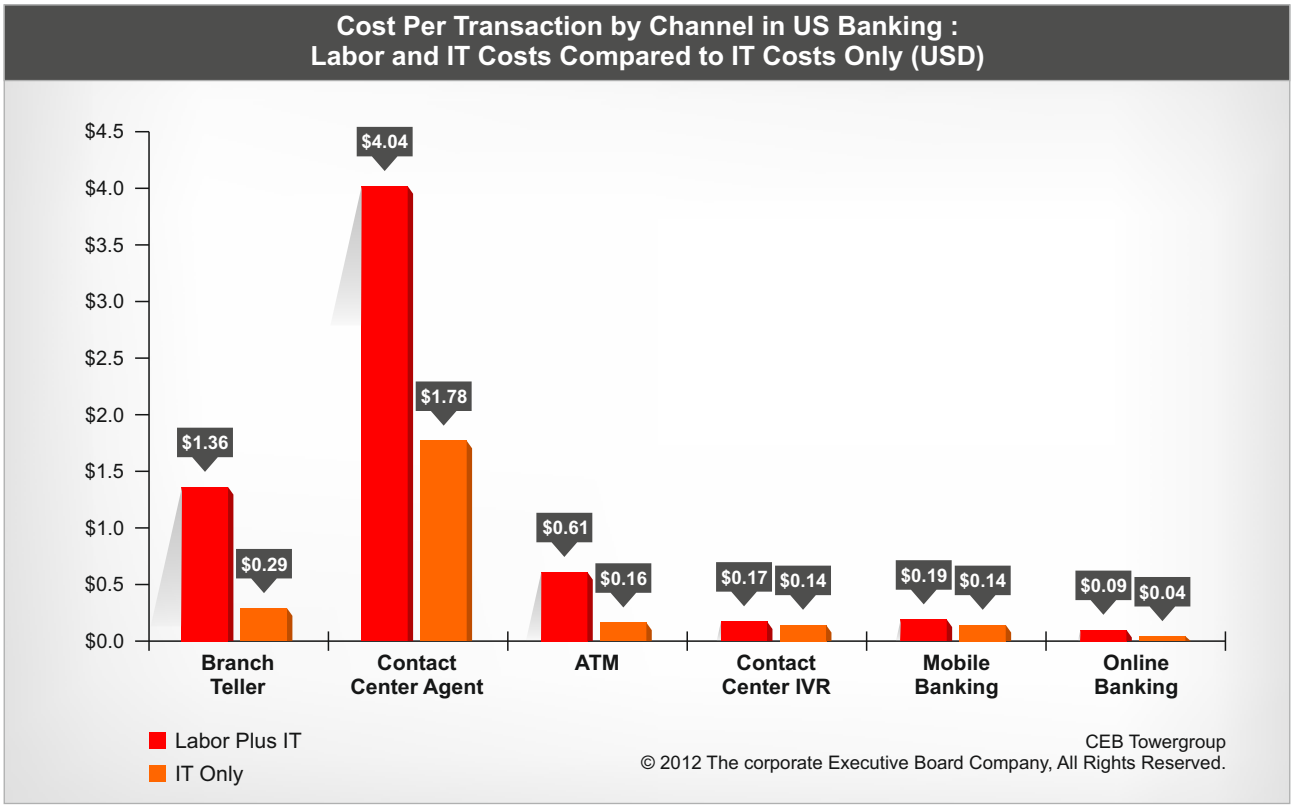

Figure 4: Channel Transaction costs for US Banks.[17]

Bank branches are expensive because they require considerable investment in staffing, infrastructure, equipment, and security, for storing and transporting cash and valuables. Globally the costs associated with opening a new bank branch can be as high as several thousand or million dollars. The ATM channel is generally less expensive than the use of branch tellers because ATMs fully automate cash disbursements and collections, but cash still needs to be transported to and from the machine. The use of POS devices is probably the least expensive of these channels, because the devices are placed at retail or other outlets that already maintain cash on hand. In general, banks worldwide are trying to move customers toward low-cost technology delivery channels.

- ICICI Bank, for instance, launched as many as six next-generation mobile apps during July-September in 2014[18]

[16] "CGAP." 2 Jan. 2015 **<http://www.cgap.org/>**

[17] CEB TowerGroup **<http://techdiem.com/2013/03/09/payments-startups-take-the-data-design-and-development-route-to-reengineer-the-credit-card-business/>**

[18] Business Standard, December 2014. **<http://www.business-standard.com/article/finance/the-everywhere-bank-114122100521_1.html>**

At the lowest provisioning cost point is provisioning banking on mobiles. However, with the mobile density as of today, it is not difficult to deduce that provisioning of banking and financial services could dramatically extend reach and service.

It is not difficult to deduce from this that mobile phones present a good platform to increase outreach of financial services. They allow for a financial institution to reach its customers as well as to widen its customer base without investments in physical infrastructure and ATMs.

At a high level, banking through a mobile is the ability of a person to conduct most transactions that one would normally perform such as balance checks, account transactions, payments, and cash withdrawals, through a mobile phone rather than through a Bank's ATM or branch. Such a banking infrastructure also allows the poor people to not travel to distant branches or save in cash and physical assets.

Inclusion through Mobile Banking

Mobile banking can dramatically reduce cost of acquisition and servicing a customer, and the service area that can be 'banked'. Mobile banking not only is greatly beneficial to customers it allows banks to increase their clientele base by enrolling customers who are outside the range of their traditional bricks and mortar service delivery. Banks can leverage on technology using mobile payments:

- Increased market penetration: Mobile banking can help in reducing the cost of deploying customer touch points into lower income or more remotely located population segments. Banks can sell more services to existing customers by developing new products that target unmet needs of existing customers. These new services could exploit the new functionality available through a mobile phone
- Retention of most valuable customers is possible by mobile banking which allows the banks to offer their customers quality and breadth of service as it is usually difficult for banks to provide personalized individual services, but with mobile banking this is relatively easier. They can provide unique customer experiences even if the nature of the service offered is not customized
- It can enable customers to transact remotely without having to physically access a service point. It can eliminate the dominant cash culture with its attendant risks and costs and accelerates the transition to a cashless society
- Financial inclusion can really be comprehensive as mobile payments bring about a drastic reduction in transaction costs that credits can now be made available to the poor and rural dwellers who can easily afford the reduced costs which is not available under a traditional formal banking service
- Transformative true economic growth and development can only be possible when there is provision of financial inclusion for the larger society which encompasses, access to a bank account however remote, financial services and access to credit and capital

Inclusion through Mobile Payments

Mobile payments require a prepaid amount to be available for a transaction to be allowed. Such types of prepaid are Prepaid Payment Instruments (PPI) and also present a business case for financial inclusion. Prepaid Payment Instruments are those instruments which permit transactions for value stored in them. The prepaid instruments can be issued as smart cards, prepaid cards, Internet accounts, mobile accounts, mobile wallets, or any such instruments which can be used to access prepaid digitized cash. These prepaid instruments can provide payment services and small value deposits and hence become an alternate method of financial access.

- There are currently 27 PPIs operating in India for instance[19]
- Beyond PPI license owners there are companies that offer specialized mobile prepaid product platforms with end-to-end delivery such as Mahindra Comviva, Infosys, and Amdocs

[19] "Live Mint" Jan. 2015 **<http://www.livemint.com/Industry/TezY5zuwNKdHFhpJVJlWdM/PPIs-can-become-payments-banks-Nachiket-Mor.html>**

It is forecasted that over INR 8743 billion in payments is likely to be made through PPIs in FY 2020. This will be more than 12 times the volumes in Fy2013.[20]

So how does PPI work securely? When money is deposited in the PPI (e.g. digital/mobile wallet) it is stored in an Escrow account with the partner bank. The money of the customer is as safe as it is in a bank account. To that extent, mobile prepaid payment companies provide the same level of security features like SMS alerts, PIN, OTP, and helplines to ensure the security of customer money and transactions. Prepaid Mobile Wallets can offer under-banked and digitally underserved consumers, access to traditional banking functionalities and access to features like utility payments, online merchants and anytime recharge. Moreover, governments too can use prepaid wallets for making social benefit payments to customers because it has cheaper infrastructure costs and is less operationally challenged.

Mobile Payments has now gone mainstream. In Kenya, there's the example of unprecedented success of M-Pesa, but other examples of success in mobile payments implementations are now growing in numbers and include Orange Money, MTN Money, Airtel Money, EcoCash, and Tigo Pesa. Sixteen countries have more mobile money accounts than bank accounts. These include Burundi, Cameroon, the Democratic Republic of Congo, Gabon, Guinea, Kenya, Lesotho, Madagascar, Paraguay, Rwanda, the Republic of the Congo, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. [21]

Mobile Payment platforms are important for several reasons - not only have they changed the dominant cash culture, they have also provided financial inclusion to the unbanked but to a more limited degree than mobile banking. However, this has been a great first step since:

- Mobile money has replaced primitive forms of savings within the house and people now trust mobile technology to safely deliver money that has been sent to them and they are more receptive to other mobile solutions
- This ratifies the model of paying per transaction for services and make small payments (important when people undertake voluntary financial exclusion when they want to run away from financial services that come with a lot of costs)

The (partial) inclusion driven by Mobile Payments is already showing results. In countries where debit and credit cards, POS devices, ATMs, and even bank branches are virtually nonexistent, using mobile phone networks may be a lower-cost way to expand access to financial services.

EcoCash is the mobile money service launched by Econet Wirelesss, largest operator in Zimbabwe. More than 3.7million Zimbabweans use EcoCash and transactions valued at more than $5 billion are processed by the system annually. The service has become a dominant payment medium in Zimbabwe, processing transaction values equivalent to 43% of country's GDP. [22]

EcoCash has provided access to banking accounts to many people who were previously excluded from the financial system, and in doing so, has contributed about half of the national financial services penetration level of about 30%.[23] Furthermore, there are over 1.5 million EcoCashSave accounts opened, outnumbering the total depositors in all commercial banks in Zimbabwe.[24]

Mobile banking has all the regulation and protection of the traditional banking system since it is an extension of the banking system, but mobile payments have regulatory guidelines still drawn out in many markets.

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[20] "Accelerating Financial Inclusion: The Role of Payment ..." 2014. 2 Jan. 2015 **<http://www.microfinancegateway.org/library/accelerating-financial-inclusion-role-payment-systems>**

[21] "State of the Industry report on Mobile Financial ... - GSMA." 2014. 11 Mar. 2015 **<http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/03/SOTIR_2014.pdf>**

[22] Bulawayo 24 News, August, 2014. **<http://www.bulawayo24.com/index-id-business-sc-companies-byo-52694.html>**

[23] Econet Wireless Integrated Annual Report 2014

[24] Venture-Africa, May 2014 **<http://www.ventures-africa.com/2014/05/zimbabwes-steward-bank-to-boost-business-with-ecocash/>**

The Next in Financial Inclusion: The Small Payments Bank

In reference to the RBI-Nachiket Mor Committee report on Financial Inclusion, there was a recommendation about the conversion of willing payments entities (PPI) into Small Payments Banks. Such regulatory restructuring could possibly cover the deficiencies experienced by PPI companies.

Hence, PPI take deposits, provide interest on savings, and maintain the float of the customer income. Also, Payments Banks can invest customer's money in Government securities (G-Sec) and corporate bonds of reputed companies like Infosys, Reliance, and TCS. So, Payments Bank can keep some money as profit and give the remaining to the customer as interest. Hence, earn the float income which is currently maintained in an escrow account with the bank. Therefore, PPI companies can transform into a small Payments Banks that can only provide Savings/Deposit services. However, it cannot lend thus removing the risk due to lending.

A prepaid payment instrument essentially gives the user a "digital wallet" tied to a mobile account. This in turn can be used to pay bills, shop, buy movie tickets and so on. In India PPIs are regulated under the Payment and Settlements Act of 2007 by the RBI. In this regulation RBI's Know Your Customer (KYC) norms apply, there is no interest on the stored value, a maximum deposit of ₹50,000 can be kept and money can't be withdrawn. Airtel Money, Oxigen Prepaid cards, Zipcash, Flipkart wallet, Paytm, and Mobikwik are such instances.

To examine the issues relevant to payments networks and given the difficulties with the PPI model the RBI set up a committee on Comprehensive Financial Services for Small Businesses and Low Income Households under with Dr. Nachiket Mor as chairman (Nachiket Committee). In its report released in January 2014 the committee recommended that the existing and new PPI issuer applicants should instead be required to apply for a Payments Bank license or become Business Correspondents (Bcs).

The Nachiket Committee found [25]:

- Since PPI doesn't offer interest rate from a financial inclusion point of view, this doesn't help the poor people and small businessmen save their money.
- PPI is a nested payment model and presents a "contagion risk". If a service provider had to be suspended say for regulatory reasons (say by RBI, TRAI, a Court) what happens to its customers?

The Nachiket Committee recommended[26]:

- RBI should NOT give any more licenses to open PPI in India, instead
- RBI should ask the applicant to become a banking Business Correspondent OR apply for a Payments Bank license within the Banking Regulation Act.

RBI then issued guidelines for Licensing of "Payments Banks" that will have the following characteristics[27]:

- They target small businessmen and poor people
- May be run by mobile phone companies, consumer goods companies, post office system, agri/dairy type cooperatives and Corporate Business correspondents. Even scheduled commercial banks can open Payments Banks
- Payments Banks will have to keep (Cash Reserve Ratio (CRR) just like other scheduled commercial banks
- Payments Banks cannot hold more than ₹50,000 per customer (similar to PPI)
- Payments Banks cannot be involved in any credit risk (similar to PPI)

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[25] "the Committee on Comprehensive Financial Services for ..." 2014. 16 Jan. 2015 **<http://rbi.org.in/scripts/PublicationReportDetails.aspx?UrlPage=&ID=727>**

[26] "the Committee on Comprehensive Financial Services for ..." 2014. 16 Jan. 2015 **<http://rbi.org.in/scripts/PublicationReportDetails.aspx?UrlPage=&ID=727>**

[27] "Draft Guidelines for Licensing of "Payments Banks"." 2014. 16 Jan. 2015 **<http://rbi.org.in/scripts/bs_viewcontent.aspx?Id=2857>**

The Payments Bank will be registered as a public limited company under the Companies Act, 2013, and licensed under Section 22 of the Banking Regulation Act, 1949, with specific licensing conditions restricting its activities to acceptance of demand deposits and provision of payments and remittance services. It will be governed by the provisions of the Banking Regulation Act, 1949, Reserve Bank of India Act, 1934, Foreign Exchange Management Act, 1999, Payment and Settlement Systems Act, 2007, other relevant Statutes and Directives, Prudential Regulations and other Guidelines/Instructions issued by RBI and other regulators from time to time, including the regulations of SEBI regarding public issues and other guidelines applicable to listed banking companies.[28]

The entities and their Promoters/ Promoter Groups as defined in SEBI (Issue of Capital & Disclosure Requirements) Regulations, 2009 should be 'fit and proper' in order to be eligible to promote Payments Banks. RBI would assess the 'fit and proper' status of the applicants on the basis of their past record of sound credentials and integrity, financial soundness, and a successful track record of at least 5 years in running their businesses. [29]

In the Union budget 2014-2015 presented on July 10, 2014, the Hon'ble Finance Minister announced that:

"After making suitable changes to the current framework, a structure will be put in place for continuous authorization of universal banks in the private sector in the current financial year. RBI will create a framework for licensing small banks and other differentiated banks. Differentiated banks serving niche interests, local area banks, and payments banks are contemplated to meet credit and remittance needs of small businesses, unorganized sector, low income households, farmers, and migrant workforce".

[28] "Draft Guidelines for Licensing of "Payments Banks"." 2014. 16 Jan. 2015 **<http://rbi.org.in/scripts/bs_viewcontent.aspx?Id=2857>**

[29] "Draft Guidelines for Licensing of "Payments Banks"." 2014. 16 Jan. 2015 **<http://rbi.org.in/scripts/bs_viewcontent.aspx?Id=2857>**

Is Growth of Mobile Money Impacting Financial Inclusion?

Financial inclusion through mobile payments can only be sustained to the extent of the level of mobile phone penetration in the continent. Mobile payments cannot be delivered in a vacuum. Some societies are so poor that they can hardly afford mobile phones. Technology can't solve everything but allows penetration at cost points earlier not possible. And of furthering government mandates with the participation of private enterprise previously unheard of.

However technology does lead to access where none was possible before. The ecosystem of mobile payments, mobile banking, and financial regulation and drive for financial inclusion is creating a larger financial footprint - Mobile Money. This in turn in creating larger service classes to the point that mobile payments, credits, savings, insurance are now a part of the service bouquet.

Inclusion continues to grow through mobile money. Take the instance of Afghanistan and Kenya. The value of mobile money transactions as a % of GDP (2013) was significantly higher than other economies (IMF Data by Country).[30] Essentially, a large excluded population, access to technology, and a regulatory greenfield, created circumstances for penetration.

- **Kenya:** 55.28
- **Afghanistan:** 18.46
- **Democratic Republic of Congo:** 0.38
- **Nigeria:** 0.35
- **India:** 0

Mobile money continues to grow and is available through 255 services across 89 countries (end of 2014). 21 of these services have over 1 million active users.[31] There were 103 million active mobile money accounts globally (December 2014).[32]

[30] "IMF Data." 2014. 16 Jan. 2015 **<http://data.imf.org/>**

[31] "State of the Industry report on Mobile Financial ... - GSMA." 2014. 11 Mar. 2015 **<http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/03/SOTIR_2014.pdf>**

[32] "State of the Industry report on Mobile Financial ... - GSMA." 2014. 11 Mar. 2015 **<http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/03/SOTIR_2014.pdf>**

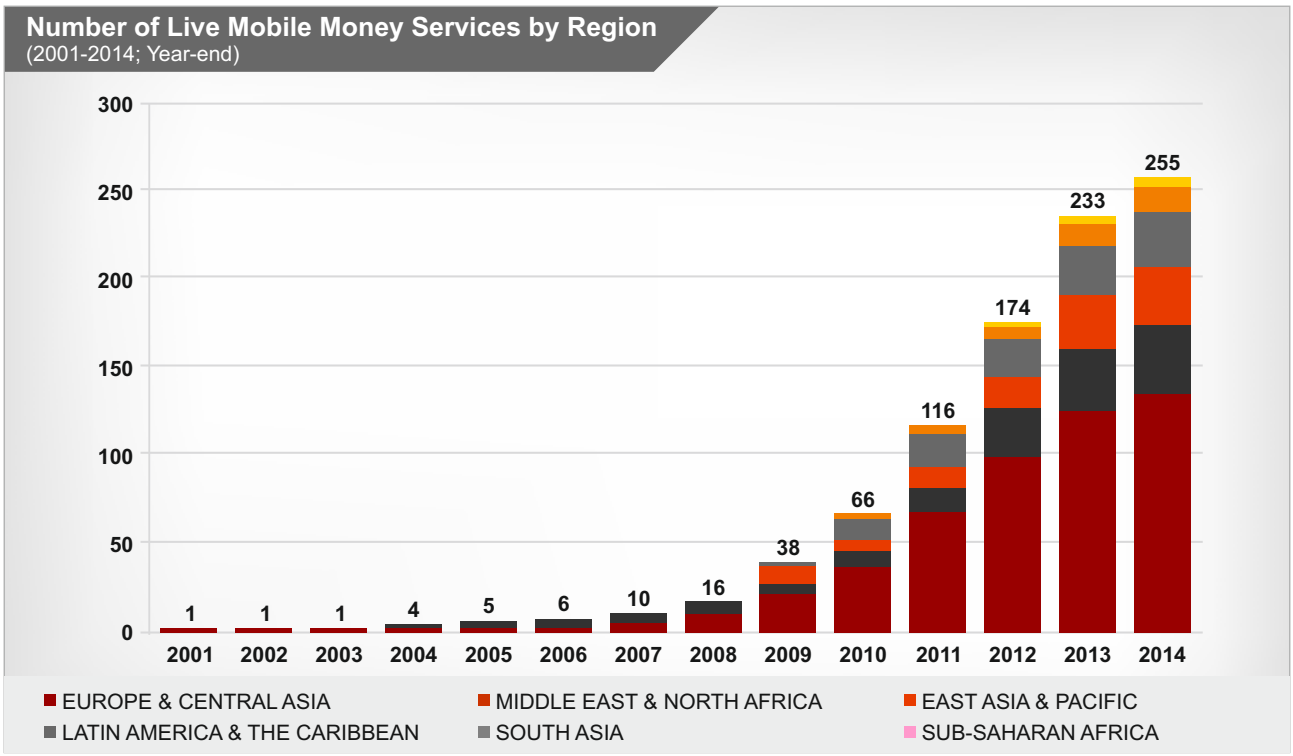

Figure 5: Mobile services for the unbanked[33]

- Mobile money has significantly expanded outside of Sub-Saharan Africa (though 53% of live services are in this region. In 2014, mobile money was rolled out in six new markets: Dominican Republic, Myanmar, Panama, Romania, Sudan, and Timor-Leste.
- The highest growth was seen in Latin America & the Caribbean, where the number of mobile money accounts grew by 50% between December 2013 and December 2014 to reach 14.9 million.[34]

Figure 6: Number of registered customer accounts and active customer accounts by region (December 2014)[35]

[33] "State of the Industry report on Mobile Financial ... - GSMA." 2014. 11 Mar. 2015 **<http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/03/SOTIR_2014.pdf>**

[34] "State of the Industry report on Mobile Financial ... - GSMA." 2014. 11 Mar. 2015 **<http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/03/SOTIR_2014.pdf>** **<http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/02/SOTIR_2013.pdf>**

[35] "State of the Industry report on Mobile Financial ... - GSMA." 2014. 16 Jan. 2015 **<http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/02/SOTIR_2013.pdf>**

Conclusion

Technology, policy, regulation, and enterprise are together enhancing the financial services footprint and therefore financial inclusion of the world's financially underprivileged and underserved population.

For the first time in human history, the conviction that inclusive and efficient financial markets have the potential to improve the lives of citizens, reduce transaction costs, spur economic activity, and improve delivery of other social benefits and innovative private-sector solutions, looks grounded in reality.

About Mahindra Comviva

Mahindra Comviva is the global leader in providing mobility solutions. It is a subsidiary of Tech Mahindra and a part of the USD 16.7 billion Mahindra Group. With an extensive portfolio spanning mobile finance, content, infotainment, messaging and mobile data solutions, Mahindra Comviva enables service providers to enhance customer experience, rationalize costs and accelerate revenue growth. Its mobility solutions are deployed by 130 mobile service providers and financial institutions in 90 plus countries, transforming the lives of over a billion people across the world. For more information, please visit: www.mahindracomviva.com

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