### FINANCIAL INCLUSION THROUGH E/M-BANKING

### A Guided Tour ... Linked To Resources

About *MicroSave MicroSave* and E/M-Banking

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## EXECUTIVE SUMMARY

### **EXECUTIVE SUMMARY...1**

- Financial services are a ubiquitous need, but the urban rich have easy and universal access with wider options, compared to the low-income group who are forced to accept informal, expensive and riskier means to fulfill their financial needs.<sup>1</sup>
- While the need for a mix of financial products including credit, savings, insurance, remittance, social & welfare receipts, pension and so on, is well established, the demand for specific services can vary widely.<sup>2</sup>
  - Key influencers of demand and willingness to pay are demographics, literacy levels, social-dynamics, local enablers and inhibitors, availability of informal and alternate channels (together with their cost and convenience), adaptability to change, comfort with technology, and other exogenous and endogenous factors.
- At the same time, the demand and the supply of financial services for the poor is imbalanced, with supply being acutely constrained by lack of viability and sustainability of current business models.
- Evolving and newly emerging business models, rapid technological innovations and state initiatives have greatly facilitated supply conditions to improve and for the providers to consider building market-led self-sustaining alternatives to extend banking and other financial services to the excluded.
  - The policy environment has evolved and (using a mix of loose and tight regulations and taking a controlling, direction setting or mentoring approach):
    - Provided suitable incentives and disincentives to promote financial inclusion.
    - Enabled banks to extend outreach through third party agents and agent network managers.
  - Widespread penetration of mobile technologies and their integration with banking infrastructure has enabled banking services outreach in a low cost and efficient manner through mobiles phones. Advances in biometrics and its integration with POS terminals has enabled substitution of bank personnel by technology, supported by less qualified agents, enhancing security and lowering costs.
- The financial services sector is also gaining insights from the experiences of consumer goods and mobile services industries, which have achieved far greater outreach and penetration of their products and services by:
  - (a) understanding consumer needs and staying connected as the needs evolve; (b) designing products that adequately address those needs and create a customer pull; (c) leveraging and riding on deep, wide and resilient, third party distribution networks, that are sustainable due to economies of scale, by offering common 'infrastructure rails' for multiple products to ride on; (d) effectively branding, marketing and promoting at various levels, often jointly with value-chain partners, to first create awareness then market push and eventually consumer bonding and trust.



### **EXECUTIVE SUMMARY....2**

- As a consequence diverse business models have emerged, however very few have attained critical mass or achieved viability. Most are floundering and trying to grapple with sustainability. With larger players governments, major banks, MNOs, central banks and large agent networks becoming more active in electronic forms of delivery of financial services in emerging markets, business models will continue to evolve.
  - These are various motivations for being in the market. Apart from a real-intent towards financial inclusion, these could be compliance to regulations, preventing customer attrition, finding new revenue opportunities, establishing an additional channel,
    market differentiation, riding on social payouts, becoming a technology provider and so on.
  - Accordingly the business models could be (a) bank-led (b) MNO-led (c) large-agent network led (d) handset manufacture led (e) large corporation-led or (f) a suitable marriage between these.
  - The jury is out on which one will succeed more likely it would be several of them and differ by markets. However the challenges faced in this journey so far and the lessons leaned can stand in good stead as the various models are tested, rolled out and scaled.
- It is essential to develop a robust and effective strategy from the outset. There may always be an opportunity to correct the strategy later, but that could come at a great cost and pain. Important considerations that can contribute to a sound strategy are:
  - A business model that is market driven, scalable and profitable to ensure sustainability in the long run.
  - Products that are appropriately designed, offering real value to consumers, with apt mix to enable cross and up selling in due course. A single or dual product strategy might not scale and carries too much risk.
  - Carefully planned and thought through alliances, partnerships and even vendor support with clear synergies.
  - Proven, scalable, secure and cost-effective technology with adequate longevity.
- Financial inclusion confronts enormous barriers to adoption, some of which can be better dealt with by leveraging the wealth of knowledge and experience from diverse initiatives. The key guiding principals are to stay focussed on:
  - The consumer needs and expectations around accessibility, proximity, simplicity, product relevance, ability to transact in low values, promise of adequate returns, pricing according to willingness to pay, establishing trust, ensuring portability, interoperability and safety.
  - The agent needs around viable returns, liquidity management, operational handholding, marketing, speed of response, security and keeping them motivated through a diverse range of incentives.



### **EXECUTIVE SUMMARY....3**

- As institutions traverse this road, there will also be many operational challenges to make the strategy work. These being around:
  - Managing costs and striving to lower them across the value-chain.
  - Growing a customer base and agent network simultaneously to avoid the "chicken and egg trap".
  - Enabling and leveraging the "network effects" to exponentially benefit those using the network of services.
  - Striving to achieve critical-mass and preventing the "sub-scale trap".
  - Expanding and sustaining agent network and keeping them motivated for growth.
  - Branding, marketing and promoting to develop awareness and trust.
  - Managing supply chain, logistics and liquidity challenges.
  - Driving efficient integration and interoperability.
  - Ensuring physical security of cash and of the agents/transacting customers.
  - Investing in skill and capacity building to enable financial and technology illiteracy, overcome language barriers, develop selling and servicing skills, more so as financial products grow in number and complexity.
  - Managing risks, establishing controls and ensuring compliance.
- State, regulators and central banks have a vital role in making financial inclusion pervasive and viable. Major challenges to be addressed are:
  - Creating an enabling environment that encourages viability for the market participants in a market led approach, while staying focussed on the end objective of financial inclusion for all.
  - Driving a balanced approach between Anti Money Laundering/Terrorist Financing versus consumer convenience around Know Your Customer (KYC) norms and processes.
  - Ensuring a level playing field across the multiple and very diverse market participants.
  - Driving consumer protection and safety.
  - Driving interoperability between players, systems and technologies.
  - Driving towards market forces determined (a) balancing of demand and supply and (b) product pricing, but suitably intervening when there is an imbalance.



#### About MicroSave:

*MicroSave* is an international consultancy firm that offers practical, market-led solutions to businesses and financial institutions focused on bringing financial inclusion to the low income market.

At MicroSave we believe that financial inclusion (access to high quality and affordable savings, credit, remittance and insurance services) is essential for economic growth and peoples' emancipation from poverty. We work with clients to understand the needs and perceptions of their target individual customers and SMEs so to build sustainable and viable products and appropriate low cost delivery systems that enable inclusion and growth in clients' market share - thus putting our client and its customers at the centre of the business, in a truly market-led approach.

MicroSave's expertise has evolved from 15 years onthe-ground experience with a wide range of financial institutions in Africa, Asia and Latin America. We have catalysed the best international practices evolved in banks, MFIs, telecoms operators, NGOs, social and developmental institutions and corporations in our unique Toolkit based approach. MicroSave's Toolkits are a collection of "how-to" resources aiming at developing users' understanding of all the component parts to deliver inclusive finance.

#### **Services Include:**

- ✓ *Market research* on customer and agent needs and preferences
- ✓ **Product development** and design for savings, remittances, credit, payments, pre-paid instruments or wallets
- ✓ *Pilot test* design, implementation, monitoring and evaluation
- ✓ Development of customer facing and non-customer facing processes through process mapping and compliance management
- ✓ Analysis of the *price* that the customers are ready to pay (or can afford) to pay
- ✓ Internal *costing* and break-even analysis (bank and delivery channel)
- ✓ On-going customer and channel satisfaction surveys
- ✓ **Segmentation** analysis on which client segments are using the product and why
- ✓ Assist the *design of marketing and communications* and user interface
- ✓ Agent management selection criteria, training, and quality control processes
- ✓ Development and delivery of *agent training modules*
- ✓ Internal audit and monitoring & management systems

#### **Clients/Partners Include:**

- ➤ Vodafone's M-PESA, Kenya
- > Equity Bank, East Africa
- ➤ BRAC Bank, Bangladesh
- ➤ Bank Andara, Indonesia
- > Eko, India
- ➤ A leading South African
  Bank
- > ICICI Bank, India
- Standard Chartered Bank, India
- > CARD Bank, Philippines
- > Bharat Petroleum, India
- > KGFS, India
- ➤ A leading Colombian
  Bank
- > Tanzania Postal Bank
- > SEED India
- ➤ Kenya Post Office Savings Bank





### Financial Inclusion: Need & Enablers

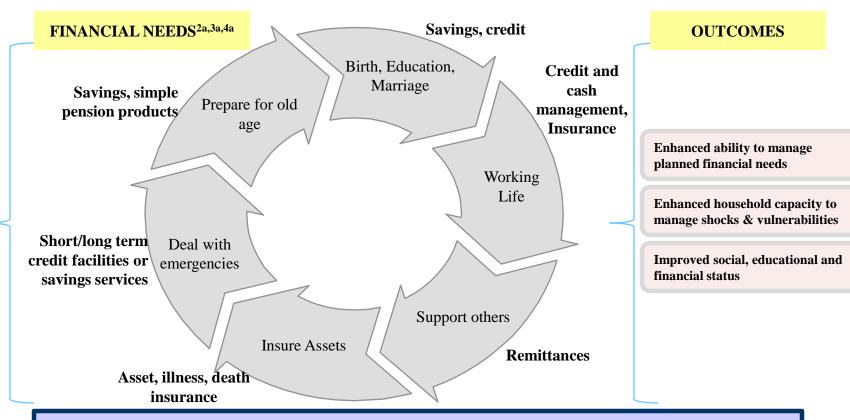
- Demand Side Factors
- Supply Side Enablers
- Regulatory and Policy Enablers





### Does low income population need financial products?

Access to financial services (in the form of savings, credit, insurance, transfers or welfare payments) is a fundamental tool for managing a family's well being and productive capacity, to smooth expenditure when inflows are erratic, to build surplus when the demand for expenditures is heavy (school fees, marriages, buying farm equipment) or to protect against emergencies. However only one-quarter of financial households have any form of savings with formal banking institutions.<sup>1a</sup>



Over the years, many studies<sup>2a, 5a</sup> have unequivocally established that the "unbanked" need and use a range of financial services (not just credit) and are willing to pay the "right" fee for these services.



<sup>1</sup>a: Mas, Ignacio and Siedek, Hannah, Banking Through Networks of Retail Agents, Focus Note May 2008 and Wright, Graham, Designing Savings & Loan Products, MicroSave. February 2010

<sup>2</sup>a: *MicroSave* Deposit Assessment in India, IFC study, March 2011 and India Focus Note # 67
3a: Mas, Ignacio (2010), New opportunities to tackle the challenge of financial inclusion

<sup>4</sup>a: See MicroSave India Focus Note # 60

<sup>5</sup>a: Source MicroSave, CGAP and Accenture Research

## While high-income savvy customers are graduating to a "mobile life",1b the poor cherish the most basic features2b,3b,4b,5b,6b

Mobile **Banking**  ■ Account statement, transaction history

- Wire transfer
- Real time assistance. ATM locator



**Mobile Payments**  ■ Pay for goods at a store (NFC)

- Bill pay, digital download, m-Commerce
- Funds transfer, international remittance
- Payment of goods to distributors, salary disbursement, social benefits



3 Mobile Life

- Ticketing for transport, car park, in-flight connection
- House/company access control
- Event, promotions, loyalty vouchers











1b: Accenture Multi Channel Consumer Survey 20

2b: MicroSave Deposit Assessment in India, IFC study, March 2011 and IFN # 67 Market-led solutions for financial services 3b: Mas, Ignacio (2010), New opportunities to tackle the challenge of financial inclusion 4b: Group Savings and Loans Associations, Impact Study, DAI, 2010

5b: Mas, Ignacio (2008), GCAP FN 45

6b: Capturing the promise of mobile banking, McKinsey Quarterly

## However demographics, local enablers<sup>1c</sup> and inhibitors play an important role in determining the demand for specific services

- Migration of poor to urban environments for better and steady wages is quite common in developing countries. This leads to the first and second generation migrants usually remitting money back to their split families or for reasons of cultural affinity.
- The need to move funds between individuals who are outside the banking sector in countries with low bank penetration like Kenya and Philippines is well documented.<sup>2c</sup>
  - In Kenya M-PESA from Safaricom has leveraged this need to achieve significant take-up. In the Philippines, Smart Money and GCASH have enabled large amount of money transfers between urban and rural areas and overseas, leveraging the distribution advantages of MNOs.
  - In India, Eko has seen a rapid growth in mobile transaction volumes<sup>3c</sup> in select corridors (New Delhi Bihar) after launching domestic remittance product "*Tatkal*" from State Bank of India, a leading public sector bank with deep penetration.
- The phenomenal success of M-PESA<sup>4c</sup> has been due to factors, specific to their context and not necessarily replicable, which is why a similarly resounding success story has not happened again ... yet.
  - Some of these factors were (a) migrant earning population with strong bonds to their rural homes; (b) limited or expensive alternatives for remittances; (c) a strong, dominant and respected brand in Safaricom with predominant (67%) market share; (d) enabling regulator that allowed Safaricom to venture into financial services; (e) techno-savvy Kenyan people who were keen to experiment with and adopt new technology and products.

- In agrarian economies dependence on weather, rainfall, landholding, market-demand enormously influence financial needs, such as for credit or insurance.
- Accessing State benefits that offer minimum wages or pensions for the elderly influence the need for financial services such as savings accounts or regular contributions into a pension plan.
  - Low income segments in South Africa use their bank accounts to receive salaries. For the unbanked, cash-out facilities are provided by government. This explains the low uptake of e-/m- enabled financial transactions.
  - On the other hand, in India, where few alternatives exist for the unbanked, FINO and SEED have witnessed huge volumes of pro-active client enrolments and electronic benefit transfers (EBT) transactions by rural beneficiaries receiving social payments - minimum employment wages (NREGA) or old age pension funds.<sup>5c</sup>
- In Brazil, utility and other payments including welfare payments have been tapped by large banks using branchless banking methods. 4c, 6c Initially started and incentivised by the State for social and welfare payouts, the services gradually scaled and became mainstream financial services. The utility payments were regulated as a bank-service and hence became another catalyst. State also efficiently utilised resources in enabling the formation of a dominant agent network

Recognising client needs, their context, drivers & influencers and building financial services strategy on these is critical for succeeding in the long run.



<sup>5</sup>c: George, Denny et el, Review of Savings Options for MFIs in India, *MicroSave*, 2010

## Access, range, quality and cost of existing alternatives strongly determine the demand<sup>1d</sup> of financial services from formal channels<sup>2d</sup>

The existence (or otherwise) of alternatives, their accessibility, range of offerings, consumers trust in their quality and finally what they cost has a significant bearing on the market opportunity and acceptance of a new financial channel or product.

The attributes<sup>3d</sup> consumers usually apply to assess alternatives are

- (a) Direct Costs
- (b) Indirect Costs
- (c) Safety
- (d) Reliability
- (e) Convenience
- (f) Liquidity
- (g) Opportunity Costs
  - Alternatives could be formal, semi-formal (legal but not regulated) or informal<sup>4d</sup>
  - If good real alternatives exist, as in developed markets, it will be difficult to convince users to switch
  - At the other extreme, if no alternatives exist, it becomes a challenge to establish a new service category in people's minds, resulting in slow acceptance, and requires heavy initial investments

*MicroSave* used its Cost-of-Cash Tool to determine the types of transactions that cause most "pain" or "stress" for customers dealing in cash. The findings<sup>5d</sup> reflect relative important of four important considerations that weigh in the minds of poor people in their assessment of existing alternatives for various categories of financial services

- Transaction Costs: (costs incurred in carrying out the transaction (commissions, transport costs, late fee and so on, apart from actual transaction amount)
- Time Spent: (waiting, travel, transaction time, etc.)
- Opportunity Cost: (value of next best alternative, such as value associated with lost wages, lost sales, time for family/leisure)
- Risk of Holding Cash: (potential of cash lost, stolen, spent needlessly and so on)

Utility payments were found to be low pain. Whereas high pain categories seemed to be (a) festival expenses (b) hospital expenses (c) household /food spent and (d) savings came out as other high pain transactions.

Financial inclusion business models that (a) offer a variety of savings options (b) allow easy and frequent savings possibilities (c) offer security and can establish consumer trust (d) are easy to access and simple to comprehend and (e) priced according to consumer perceived value, will invariably witness windfall demand <sup>6d</sup>



<sup>1</sup>d: See MicroSave India Focus Note # 67

<sup>2</sup>d: Mas, Ignacio (2010), Seeking Fertile Grounds for Mobile Banking

<sup>3</sup>d: See MicroSave India Focus Note # 47

<sup>5</sup>d: See MicroSave India Focus Note # 51

# Agent Network Managers (MFIs or BCs in India) and Agents<sup>1e,2e,3e</sup> have a pivotal role in influencing demand for e/m banking

Agent Network Managers (ANM) and Agents can influence the demand for financial services due to several factors. Using an 8P framework<sup>3e, 4e</sup>, these influences on demand are analysed below

#### Product

Product relevance is absolutely vital for low-income to generate demand, as they have limited resources and can ill afford a trial and error approach. ANMs and Agents understand consumer needs and behaviour better than anyone and hence need to have a greater role in product design.

#### Price

Agent commitment is a factor of the returns (often incremental to their existing income sources) witnessed and pricing impacts everyone in the value chain from ANM to the clients. While various ways to remunerate exist, 3e pricing is of considerable strategic importance to make or break the business for the small ANMs and Agents, something that the big Banks and MNOs need to be aware of.

#### People

Agents are the face of the banking system, Their selection, training, motivation, handholding and retention is crucial and a key determinant of the success or failure of an initiative.

ANM and Agents' role in promoting services cannot be understated. Low-income clients are primarily influenced by word-of-mouth and physical evidence. Agents' commitment to promote, together with their proximity and relationship with clients has significant impact on the demand generated.

#### Process

Agents and ANM are responsible for frontline implementing processes and can extensively contribute to process re-engineering, efficiency for enhanced consumer experience.

As an extension of the banking/financial service, the location, accessibility and branding of the agent can vitally influence the demand and trust of the consumers. Inaccessible locations can be barriers and densely located agents can erode viability.

Place

Promotion

In addition to physical attributes of an agent's location, factors such as appearance and branding greatly influence consumer trust and confidence.

For early adopters, physical evidence of the e/m banking services is essential to build trust and for their protection, as systems & processes become robust. (This is a reason why remittances witness early and high adoption rates)

#### Position

Physical evidence

Micro Sava

2e: See MicroSave Briefing Note # 69

3e: See *MicroSave* Briefing Note # 73 4e: See *MicroSave* Briefing Note # 74

5e: See MicroSave Briefing Note #81

1e: CGAP Focus Note # 38

Considerations, drivers and motivations for Agent Network Manager and Agents to promote e/m banking and their selection criteria are examined subsequently<sup>5e, 6e, 7e</sup>

6e: See *MicroSave* India Focus Note # 38
7e: See *MicroSave* India Focus Notes # 65, 66, 68

### Financial Inclusion: Need & Enablers

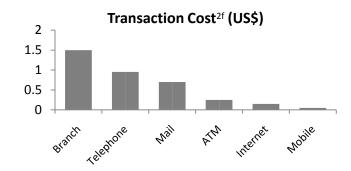
- Demand Side Factors
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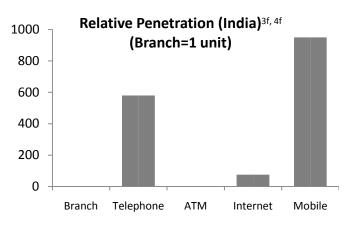




# Rapid technology evolution has aided smart, consumer friendly, yet viable, financial inclusion options become a reality

- Traditional banking and financial services were very capital and labour intensive limiting focus 1f on few high value low volume transactions carried out by high net-worth customers. 2f
- Technology for banking has rapidly evolved and scaled, allowing remote anytime, anywhere availability of secure financial services to become commercially viable.
- The benefits however still remain accessible to a limited segment of urban literate technologysavvy customers and banks are yet to adopt to the low-value, high volume transactional needs of the poor to be served in low density, remote environments.
- The interplay of banking technologies with mobile technologies, that have much wider penetration, hold new promise of financial inclusion for the masses.
  - Apart from simply leveraging mobile phones for basic and advanced banking, innovation in this
    space is reaching new levels such as allowing mobile technology to transact through ATMs or using
    SIMs to operate credit/debit card POS machines on mobile networks.
  - M-PESA's mobile payment service introduced non-card based ATM withdrawals to meet the unique needs of certain customers (like withdrawal of salary, welfare payments involving large sums at the end of the month) that merchants could not meet easily.<sup>5f</sup>
  - Leveraging M-PESA's 'rails', many product and business model innovations and adaptations have been possible. – but have not yet realised their full potential<sup>5f</sup>
  - SMART Money in Philippines issues co-branded debit cards to its mobile banking customers to
    enable access to rapidly growing ATM and POS network across the country, offering great
    convenience and benefits.<sup>6f</sup>
- Many other innovations are in early stages and few of them might evolve and achieve scale to benefit the cause of financial inclusion:
  - UIDAI's Aadhar project is using finger-print and iris recognition technologies to rollout unique identification for 700 million people in India. This has the potential of addressing the severe challenges associated with identification of individuals for financial services.<sup>7f</sup>
  - Interbank mobile payment system (IMPS)<sup>8f</sup>, a service developed by NPCI offers instant interbank electronic fund transfer through mobile on 24x7 basis.
  - Mobile ATMs are being adopted by several institutions and undergoing constant innovation.
  - RFID and NFC based technologies integrated with mobile technologies are evolving.





Multiple technology options available today hold the promise of supporting financial inclusion at scale



A comparison of technology options follows



- 1f: Banking The Poor, The World Bank, 2009
- 2f: See MicroSave Briefing Note # 21
- 3f: RBI Report on trend and progress of banking in India 2009-10
- 4f: TRAI: The Indian Telecom Service s Performance Indicators, January 2011
- 5f: See *MicroSave* Briefing Notes # 93, 94 & 95
- 6f: See MicroSave Briefing Note # 80
- 7f: See *MicroSave* India Focus Notes # 69 & 70

# Comparison of technology options<sup>1g</sup> and their potential in enabling financial inclusion at scale

Technolog	y Mobile <sup>2g</sup> (USSD)	Mobile <sup>2g</sup> (SMS)	Mobile Apps	Mobile (STK)	POS (Card) <sup>2g, 3g</sup>	Mobile ATM	Voice IVR
Ubiquity	Supported by most basic to smart phones.	Supported by most basic to smart phones.	Needs data capabilities and high memory on phone.	Constrained by SIM card memory and distribution.	Low for banking usage.	Very low penetration	At trial stage
Complexity / Usability	High volume transactions are of few types only. Needs ability to read/write numerals and characters.	Needs ability to read/write numerals, words and characters.	Users should be fairly literate and technology savvy.	Some degree of literacy required. At times supported by school going children.	Complexity is usually around biometric recognition.	Users literacy required	No need to remember PINs or hold smart cards
Security & Trust	More prone to human errors	More prone to human errors	Security can be embedded	•	Biomertic authentication	Can print receipts	Voice authentication not yet proven
Cost	\$20 onwards <sup>4g</sup>				\$400+ (device)	0	0
Ability to Scale	Also high priority format	•	•		•	0	0
Overall		•	•	•	•	0	0



<sup>1</sup>g: See MicroSave Briefing Note # 67, 2g: See MicroSave Briefing Note # 66, 80

<sup>3</sup>g: Mas, Ignacio and Siedek, Hannah, Banking through networks of retail agents, Focus Note May 2008 4g: In large and emerging markets like India. Nokia online store nokia.co.in

## Success stories from other industries<sup>1h</sup> in distributing low value high volume goods/services are being applied to financial services

- Fast moving consumer goods industries have traditionally been leaders in:
- (a) developing products that address the unique low costs, low volume needs of the low income group;
- (b) enabling distribution reach for these products to be available in the remotest of geographies; and
- (c) enabling the very remotely located poor to get the same product experience as their urban-rich counterparts.
- One time use shampoo sachets and coca-cola<sup>2h</sup> bottles priced at 2 to 10 US Cents are classic examples of successful product design and distribution.
- The second wave of distribution success has been industries falling in the value-chain (buyers to sellers) of agro-sector, which is often the prime occupation of rural masses.
- They set-up local kiosks/channels to dis-intermediate existing channels (often unofficial) and enable better price-discovery or to prevent information arbitrage.
- In some environments<sup>3h</sup> retail channels such as pawnshops are prolific and also have the experience of managing liquidity.
- The third wave has been driven by mobile operators developing paper vouchers of very small denominations and subsequently electronic airtime top-up of any-value, providing the flexibility of paying for mobile services as per cash at disposal.<sup>3h</sup>
- With a large distribution network, often riding on the existing consumer goods or agricultural products, mobile services are available at the neighbourhood store in almost every village.

The underlying common elements behind the success of these services have been

- 1. Products design and continuous innovation according to consumer needs
- 2. Extensive and efficient use of outsourcing and third party services achieve scale and optimize costs. 4h
- 3. Using the same distribution channel for aggregation of multiple goods and services to achieve critical mass to commercially sustain, even with low volumes for each product individually.
- 4. Laser focus on improving efficiency, productivity and brining costs down across the value-chain.
- 5. Leveraging technology to
  - (a) automate and dis-intermediate where feasible;
  - (b) enhance efficiencies (e.g. supply chain, inventory, operations); and
  - (c) establish remotely manageable checks and balances and controls.
- 6. Fiercely competitive environment
- Banks/FIs have the opportunity to ride the next wave by applying the insights gained and lessons learned from these services, for more cost-effective and sustainable distribution of financial services.
- Technology can enable the distribution points (agent networks) to become trusted remote extensions of banks, offerings similar financial services, tailored into suitable low cost products and with a higher-probability of being commercially viable. 5h
- Early evidence of this is visible in Brazil where now all municipalities are covered by formal banking system and in India, where for example, Eko has setup a network of over 1,000 agents in two of the states. This model is being also adopted in Bolivia, Colombia, Mexico, Pakistan, Peru, and South Africa. 5h



<sup>2</sup>h: Mas, Ignacio (2008), CGAP Focus Note # 45

### Financial Inclusion: Need & Enablers

- Demand Side Factors
- Supply Side Enablers
- Regulatory and Policy Enablers





## Environment is witnessing tectonic shift driven by regulatory and policy interventions to better address client financial needs holistically<sup>11</sup>

- Intense competition, rapidly changing client expectations and at times crises situations are forcing microfinance institutions to overhaul their strategy towards clients, products offered, organisation structure, processes etc. and in some cases adopt a fundamental change in their way of operating.
- In countries like India, microfinance is witnessing emergence of third generation microfinance institutions that could be very different from their previous avatars.

	First Generation	Second Generation	Third Generation
Operating Form	SHGs	NBFC or NBFC-MFIs	Banking Agents (BC in India) or a variant
Motivation <sup>2i</sup>	Success of Social intermediation by SHGs and need of Financial intermediation for Banks due to their inability for outreach	Greed for quick returns	Survival in current environment
Operating Model	SHG lending	JLG lending	<ul> <li>Longer term vision</li> <li>Delivering client value</li> <li>Product innovation</li> <li>Market differentiation</li> <li>Transforming operating model (structure, systems, processes)</li> <li>Agents for banks</li> </ul>
Driver for Change <sup>2i</sup>	<ul> <li>Regulatory push for priority sector lending</li> <li>Banks' inability for direct outreach and need for compliance</li> <li>Unprecedented credit</li> <li>Loose regulations</li> </ul>	<ul> <li>Intense competition for the same clients (often served by 2-8 MFIs)</li> <li>Regulatory restrictions</li> <li>Growing client needs for diverse financial products and expectations around better service</li> <li>Credit unavailability</li> <li>Banks attempt for direct outreach</li> </ul>	

## Regulatory and policy frameworks have been constantly evolving to enable e/m banking – Example: India

#### 'A chronology of the evolution of Indian regulatory and policy environment for financial inclusion'

1949 - 1966

- In 1949 Reserve Bank of India (RBI) was entrusted with the responsibilities related to the licensing of banks, branch expansion , liquidity of their assets, management and methods of working, mergers, reconstruction and liquidation. <sup>1j</sup>
- The Indian financial system consists of commercial banks, co-operative banks and non-banking financial companies (NBFCs), with the State Bank of India and its associate nationalised banks and regional rural banks (RRBs) constituted under enactments of Parliament.
- In addition, semi-formal and informal mechanisms such as self help groups (SHGs) and rotating savings and credit associations (ROSCAs) came into being, through which the poor could access financial services.
- Whereas the commercial and cooperative banks could provide all banking services, the NBFCs could only provide credit (except a few (Sahara, Peerless) who have received special approvals to provide deposit services)

1967 - 1990

- The period from 1967 to 1980 saw the nationalisation of 14 banks (with deposits over Rs.50 crores) in an attempt to use the scarce resources of the banking system for the purpose of planned development. This period was also characterised by rapid branch expansion.
- In 1972 the concept of 'Priority sector' was formed and from 1974 specific targets were laid out.

1990 - 2008<sup>5j</sup>

- In the 1990s, the Government experimented with new models for improving financial access to the poorest segment through
  active involvement of NABARD.<sup>1j</sup>
- In November 2005, the RBI asked banks to offer a basic banking 'no-frills' account with low or zero minimum balances and minimum charges to expand the outreach to low income groups.
- In 2006, the RBI permitted banks to use the services of non-governmental organisations, microfinance institutions (but not those registered as NBFCs), retired bank employees, ex-servicemen, retired government employees, Section 25 companies, and other civil society organisations as Business Correspondents (BCs) in providing financial and banking services.<sup>2j</sup>
- In 2008, RBI announced the operative guidelines for mobile banking transactions. <sup>3j</sup>

2009<sup>5j</sup>

- Between April and November 2009, RBI further enlarged the scope of the BC model by increasing the maximum distance permitted between the place of business of a BC and the link bank branch, from 15 to 30 kilometres and by permitting banks to charge customers 'reasonable fees' for using services through the BCs, to improve their business case. <sup>1j, 4j</sup>
- In December 2009, the RBI took additional big steps towards financial inclusion by (a) doing away with the need for a license for opening a bank branch in towns and villages with populations below 50,000 <sup>1j</sup> and (b) by enhancing the daily limits for mobile banking transactions from Rs. 5,000 to Rs 50,000 and allowing up to Rs 1,000 without end to end encryption.<sup>5j</sup>

2010 - 2011

• RBI has further expanded and liberalised the Business Correspondent (BC) model by permitting 'for profit' companies to serve as BCs<sup>6j</sup> and subsequently by allowing cooperative banks to use the services of BCs.<sup>6j</sup>



<sup>1</sup>j: MicroSave Deposit Assessment in India, IFC study, March 2011

<sup>2</sup>j: RBI Circular on Use of Business Facilitators and Business Correspondents

<sup>3</sup>j: RBI Operative Guidelines on Mobile Banking Transactions

<sup>4</sup>j: RBI Circular on Increasing Distance Criteria for Business Correspondents

<sup>5</sup>j: RBI Circular on Enhancing Mobile Transaction Limits

<sup>6</sup>j: <u>Update on Regulation of Branchless Banking in India, CGAP, 2010</u>7j: RBI Circulars on Financial Inclusion <u>September 2010</u> and <u>December 2010</u>



Retailer / CSP

Distributor
/ Super
CSP

## **BUSINESS MODELS**

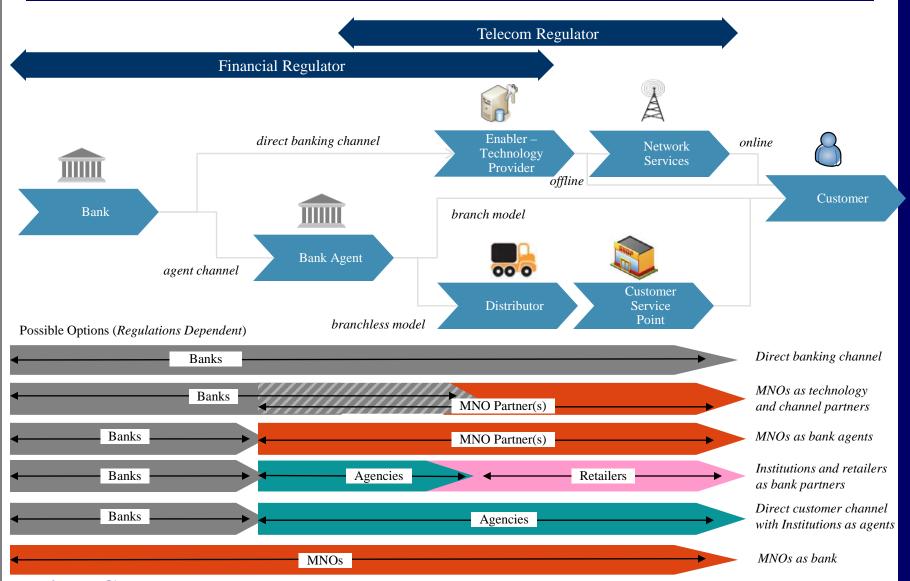


MNO

Bank



## Microfinance value chain involves multiple players allowing several business model alternatives<sup>1k, 2k, 3k, 4k</sup>



<sup>3</sup>k: Kumar, Kabir, CGAP Business Models

<sup>2</sup>k: CGAP, New business models in mobile banking

## Business models are inspired and motivated by various factors and quite often financial inclusion is not one of them

<b>Business Model Led by</b>	Motivation			
Banks	<ul> <li>Compliance to mandate (Indian banks)</li> <li>Risk mitigation through direct outreach (Indian banks)</li> </ul>	<ul> <li>Extending outreach (Tameer bank)</li> <li>Market and product expansion and/or diversification (ICICI bank, Axis bank)</li> </ul>		
Agent Network Managers <sup>11, 21</sup>	<ul> <li>Branchless banking service model</li> <li>Survival (as for MFIs in India)</li> <li>Facilitating banks extend financial services (South America)<sup>31</sup></li> <li>Incrementally enhancing revenue streams</li> </ul>	• Offering a healthy mix of financial services that other outfits might not be allowed		
MNOs <sup>41, 51, 61</sup>	<ul> <li>Business diversification (Airtel)</li> <li>Revenue stream enhancement (M-PESA)</li> <li>Way to retain customers and enhance relationships (Airtel, Videocon telecom)</li> </ul>	<ul> <li>Reduce transaction cost</li> <li>Saving on airtime commission</li> <li>Additional electronic channel</li> <li>Market differentiation</li> </ul>		
Technology Providers	<ul> <li>Leverage technical core competence (Atom)</li> <li>Scalability through one-to-many construct (Eko)</li> </ul>	<ul> <li>Diversification leveraging technical platform or operating model (ngPay, Oxigen, Utiba)</li> </ul>		
Large Corporates <sup>71</sup> as Bank Agents	• Revenue stream enhancement (likely to be viable due to incremental costs)	<ul> <li>Potential diversification into financial services sector or even become a bank</li> </ul>		
Others (Handset manufacturers or VAS players)	• Supplementary revenue stream leveraging technology, brand and so on (Comviva)	<ul> <li>New opportunities for growth (Nokia Money)</li> </ul>		



<sup>11:</sup> See *MicroSave* India Focus Note # 18, 29

<sup>21:</sup> Kumar, Kabir et el (2010), CGAP Focus Note # 52

<sup>31:</sup> See MicroSave Briefing Note # 51

<sup>4</sup>l: Leishman, Paul, Is There Really Any Money in Mobile Money?, GSMA

<sup>51:</sup> See MicroSave Briefing Note # 69

<sup>6</sup>l: Kumar, Kabir, Mino, Toru, Five business case insights on mobile money

<sup>7</sup>l: Feasibility of Engaging Corporate Retail Networks as BC of Banks, Gates Foundation Study, 2010

## Revenue models<sup>1m, 2m</sup> vary considerably across the key market participants

#### Banks

Agent Network
Managers

### Technology Providers

#### Agents

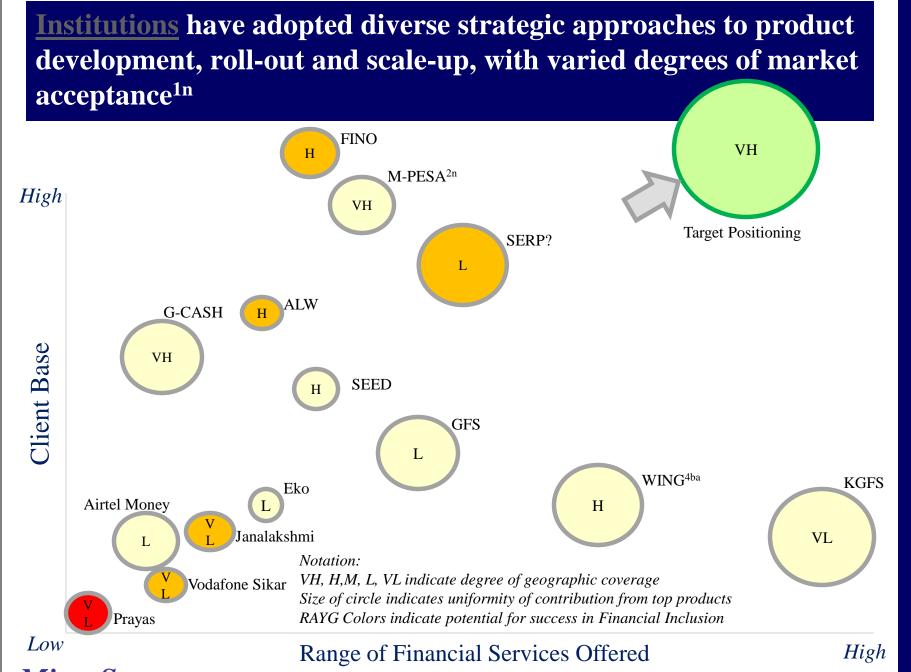
#### **Sources of Revenue:**

- Account opening fee and annual maintenance fees
- Transaction fee (deposits, withdrawals, transfers, remittances, other benefits)
- Revenue share of social / welfare payments distributed
- Interest on credit advanced

Bank /MNO commissions<sup>3m</sup> (flat fee, percentage commission or geared/slab based) on

- Enrolments (savings, electronic benefit transfer [EBT], pension, insurance)
- Value or number of transactions (deposits, withdrawals, welfare payouts (EBT), transfers, payments, remittances)<sup>3m</sup>
- Maintenance of active accounts
- Value of balance outstanding (quarterly) or based on health of account
- Fee for marketing and promotions
- Minimum guarantees in certain markets (e.g. Banco do Brasil)<sup>4m</sup>
- One time and recurring technology licensing fee from banks / State (in case of EBT)
- Bank commissions on enrolments (card disbursal)
- Bank commission on transactions carried out by bank agents
- Training and skill-building fee
- Device / Equipment (POS, Cards, Computers, Modems) maintenance fee
- Share of all or some of the commissions received by agent network managers
- Commission on airtime top-ups
- Impact to other offerings due to higher customer footfalls

Models that promote financial inclusion might not play-out well for players in the short-term. Market participants need to conduct adequate due-diligence around their cost structures and revenue models that best fit their strategy



## CHALLENGES & LESSONS LEARNT



### Challenges to Financial Inclusion<sup>10, 20, 30</sup>

- Financial inclusion faces a number of challenges ranging from the large number of resources traditionally involved in supporting small transactions, completing paperwork, providing outreach etc.
- High costs coupled with low returns have not made financial services for the poor an attractive proposition for commercial banks and profit making entities.

## **Historical Non-profit Organisations**

- Lack of investment capital
- Inefficient systems
- Difficult to scale IT & operating model
- Resource intensive processes

#### **Common Challenges**

- Operating model not designed for low-income sector
- IT solutions not appropriate
- Limited infrastructure
- Changing regulatory environment
- Little/no financial history
- High cost of traditional channels
- Threat from alternate providers

#### **Commercial Banks**

- Unwillingness to risk shareholder money
- Operating model not appropriate
- Existing channels not accessible to low income clients
- In some markets (e.g. India) serving a burgeoning middle class offers quicker, easier profit lines

These challenges are now explored in more detail, along with the experiences gained and lessons learned in various environments



### **Challenges and Lessons Learnt**

- Strategic Challenges
- Operational Challenges
- Overcoming Barriers to Adoption
- Regulatory and Policy Challenges



## Need for market-led, scalable, profitable and sustainable and business models<sup>1p</sup> for e/m banking

- Any approach to financial inclusion has to be market led and profitable to make it sustainable for the providers. In order to be beneficial to the masses, it also needs to be scalable to prevent localisation of benefits and to enable wider outreach.
- Identified below are key considerations for making the right strategic choices and for the business models to deliver.

## Consumer focused & market-led

- Many financial inclusion initiatives are compliance driven (social add-ons), instead of being conceived as sustainable businesses.<sup>2p</sup> This approach needs to undergo transformation and become market lead.
- · Assessing and ascertaining market potential
  - First and foremost is to assess the market need and ascertaining demand and its elasticity.
  - Several failed financial products get launched with no market research or pilot, becoming a drag on the institution and establishing bad precedence.
- Identifying target market segment and innovating product s according to consumer needs and expectations
  - Each market segment has its own needs that would drive adoption. These could vary by geography & demographics and exhibit dynamic behavior.
  - It is critical to align institution's strategy to target consumer needs and drive products/offerings development and delivery to address those (an obvious example: a pension product designed for a region with pre-dominantly youth population might turn-out a complete misfit).

#### **Profitable**

- Profitability is determined by factors like (a) Core or incremental business (b) Price taker or setter, particularly in a non-bank led model (c) Seller or buyer market (d) Transaction volumes and float<sup>6p</sup>
- Everyone in the value chain must emerge profitable. In branchless banking, often banks determine commissions for their agents without linkage to real costs, which later leads to non-sustainable outcomes. The non-monetary benefits are important to keep sight of too.<sup>7p</sup>
- Leveraging an ecosystem of partners (large banks/FIs, MNOs, special third-party service providers) to support development, deployment, technology, rollout and operations has higher likelihood of turning profitable faster instead of attempting to everything in-house.<sup>8p</sup>
- Models founded on grants or funding with no expectation of returns, could be concept testing enablers, but unlikely to scale or have longevity.

#### Scalable<sup>5p</sup>

- Agility and sustenance of business models is tested when they scale-up. Limitations to achieving scale could be around organisation, business-model, processes, technology and so on.
  - FINO and KGFS adopted biometric technology for enabling financial services, however constraints in matching soiled finger-prints of working poor have forced work-around processes to be adopted to handle large volumes.<sup>3p</sup>
  - M-PESA is struggling with a large suspense account generated because of erroneous transactions carried out by customers.<sup>4p</sup>
  - Some BCs in India face the challenge of errant or non-delivery of SMS confirmation for mobile transactions, causing client anxiety. With growing volumes and yet to stabilize operations, customer service points erroneously carry out repeat transactions and carry the risk of losing large sums.
- Ability to profitably achieve economies of scale is extremely critical and should be a key consideration during strategic decision making.



<sup>2</sup>p: See MicroSave India Focus Note # 24

<sup>3</sup>p: See *MicroSave* India Focus Note # 47

<sup>4</sup>p: See *MicroSave* Briefing Note, # 94

## A very vital aspect is choice of the synergistic strategic partnerships, operational alliances and channel intermediaries<sup>14, 24</sup>

- As the <u>previous value chain analysis</u> reflects, partnerships and alliances are critical and often inevitable.
- Partners and allies have a major role in making the business model work, but have the associated risk of becoming high entry or exit barriers.
- Enough due-diligence must therefore be carried out to determine the right fit. Pilot testing phase provides a good opportunity to test partnerships and ascertain synergies.<sup>3q</sup>
- Following are important considerations one should look for in potential partners and allies.

#### Banks

- Commitment to financial inclusion
- Commitment to agent channel
- Reach and brand awareness<sup>4q</sup>
- Alignment of product/go-to-market strategy
- Profitable commission structure
- Willingness for open and interoperable deployments

#### Agent Network Managers<sup>6q, 7q, 8q</sup>

- Strategic synergies (customers, products, branding)
- Demonstrated microfinance credentials
- Client base and quality of relationships (connections with communities)<sup>5q</sup>
- Alignment on client segment and geographical focus
- · Resources and reach

#### **MNOs**

- Complementary core capabilities
- Strategic intent for mobile money services
- Market position and customer base
- · Brand and distribution reach
- Exclusive stores and dealer network
- Ability and willingness to leverage operational and technical synergies with airtime top-up

#### Distributors / Resellers<sup>4q, 6q, 8q</sup>

- Synergies with existing business
- Not driven by quick profitability
- Willing to invest in e-money and ability to manage liquidity
- Resources and reach
- Commitment and ability to train staff and retailers
- · Technology savvy
- Location

#### **Technology Providers**

- Initial and running costs
- Ease of integration with bank CBS
- Interoperability<sup>2q</sup>
- Ease of use for clients and intermediaries
- Scalability
- Portability across channels

#### Agents<sup>9q</sup>

- Synergies with existing business
- Client trust & relationships
- Location
- Client footfalls
- Willing to invest in e-money and ability to manage liquidity
- Literacy level
- Relevant experience
- Longer-term commitment
- Early adopters



a: See *MicroSave* Briefing Note # 6

2q: Mas, Ignacio on Interoperability

Market-led solutions for financial services 3q: MicroSave Deposit Assessment in India, IFC study 6q: See MicroSave Briefing Note #73

4q: See *MicroSave* India Focus Note # 38

5q: See MicroSave Briefing Note #71

7q: See MicroSave Briefing Note #74

8q: See MicroSave Briefing Note # 81

9q: Mas, Ignacio et el, Banking through networks of retail agents

## Some illustrations of partnerships and lessons learned [1 of 2]

Banks	<ul> <li>Banks</li> <li>IMPS in India is enabling bank interoperability for mobile banking services. <sup>1r</sup> With 20 banks already on-board this can significantly leapfrog integration challenges in a country which has more than 400 scheduled and regional banks. <sup>2r</sup></li> </ul>	<ul> <li>MNOs</li> <li>MNOs and banks have extended their partnerships to the extent of holding stake or forming joint-ventures.</li> <li>Telenor and Tameer Bank have had an excellent integrated partnership in Pakistan. 3r, 4r, 5r</li> </ul>	
Agent Network Managers <sup>5</sup>	<ul> <li>MNOs</li> <li>MFIs have the choice of creating developing their own service or wait until the infrastructure and services are created. Each alternative has its pros and cons.</li> <li>Developing an m-banking service needs significant investments, resources, planning and time and many regulatory, technological and operational barriers to be overcome before it can become sustainable.</li> <li>MFIs can alternately consider existing infrastructure available from MNOs and leverage the financial wherewithal, distribution and brand reach that they offer.</li> <li>However the sweet-spot of relationship based on complementing capabilities needs careful identification.</li> <li>MFIs traditionally have the capabilities of managing cash / liquidity and credit delivery &amp; recovery.</li> <li>They also have strong community reputation, deep client relationships and understanding of their needs and wellbeing. This enables them to be more effective at relationship or consultative sales required for financial products, as against transaction sales (such as groceries or airtime). Many also have considerable rural outreach.</li> <li>Most of these are not MNOs' forte. However, on the other hand, they can provide infrastructure (technology, existing distribution network and so on), marketing and operational support and scalability, but do not necessarily understand clients' financial needs. Their relationships are more transactional in nature involving airtime sales.</li> <li>These complementing capabilities can form the basis of an alliance.</li> <li>Potential options include MNOs setting up mobile banking platform for smaller banks, MFIs or agents.</li> </ul>		
MNOs	<ul> <li>Agent Network Managers</li> <li>In South Korea MNOs choose a bank agnostic approach, enabling all bank client to use the services. 6r</li> <li>Vodafone partnered with a large MFI, First Microfinance Bank in Afghanistan, to leverage their strong grassroots connections to offer loan disbursements and repayments via the M-Paisa platform. 3r</li> <li>Vodafone's radically different strategy in Afghanistan compared to in Kenya, demonstrates that even a proven and successful model needs adjustment according to local context and situation.</li> </ul>	<ul> <li>Agents</li> <li>Safaricom's M-PESA model in Kenya often uses airtime resellers who maintain the cash float</li> <li>Globe Telecom in Philippines developed a successful alliance with distributors and microfinance operators (RBAP &amp; MABS).<sup>7r</sup></li> <li>Merchants might find salary or welfare payments involving large demands at the end of the month, difficult to support and hence direct bank or agent led model might work better for such segments.<sup>8r</sup></li> </ul>	



- 1r: See MicroSave India Focus Note # 61
- 2r: RBI Report on trend and progress of banking in India 2009-10
- 3r: See *MicroSave* Briefing Note # 68
- 4r: Kumar, Kabir, Tameer Microfinance Bank

- 5r: Kumar, Kabir et al, CGAP Focus Note #45
- 6r: See MicroSave Briefing Note # 51
- 7r: See *MicroSave* Briefing Note # 71
- 8r: See *MicroSave* Briefing Note # 80

### Some illustrations of partnerships and lessons learned [2 of 2]

Banks	<ul> <li>Agent Network Managers</li> <li>Given banks' inability for extensive outreach they have explored varied partnership options.</li> <li>Agency models have done well in Brazil<sup>1s</sup> and are starting to emerge in a big way in India.</li> </ul>
Agent Network Managers <sup>5</sup> r	<ul> <li>Technology Providers<sup>2s</sup></li> <li>In India, Eko is both an agent and a technology provider to other bank agencies, with the ability to provide a complete mobile technology solution.</li> <li>Whereas Atom is a biometric POS device based technology provider to agencies.</li> </ul>
MNOs	<ul> <li>Technology Providers<sup>3s</sup></li> <li>MTN and mChek burn the mobile financial services software on the SIM to enable better distribution and access.</li> <li>MTN and mFino can also distribute the application "over the air". This is however limited to GPRS handsets and needs literate technology savvy agents or clients.</li> <li>Often 16k SIM card capacity constrains this.</li> </ul>



<sup>2</sup>s: See MicroSave Briefing Note # 68

## Technology<sup>11</sup> can be a major enabler or handicap. It should be proven, scalable, secure, cost-effective with enough shelf-life<sup>11</sup>

#### Suitable

- A key driver for choice of technology is suitability to the business model clients, agents, products offered, policy compliance.
- No one size fits all and a technology working well in one context or environment might be a misfit for a similar purpose in another environment.



- GCASH and SMART find menu driven formats to have proven very user friendly, whereas due to illiteracy reasons, these had limited uptake in India. Eko has instead found USSD to be more promising.
- A combination of mobile and POS/card based solutions might work better in fulfilling the unique needs for certain demographies.<sup>3t</sup> If a technology infrastructure is more prevalent, it is effective to ride on it (e.g. card infrastructure in South Africa).

#### Cost Effective

• Technology constitutes a large component of cost of delivery of financial services and hence extremely important to be managed well.



- USSD & SMS formats exhibit the promise of being more costeffective, provided other considerations can be met.<sup>1t</sup>
- MNOs prefer SIM based solutions, which apart from being more costeffective for them, allow market differentiation and client "stickiness/retention" through a walled-garden approach.

#### Secure

- Security needs to be viewed from 2 perspectives (a) technology security and (b) human ignorance or negligence.
- Technology has evolved considerably and offers reasonable secure and idiot-proof solutions, provided the right processes in place.

- POS with biometrics has worked out better where authentication becomes vital, as with government payments .
  In South Africa a bank using USSD2 has not faced a single case of
- In South Africa a bank using USSD2 has not faced a single case of fraud vis-à-vis ATM and POS which can be hacked more easily
- Economies with lower literacy levels face the challenge of client ignorance or negligence. Needing assistance to fulfill financial transactions they end up disclosing PINs and passwords.

• Apart from mobile, other technologies are new and untested.

## Proven & Scalable

- Technology frequently limits a business model to scale and must be a key consideration.
- Market demands can be unpredictable and institutions struggle to respond. Technology and processes often limit the much-needed and rapid scale-up or down. (Telenor witnessed a demand of 2.0 million clients within weeks of launch of service)<sup>4t</sup>
- Adopting proven technologies can mitigate these risks with the added advantage of lowe r costs driven by the benefits of volumes and scale.



challenges.

• Several institutions and technology providers are experimenting with completely new technologies like voice IVR or mobile ATMs, which are nascent and yet to be proven at any scale.

POS, while proven for credit/debit card transactions, is a new concept

when married with bio-metrics and is continuing to witnesses teething

- With 3G and 4G networks growing rapidly and a strong emphasis on http with Java and Android handsets, one must watch out for the trends in USSD, SMS and STK, and manufacturers/providers strategy around them. USSD1 has already evolved to USSD2.
- MNOs have greater flexibility and deeper pockets to drive the technology decisions. Smaller institutions can explore suitable synergistic partnership with them.

#### Longevity

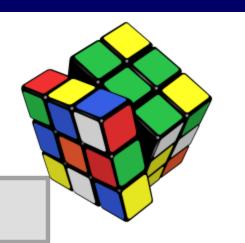
- Every technology has a shelf-life and eventually becomes obsolescent or is succeeded by the next generation.
- Cognisance of the lifecycle stage is pertinent for strategic decisions around technology



- 1t: See MicroSave Briefing Note # 67
- 2t: Mas, Ignacio, The economics of branchless banking 2009
- 3t: See *MicroSave* Briefing Note # 80

### **Challenges and Lessons Learnt**

- Strategic Challenges
- Operational Challenges
- Overcoming Barriers to Adoption
- Regulatory and Policy Challenges





## Mobile money deployments need to get from zero to critical mass very quickly to avoid sub-scale trap<sup>1u</sup>

- Mobile money deployments have predominantly remained sub-scale, despite considerable efforts around the world and support from enormous body of knowledge.
- Inability to reach a critical mass of customers causes deployments to remain stuck in "sub-scale trap". This can be attributed to three factors (1) "Network effects", (2) Chicken-and-egg-trap (2 sided market) and (3) Trust

Network effects: The value of a financial deployment to a customer is directly proportional to the people actively using the service. It can greatly accelerate momentum when critical-mass is reached but it can also inhibit early adopters when there are few users.

Chicken-and-egg trap: Attracting providers (resellers/retailers) and users concurrently to enable providers to experience enough market potential and for customers to have enough outlets/servicing points.

Reaching critical mass enables building trust through the experience of others and therefore helps draw more customers.



What can be done to address sub-scale trap?

Building and incentivizing the distribution channel to promote the service and support building customer trust Market push to create top-of-the-mind awareness about the services

Creating a compelling push for customers to try, get comfortable and use the service

**Channel Push** 

**Marketing Pull** 

**Customer Value Proposition** 



# Achieving "Network Effects" to exponentially amplify the value delivered to the users

- Despite the hype, even ten years after the initial mobile banking / payments platforms appeared on the horizon, financial inclusion landscape has not been transformed.
- Some interesting developments to ponder are:1v
  - Voice calling is still the dominant usage of mobile phones or telephone because one can call any other number around the world (irrespective of called party's network provider, technology type, phone type and so on)
  - Mobile phones have succeeded in certain environments (e.g. low volume, large value transactions that are less complex, take less time to execute but have better payout, domestic remittances)
  - Card penetration in low income markets, though still at one-fourth the levels of mobile penetration, has grown rapidly and doubled in many emerging markets.
  - Visa, Mastercard or American Express cards issued by any bank or payment service provider have global acceptance on any acquiring POS/ATM infrastructure.
  - ATMs and bank branches have witnessed substantial growth. In many countries, one can now transact at any bank ATM with no additional charges, irrespective of the card issuing bank..
- "Network Effects" <sup>2v</sup> partly explains these developments. Network effects enable the utility of a network service to grow exponentially as more users connect to the network and make use of the service.
- Underlying considerations that can enable "network effects" are:
  - Standardisation: Voice calling, SMS and Credit/Debit cards are inter-operable across any provider due to common standards, policies and procedures having been developed and accepted.
    - Apart from the role of various agencies to develop common regional or global standards for mobile
      financial services, smaller institutions can benefit by adopting existing open-standards instead of
      developing custom approaches (e.g. MFIs in India are increasingly leveraging technology service
      providers (TSPs) for their platform needs. Eko has adopted universal USSD standards for their
      underlying technology.)
  - Rapidly scaling deployments by adding providers and beneficiaries (resellers, retailers, consumers) as quickly as
    possible. This enables beneficiaries to witness and avail benefits, causes stickiness and propels growth with wordof-mouth referrals.
  - The phenomenal growth of social-networks (Facebook, Skype, Youtube and so on) demonstrates the need for "user participation" in building and improving networks.





### Establishing and enabling distribution channels<sup>1w, 2w, 3w</sup>

#### Identifying distribution channel<sup>4w</sup>

- In a branchless model, channel's role is vital. They own client interactions and relationship, with limited control and influence by the institution.
- Distribution structure is heavily dependent on the business model, products offered, client trust and convenience. For large geographies like India, a three-tier structure is desirable. Institutions appoint resellers (capabilities listed earlier) who manage a set of retailers or customer service points (CSPs).
  - Possible choices being grocery retailers (often also selling airtime), pharmacies, fuel-stations, school teachers, post-men, villageheads, salesmen
- Post pilots or trials, channel coverage should be timed and scaled to take advantage of "network effects".<sup>4w</sup> It should be optimised to ensure adequate access to clients, while preventing cannibalisation amongst one-another.

#### **Enabling Intermediaries**

• Intermediaries should be adequately enabled by providing signage, marketing material, technology support (mobiles, POS, connectivity), stationary etc..

#### **Incentives**

- Distributors/resellers and more so retailers are nearly entirely driven by profit
  motivation and hence remuneration and incentives go a long way in building
  a healthy committed channel.
- Channels favour & promote products that are less complex to handle.
   Marginal RoI (on time and capital) for financial products should equate or exceed prevailing RoI expectations.<sup>6w</sup> Incentive design needs factoring these.
- Commission need to be structured differently for generating
  - Greater client value (e.g. active accounts, last 6 month contribution),
  - Incentivizing channel push for certain products (savings, insurance)
- Non-monetary incentives can include:
  - Bank or mobile money branding leading to greater footfalls and higher client spend
- Ease (even preference) in access to funds (e.g. retailer loans) and other institutional products.
- Capacity building support received for sales and client management.
- Assistance in liquidity (cash and e-float) management.<sup>7w</sup>

#### **Training and Skill Building**

- Financial services are foreign to most agents (except some who might have experience with credit or insurance) and even more so for distribution channels.
- Initial and ongoing training and constant skill-building are therefore key to successful operations. The complexity and range of financial products handled, complexity of fulfillment processes and staff attrition influence the quantum and periodicity of training needed.

#### **Operational Handholding**

- Apart from training, channel needs handholding in a variety of ways. Simplification of operations can aid this:
  - Developing check-lists and process guides
  - · Reducing process complexity by automation or through re-design
    - For Eko, agent (CSP) supported remittance transaction s involves a simple two step process. Some retailers have innovated on deposit forms and capture only minimal information from clients. 5w
  - South Africa is another example of process automation and user friendliness for account opening, usually taking five minutes.<sup>3w</sup>
- Other areas where channel needs operational support is around cash and e-money management, <sup>7w</sup> technology challenges, branding and marketing, communication etc.

#### Motivating<sup>6w</sup>

- Like any new business, the market response and uptake for financial services could dramatically vary during the growth phase.
   However, being a new kind of business, agents might more rapidly become vary and disappointed, and thus need constant motivation.
- Institutions should be equipped with strategies to motivate, which could
  include clear channels of communication, quick response to operational
  issues, greater transparency in operations, knowledge & information
  sharing, periodic promotions & campaigns, empathy, in-store support.

5w: 9

4w: See MicroSave Briefing Note #81

5w: See *MicroSave* India Focus Note # 68

6w: See *MicroSave* Briefing Notes # 73, 74 and 82

7w: Mas, Ignacio and Kindall, Jake (2009), Bridging the Cash: The Challenge of Maintaining Liquidity, GSMA



1w: Mas, Ignacio and Siedek, Hannah, Banking Through Networks of Retail Agents, Focus Note May 2008

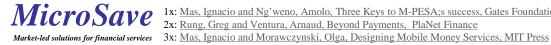
2w: Mas, Ignacio and Ng'weno, Amolo, Three Keys to M-PESA's Success

3w: See *MicroSave* Briefing Notes # 69, 71, 73 and 74 and Focus Notes # 64, 65, 66 & 67

# Branding<sup>1x</sup>, market messaging and communications

- Branding, market messaging and communication plays a significant role in the success of any product or service, more so for the poor and illiterate due to their over-dependence on fewer channels (primarily word-of-mouth) and disadvantageous position due to information asymmetry, lack of ability to make inferences or to validate, or to read between the lines on their own.
- Simplicity and ability to connect with client needs is extremely important for market messaging.<sup>2x</sup>
  - M-PESA used a simple "Send money home" for years to market and promote their services. 3x
  - On the other hand, the word-of-mouth messaging around certain social payments in India (NREGA, old age pension) stressing that b the Government wants beneficiaries to withdraw has become so deep-seated that they withdraw the entire sums paid-out, at the first opportunity, without even attempting to assess the benefits of retaining some savings.<sup>3x</sup>
- Choosing the theme to make the messaging topical is equally critical. Very often establishing or enforcing trust<sup>1x</sup> becomes central and suitable messaging can be built around that. [Clients of KGFS trust their newly launched pension product because it is backed by Government of India].
- Need for scalability warrants a consistent understanding of the offerings, pricing or other communication across all direct and indirect channels that influence not only customer choices/decisions, but also one-another.
  - This aids building trust with the channel, supports longevity of relationship and of-course, therefore influences customer acquisition and retention.
  - Simplicity of messaging and communication is of paramount importance here, more so as institutions depend on third party agencies to interface and communicate with end-customers.
- Focusing the communication on customer and channel value proposition is quite critical too. 4x
  - Value proposition for customer could be around accessibility, speed, lower cost, security, convenience, returns, or addressing an unmet need.
  - Themes for communicating value proposition for distributors/resellers could be association with an established brand, incremental revenue, increased footfalls, marketing support, commissions and bonus payouts, preference for loans, recognition, respect and so on.
- Association with a large brand as partner provides the additional opportunity of benefiting from marketing promotions and campaigns (across diverse media and geographic levels).
  - SBI, Eko's partner, is the largest public sector bank in the country and is well leveraged for branding and signage.
  - PFRDA, the pension regulator in India promotes pension products through advertisements in national and regional media, benefiting the partner (aggregators), who would neither have the brand salience not the wherewithal for similar marketing efforts
  - MNOs extensively use direct SMS campaigns to build awareness and send targeted messages.
  - GCASH, SMART Money and M-PESA successfully use television campaigns, billboards and various other advertising channels to create awareness and to promote the advantages of their mobile money services.<sup>5x</sup>





# Well designed products<sup>1y</sup> aligned to consumer perception of value can act as "anchor" for the business the to take roots

- Certain financial products stand-out in their appeal to consumers due to their ability to address specific needs of the poor and at price-points that are perceived to be value generating.
- Focusing on these products can support building the much needed critical mass rapidly. Illustrations of some products that can be drivers of early adoption and usage in various situations are below:

#### Domestic Remittances & Payments<sup>2y, 3y</sup>

In many environments domestic remittances have been a driver for early adoption and even attaining critical mass for the following reasons

- Address a key pain-point for migrants, commercial remittances or bill payments
- Expected outcomes are apparent and verifiable in real-time creating trust.
- Sharp market messages can be developed to target clearly identified segments.
- Cost effective compared to the usual hawala and informal channels.
- Bill payments constitute another category of transfers witnessing demand due to subsidization from utility companies.
- Examples M-PESA, Eko, Brazil

#### **Electronic Benefit Transfers** (EBT)

Social or welfare payouts,<sup>4y</sup> wherever provided, are a sought after product and rapidly emerging as a business driver for several institutions

- Electronic benefit transfers (EBT) have a massive customer pull, being regular cash receipts.
- Due to State push, as in India, EBT commission structures are attractive for institutions to establish their business foundation and subsequently cross and up-sell other services.
- Client payout is regular and often higher compared to payouts through intermediaries or unofficial channels.
- Examples FINO, SEED, ALW

#### Insurance<sup>5y, 6y, 7y</sup>

In certain markets insurance is witnessing high growth

- Clients perceive a wind-fall return for certain insurance products like accident insurance, if structured well.
- In India life insurance policies are used primarily by poor people as long term savings mechanisms
- Factors impacting offtake include
  - Client trust
  - Local institutions' ability to assess product-segment fit and drive growth
  - Insurance company's marketing and branding support
- Examples KGFS

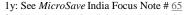
#### Savings<sup>3y, 8y</sup> / Recurring Deposits

Few formal channels currently offer savings products like recurring deposits. Most of the demand is met through intra-household, family & friends and informal channels

- Informal savings options are quite widespread despite the risks associated.
- Clever providers (e.g. Sahara) have developed unique service models like door-step service supported by enormous scale and staff commitment to sustain low cost operations.
- Informal saving groups led by women exist in some low-income countries.
- Formal institutions wanting to use saving deposits as anchor products would need to ride on other product volumes to achieve a sustainable business proposition.
- Examples Sahara, West Africa<sup>3y</sup>

The following aspects need to be considered:

- Appeal of a financial product can vary considerably according to the demographics, local conditions and existence of alternatives. While there might be underlying similarities across environments, cognisance of the segment needs being targeted and designing the products accordingly is desirable.
- 2. Poor need a mix of various financial services to address their needs, as does any other segment. The focus on flagship/anchor products should therefore not be an end in themselves, but more as a stepping stone to sustainability, post which other products, with perhaps lesser customer appeal can be offered. 19
- Charging structure for products must be carefully considered. When and how much to charge for a service or transaction needs basing on customer perception of the value. Addressing questions like why will customer pay for opening an account or for deposit or withdrawal transaction might vary in different situations and would help structure the right pricing arrangement.



- MicroSave 2y: Mas, Ignacio Realizing the Potential of Branchless Banking., October 2008
  3y: Mas, Ignacio, Seeking Fertile Grounds for Mobile Money, September 2009
- Market-led solutions for financial services 4y: Rotman, Sarah (2010), The forced marriage between social protection and financial inclusion 8y: The Next Challenge: Channelling Savings through Mobile Money
- 5y: How Technology can Improve Insurance for the Poor?
- 6y: GSMA, Will Mobile Money Bring Microinsurance to the Poor?
- 7y: McCaffrey, Michael, Mobile Money in Pacific Islands

# Bringing costs down across the value chain

- High cost of service delivery has been a major inhibitor for financial services to reach the low income masses and continues to be a significant challenge.
- Some considerations that can aid a lower cost model are outlines below



#### **Standardisation**

- Standardisation supports both "economies of scale" and "network effects". 1z
- In addition to initial investments, it also helps better manage operational costs due to availability of multiple alternatives.
- The spin-off benefits include better service, quality, convenience and so on for the consumer and for the entire value chain.

#### **Making Costs Variable**

- As with any business, moving to variable cost structures enables flexibility to scale-up and down with much less pain and costs.
- Fixed costs can be made more variable by
  - Outsourcing functions like technology, and support functions like HR, finance, customer care, agent network training etc.
  - Leveraging third-party distribution/resellers for sales and marketing
  - Exploring complementing alliances (e.g. for better geographic coverage, diversity etc.)
  - Sharing resources across multiple providers to distribute fixed costs across a wider base. This could include credit bureau, sharing mobile or POS banking platform, sharing core-banking or riding on the same distribution network,<sup>3z</sup>

1z: See MicroSave Briefing Note #80, 81

2z: Mas, Ignacio (2009), The economics of branchless banking

#### **Adopting Proven Approaches**

- Innovative mobile payments providers have been in the market for over ten years and re-inventing the wheel for new entrants will always be an expensive proposition.
- Institutions would do well to assess existing models and choices and adopt. They would also get benefited from scale or incremental innovations that larger players bring about.

#### Economies of Density and Scope<sup>2z, 4z</sup>

• With a small addressable market per agent, they need to (a) achieve economies of density by acquiring as many customers as possible and (b) capture a larger share of customer wallet by offering multiple services and targeting large transaction volumes

#### Disintermediation<sup>5z</sup>

- Reducing the supply-chain links between the producer and consumer of services obviously brings costs down
- An important trade-off is needing a large number of agents to expand reach and generate awareness and the need to disintermediate to manage costs.
- Technology can often achieve this trade-off, by enabling goods and services to reach the last mile directly, as is the case with electronic air-time and gradually being adopted for financial services.



<sup>4</sup>z: Leishman, Paul, Is there Really any Money in Mobile Money?, GSMA

<sup>5</sup>z: Pickens, Mark et al, CGAP, Agent Management Toolkit

# **Challenges and Lessons Learnt**

- Strategic Challenges
- Operational Challenges



- Overcoming Barriers to Adoption
- Regulatory and Policy Challenges



# While several challenges to consumer adoption remain, there are several success stories providing great learnings [1/3]

Consumer Need & Expectations <sup>1aa, 2aa, 3aa</sup>	Barriers and Challenges	Lessons Learned
Trust and Safety	<ul> <li>Often a compromise trade-off has to be accepted between proximity, liquidity and safely and each might not be addressed in equal measure (e.g. transacting at a bank might be more secure and liquid but loses out on proximity, whereas transacting at a shop-round-the-corner might not be equally secure).</li> <li>Low levels of financial and technology literacy and lack of trust with e/m banking channels to handle money.<sup>4aa</sup></li> </ul>	<ul> <li>GCASH, SMART Money and M-PESA majorly benefited from the strong national branding of Globe Telecom, Smart Communications and Safaricom<sup>4aa</sup></li> <li>Trust is established through community relationships and proven track-record. KGFS village branches are trusted by locals more than nationalised banks.</li> <li>Brand equity and salience goes a long way in building awareness and consumer trust.</li> </ul>
Accessibility and Proximity <sup>5aa</sup>	<ul> <li>While cash is ubiquitous, access to bank branches and ATMs is severally limited. Some poor households do not have access to even mobile phones.</li> <li>Banks locations and timings are both usually inconvenient to the poor.</li> </ul>	<ul> <li>Even though customers might not have access to personal mobile phones, Eko's agents usually act as facilitators using their mobile devices for carrying out transactions on behalf of customers.</li> </ul>
Liquidity <sup>6aa, 7aa, 8aa</sup>	<ul> <li>Managing liquidity of cash and e-money is a significant challenge to deal with at various levels across distribution.</li> <li>For a given outlet or reseller, customer demographics might drive excess demand for either cash or for e-money, depleting stock quickly and needing replenishment (e.g. demand for e-money at the remitting end of a corridor or due to loan repayment through m-banking channel or demand for cash for social payments).</li> </ul>	<ul> <li>Selecting agents with prior experience of handling large amounts of cash is helpful. Partnering with financial institutions like banks too eases liquidity management.</li> <li>Selecting multiple agents in an area not only helps overcome "network effect" and provide footprint for client coverage, it also helps manage liquidity better. M-PESA has 16,000+ agents today and Eko had over 1000 agents in operation.</li> <li>A three-tier model with super distributors can greatly aid liquidity management as they try to achieve optimization within their territory</li> <li>Other options include routing very high value withdrawals through a branch or an ATM (as in case of M-PESA).</li> </ul>



1aa: MicroSave Deposit Assessment in India, IFC study, March 2011

2aa: Mas, Ignacio (2009), The economics of branchless banking

3aa: See *MicroSave* IFN # 62 and Briefing Note # 47

4aa: See *MicroSave* Briefing Note #71

5aa: See MicroSave India Focus Note, #37

6aa: See MicroSave Briefing Note # 78

7aa: Mas, Ignacio and Kindall, Jake (2009), Bridging the Cash: The Challenge of Maintaining Liquidity, GSMA

8aa: CGAP,(2010), Branchless banking agents in Brazil

# While several challenges to consumer adoption remain, there are several success stories providing great learnings [2/3]

Consumer Need & Expectations <sup>1ab</sup>	Barriers and Challenges	Lessons Learned
$Simplicity^{2ab}$	<ul> <li>Consumers are intimidated by technology complexity especially where they have a direct interface (ATM, mobile)</li> <li>Product complexity aggravated by absence of association with consumer drivers (e.g. a pension product with a complex lifecycle, whereas consumers desire a simple pension payout mechanism)</li> <li>Compared to swiping a card or signing a form, using mobile phones for banking or payments is still clunky – be it SMS, USSD enabled or menu driven.</li> <li>Simplicity and security are difficult to accomplish together and a comprise is often made. (M-PESA customers face the issue of losing money by wrongly transacting to an incorrect account)<sup>3ab</sup></li> </ul>	<ul> <li>Agent/CSP enabled models in India, despite limitations of reach are overcoming technology barriers facilitating adoption.</li> <li>Repeated use of new technologies helps clients become familiar and this can be suitably incentivized. Wizzit, Safaricom and SMART enabled clients to experience and experiment with their services, by lowering entry barriers and offering attractive promotions. 4ab</li> <li>Early innovators in mobile financial services having achieved reasonable scale, are now focusing on simplicity, customer convenience and delight. 5ab</li> <li>To overcome the challenge of widespread illiteracy and innumeracy, and to enhance customer protection, institutions are trying various approaches (a) enabling agents to carry out transactions for clients (Eko CSPs), (b) linking numbers back to mobile phone book (G-CASH), (c) Using paper forms as requests/transaction proofs to safeguard (Eko, G-CASH). 8ab</li> </ul>
Portability	• Certain client segments like migrant labour value portability of products. This is a major challenge today as standards are yet to emerge and most institutions follow an individualistic silo approach.	<ul> <li>National initiatives can support the objective of portability. In India, PFRDA, the pension regulator offers pension products that are expected to be ported across the country, thereby providing support to migrant clients.</li> </ul>
Inter-operability	• Lack of standards and limited collaboration between players is currently a key barrier to inter-operability between approaches. Often inter-operability is not possible even within the different systems of large banks.	• NPCI in India has taken a major step ahead in enabling inter- operability between banks for mobile banking. Introducing a common switch (IMPS) <sup>6ab</sup> that connects 20 large and small banks today, working on common standards and processes, allows clients to transfer funds between any of partner banks. Similar to RTGS and NEFT that allow real-time settlement between banks, and could go a long way in providing the much needed fillip to mobile banking.
Ability to transact in low value	• Inability to handle large volumes of low value transactions at low cost, is one of the significant barriers to financially exclusion.	• Airtime top-us in very small denominations have demonstrated the possibility of offering a similar proposition for financial products. <sup>7ab</sup>



1ab: See MicroSave Briefing Note # 47

2ab: See MicroSave India Focus Note, #37

3ab: See *MicroSave* Briefing Note, # 94

4ab: See MicroSave Briefing Notes # 69, 82

5ab: See MicroSave Briefing Note #80

6ab: www.npci.org.in

7ab: MicroSave Deposit Assessment in India, IFC study, March 2011

8ab: G-CASH Presentation at CGAP Annual meeting

# While several challenges to consumer adoption remain, there are several success stories providing great learnings [3/3]

Consumer Need & Expectations	Barriers and Challenges	Lessons Learned
Promise of Returns	• Clients (even illiterate ones) have an expectation of return from financial instruments. A quick comparison is also made to cost of and returns from available alternatives (e.g. unofficial channels, less trusted and higher-risk instruments and so on)	<ul> <li>Before subscribing to savings instruments, low income customers seek to compare the returns provided.</li> <li>A pension product study<sup>1ac</sup> exhibited near uniform client expectation of value of monthly benefit anticipated at old age. Insurance products are more readily accepted, as the potential returns are easily comprehensible.</li> </ul>
Affordability / Perceived Value <sup>4ac</sup>	<ul> <li>While consumers have demonstrated willingness to pay for financial services, it is quite dependent on their perceived value.</li> <li>Clients may be willing to pay for certain events (e.g. remittance, insurance) but not for certain other transactions (e.g. account maintenance or [often but not always] deposits).</li> <li>Likewise they might pay even more than normal tariff if they perceive a trade-off with speed or proximity or availability of alternate channels.<sup>4ac</sup></li> </ul>	<ul> <li>Even small sums of money are of greater value for the financially excluded segment. Initial and on-going costs should therefore be aligned to value perceived from the financial instrument. Sac</li> <li>In South Africa banks charge a 1% fee for cash-in. Whereas SMART and GCASH cover the cost of cash-in transactions, making it free for client. Sac</li> <li>Well designed pricing is considered to one of the top reasons for M-PESA's success. It does not charge clients for opening an account but all other transactions are chargeable according to the value-perceived and willingness to pay.</li> <li>Remittances often witness early adoption and large volumes (Kenya and now India) because alternate channels cost more and are less secure. Sac</li> </ul>
Product Relevance <sup>6ac, 7ac</sup>	<ul> <li>Product relevance and preferences could vary dramatically and must be<sup>3ac</sup> adequately researched in the target community; and comprehensively tested prior to large scale rollout.</li> <li>Sustaining product usage post-acquisition is a constant challenge and a poor customer experience leads to drop-outs.<sup>9ac</sup></li> </ul>	<ul> <li>M-PESA realised during pilot testing that its platform was not well suited for micro-lending using group based approach. <sup>8ac</sup></li> <li>In Colombia bill payment was found to be a preferred product. <sup>3ac</sup></li> <li>Mature services obviously have the opportunity to add new offerings to keep the growth momentum or maintain market lead through differentiation and customer "stickiness". M-PESA has been successfully expanding its product portfolio to include international remittances, salary payments, purchasing goods, utility payments and even withdrawing cash from PesaPoint ATM. <sup>3ac</sup></li> </ul>



1ac: MicroSave Research of Dhanei KGFS

2ac: See MicroSave Briefing Note # 69

3ac: See MicroSave Briefing Note #82

4ac: See MicroSave India Focus Note # 67, and Briefing Note # 96

5ac: MicroSave Deposit Assessment in India, IFC study, March 2011

6ac: See MicroSave India Focus Note # 47

7ac: Pickens, Mark (2011), Focus on Product Pricing and Agents to Drive Adoption, CGAP

8ac: See MicroSave Briefing Note # 47

45 9ac: See MicroSave India Focus Note # 62

# **Challenges and Lessons Learnt**

- Strategic Challenges
- Operational Challenges
- Overcoming Barriers to Adoption
- Regulatory and Policy Challenges





# Regulatory requirements or lack of clarity by the central bank remain key barriers to implementing mobile banking<sup>1ad, 2ad</sup>

Regulatory Challenges	Illustrations of Solution Approaches		
Restricted access to payment systems: In several countries like India or South Africa only a bank can participate in savings related financial products, whereas credit can be offered by a wider cross-section of institutions.	• In India banks have been enabled to use intermediaries called business correspondents in providing financial and banking services	• In some countries electronic money can be differentiated from a bank account eliminating the need for a bank license.	
Anti Money Laundering: Preventing anti-money laundering and terrorist financing requires the financial institutions to have direct customer interactions and adherence to KYC norms. Documentation barriers are being lowered by accepting higher level of risk for financial inclusion, nevertheless challenges still remain.	<ul> <li>UK and South Africa have done away with face-to-face interactions as long as banks or their agents can mitigate identity fraud.</li> <li>The regulator in South Africa has allowed for KYC documentation in electronic format in turn accelerating processes and enabling better management of AML risks<sup>2ad</sup></li> </ul>	• In India, KYC norms or documentary requirements for no frills savings accounts have been relaxed for the bank's agents. <sup>3ad</sup>	
Security Considerations: Ensuring adequate security for the illiterate masses with limited prior exposure to financial services, is a challenge and certain central banks have developed rich guidelines / policies to address security concerns.	<ul> <li>In India, RBI mandates two-factor authentication for e/m banking transactions.</li> <li>Bio-metric and increasingly iris based authentication is used, although yet to be proven.</li> </ul>	• Security for USSD and SMS transactions can be enhanced by using a secure channel, whereas SIM toolkit based solutions can have embedded security.	
Technology Patents:  Mobile technology is often patented and this might either add to cost or act as barrier to scale	• Inter-operable standards such as ISO-8583 compliant are increasingly being adopted		
Risk management: Basel risk management principles for electronic banking also apply to mobile phone banking and should be understood if financial institutions offer international settlement	<ul> <li>Central bank in Philippines has made significant contributions to regulatory frameworks and in developing exemplary models (including customer protection) for other regulatory dealing with similar issues<sup>4ad, 5ad</sup></li> </ul>	<ul> <li>Bolivia and Uganda are other examples of environments benefiting from timely and appropriate policies ranking amongst the top ten best legal and regulatory frameworks for microfinance. 6ad</li> </ul>	



1ad: See MicroSave Briefing Note # 52

2ad: See MicroSave E/M Banking OPE Series Volume 1

3ad: RBI on KYC for No Frills Savings Account

4ad: See *MicroSave* Briefing Note # 70

5ad: Philippines Central Bank Circular on Consumer Protection

6ad: Hannig, Alfred and Jansen, Stefan, Financial Inclusion and Financial Stability, December 2010

# Policy environments needs to facilitate creation of a level playing field for providers while ensuring consumers are well protected

#### **Regulatory Challenges**

#### Customer Protection<sup>1ae, 2ae</sup>

With large number of consumers experiencing financial services for the first time, and market information asymmetries puts them at disadvantage, more so when products are complex. Consumers are at risk of being exploited and this could lead to market failure<sup>3ae</sup>

#### **Level Playing Field:**

During the nascent phase of regulatory evolution, policy discrepancies exist. At times there is even emphasis on protecting certain participants. This needs to evolve to a level playing field for all actors in the financial services value-chain, to enable fair and equitable play and healthy coexistence.

#### Interoperability Regulations:<sup>6ae</sup>

Interoperability regulations can act a significant barrier or stimulator

#### **Illustrations of Solution Approaches**

- Consumer advocates have helped remove biases favoring financial service providers.
- Active consumer participation in open for with various stakeholders has assisted collective consumer voice to be heard and their interests to be protected.
- Consumer education plays a significant role in preventing information asymmetry. Governments, local bodies, SHGs have a major role in consumer awareness and education, provided through public and social campaigns.
- In Peru creation of consumer protection commission and financial ombudsman have aided substantial reduction in complaints. 4ae
- The business correspondence regulations in India allowing banks to deliver services through third party agents currently favour the banks, allowing them to radically change the rules of the game, putting the agents at their mercy and at great risk.
- Whereas Brazil has achieved a universal access by enabling partnerships between banks and third party agents.
- Agent regulations<sup>5ae</sup> differ considerably and in certain environments pose significant barrier to agent growth.
  - In Tanzania business-licensing requirements impose an additional tax burden on agents
  - In Philippines, agents required compliance training certification possible only in the capital Manila.
  - In India, regulations for agents (Business Correspondents) are evolving and force considerable dependence on partner banks and technology providers, at times leaving little room for innovation or product alignment to market needs.
- In the long-run, balancing the role of the policy makers with the market forces becomes desirable to promote competition.
- Banking regulations also dictate the extent to which MNOs/MVNOs can participate in the mobile money business. These could range from loose regulations (as in Kenya) at one extreme, to special requirements for e-money accounts (as in Philippines), to the other extreme where only banks (or their agents) are allowed to offer mobile financial service offerings (India, Brazil).
- Interoperability is a must to bring costs down, take advantage of "network effects", achieve critical mass and enable financial inclusion to take roots. However interoperability regulations take time to emerge due to initial barriers such as lack of proven technology, yet to be proven business models or lack of real impetus for financial inclusion. This causes multiple localised standards and frameworks to mushroom independently further inhibiting interoperability.



1ae: See MicroSave Briefing Note #73

2ae: CGAP, A Delicate Balance: Consumer Protection

3ae: See *MicroSave* India Focus Note # 42, 55, 57, 58

4ae: Hannig, Alfred and Jansen, Stefan, Financial Inclusion and Financial Stability, December 2010 5ae: Mas, Ignacio, Seeking fertile grounds for mobile money, September 2009

6ae: Mas, Ignacio, GCAP Blog; Interoperability Regulations

# Steps<sup>1af</sup> that large players can take to enhance financial inclusion through e/m banking technologies



Teaming Up!
(striking the balance between
Vendor/Provider and Partners)<sup>2af</sup>





Take Active Role in Standard Setting

#### **Benefits**

New and enhanced market opportunities

Scale and Critical Mass

Ability to expand customer base and retain existing customers

**Cost Savings** 

Increased profitability, Better RoI

Viability and Sustainability

Standardisation and Reinforcement of standards

Interoperability<sup>3af</sup> and Longevity

Increased Confidence and Security

Investment Protection in legacy systems according to standards

Increased Leverage and Power to Negotiate

Independence (from Devices, MNOs, Technology Providers)



Active teaming-up of leading Banks, MNOs and Agents can overcome several barriers and challenges that fragmented players face, while the regulators actively drive policies that enable a harmonised play for the various market participants and protecting consumer interests

# **APPENDIX**



## **Bank Operating Models**

#### Approaches for banks entering the microfinance market

Higher level of engagement

Commercial bank specialized in microfinance

> Bank creates loan service company

Bank invests equity in MFI

Bank buys MFI portfolio and/or contracts MFIs

Wholesale lending

Sharing/renting facilities

Bank provides front or back office functions Equity Bank, Kenya

Serving poor clients is a main business line

Sogebank, Haiti

Created loan service company Sogesol in 2000

Jammal Trust Bank and Credit Libanais, Lebanon

Have equity stake in Ameen, a CHF microfinance program

ICICI Bank, India

Contracts microfinance operations with self-help groups and MFIs

Raiffeisen Bank, Bosnia

Lends to multiple MFIs in Bosnia

Garanti Bankasi, Turkey

Provides front office functions through branch network to Maya Enterprise for Microfinance

ProCredit Bank, Georgia

Rents space in its offices to Constanta, a local NGO

Lower level of engagement



Sources:

Accenture Research

Brigit Helmes, Access For All, Building Inclusive Financial Systems, 2006, CGAP

# Comparison of products, reach and client base as of early 2011 [1 of 2]

Institution	Financial Products	Client Base	Geographical Coverage	Contribution from second and third largest products
M-PESA <sup>1ba</sup>	<ul> <li>Money transfer</li> <li>M-KESHO savings product</li> <li>Airtime purchase</li> <li>Utility and mCommerce payments</li> </ul>	13.5 million	country-wide	Low
G-CASH <sup>2ba</sup>	<ul> <li>Money transfer</li> <li>Micro-credit payments and repayments</li> <li>Airtime purchase</li> <li>Utility and mCommerce payments</li> </ul>	about 2.0 million	country-wide	Medium
ALW <sup>3ba</sup>	<ul><li>EBT</li><li>No Frills Savings Account</li><li>Loans</li></ul>	3.0 million enrolments	10 - 12 states	Very Low
WING <sup>4ba</sup>	<ul> <li>Remittance</li> <li>P2P transfers</li> <li>Bill payments</li> <li>Payroll management</li> <li>Airtime purchase</li> <li>Loan repayment</li> </ul>	0.1 million clients	Country wide	High
FINO <sup>5ba</sup>	<ul><li>EBT</li><li>No Frills Savings Account</li><li>Loans</li></ul>	31.4 million enrolments	309 districts and 12,400 transaction points	Very Low
SERP <sup>6ba</sup>	<ul> <li>Loans</li> <li>Community Investment Fund</li> <li>EBT</li> <li>Livelihood opportunities</li> </ul>	11.0 million SHG members	22 districts	High



1ba: www.safaricom.co.ke

2ba: www.globe.com.ph/gcash

3ba: www.alittleworld.com

4ba: www.wingmoney.com and MicroSave Briefing Note # 73

5ba: www.fino.co.in

6ba: www.serp.ap.gov.in

# Comparison of products, reach and client base as of early 2011 [2 of 2]

Institution	Financial Products	Client Base	Geographical Coverage	Contribution from second and third largest products
Eko <sup>7ba</sup>	<ul><li>EBT</li><li>Mini Savings Account</li></ul>	0.1 million enrolments. 0.5 million transacting clients	pockets of 2 states, 900 agents	Very Low
IFMR, KGFS <sup>8ba</sup>	<ul> <li>Personal Accident Insurance</li> <li>Loans</li> <li>Savings Account</li> <li>Pension</li> <li>Mutual Funds</li> </ul>	0.14 million enrolments	3 districts, 100 branches	High
SEED <sup>9ba</sup>	<ul><li> Kiosk FI</li><li> Mobile Agent FI</li><li> EBT</li></ul>	1.5 million	17 states	Low
Airtel Money <sup>10ba</sup>	• mCommerce	?	1 state	Medium
GFS <sup>11ba</sup>	<ul><li> Credit</li><li> Home Loans</li><li> No Frills Savings Account</li><li> Insurance</li></ul>	0.45 million enrolments	182 branches	Medium
Janalakshmi <sup>12ba</sup>	<ul><li>Loans</li><li>No Frills Savings Account</li></ul>	0.04 million enrolments	Few urban centres	Very Low



7ba: www.eko.co.in

8ba: www.ifmr.co.in; http://capitalpartners.kgfs.co.in/

9ba: <a href="https://www.seed.net.in">www.seed.net.in</a>
10ba: <a href="https://www.airtelmoney.in">www.airtelmoney.in</a>

11ba: www.gfspl.in

12ba: www.janalakshmi.com

# **Participant Definitions**

Term	Assets / Capabilities	Roles
Banks	<ul> <li>Banking license and infrastructure</li> <li>Ability to facilitate credit, clearing, and settlement</li> <li>Regulatory compliance expertise</li> </ul>	<ul> <li>Strategies</li> <li>Agent oversight and quality control</li> <li>Offer banking services via mobile</li> <li>Hold float or accounts in customers' names</li> <li>Ensure compliance with financial sector regulation</li> <li>Provide branding and marketing support</li> </ul>
Agent Network Managers (Super Agents, MFIs or Business Correspondents in India)	<ul> <li>Entrepreneurial skills and energy</li> <li>Critical channel between banks and agents</li> <li>Provide strategy, operational support, handholding and resolving issues</li> <li>Ability to invest and scale</li> <li>Ability to bring together the ecosystem of Banks, Technology platforms, Agents, other third parties</li> <li>Ability to manage operations and fulfil processes.</li> <li>Branding and marketing</li> </ul>	<ul> <li>Manage core operations</li> <li>Fulfil back-end processes for the Agents</li> <li>Manage liquidity and fulfil cash management process</li> <li>Review and fulfilment of account opening procedures, including customer due diligence (KYC etc.)</li> <li>Report suspicious transactions in accordance with AML/CFT requirements</li> <li>Provide branding, marketing and promotional support to Banks</li> <li>Identify potential new opportunities</li> <li>Support regulatory compliance</li> </ul>
Agents (Mobile Agents or Retailers)	<ul> <li>(Physical) Points of presence</li> <li>Customer trust</li> <li>Knowledge of customer usage habits and needs</li> </ul>	<ul> <li>Perform cash-in and cash-out functions</li> <li>Handle account opening procedures, including customer due diligence</li> <li>Accept mobile payments</li> <li>Build customer trust</li> </ul>



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• Ignacio Mas, Senior Advisor, CGAP speaks about riding external networks (retail infrastructure) to enable branch-less banking extended outreach and viability and a case for using enabling technologies such as mobile banking to establish trust and consumer confidence. He also discusses several regulatory and business approaches being experimented with.

2ca: Mas, Ignacio: M-Banking. Part 2, MF Podcast # 36

• In this podcast, Ignacio Mas contrasts the lack of business case and challenges for agents versus drivers and opportunities for MNOs and banks to offer mobile banking services.

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• Ignacio Mas speaks about the complexities of rolling out branch-less banking services and challenges around cash management, technology, business choices, marketing, products, interoperability, partnerships and the acute need for achieving volumes and scale for making branch-less banking viable.

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• In this podcast, Ignacio Mas, talks about why mobile operators are in a strong position to drive mobile banking, following varied models including direct or in cooperation with banks. He also contrasts the approaches that bank-led and MNO-led models would typically follow and their implications.

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• Brian Richardson, Managing Director, WIZZIT, South Africa speaks about the bank-led model that WIZZIT follows, to address the fundamental challenges that clients face of (a) accessibility (b) affordability and (c) availability, using the power of the mobile to reach the unbanked.

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• Rizza Maniego-Eala, President, G-Xchange, Inc. – Globe Telecom, Philippines speaks about G-CASH value proposition, services and challenges faced.

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• Ali Abbas Sikander, Group Executive Director TAMEER, Pakistan talks about their branch-less banking strategy, focus, partnership with MNO and challenges around establishing agent network and the access technology using POS terminals.

8ca: Samuel G. Kamiti: M-Banking. Equity Bank, Kenya, MF Podcast # 51

• Samuel G. Kamiti, General Manager, Alternative Business Channels, Equity Bank, Kenya speaks about focus on reaching modern banking to the poor and unbanked leveraging mobile phones. He talks about service features such as operator neutrality, 24x7 availability, client convenience all at low costs.

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• Graham A.N. Wright, Programme Director *MicroSave* speaks about the value proposition of m-banking for the poor and Abhishek Sinha, CEO Eko speaks about their business model of using retail distribution network as agents and shares experiences and challenges Eko is facing while delivering m-banking services and the key success factors.

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13ca: Rutherford, Stuart on "Portfolios of the Poor". A conversation with Graham A.N. Wright, MF Podcast # 100

• Stuart Rutherford, co-author of "Portfolios of the Poor" in a conversation with Graham A.N. Wright, Programme Director *MicroSave*, shares his opinions on the potential of e-banking and m-banking for microfinance industry and talks about the financial inclusion success story of Grameen-2 in Bangladesh.

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• Tamara Cook, Program Officer, Bill & Melinda Gates Foundation speaks about potential solutions for two major problems that bankers face - of getting the cost of serving clients down, and of reaching people living far away from branches.

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Amolo Ng'weno, Deputy Director, Bill & Melinda Gates Foundation, talks about M-PESA leveraging its transaction rails to provide other services such
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• Daniel Radcliffe, Program Officer, Bill & Melinda Gates Foundation, talks about the fundamental factors like 'network effects', 'two sided market or chicken and egg trap' and 'trust' that affect the growth and success of retail payment systems.

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• Daniel Radcliffe, Program Officer, Bill & Melinda Gates Foundation, describes the importance of (a) identifying the right products (b) above and below the line marketing and (c) agent incentives and motivation to heavily promote the services, in enabling retail payment systems become viral and reach a critical mass of customers in a short period of time.

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### Countries where MicroSave works

