

IBM FINANCIAL SERVICES SECTOR

IBM Processing Hub for Microfinance

Discussion document

December 2007

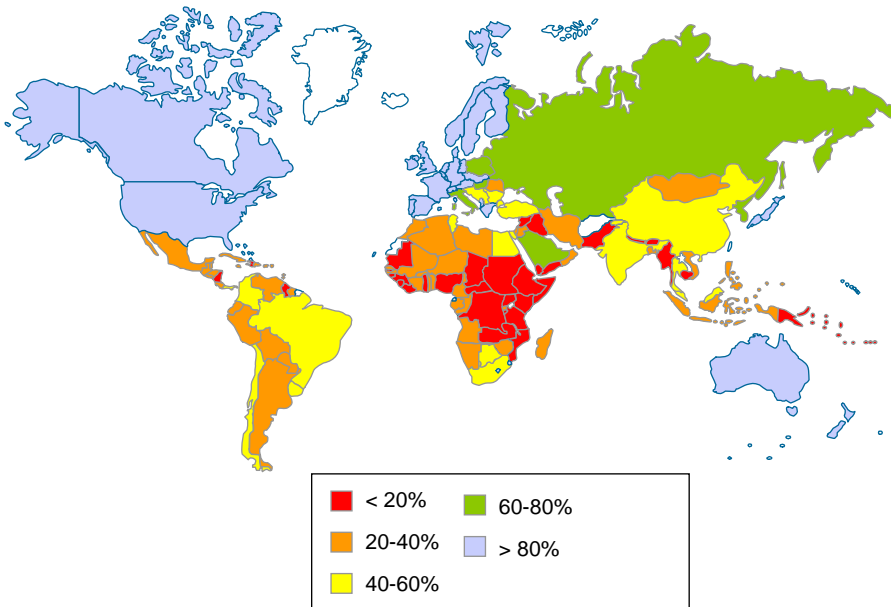
AGENDA



- I. **High level overview of the global need for microfinance**
- II. **Obstacles to more fully reaching underbanked segments of the population**
 - a. **Obstacles for banks**
 - b. **Obstacles for MFIs**
- III. **IBM Processing Hub**
 - a. **Introduction and purpose**
 - b. **Participants and collaboration model**
- IV. **APPENDIX**

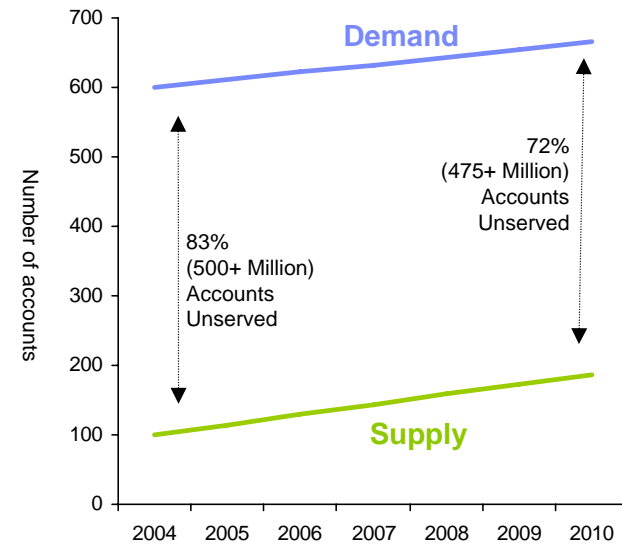
Over 3 billion people live on less than two dollars a day and only 17% of them have access to formal financial services

**Households with at least one bank account
2007**



Source: Demirguc-Kunt, Beck and Honohan, 2007, Policy Research Report on Access to Finance, World Bank

**Supply and demand of Microfinance
Number of accounts, millions**



— Population in need of Microfinance services (# accounts) ¹
 — Population with access to Microfinance services (# accounts) ²

Notes: ¹ Based on CGAP data and population growth rates from the UN Population Division
² Current and forecasted numbers based on Microcredit Summit Campaign data, 2005
 Assumption that 1 Account = 1 Family = 5 People

Studies suggest that the availability of even basic banking products and services can help alleviate poverty

Access to banking services addresses factors that drive poverty and improves the quality of life of its participants



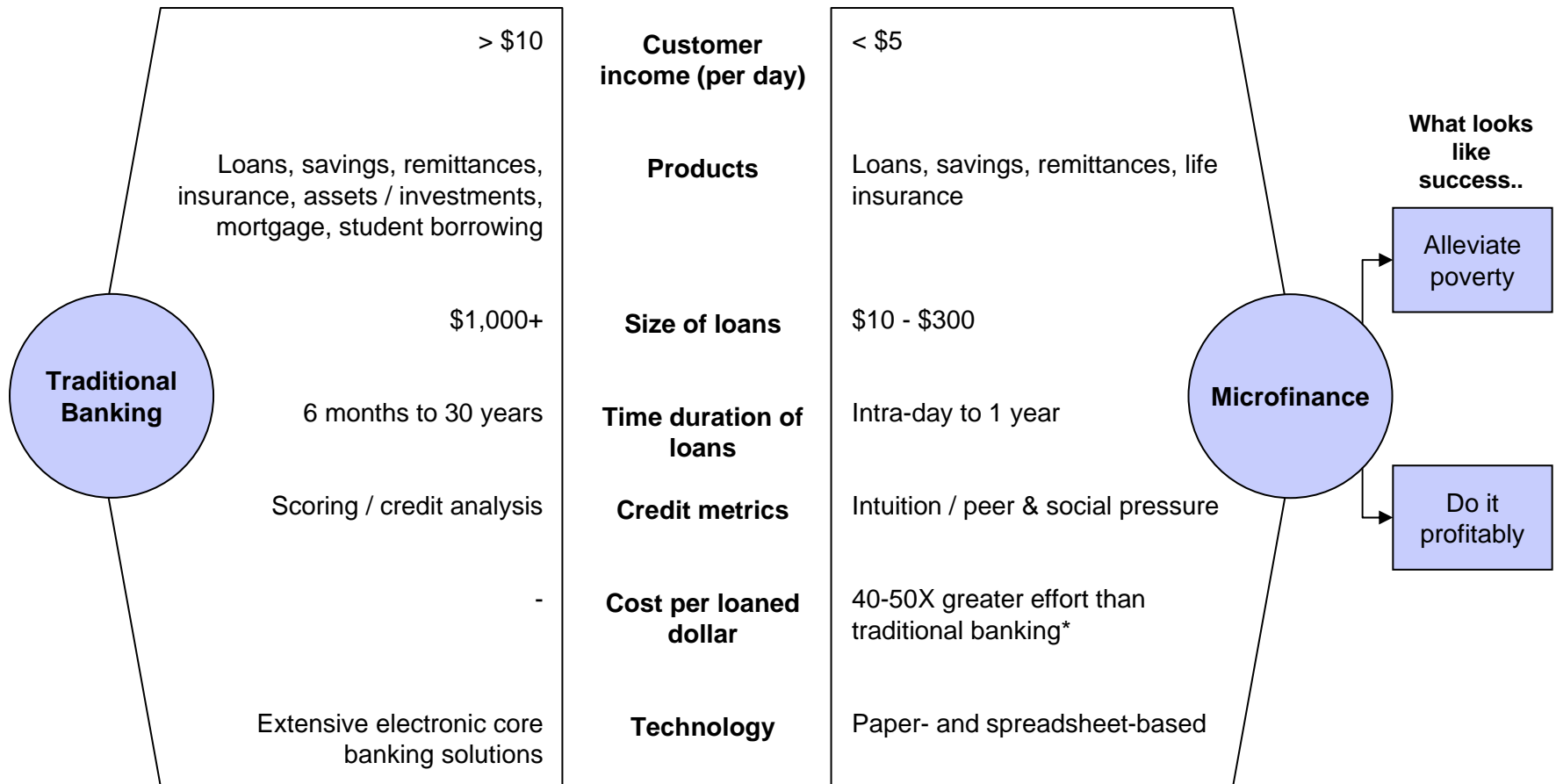
CASE STUDY



- Grameen Bank has lent \$US4.4 billion to nearly 7 million borrowers since its inception in 1976, with a current repayment rate of over 98%
- When the borrower's family members are included, more than 33 million people in Bangladesh have been impacted by the Grameen Bank
- According to a World Bank report, 5% of Grameen borrowers move out of poverty each year
- Child mortality in families with Grameen Bank loans has declined by 37%
- 97% of Grameen Bank's borrowers are women

Source: Grameen Foundation, 'Access for All', by CGAP, Microcredit Summit Campaign Report 2005.
Data is self-reported by 3,164 MFI institutions, of which 330 of the firms (who account for 88% of the total poorest clients reported) had their data verified.

The microfinance industry evolved to serve a part of the market largely avoided by traditional financial institutions



Source: Economist, Nov 2006

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The traditional financial services business model face several hurdles in serving the “unbanked” segment

Challenges for Traditional Banks

Costs of Distribution

- Low customer profitability does not support cost of traditional banking channels
- High costs of distributing the services to remote locations with low volume

Credit Uncertainty

- The lack of formal credit history of individuals in these markets makes risk assessment difficult; lenders must rely on more qualitative factors and often charge higher interest rates to offset this additional risk

Literacy

- Low literacy rates make traditional tools such as loan applications and bank statements less relevant
- There is a higher burden at the point-of-sale to educate consumers verbally on the various banking products

Physical Security

- Remote cash terminals (ATMs, microbranches, etc.) are subject to security issues in certain markets. Successful MFIs business models have established partnerships with ‘safe’ distribution networks

Transparency

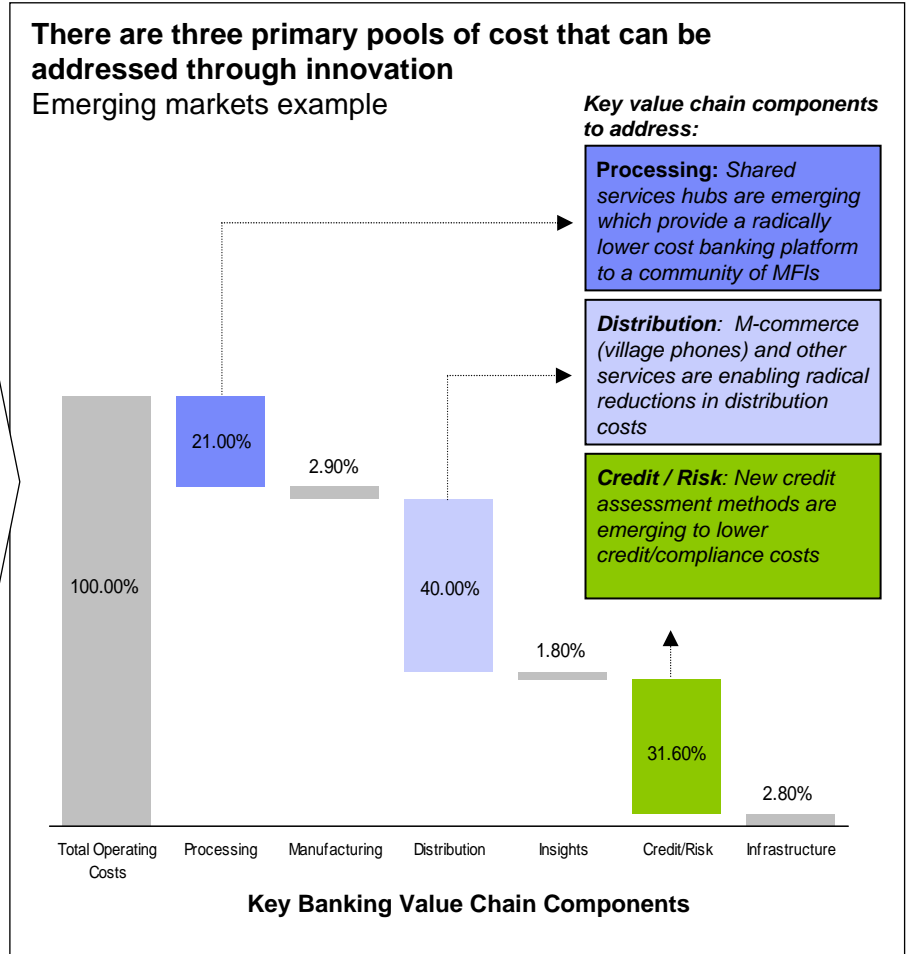
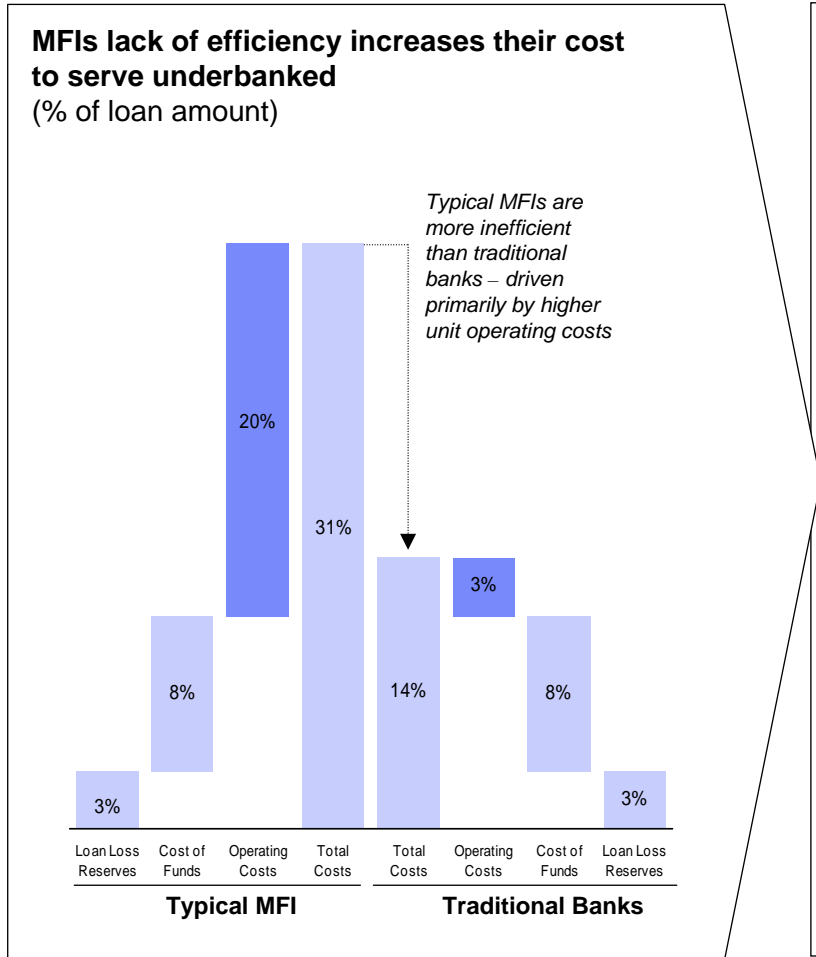
- Lack of transparency into operations of MFIs discourages established financial institutions from using them as distribution channels or limiting the amount of capital they commit to the MFIs

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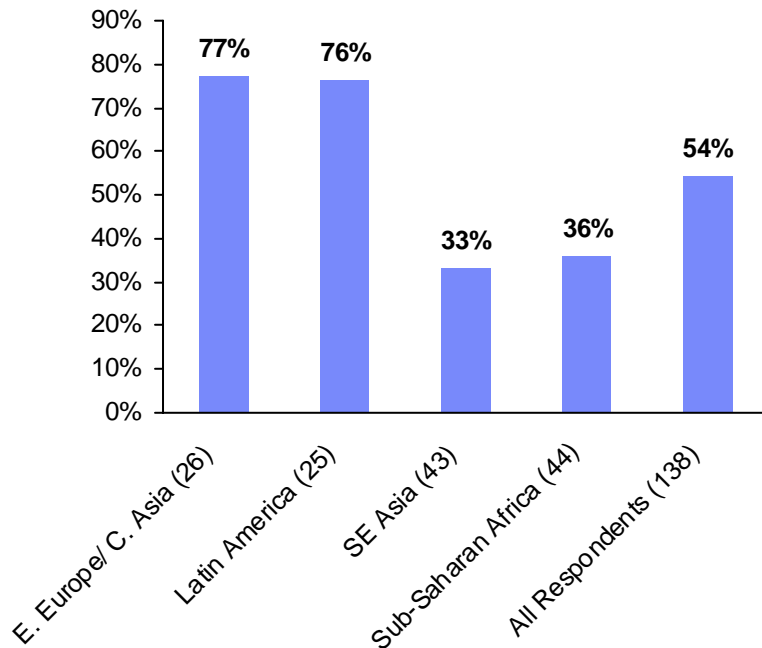
The current operating model of microfinance institutions is inefficient for satisfying the growing demand for financial services



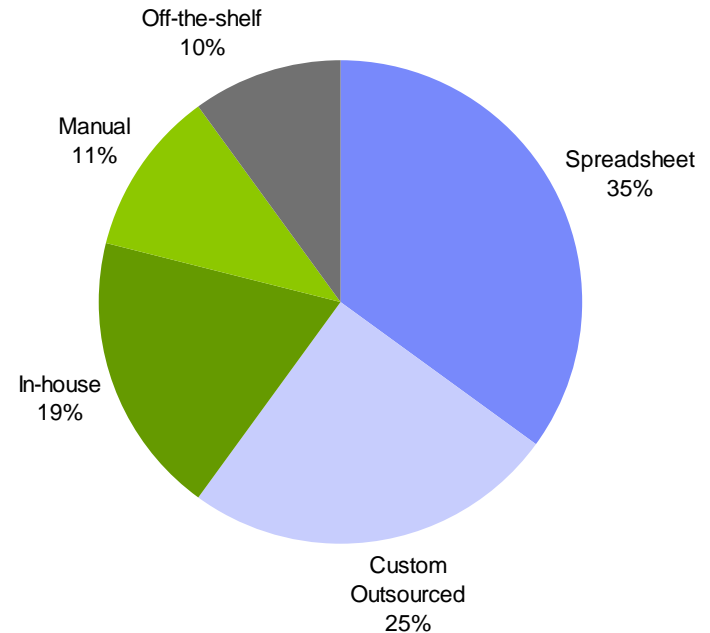
Source: Presentation by Peter Bladin, Grameen Technology Center and CGAP; IBM analysis

The vast majority of microfinance institutions don't have access to appropriate back-end technology

Use of Information Management Systems by Region



Type of Information Management System



Source: CGAP

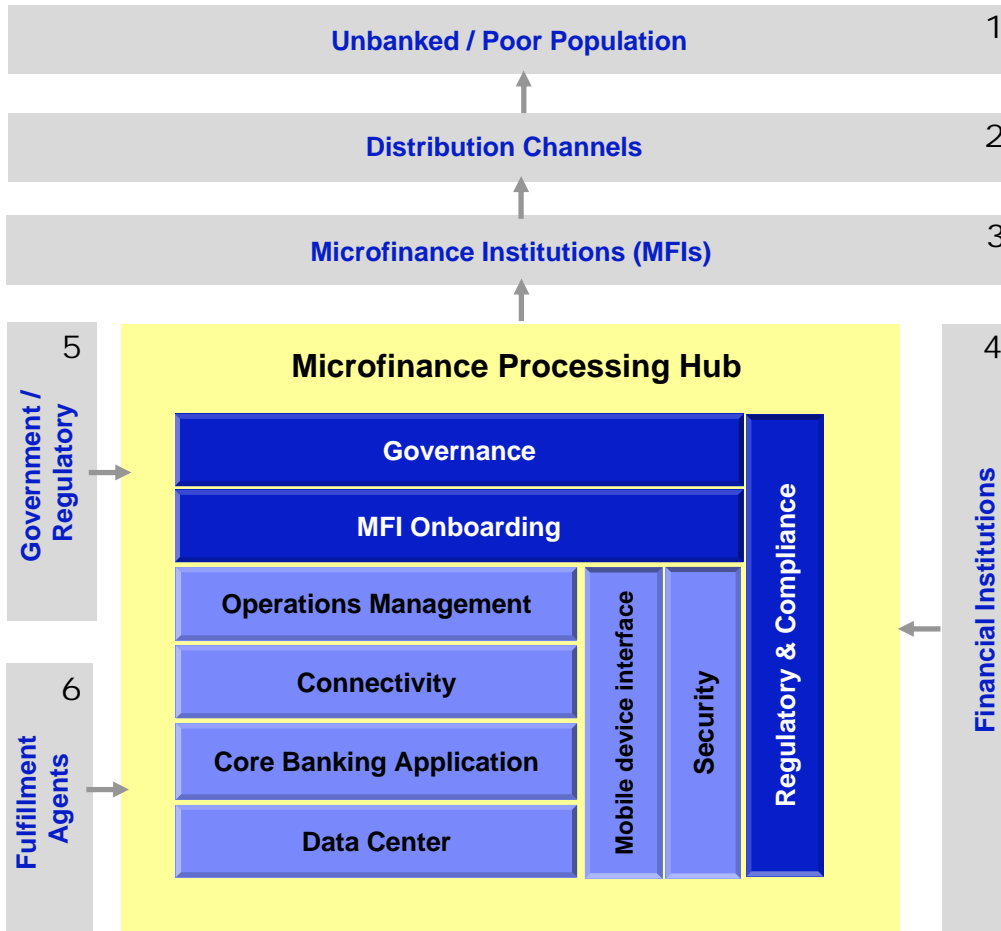
Individually, neither banks nor MFIs can fully meet demand for microfinance services, but the hub can help them partner together to enable an innovative and sustainable new business model

	Strengths in reaching the unbanked	Challenges in reaching the unbanked
ESTABLISHED BANKS	<ul style="list-style-type: none"> ▪ Extensive access to capital ▪ Efficient operations for target segments (assuming large-scale operations) ▪ Quantitative, rigorous credit approval processes 	<ul style="list-style-type: none"> ▪ Expensive branch & ATM networks ▪ Costly and complex core banking systems ▪ Traditional and often rigid scoring and lending processes which assumes availability of personal historical financial data
MICROFINANCE INSTITUTIONS	<ul style="list-style-type: none"> ▪ Innovative distribution channels, e.g. mobile branches ▪ Effective and low-cost risk management through group lending models and other techniques pioneered in the microfinance industry 	<ul style="list-style-type: none"> ▪ High per-transaction costs compared to established banks ▪ Lack of transparency: 45% using paper or spreadsheets to track accounts ▪ Larger MFIs use traditional systems that do not support key MF requirements

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A Processing Hub provides a shared infrastructure and services platform that facilitates the integration of MFIs and poor communities into the overall financial ecosystem

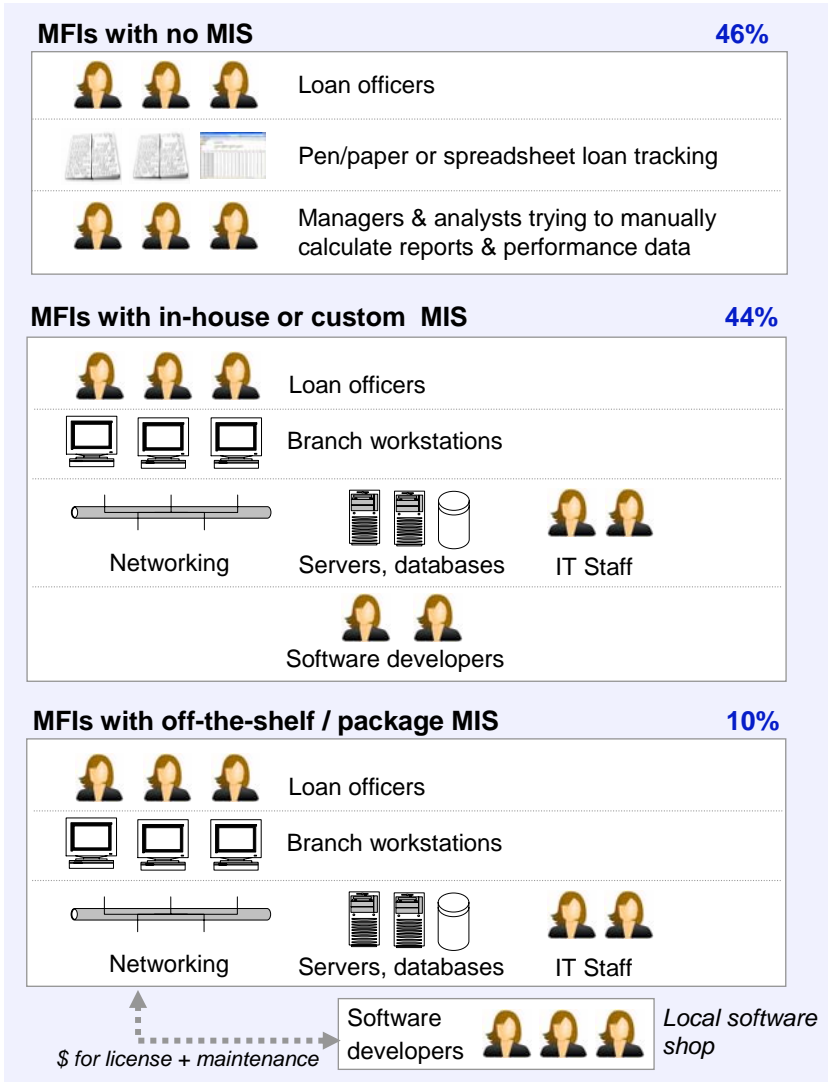


Overall Microfinance Ecosystem

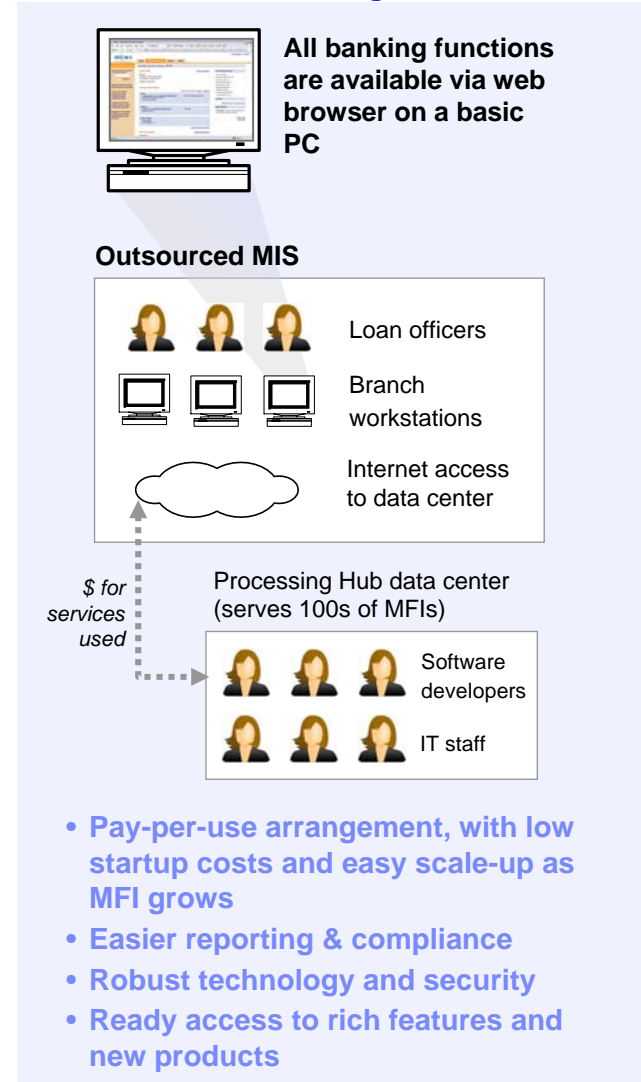
1. The **unbanked population** is the target market that the Hub will help MFIs serve with improved efficiencies
2. The **distribution channels** provide financial institutions the means to reach their end customers (e.g. internet, cell phone networks, village markets, roads)
3. **Microfinance Institutions** hold the customer relationship, choose and market their products, and provide the basic financial services to end consumers
4. An anchor **financial institution** can help drive acceptance of the legal framework for the partnership, provide more sophisticated products demanded by the marketplace, and can help channel funds to the MFIs for re-lending
5. **Government policies and regulatory** framework is necessary to provide the governance and ground rules of participation and operations
6. **Fulfillment agents** provide supplementary services that add robustness and efficiency to the microfinance business model (e.g. credit bureau, int'l money transfer)

BENEFIT 1: The Processing Hub allows MFIs to outsource their IT needs, leading to reduced costs and streamlined operations that can help them profitably reach new segments of the population

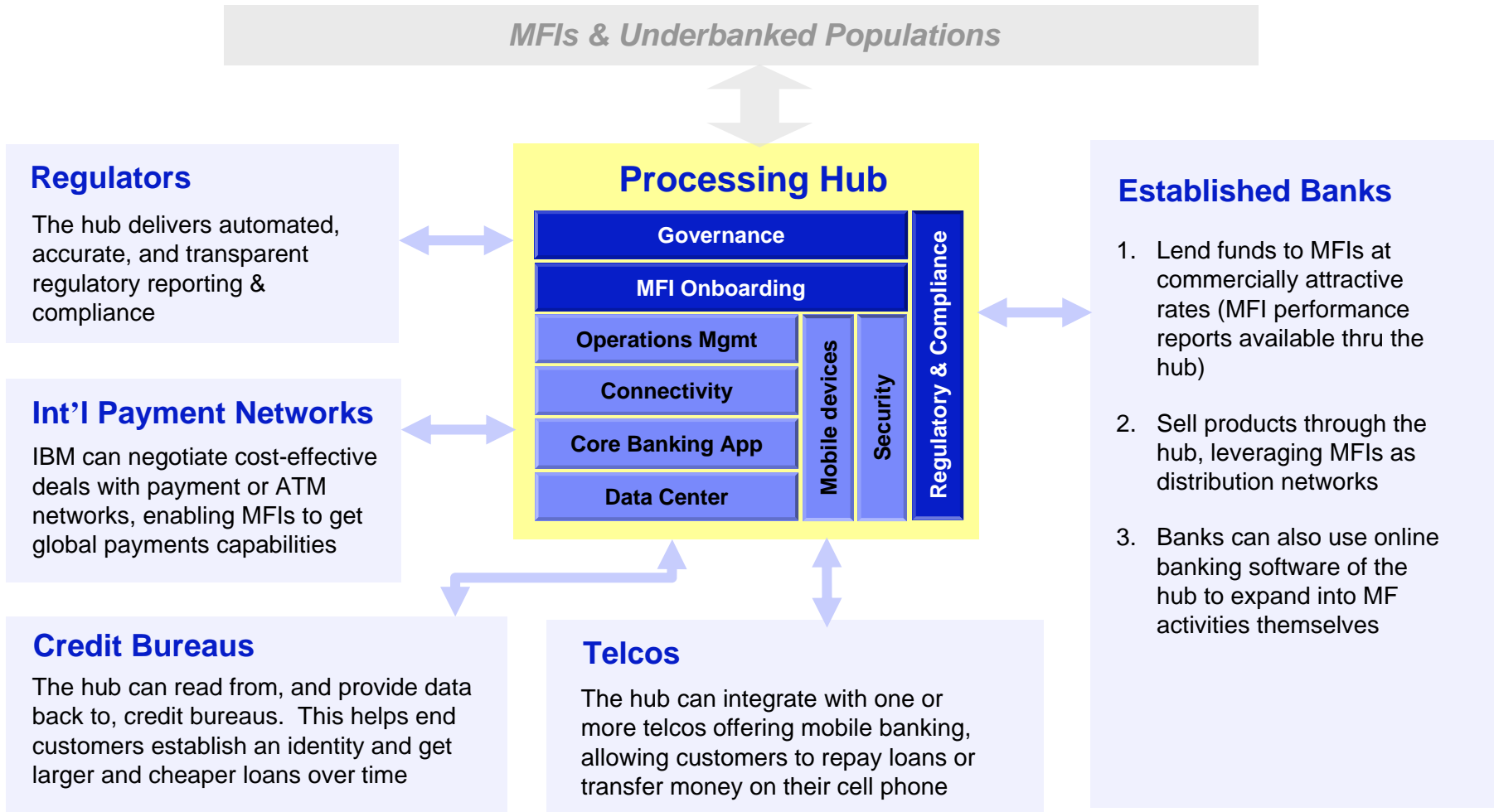
CURRENT SITUATION



Processing Hub



BENEFIT 2: The Processing Hub seamlessly integrates key participants from across the economy to create a more efficient and vibrant financial ecosystem



IBM has a solution toolkit for creating Processing Hubs, which is comprised of many more assets than just the core banking application

Governance: Setting the rules of engagement, governance structure, ownership issues, roles and responsibilities of participating entities, adherence to consistent processes, etc.

MFI Onboarding: The process and assets to onboard new microfinance institutions (MFIs) to the hub. Includes data migration, training, connectivity, and other activities needed get an MFI up and running.

Security: Layers of security and enabling technology needed to protect the hub operations, MFI data, and customer information from both internal and external vulnerabilities.

Operations Mgmt: Management and monitoring of hub operations including data centers, networks, servers, performance of hub assets, help desk, billing, etc.

Connectivity: Provisioning of adequate bandwidth of network connectivity for hub operations including both LAN and WAN.

Core Banking Application: Features and functionalities offered through the core banking system to manage the various day-to-day banking activities of the MFIs, including reporting, workflow, approvals, and receipt printing

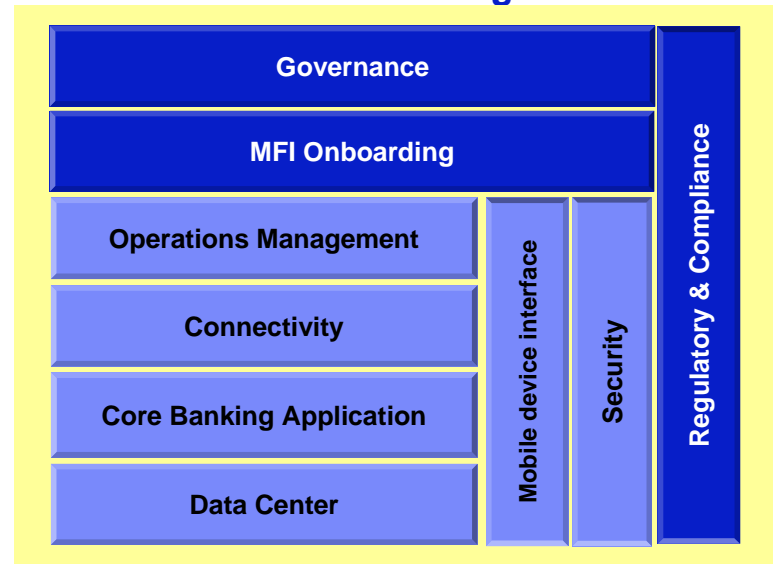
Data Center: Location and security requirements for data center(s) to support the physical requirements of the hardware needed to process MFI transactions

Customer Management: Provides capabilities to the MFIs to better serve their customers by providing improved analytics, customer relationship management, customer profiling, segmentation analysis etc.

Distribution Management: Provides capabilities to MFIs to manage and monitor a variety of distribution channels to reach and service their customers

Regulations: Module to help various entities adhere to government regulations, conduct audit and measure compliances

Microfinance Processing Hub Toolkit



Customer Acquisition: Capabilities to help MFIs acquire customers using a variety of customer enrollment and know-your-customer (KYC) techniques. Covers both conventional branch-based acquisition as well as non-conventional acquisition through branchless banking using smart cards and mobile POS devices

Service Delivery: Provides capabilities to deliver and administer financial services including account opening, payment processing, loan disbursements etc. carried out either over wireline or wireless channels

Regulations: Module to help various entities adhere to government regulations, conduct audit and measure compliances