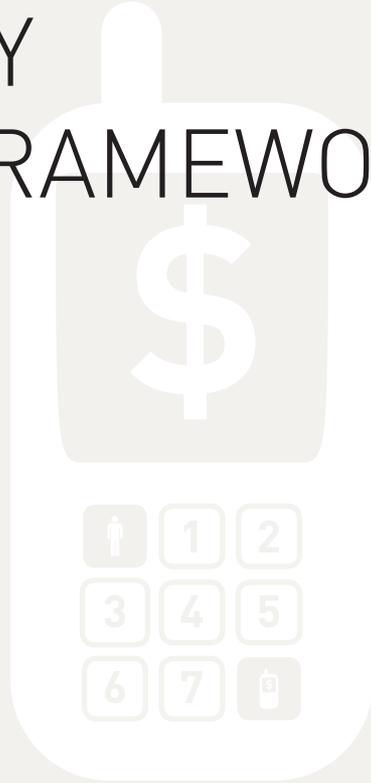


DIGITAL MONEY INNOVATION FRAMEWORK



DIGITAL MONEY INNOVATION FRAMEWORK

At the Bill & Melinda Gates Foundation, we believe digital money holds the potential to help poor households access formal financial services, weather financial shocks, and take advantage of opportunities to move out of poverty.

Our Digital Money Innovation Framework outlines the seven key components that must be in place for digital money systems to thrive and scale. Drawing on our ongoing assessment of mobile communications and financial services innovators in developed and developing markets, we offer examples of technology and business-model innovations that could help to overcome hurdles in each of the seven key components.

The digital money space is new, complex, and rapidly evolving. The foundation's Financial Services for the Poor team developed this framework for internal use and for others working in this space to clarify challenges for digital money in developing markets and spur the creation of new and innovative solutions.





What if we could shorten the mobile money signup process from 30 days to 30 seconds?

1

CUSTOMER ACTIVATION

Digital money systems face challenges in signing up new customers. New mobile money account activation can take up to 30 days, mostly due to fulfilling paper-based KYC (Know Your Customer) requirements. Complicating matters further, many potential customers do not have valid ID or a fixed address. Current signup practices also present opportunities for fraudulent account creation.

INNOVATION EXAMPLES

MOBILE IMAGING

Mobile money agents could use advanced, low-cost mobile imaging technology to replace manual, paper-based verification and registration processes



VOICE BIOMETRICS

Voice-based biometrics are improving identity authentication and menu navigation processes for underserved groups, like women and the illiterate

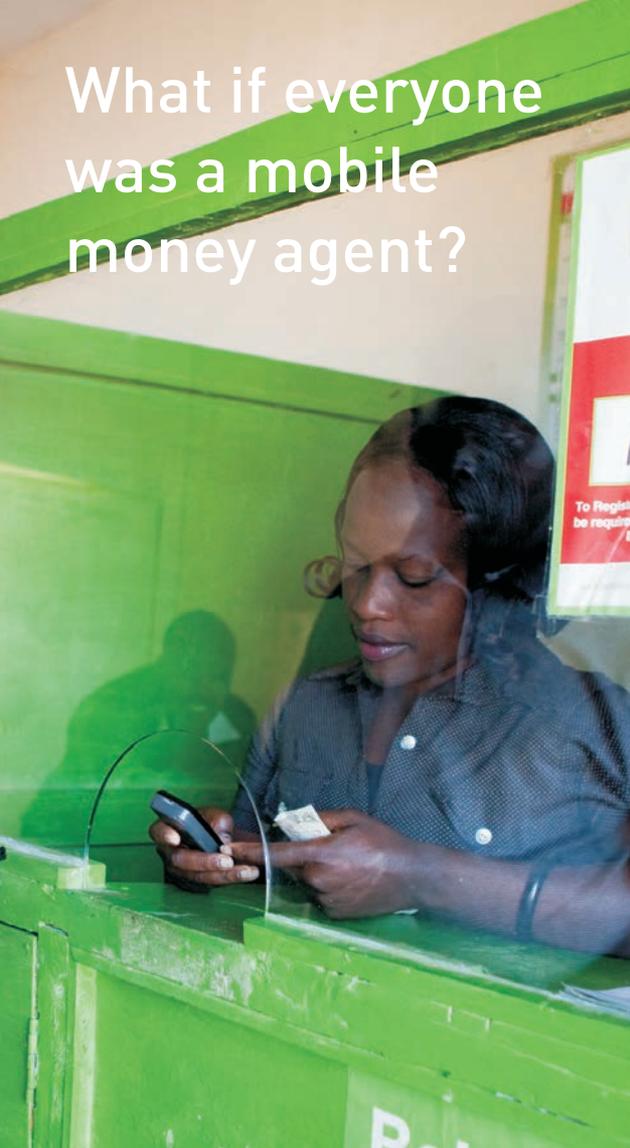


LOCATION DATA

Mobile money providers could use location data to verify transactions and reduce fraud



What if everyone
was a mobile
money agent?



2

DISTRIBUTION

One of the most critical challenges for digital money is building and managing a distribution network. People will keep funds digital only if they can easily convert to and from cash, typically through mobile money or retail agents. Building out these agent networks is risky and expensive, and retailers often have few incentives to accept mobile money.

INNOVATION EXAMPLES

SYSTEMATIZING RETAIL DISTRIBUTION

Startups are providing software to turn retail chains into efficient distribution channels for financial services



DISTRIBUTED AGENTS

Services that enable individual mobile customers to act as agents are helping mobile money spread beyond urban areas



What if anyone
with a mobile
phone could
send or receive
money?



3

PAYMENTS: FRONT-END

Digital payment options for consumers and merchants have proliferated, but multiple closed-payment networks and form factors, and a lack of common standards, have slowed adoption. For merchants, the costs of accepting money digitally can be prohibitive regardless of payment network, given hardware, transaction fees, and customer acquisition costs.

INNOVATION EXAMPLES

PAYMENT APPS AND CARD READERS

Mobile payment apps and card swipers are replacing point-of-sale terminals and driving down payment acceptance costs for agents and merchants



INDUSTRY COLLABORATION

Collaborations or joint ventures among wireless operators on common payment standards could help mobile money deployments scale more quickly



What if payment processing was all digital and close to zero in cost?



4

PAYMENTS: BACK-END

Transferring funds can be expensive and slow, given transaction fees and inefficient clearing and settlement practices. Many merchants who wish to accept payments digitally can be deterred by onerous, time-consuming requirements. In addition, incentives for banks and operators are often not aligned to effectively deliver mobile money services.

INNOVATION EXAMPLES

ALTERNATIVE PAYMENT PROCESSING

Emerging payment processors that are faster and cheaper than legacy infrastructure could help create more efficient, lower-cost clearing and settlement systems



SIMPLE ONLINE PAYMENT ACCEPTANCE

New ventures that reduce the complexity and risk of online payment acceptance for merchants could help drive adoption of digital payments



COMMON MOBILE MONEY PLATFORMS

White-label providers powering multiple deployments can rapidly diffuse new functionality and interoperability across geographic regions



What if you could
send money
to any person
in the world?



5

INTEGRATION

Many digital money systems exist as closed networks, often tied to a particular mobile operator or bank. Such siloed systems have smaller user bases, diminishing the value of the network. It is often difficult or impossible to transfer funds across mobile money networks, or into other currencies. Also, most merchants cannot easily connect to mobile money platforms to clear and settle funds.

INNOVATION EXAMPLES

MOBILE MONEY MERCHANT ACQUISITION

New startups are easing the pain for brick-and-mortar merchants to reliably and cost-effectively integrate into existing digital money systems

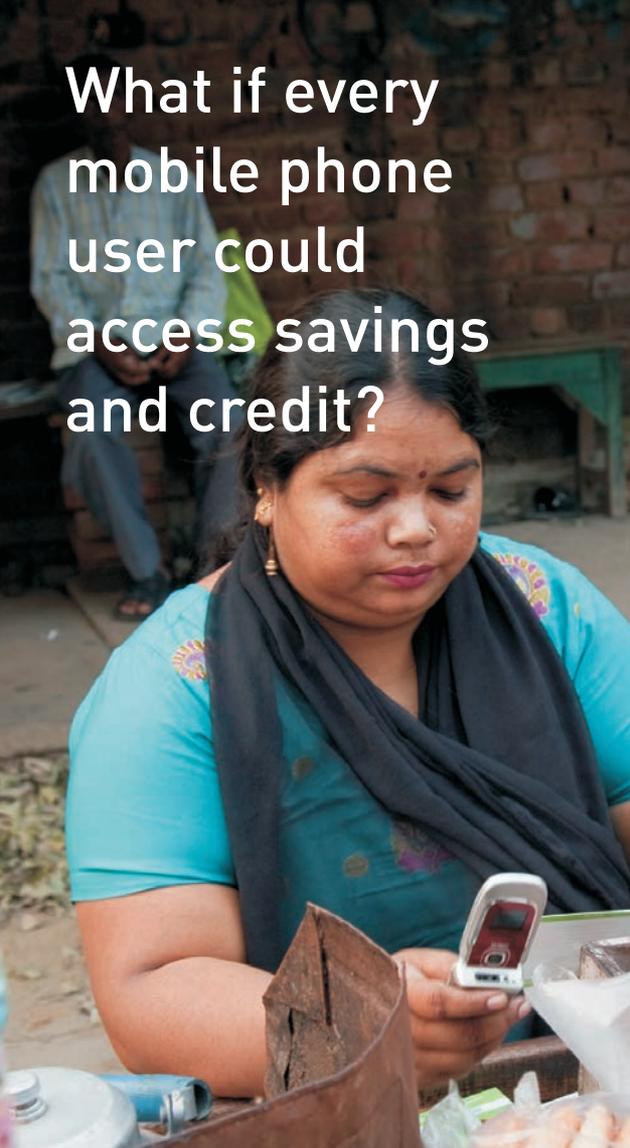


MOBILE MONEY INTEROPERABILITY

Global third parties are providing interoperability solutions for mobile money networks across borders, decreasing international remittance costs



What if every mobile phone user could access savings and credit?



6

PRODUCTS

Person-to-person transactions are the dominant use of mobile money. However, despite the need for additional services, many current digital financial products (e.g., savings and insurance) are not designed for the needs of mobile users. More broadly, most mobile money systems have not been designed as platforms to support the development of third-party products and services.

INNOVATION EXAMPLES

DESIGN FOR NEW USER BEHAVIOR

New products that replicate informal financial services behavior, like savings goals and peer support, are driving digital money usage

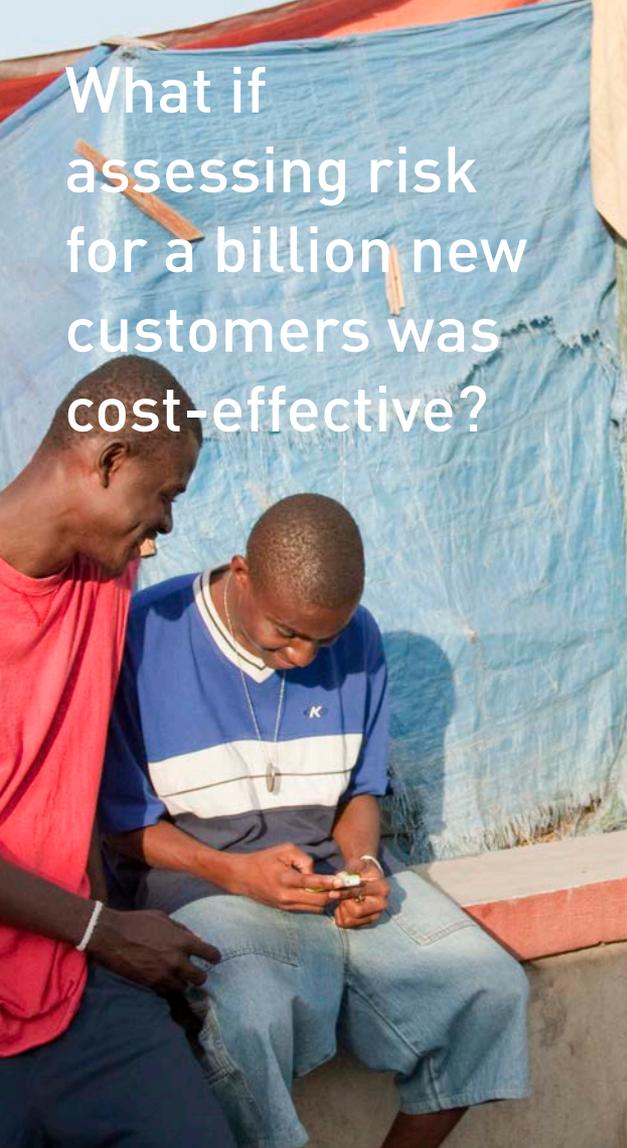


PAY-AS-YOU-GO FOR GOODS

Mobile money makes it feasible for durable goods like solar lighting and water pumps to be delivered to underserved groups using a pay-as-you-go model



What if assessing risk for a billion new customers was cost-effective?



7

ANALYTICS

Financial institutions face a flood of data on many customers and transactions, and are underequipped to analyze this data for risk assessment, product development, and marketing purposes. Conversely, little to no data exists for the underbanked and unbanked. Traditional risk assessment modeling largely ignores these groups, limiting efforts on the part of financial institutions to serve them.

INNOVATION EXAMPLES

ANALYTICS FOR RISK ASSESSMENT

Software utilizing non-traditional data—from mobile operator records to unstructured text—can decrease the risk and price of lending to the unbanked



SOCIAL CAPITAL AS COLLATERAL

Online and offline social network data analysis can inform credit decisions and increase access to financial services for those without traditional collateral



DIGITAL MONEY INNOVATION FRAMEWORK

FINANCIAL SERVICES FOR THE POOR

At the Bill & Melinda Gates Foundation, we believe digital money holds the potential to help poor households access formal financial services, weather financial shocks, and take advantage of opportunities to move out of poverty.

Our Digital Money Innovation Framework outlines the seven key components that must be in place for digital money systems to thrive and scale. Drawing on our ongoing assessment of mobile communications and financial services innovators in developed and developing markets, we offer examples of technology and business-model innovations that could help to overcome hurdles in each of the seven key components.

The digital money space is new, complex, and rapidly evolving. The foundation's Financial Services for the Poor team developed this framework for internal use and for others working in this space to clarify challenges for digital money in developing markets and spur the creation of new and innovative solutions.

Download the full document at:
<http://bit.ly/digitalmoneyinnovation>

The Financial Services for the Poor program at the Bill & Melinda Gates Foundation aims to capitalize on rapid advances in mobile communications and digital payment systems to connect poor households in the developing world to affordable and reliable financial tools.

For additional information, please visit our web site: www.gatesfoundation.org/financialservicesforthe poor

© 2013 Bill & Melinda Gates Foundation. All rights reserved. Bill & Melinda Gates Foundation is a registered trademark in the United States and other countries.



CUSTOMER ACTIVATION

Streamlining KYC and registration processes to remove barriers to account opening

DISTRIBUTION

Building out last-mile touch points to customers and increasing the number of digital transaction opportunities

PAYMENTS: FRONT-END

Enabling customers and merchants to use mobile devices and payment interfaces for transactions

PAYMENTS: BACK-END

Managing mobile payments through new or existing payments infrastructure

INTEGRATION

Facilitating linkages and interoperability between different industry players and payment networks

PRODUCTS

Developing a range of user-centric financial services via mobile

ANALYTICS

Helping financial services providers use data to improve products and services to end users

