

# FINTECHS AND FINANCIAL INCLUSION

Past the hype and exploring their potential

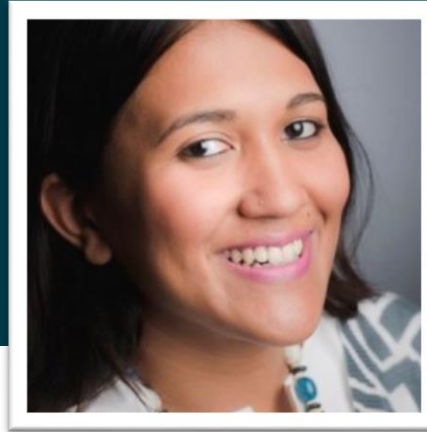
Photo: People's Pension Trust 2017

Gayatri Murthy

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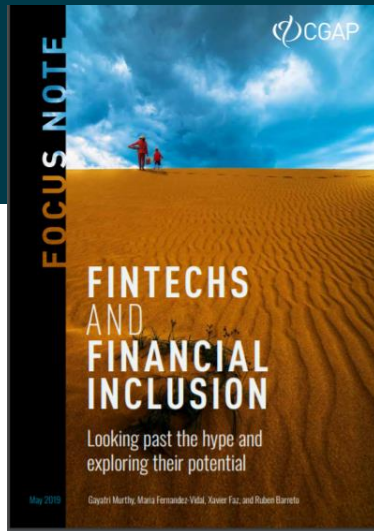


# Speaker



Gayatri Murthy

Financial Sector  
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# Fintech: Where is the potential?

CGAP Pilots and Research

# Some fintech companies appearing in EMDEs create solutions for the underserved

- Fintech companies (or fintechs) are new entrants, offering services that leverage digital technologies and new business approaches
- Fintechs exist within a larger ecosystem of tech-based innovation by banks, telcos, ICT companies, superplatforms, etc. But they, more than others, may be wired to push boundaries in innovation
  - Their “startup” nature and digital setup gives them greater agility to iterate and improve solutions, and their existence depends on proving their model.
- Some fintechs in EMDEs are creating solutions specifically designed for underserved, low-income customers.
- The rise of fintechs such as PayTM, Jumia, and Cellulant in EMDE markets inspired us to understand their potential effects on financial inclusion.



# Fintechs innovate at every step of the financial services value chain

- The excitement around fintech is not without merit. Fintechs are innovating at every step of the financial services value chain, often through new value propositions, including flexible products and better ways to address the financial challenges faced by low-income customers.
- They are making financial services more affordable and accessible.
- They are improving the customer experience of financial services and accelerating use and engagement through products that fit the customer better.
- They are also building the groundwork—including easier digital identity verification, collaborative customer due diligence, data sharing, and payment schemes—that can catalyze a host of financial services.

## FOR THE UNDERSERVED, LOW-INCOME CUSTOMER



Better  
experience



Improved  
products



New value  
propositions

## FOR EMERGING AND DEVELOPING MARKETS



Better  
infrastructure  
(financial)



Greater  
competition  
& choice



Use cases  
for payments  
accounts

# Fintech and Financial Inclusion

*“.....poor people are becoming “easy to lose sight of in the excitement around technology and innovation.”*

Greta Bull, in her recent essay, “Great Expectations: Fintech and the Poor,”

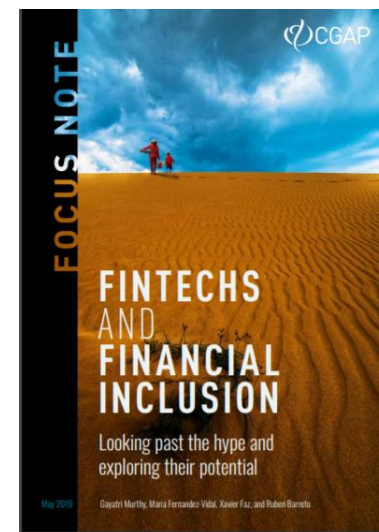


## Linking technology to a financial inclusion “proof point”

- We worked with 18 fintech companies to test if the use of technology makes a difference to a real financial inclusion challenge.
- We concluded that five innovation areas display the potential for fintechs to impact financial inclusion.

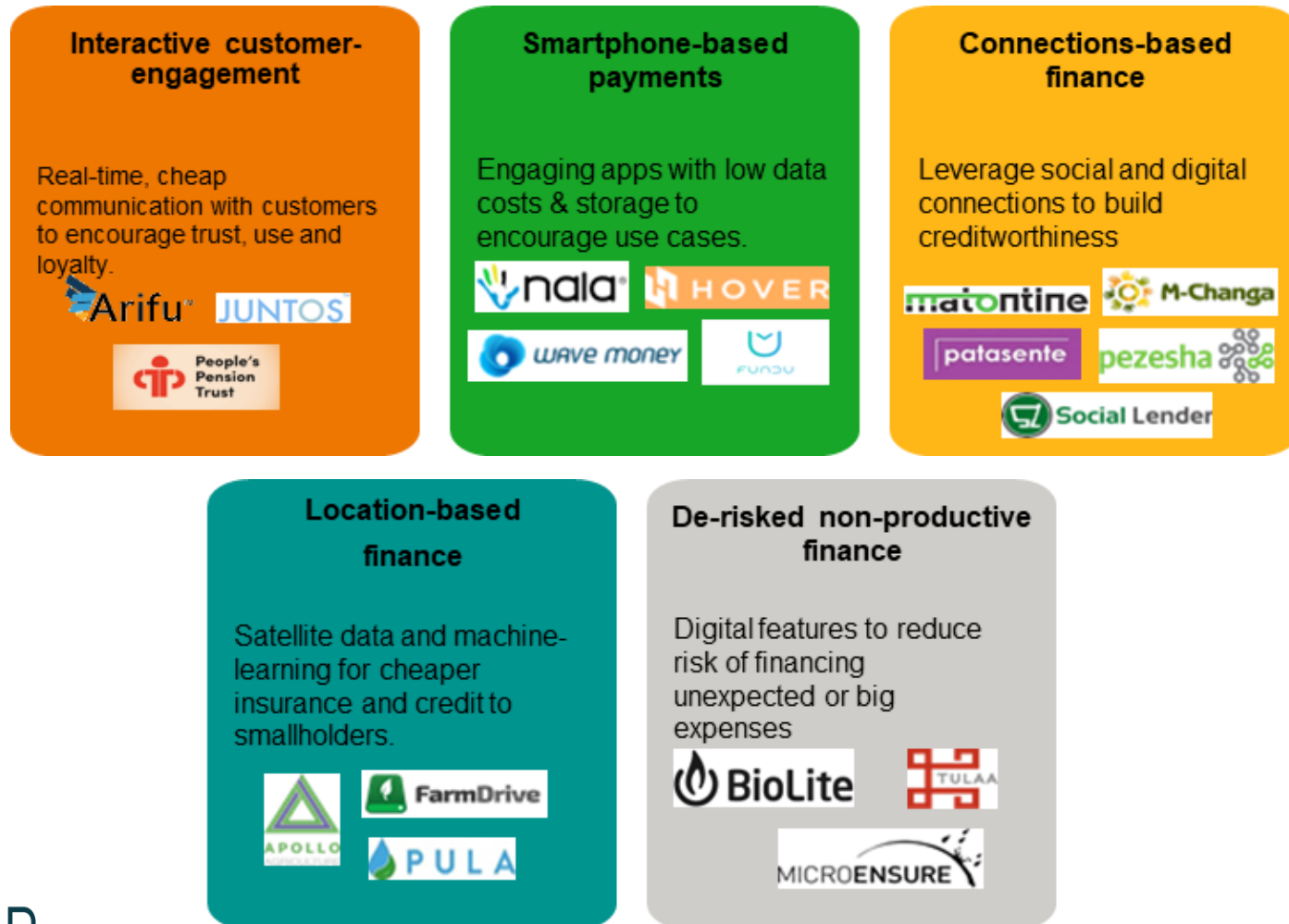
Find this report and other articles at:

<https://www.cgap.org/topics/collections/fintech-refocusing-on-the-poor>



# Five innovation areas display the potential for fintechs to impact financial inclusion.

Most of these were early-stage, unproven ideas. We focused on demonstrating proof points that could help ideas scale.





## We focus on 3 today

Most of these were early-stage, unproven ideas. We focused on demonstrating proof points that could help ideas scale.

### Interactive customer-engagement

Real-time, cheap communication with customers to encourage trust, use and loyalty.



### Location-based finance

Satellite data and machine-learning for cheaper insurance and credit to smallholders.



### De-risked non-productive finance

Digital features to reduce risk of financing unexpected or big expenses



# Case Studies

# 1. Can financial services for the poor be interactive?

Yes, but technology needs to be combined with deep customization

## What this is

Two-way SMS messages with customers, helps providers inform customers when they need to know something, makes suggestions, and listens to customers when they have a need

## Innovation

Mobile messaging to offer topic-based learning to low-income customers. It partners with FSPs to offer their current and potential customers financial information in a cost-effective way and uses these interactions to direct customers to specific financial services offered by the FSP.

## Why this is important

Financial services are not interactive because engagement is expensive. Helps build credibility, confidence, proximity between providers and customers.

## The Pilot



SMSES were tested with customers from 3 segments- women, youth and smallholder farmers. Arifu reached 223,396 learners, which was more than expected. However, 70 percent of users engaged with 10 messages or fewer, which was lower than expected.

Research showed customer needs were not rooted in demographics but in their earning and entrepreneurial profile.

### INDIVIDUAL SEGMENTS



Day-to-day earner



Steady earner

### BUSINESS SEGMENTS



Aspiring business



Full-time business



Agricultural business

## 2. Can understanding a farmer's location unlock cheaper credit and insurance?

### What this is

Use of hi resolution satellite imagery to build models that predict crop yield for a particular territory, and/or verify incidence of specific weather events at a very low cost

### Innovation

Using time series of hi-res satellite images and apply data analytics to model agricultural performance with high degree of confidence.

### Why this is important

Most of the world's 500 million smallholder households cannot be appropriately assessed by traditional credit and insurance service providers. These technologies enable lending for smallholder farmers, and market based crop-yield insurance schemes.

**Hi resolution satellite imagery, along with corresponding image-analysis tools allow models that predict ag performance or than can verify incidence of weather events**



## 2. Can understanding a farmer's location unlock cheaper credit and insurance?

Yes, but finding satellite data that's robust and varied is challenging today

### What this is

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### Innovation

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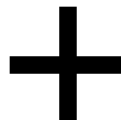
### Why this is important

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### The Pilot



**Satellite imagery  
for credit  
assessment**



**SMS and IVR nudges for  
higher repayment rates**



**Pilot:** The pilot tested the predictive power of satellite imagery in credit assessment of farmers and the effect of automated and customized nudges delivered via SMS and IVR technology on farmer repayment behavior.

**Results:** IVR was more effective than SMS which made Apollo focus on further developing this channel. The model that relied on satellite data performed well, although the results could not be fully generalized because of the small sample size and concerns that the data covered only one year of weather.

### 3. How can we finance big, unexpected expenses with lowered risk?

Yes, but fintechs need good partnerships, and deep contextual info to execute



#### What this is

Fintechs use technology to reduce the credit risk of financing big, unexpected expenses so that the need them

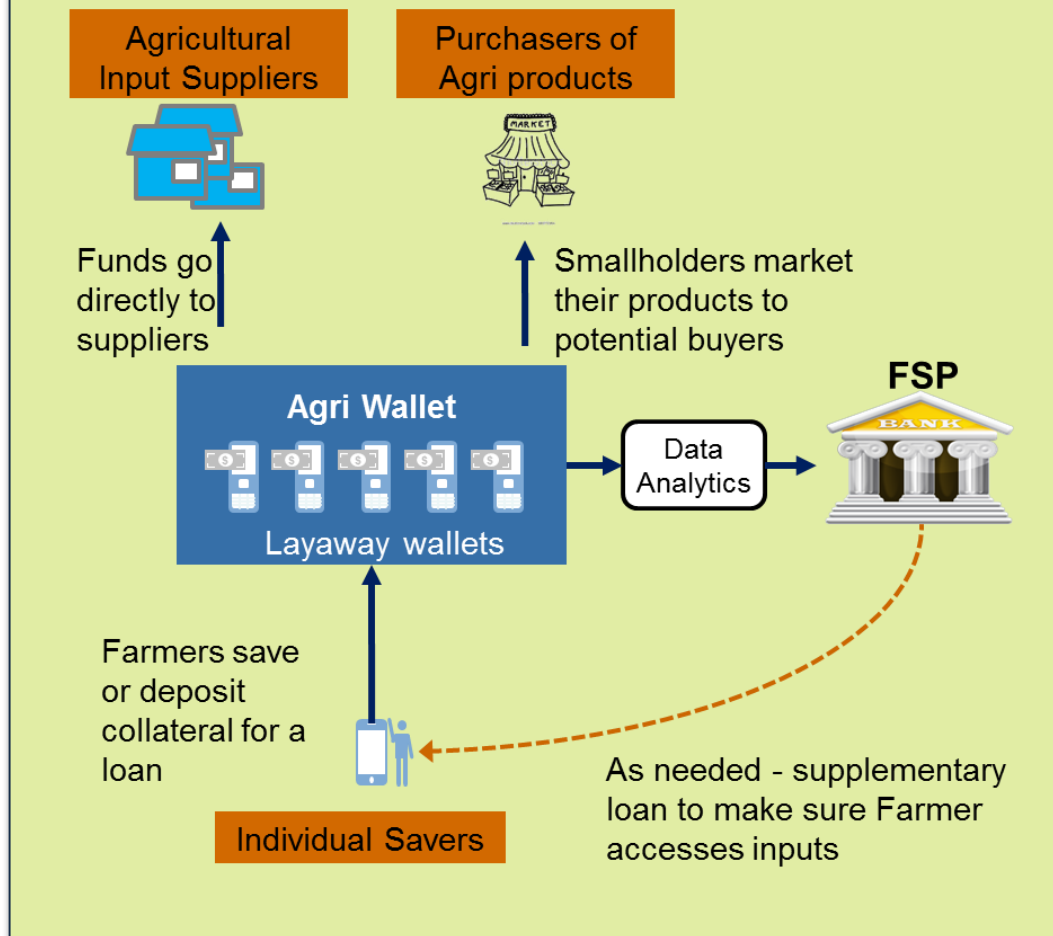
#### Innovation

Reduce risk by preventing loan diversion (using money for a different purpose). For big expenses, such as farm inputs or solar energy units, companies may rely on proven capacity to save (deposits or collaterals). In other cases, the product allows funds to be used only at qualified locations, such as health clinics, or at a specific time, such as at the start of the school year. Sometimes repayment is tied to digital or automatic mechanisms.

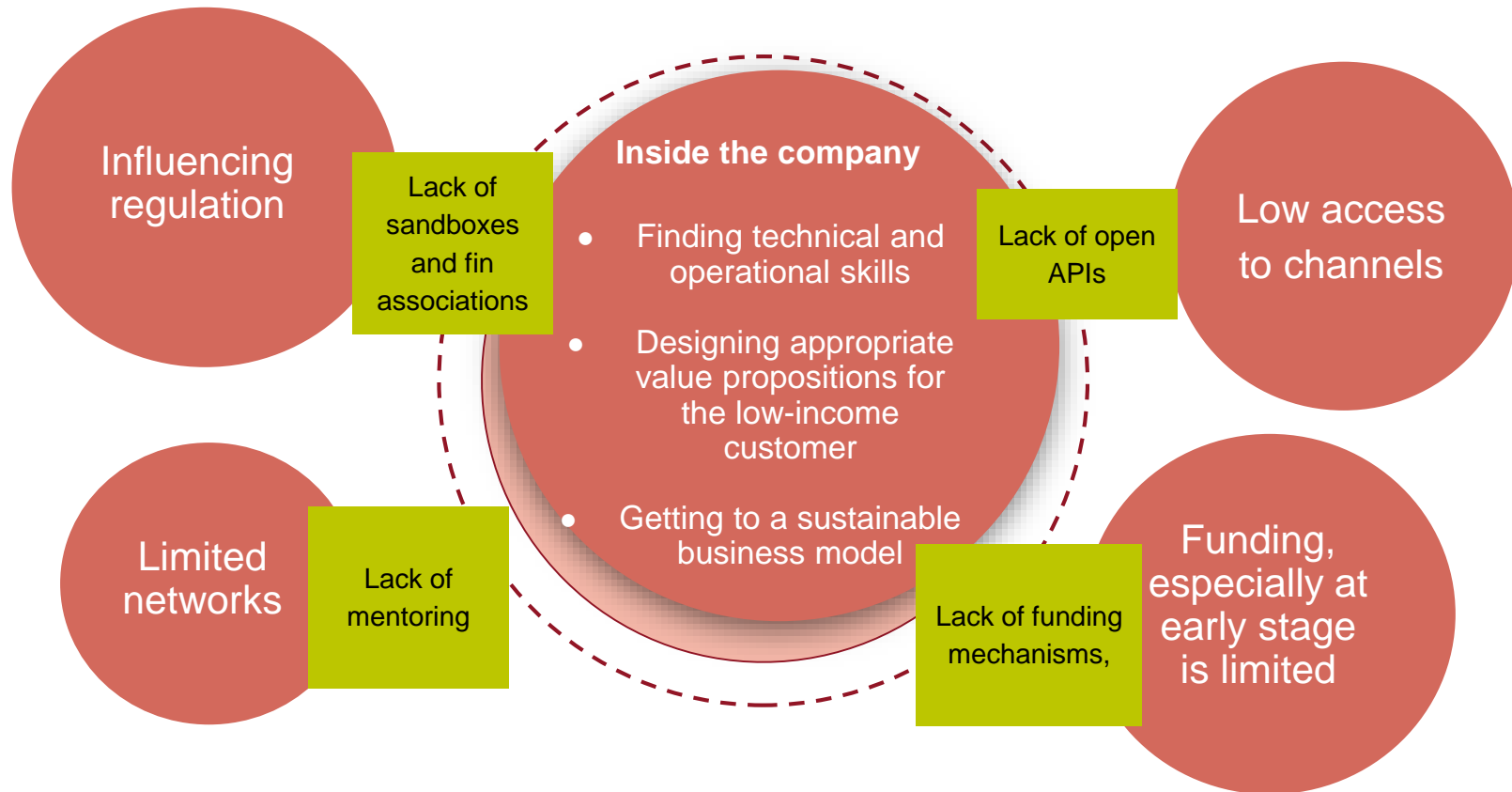
#### Why this is important

Low-income people often must meet sizable, unexpected expenses such as **farm inputs, education, or health services** that are hard to finance through traditional credit

#### The Pilot



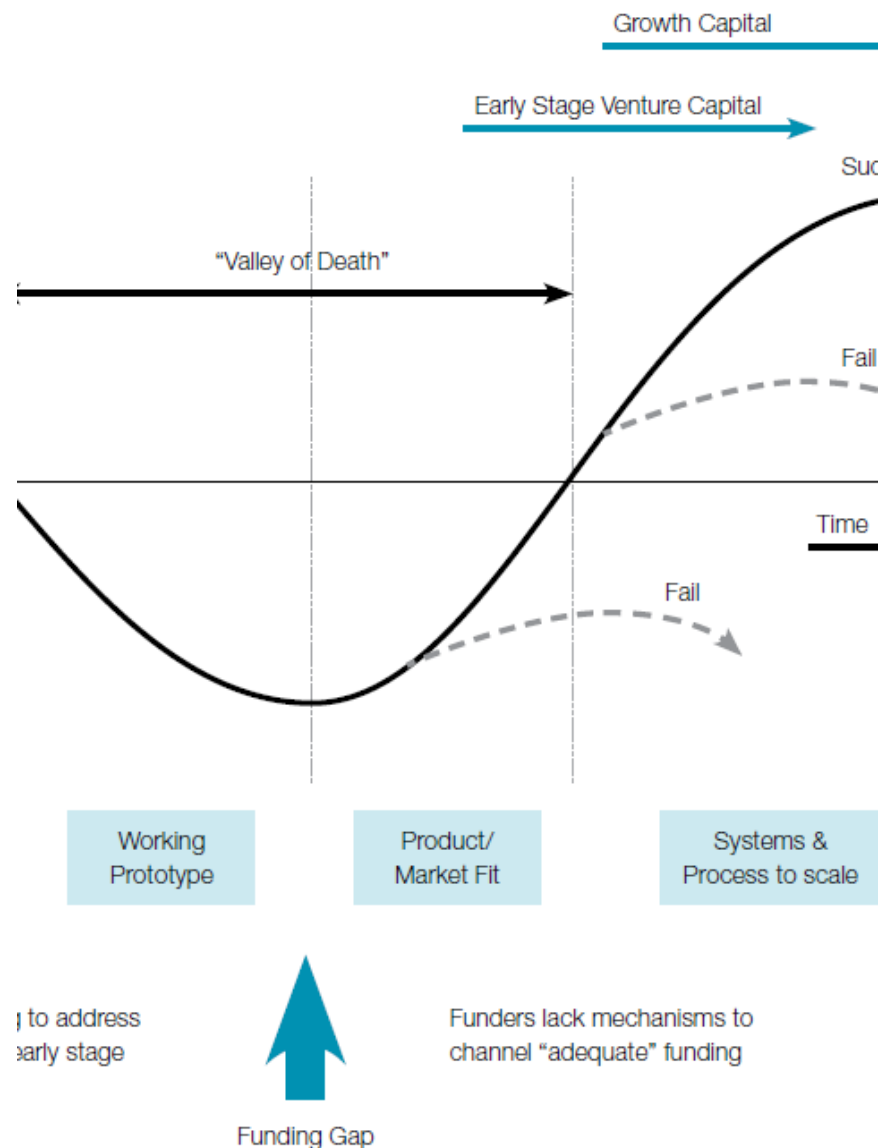
# The pilots also revealed challenges in catalyzing fintech for financial inclusion



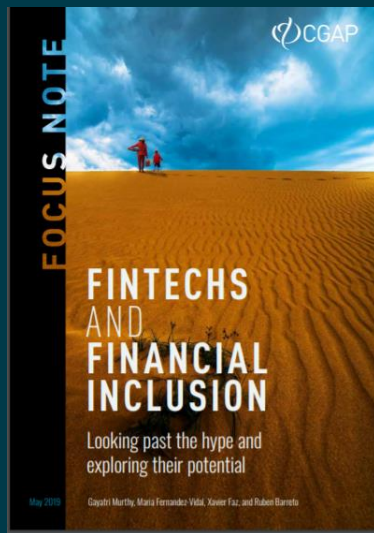


# The global funding community can catalyze fintech's effects, but info gaps exist

- But today information is largely about individual fintech companies.
- As the market gets crowded, this information appears fragmented and largely meaningless, since each fintech company has limits to the impact it can have.
- This in turn creates funding distortions where a few fintechs receive all the funding.
- Models that address complex problems in financial inclusion need patient capital but may not receive this funding and die.



# For further reading



Main paper  
summary lessons



Case studies  
showcasing pilots with  
18 fintechs

<https://www.cgap.org/topics/collections/fintech-refocusing-on-the-poor>

# Thank you

To learn more, please visit  
[www.cgap.org](http://www.cgap.org)

