

Leveraging Machine Learning for financial inclusion

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Innovation partner: FINO



Micro-payments for financial inclusion

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Partner: FINO Payment Bank

- Business 2 Business 2 Customer
- Addressing ‘last-mile connectivity’, leveraging mom-and-pop stores for a ‘Phy-gital’ model
- Provides internal remittance, cash withdrawal via micro-ATMs and deposit services
- ID establishment through biometric (fingerprint) authentication

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Size:

- >50% of Indian rural market, operating in 90% districts
- USD 900 million annual throughout
- 100 million clients,
- 800,000 agent network, 110 banking partners

ML in Finance



Authentication
Ledger keeping
Bundling

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Process:

‘Know Your Customer’ identity establishment (**regulatory requirement**)

Technology:

Real-Time Video KYC (V-KYC) for ID authentication

- Transition from a paper based and biometric ID authentication
- ML supported remote mobile based (video + audio + geo tagging) ID authentication
- Pilot testing for merchant onboarding

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Innovation for greater good:

- Operating in poor bandwidth and budget mobile h/w
- Evaluating live video and audio to establish ID for merchant onboarding
- Fast and efficient micro-transactions for clients with annual income <USD 7000

Research



Goals
Status

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Research:

Goal

- Measuring the impact of novel V-KYC on expansion of micro payments among the underbanked

Potential Impact

- Transition from in-person e-KYC to Video-KYC could reduce transaction cost and improve financial inclusion for the most vulnerable

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Research Objective:

- Examine the impact of V-KYC technology on banking access
- Examine the financial and business outcomes of **financial agents** such as onboarding levels, volume and breadth of transactions,
- Examine the impact on **end clients**- their ability to access government subsidies, loan instruments as well as insurance products.
- Analyze the impact of V-KYC on the ability to ameliorate COVID-19's economic shock and smooth consumption during and after the pandemic.

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Research: Large scale randomized control (RCT) experiment

Status

- 20,000 ‘prospect’ FINO merchants allocated to control and treatment groups
- **Control** group: Onboarded merchants via e-KYC
- **Treatment** group: Onboarded merchants via novel **V-KYC**
- **Completed**-Baseline with V-KYC onboarded 7,000 FINO merchants
- **Ongoing**- Bi-monthly performance data of control and treatment group merchants

Interim Research Output



Chosen stats

- 69% of connected leads interested in on-boarding
- 11% became FINO agents
- 16% believe that computers can make better decisions than humans

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Research:

Next Steps

- Ongoing analysis of baseline and monthly merchant performance data
- Endline survey
- Analysis and publication