

## PILOT STUDY SUMMARY

# Incentivizing Small Merchants in Emerging Markets to Adopt Digital Payment Technologies

## Policy Issue

Small merchants in developing countries often do not adopt technology to accept digital payments from credit or debit cards. Among merchants, the top-ranked reasons for not accepting digital payments are the lack of a digital ecosystem and concerns about formalization and taxes. As a result of low adoption, important data on creditworthiness is lost and the level of digital financial inclusion in emerging markets is lower than its potential. As increasing numbers of people in developing countries adopt debit cards, and as government-to-person (G2P) payments are increasingly digitized, small merchants could lose potential revenue from customers who prefer the convenience, safety, and accessibility of digital payments.

Currently, the low adoption of digital payment technologies makes evaluating their costs and benefits difficult. To date, these costs and benefits are largely unknown and empirical evidence on the reasons for low adoption is lacking.

## Project Summary

To investigate what value propositions can best incentivize small merchants to adopt digital payment technologies, data was collected on a technology pilot with small merchants in the Dominican Republic, led by in-country partners Banco BHD León (a bank) and MiRed (a software company). The technology—



*Even goods without a barcode are tracked using the digital sales and inventory app; this photo includes a piece of cardboard with the barcodes for goods such as produce.*

a tablet provided to corner stores, which are ubiquitous in the Dominican Republic— bundles the capability to accept digital payments, digitally track all sales and inventory through a barcode scanner and app, and optionally provide newly generated data on sales and inventories to banks and suppliers to increase access to affordable credit and reduce stockout risk.

Three types of data were generated as part of this pilot study: focus groups with the owners of corner stores, a quantitative survey conducted after the corner stores had accumulated five months of experience using the tablet, and sales and inventory data generated automatically by the tablet. The research team compiled, analyzed, and shared this data with the software company to determine what improvements should be made to the technology before scale up.



### RESEARCHERS

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### COUNTRY

Dominican Republic

### PARTNERS

Banco BHD León, MiRed, Innovations for Poverty Action (IPA)

### PROGRAM AREA

Digital Financial Inclusion

### TOPICS

Digital Payment Technologies, Small Merchants

### TIMELINE

January – June 2017

### FUNDING AMOUNT

\$10,000

## Early Results

Small merchants recognized the potential benefit of sharing sales and inventory information with potential lenders measuring business performance, and the possibility that this could lead to improved credit access with lenders; however, the shop owners were unsure whether this additional information might lead to a lower interest rate, larger credit line, or other benefits. They also noted that it was invaluable to have detailed information about the level of sales and inventory of their businesses, and that this information helped to set and achieve goals.

Small merchants also expressed three concerns about the technology itself. First, they were not sure if these data could be used by government agencies to determine their tax burden, which would lead to an increase in the amount of taxes they pay and hence a decrease in profits. Second, merchants noted that it is difficult to use the tablet during high-traffic periods, when people crowd the corner stores and pay quickly by, for example, grabbing a product from the shelf and leaving money on the counter. Third, they made several suggestions of features that could be included with the technology to improve its value proposition, such as including the ability to see total sales over a specified period of time.

The research team will merge the tablet and survey data to achieve three objectives. First, the merged data allows researchers to estimate the proportion of sales being recorded through the app to measure its usage. Second, researchers can determine the characteristics of corner stores more likely to continue using the technology well after first adopting it. Third, researchers can estimate how cash and digital payments vary among corner stores with different characteristics.



*Innovations for Poverty Action (IPA) surveyors conducting quantitative surveys with store owners*



*Manual method of inventory tracking: once per month, someone manually counts quantities of each good and relays the information to an accountant who writes down the inventory amount.*

## Policy Relevance

The results from the focus group and qualitative questions included in the surveys are being used by the implementing partner to determine what improvements should be made to the technology before scaling it up. Banco BHD León has also indicated that once results from the survey are ready it will use the results to inform its business model during scale-up.

## Next Steps

The results from this pilot study are being used to inform the design of a full-scale randomized control trial (RCT), modify the survey prior to use in the RCT, and provide experience for the research team in analyzing new types of data generated by the digital sales and inventory technology.