Encouraging the Use of Formal Financial Services of Garment Workers through the Rollout of an Electronic Payment System in Bangladesh

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Sector(s): Finance, Firms, Labor Markets

Location: Dhaka, Bangladesh

Sample: 3,136 workers

Target group: Small and medium enterprises Workers

Outcome of interest: Earnings and income Remittances Technology adoption Business investment Savings/deposits

Intervention type: Digital and mobile Nudges and reminders Savings Credit or debit cards

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Research Papers: Learning to Navigate a New Financial Technology: Evidence from Payroll Accounts

Partner organization(s): City Bank Limited

How do inexperienced consumers learn to use a new financial technology? Consumer financial products, such as bank and mobile money accounts, can significantly increase financial inclusion, yet inexperienced consumers of new financial technologies are often vulnerable to exploitation by financial intermediaries. Can an electronic bank or mobile money payroll system increase account usage and savings, while reducing consumer risks? Researchers randomly assigned employees at garment factories in Bangladesh to either continue collecting their wages in cash, receive direct deposit wage payments into a payroll account, or receive an account but continued to receive wage payments in cash. Exposure to payroll accounts led to increased account use, consumer learning, savings, and trust in mobile banking. A complementary audit study suggests mobile money agents were less likely to overcharge inexperienced customers in areas with higher levels of payroll account adoption.

Policy issue

Despite the potential of electronic payroll systems and banking to streamline payments to workers and increase financial inclusion, approximately 85 percent of all salaried employees in developing economies receive their wages in cash and are often unable to open a formal financial account without the assistance of their employer. At the same time, there is also concern that the expansion of electronic financial services will lead to the exploitation of inexperienced consumers by financial intermediaries seeking profits.

Electronic payroll accounts may be one avenue through which consumers can access, engage with, and learn to use financial products. Can the consistent use of a formal payroll account enable inexperienced consumers to learn how to navigate the financial technology more effectively and avoid common consumer protection risks? Researchers measured the impact of providing workers in Bangladesh with payroll accounts and examined if automatically depositing their wages into these accounts can lead to consumer learning.

Context of the evaluation

The study takes place in urban Dhaka, Bangladesh, with garment workers in two large manufacturing firms. The garment manufacturing sector in Bangladesh employs approximately four million workers, 80 percent of whom are women and many of which come from rural areas. Many production line workers are unbanked, owing to high account maintenance fees, minimum balance requirements, and documentation requirements. All workers were paid in cash monthly prior to the intervention.

Workers in the study, the majority of whom are female and not literate, had very little experience using formal financial services and low trust in formal accounts at the time of the study. Despite being paid in cash, many used mobile money platforms for purposes such as transferring money to family members in home villages. However, most workers used vendors' or other people's accounts to conduct these transactions, often paying transaction fees in the process.

Bangladeshi garment workers in a factory in Dhaka.

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Details of the intervention

Researchers evaluated the impact of providing payroll accounts on different outcomes, including consumer learning and protection risks, savings, and the ability to cope with unanticipated shocks. They randomly assigned 3,136 salaried factory workers to one of the following groups over a 12-month period at each factory:

1. *Bank or mobile payroll account:* Workers received a payroll account with monthly direct deposit wage payments. The partner firm opened bank payroll accounts for 884 workers and mobile payroll accounts for 873 workers. Workers who received a bank payroll account were provided with a debit card that they could use for withdrawals at an ATM installed on the factory premises, or at bank branches, ATMs, and stores outside the workplace. For workers assigned to receive a mobile money account, the partner firm opened a payroll account with Bangladesh's most popular mobile money platform.
2. *Bank or mobile account:* To separate the effect of receiving direct deposit wage payments into an account from the effect of account opening alone, the research team assigned 651 workers to a bank or mobile account group. Within this group, the partner firm opened 201 bank accounts and 450 mobile money accounts but continued to pay monthly wages in cash so that use of the account was entirely optional.
3. *Comparison group:* The research team assigned 728 workers to a comparison group, in which workers continued to receive wage payments in cash. Workers assigned to this group were paid once a month and received their wage payments in cash on the firm's premises following the same protocol that was in place prior to the study.

To hold the cost of access constant across the two types of accounts, the partner firm installed ATMs and stationary mobile money agents on the factory premises. Throughout the study, a staff member was available on the factory premises to help workers with any technical difficulties or problems accessing their accounts. Members of the research team visited each factory and conducted training sessions for workers assigned to receive an account prior to rollout.

Additionally, researchers conducted an audit study in neighborhoods similar to those surrounding the study location to test the impacts of worker sophistication and payroll adoption on banking practices. Factory worker auditors were assigned to visit mobile money agents to ask for assistance with a simple financial transaction. Some workers were given a high sophistication script, while others were given a low sophistication script. Moreover, workers were assigned to mobile agents located in neighborhoods with high versus low levels of payroll account penetration.

Data was collected over seven rounds of surveys over approximately eighteen months, with comprehensive data on household finances, financial literacy and planning, and savings and consumption gathered at the beginning and end of the study, and simple expenditure and financial decision information collected throughout.

Results and policy lessons

Workers in the payroll account group interacted with the account more frequently, developed greater trust in the technology, learned to use the account without assistance, and learned how to avoid common consumer financial risks and use the account in the most cost-effective way. However, impacts varied by the previous level of financial inclusion of the payroll account holder.

Account use and learning: Workers who received electronic wage payments to payroll accounts were 12.8 percentage points more likely to make a non-withdrawal transaction, 27.1 percentage points more likely to make a send-money transaction, and 1 percentage point more likely to make a deposit than workers in the account-only group. Workers in the payroll account group were 58 percentage points more likely to make a transaction in a setting without assistance, suggesting that learning occurred. Additionally, they were 32 percentage points less likely than the accounts-only group to make costly over-the-counter transfers intermediated by a mobile money agent. Further analysis suggests that men and workers with higher levels of financial inclusion were the most likely to learn from using their accounts.

Trust in financial technology: Both the account-only and payroll account interventions increased trust in mobile money accounts but had no impact on trust in bank accounts. Receiving a mobile account increased trust by 8.2 percentage points (a 22 percent increase) relative to the comparison group, and receiving a mobile payroll account increased trust by 16.5 percentage points (44 percent).

Savings: Receiving wage payments into a formal account increased the likelihood of having savings by 4-11 percentage points and more than doubled the likelihood that individuals will have savings in a formal account from an initial level of 25 percent. In contrast, simply providing an account had smaller and often undetectable impacts on savings. Further analysis suggests that women and the most financially excluded workers were most likely to redirect expenditures towards savings.

Consumer risk: Results from the audit suggest that mobile money agents were more than 15 percentage points less likely to overcharge workers in areas with higher payroll account penetration. Further, mobile money agents were more than 44 percentage points more likely to overcharge workers with lower financial sophistication; however, after accounting for the number of agents per worker, results indicate that mobile money agents were more than 21 percentage points less likely to overcharge less sophisticated workers in areas with higher payroll account penetration.

Taken together, the results suggest that financially inexperienced consumers can benefit substantially from payroll accounts when the employer and financial service providers play active roles in the process.

Breza, Emily, Martin Kanz, and Leora F. Klapper. Learning to Navigate a New Financial Technology: Evidence from Payroll Accounts. No. w28249. National Bureau of Economic Research, 2020.