Performance Incentives for Commercial Bank Loan Officers to Improve Effort on Risk-Assessment and Lending Decisions in India

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Sector(s): Finance

Location: India

Sample: 206 loan officers and about 14,370 lending decisions

Target group: Workers

Outcome of interest: Service provider performance

Intervention type: Monetary incentives

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Partner organization(s): Ewing Marion Kauffman Foundation, Harvard Business School, International Growth Center (IGC)

Following the global financial crisis, bank employee compensation has come under increased scrutiny. Researchers partnered with a commercial bank in India to study the effect of paying loan officers according to the performance of their loans on the quality of their lending decisions. Loan officers working under this incentive scheme exerted greater screening effort, approved fewer loans, and increased their average profit per loan. An alternative incentive scheme which rewarded loan volume rather than quality had opposite effects.

Policy issue

Following the global financial crisis, bank employee compensation has come under increased scrutiny. While much of the attention has focused on incentives for top management, there is growing recognition that incentives based on lending volume may lead front-line loan officers to make riskier lending decisions. Incentives based on loan performance, which reward officers for well-performing loans and penalize them for loan default, are seen as one potential way to increase their screening effort and improve lending decisions. Another possible strategy could be to make loan officers partially liable for defaulted loans. Yet, there is little evidence of the impacts of volume versus performance incentives on loan officers' risk-taking and lending decisions.

Context of the evaluation

In India, as in other emerging markets, banks often find it too costly to continuously monitor the performance of small business loans. Indian banks are therefore particularly reliant on the lending decisions of their front-line employees like loan officers and sales agents. They often depend on the initial application screening process as the primary strategy for minimizing the riskiness of their loan portfolios.

This study examines lending decisions on applications for uncollateralized small-business working capital loans of less than Rs. 500,000 (US$ 10,000) from new borrowers, many of whom were first-time applicants for a formal sector loan. In India, bank sales

agents typically collect client information for small business loans and forward it to a loan officer for approval. The task faced by the bank' s loan officers is to screen and make profitable lending decisions based on the information contained in an applicant' s loan file without additional interaction with the applicant.



Loan officer at her desk

Details of the intervention

Researchers examined the impact of different incentives on the lending decisions of Indian loan officers. They recruited loan officers from leading Indian commercial banks to complete up to fifteen one-hour simulation sessions evaluating past credit applications from a commercial bank. The sessions took place at the researchers' computer labs outside of work hours. Past credit application files were obtained from a leading commercial lender in India who supplied a random sample of 650 loan applications from the first two quarters of 2009 and at least nine months of repayment history for each approved loan. The loan repayment histories gave researchers the information to see whether loan officer' s assessment of risk was accurate, and how their accuracy was affected by difference incentives. At the start of each session, loan officers were randomly selected to receive one of three incentive structures:

1. *Low-powered incentives*, which served as the comparison group, and gave the officer a small payment for every loan he made, but only if the loan did not go into default
2. *High-powered incentives*, which gave officers a small payment for approving loans that were still being repaid nine months after their approval and charged them for loans that had defaulted
3. *Origination bonus*, which paid officers for every loan they made regardless of its performance

Loan officers received a one-on-one introduction to the incentive structure and completed a short questionnaire to their verify comprehension. They were then asked to evaluate six loan applications, and make a recommendation about whether they should be approved. Loan officers reviewed applications using a customized software interface that reproduced each section of a loan application on a separate tab: a description of the applicant' s business, balance sheet, trade reference, site visit report, document verification, and a credit bureau report if available. While reviewing this information, participants were asked to assess the applicant' s credit risk using a form adapted from a leading Indian commercial bank, with categories for personal risk, business risk, management risk, and financial risk. At a random subset of these sessions, one of three additional variations in the incentive structure was implemented. These variations tested whether deferring performance payments by three months, making loan officers partially liable for granting unprofitable loans, or making them spend a small stipend to gather application information would change their responses to their assigned incentive structures.

Results and policy lessons

Impact of incentives: Incentives that both rewarded loan performance and penalized default led loan officers to exert greater screening effort, approve fewer riskier loans, and increase profits per loan, while leading only to a small reduction in lending volume. Compared to low-powered incentives, that only rewarded loan performance, loan officers with high-powered incentives viewed 0.4 additional application sections when there was no charge for viewing application information and between 0.8 and 1.2 more sections when information was costly. Yet, deferring compensation by three months significantly weakened the impact on screening effort by between 5 and 14 percent. Because officers receiving high-powered incentives approved fewer riskier loans, the profit per loan increased by US $149 to US $176, or 5 percent of the median loan size. These results suggest that incentives that penalize loan officers for defaults in addition to rewarding them for performing loans can improve both the quality of loan origination and profitability.

Impact of origination bonuses: Compared to low-powered incentives that rewarded loan performance, origination bonuses had no effect on screening effort, and led loan officers to approve more loans and systematically inflate their assessments of loan quality. Loan officers facing incentives that rewarded every loan originated were 8 percentage points more likely to approve a given loan than those facing low-powered incentives. This provides evidence for the hypothesis that incentives based on volume can lead to lower quality origination. Using a risk rating system that assigned higher scores to loans of lower risk, loan officers who were offered origination bonuses systematically inflated loan risk ratings by 0.16 standard deviations on average. This suggests that monetary incentives that reward loan volume did not merely increase the propensity to take on risk, but also distorted loan officers' perceptions of credit risk, such that they systematically perceived lower-quality loans to be of higher quality than loan officers paid based on loan performance.

Cole, Shawn, Martin Kanz, and Leora Klapper. "Incentivizing Calculated Risk-Taking: Evidence from a Series of Experiments with Commercial Bank Loan Officers." Harvard Business School Working Paper, July 2012.