J-PAL
ABDUL LATIF JAMEEL POVERTY ACTION LAB

Moral Incentives to Increase Credit Card Repayment in Indonesia

Researchers:

Leonardo Bursztyn

Stefano Fiorin

Daniel Gottlieb

Martin Kanz

Sector(s): Finance

Location: Indonesia

Sample: 12,104 late-paying Islamic credit card holders

Target group: Adults

Outcome of interest: Credit balance/repayment

Intervention type: Digital and mobile Incentives Nudges and reminders Monetary incentives Non-monetary incentives Credit or debit cards

AEA RCT registration number: AEARCTR-0000635

Data: Download dataset from uchicago.edu

Research Papers: Moral Incentives in Credit Card Debt Repayment: Evidence from a Field Experiment

Partner organization(s): University of California, Los Angeles, University of California, Los Angeles, Anderson School of Management, World Bank

Debt repayment is essential to the function of financial systems and it has been historically associated with issues of morality. Researchers partnered with a large Indonesian Islamic bank to evaluate the impact of sending moral appeals in reminder text messages to late-paying credit card holders. Messages stating that non-repayment of debts by someone who is able to repay is an injustice increased the number of clients meeting minimum payments, proving more effective than substantial financial incentives for repayment. A credit reputation quote emphasizing the consequences of non-repayment was another effective approach to encourage customers to pay their credit card bills.

Policy issue

Debt repayment is essential to the function of financial systems and it is typically encouraged through processes that incentivize repayment, such as credit screening, loan monitoring, and the enforcement of reputational consequences, such as limited access to credit in case of delinquency. Debt repayment has also been associated with moral issues throughout history, though little rigorous research has focused on how morality affects payment decisions. Can text messages with moral appeals increase debt repayment in Indonesia, and are moral messages more effective than financial incentives in encouraging repayment?

Context of the evaluation

Indonesia, the world's most populous predominantly Muslim country, is home to a large and rapidly expanding Islamic banking industry. Islamic banks offer a variety of financial products that comply with the principles of *Shari'a* law, which prohibit charging interest and investing in commercial activities considered contrary to Islam. *Shari'a* compliant products typically follow these religious principles by adopting a service fee contract, where customers are charged an annual membership and transaction service fees rather than a variable interest rate.

Researchers collaborated with one of Indonesia's leading Islamic banks to study the effects of sending moral appeals to customers of *Shari'a* compliant credit card. The bank's credit card is structured around a service fee contract and had approximately 200,000 customers at the time of the evaluation. Customers who do not make the minimum payment by the due date receive a text message reminder from the bank the following day. They are also given a ten-day grace period before their account is considered delinquent and reported to the Indonesian credit registry, which all banks consult before issuing credit. Even if the debt is eventually repaid, a negative entry remains on record for 24 months and generally precludes borrowing from any formal sector lender for that period of time. Additionally, delinquent customers are charged a nominal late payment fee and their card is automatically blocked. If a customer's payment remains outstanding for more than ninety days after the due date, the customer is considered in default, the card is permanently blocked, and the account is closed.

While the partner bank targets a relatively secular consumer segment, it is part of the Islamic banking industry, where communications with both financial and moral content are natural. The median credit card customer in the study was 41 years old, has a monthly income of Rp 5 million (USD375), has a credit limit of Rp 10 million (USD750), and had Rp 7,739,015 (USD580) of credit card debt.

A girl looks at her phone in Indonesia

Photo credit: Daxiao Productions, Shutterstock.com

Details of the intervention

Researchers evaluated the impacts of sending credit card customers payment reminders with moral and financial appeals on debt repayment. The study participants comprised 12,104 credit card customers of the partner bank who were more than one week late on their minimum payment between February 2015 and April 2016. In addition to the standard reminder one day after missing the due date, customers in the intervention groups received a second message eight days after payment was due, which was two days before the end of the ten-day grace period. Participants were randomly assigned to one of eight groups:

1. *Religious moral incentive (2,244 participants)*: Customers received a second message quoting a major Sunni Islam text on the religious doctrine on repayment of debts, including key terms of Arabic origin used only in religious contexts and a reference to the Prophet Muhammad.
2. *Implicit moral incentive (1,180 participants):* Customers received the same additional quote as the religious moral incentive, but with no reference to the Prophet or the source of the quote. This message tested if the effect of a moral appeal was impacted by not having a credible religious source.
3. *Non-religious moral incentive (1,186 participants):* Customers received the same additional quote as the religious moral incentive, but with no reference to the Prophet or the source of the quote. The message used the standard Indonesian word for injustice, rather than the corresponding term of Arabic origin. This message tested whether receiving a moral statement without a religious connotation affected the repayment decision.
4. *Simple payment reminder (1,362 participants)*: Customers received a neutral payment reminder with no references to the moral or financial implications of nonrepayment. This message tested if effects on repayment were driven by receiving any type of reminder, rather than the moral appeal in particular.
5. *Religious prompt (1,000 participants):* Customers received a message with a religious quote taken from the same source used in the moral incentive intervention but no reference to financial matters or debt payment. This message tested if religious priming drove effects on repayment, rather than the moral appeal.
6. *Cash rebate incentive (336 participants):* Customers received a second message in which they were offered a fifty-percent rebate of their minimum payment to be credited on their next statement in return for making a payment before the repayment deadline.
7. *Credit reputation incentive (2,000 participants):* Customers received a reminder that late-paying customers will be reported to the Indonesian credit registry, affecting future access to credit.
8. *Comparison group (4,120 participants):* Customers received no additional reminder.

Researchers tested whether the customers who received the additional reminders made their minimum payment by the end of the grace period. They also conducted a follow-up intervention to determine if the moral message only worked the first time it was sent as it may have provided new information. Customers who had previously received a moral message and were late on a second payment two months or one year after receiving the first message were randomly assigned to either receive another moral message (448 individuals) or serve as the comparison group (450 individuals), and receive no additional message.

Researchers used administrative bank data on customer account characteristics such as age, gender, monthly income, and repayment behavior, as well as data collected from phone surveys for metrics like religiosity, or preferences for receiving similar text messages in the future.

Results and policy lessons

Both moral and credit reputation messages increased repayment rates, however, cash rebate messages did not. Moral appeals increased repayment rates regardless of whether or not they appealed to religious belief. Reputational messages increased repayment rates more than moral appeals. Amongst customers who were late on a second payment, receiving a moral message a

second time increased repayment rates as much as the first message.

Repayment: Customers who received moral appeals were 5 percentage points more likely to meet minimum payments, an 8 percent increase relative to the comparison group where 66 percent of customers were late on their payments. The impacts on debt repayment were the same regardless of gender, age, religion, or whether customers had delinquent payments in the past year. However, the effect on repayment was greater for those who owed less relative to their income, suggesting that financial constraints moderated the impact of messages. Cash rebates equal to 50 percent of the customer's minimum payment had no impact on the individual's repayment behavior. By contrast, customers who received the reputational messages were around 10 percentage points percent more likely to meet minimum payments than customers in the comparison group (a 15 percent increase relative to 66 percent rate in the comparison group). Highlighting the consequences of non-repayment on future ability to obtain credit increased repayment rates by 63 percent more than receiving moral appeals.

Second repayment: Amongst customers who received a moral appeal in the past and were late on their repayments a second time, receiving the same moral appeal once more increased repayment rates by about 4 percentage points relative to the comparison group, an effect that was similar in size to the first moral message's impact.

Informational content of messages: The effect of the moral messages was not driven by a reminder effect, the religious connotation of the message, nor the provision of new information. Customers who received a basic reminder that made no reference to morality or religion (simple payment reminder group) were as likely as the comparison group to repay their debts, ruling out the hypothesis that the moral message worked simply as a payment reminder.

Religious messages unrelated to debt repayment (religious prompt group) had no impact on repayment, and the three variations of the moral message (religious, implicit, and non-religious), with or without the religious component, had nearly identical impacts on debt repayment, indicating that the pure moral statement was sufficient to increase repayment. The fact that messages that contained new information (simple reminder, religious prompt, and cash rebate incentive) did not affect repayment suggests that moral appeals did not increase repayment by conveying new information to customers.

Convenience for customers and the bank: Eighty percent of customers who received either the simple reminder or a moral message stated they would like to receive the same message again. Further, sending a moral appeal did not negatively affect the bank by reducing card usage or transaction volumes.

Taken together, results suggest that a moral appeal increased debt repayment by highlighting that failing to make a payment violates a moral norm, without negative consequences for banks and their customers. While cash rebates did not lead to the same results, a credit reputation quote that emphasizes the consequences of non-repayment was even more effective in inducing repayment rates.

Bursztyn, Leonardo, Stefano Fiorin, Daniel Gottlieb, and Martin Kanz. 2019. "Moral Incentives in Credit Card Debt Repayment: Evidence from a Field Experiment." *Journal of Political Economy* 127, no. 4 (August): 1641:1683. doi: https://doi.org/10.1086/701605
.