



THE FLETCHER  
SCHOOL

TUFTS UNIVERSITY

**Changing Credit Card  
Statements:** Improving financial  
decisions by redesigning credit  
card statements in Brazil

---

FLPFI RESEARCH BRIEF



The Fletcher Leadership Program for Financial Inclusion (FLPFI) works with policymakers and regulators to design innovative and inclusive policies. The Research Brief Series is an integral part of the Eight Question Method for Policy Development (8QM), the core of the FLPFI curriculum.

## EXECUTIVE SUMMARY

This brief presents the findings of an online experiment that was conducted in Brazil in 2021 with the financial and technical support of FLPFI. The research project was designed and directed by the Central Bank of Brazil (BCB) in partnership with Plano CDE. To run the experiment, the research project conducted a survey through an online panel. The **3,022 participants were allocated into either control or one of two treatment groups and were exposed to different credit card statement prototypes.**

**Results show that a better-organized credit card statement with simplified language has the potential to lead consumers to better payment decisions.**

Respondents in treatment groups, when asked to choose an amount to pay, decided to pay a higher percentage of the hypothetical bill compared to the control group.

Additionally, **a simpler statement can enhance the capacity of people to understand the information provided.** The participants of the control group got on average only 4.5 correct answers out of 14; for the treatment groups this average was 6.6 and 6.8. **Taking education levels into account, the effects were even higher on respondents with lower levels of formal education.**



Credit cards are the most expensive type of credit in Brazil with average annual rates over 300%. Overindebtedness related to credit card debt particularly affects lower income individuals.

The research evaluates how the design of credit card statements can affect the understanding and the behavior of credit card holders in Brazil.

## BACKGROUND

Credit cards are the most used means of credit by the Brazilian population, due to the easy access this instrument provides. Approximately 65 million of citizens (nearly 40% of the adult population) use them and more than 200 million credit card operations are issued monthly. On average, households have approximately 30% of their debt due to credit cards.

The use of this financial product becomes a concern in some cases. For example, some users do not pay the full statement value and either use revolving credit or make installment payments. These types of credit are the most expensive in the country, with average annual rates over 300%, and particularly affects individuals earning less than the income equivalent to two minimum wages. One hypothesis is that this high amount of revolving credit is linked to the complexity of the credit card, along with confusing statements and users' low financial education level.

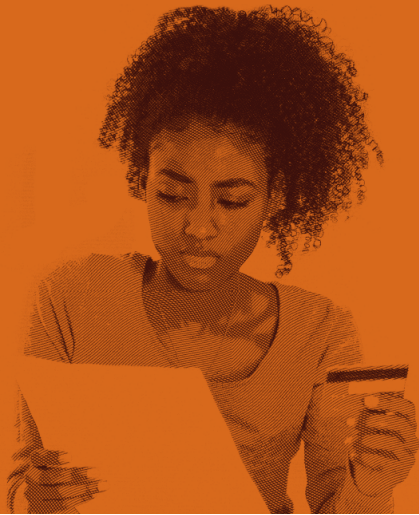
Evaluating how credit card statements influence the understanding and the behavior of cardholders in Brazil will provide evidence to inform the ongoing discussion on credit card statements.

The experimental design allowed us to test behaviorally-informed solutions against existing layouts of credit card statements. The experiment provided valuable insights into how cardholders understand different statements and how the information displayed influences their decisions.

## RESEARCH QUESTION, SAMPLE SELECTION, AND METHODOLOGY

**The experiment aimed to assess if using credit card statements with simplified language and a different design helps individuals make better financial decisions.** The main idea is that information conveyed by credit card statements tends to be presented in a technical and confusing way, which limits individuals' understanding and provides incentives for lower repayments. Therefore, by simplifying the statements, one expects people to better understand the use and risks of this financial product. By reorganizing it, one expects to provide additional incentives for higher repayments, thereby reducing the costs from interest and fees consumers usually incur.

To assess these hypotheses, individuals were randomly allocated to either a control group or one of two treatment groups.



The study used an RCT to assess whether being exposed to different statements had an effect on financial decisions.

The study consisted of 3,022 participants from all Brazilian States and the Federal Capital. Participants were allocated into either control or one of two treatment groups and were exposed to different credit card statement prototypes. The treatment groups saw statements with improved designs to convey information in a simpler way.

The control group received a statement that is similar to standard credit card statements in Brazil.

Treatment group 1 viewed an improved statement that partially changed the design and wording of the document to convey better financial information related to the costs and fees of credit cards. Treatment group 2 incorporated these same changes and additionally highlighted the lowest interest payment options (salience).

All statements were based on the same information, and the same hypothetical fees and charges.

Two hypothetical scenarios were put in place for the participants to make their repayment decisions. In one scenario, they had money to pay the whole bill, therefore did not need to use revolving or installment credit. In the second one, they did not have enough balance and had to choose between repayment options with debt. Questions about the understanding of the statement and repayment consequences were also asked in the intervention.

Aside from the main intervention related to credit card statements, a second experiment was conducted during this study. The second intervention consisted of testing if anchoring or default could affect decision-making when fulfilling financial obligations. For this purpose, half of the participants of the control and treatment groups were randomly allocated to different payment screens. The control group for this intervention saw a form filled with the value '0.00' when deciding the amount of the payment they were willing to make. In turn, the intervention group received a prefilled payment form that showed the total amount of the credit card bill or the maximum amount available for them to make the payment.

This second intervention was focused on anchoring and pre-filled payment screens. The idea is that pre-filling amounts can nudge individuals to higher repayments, reducing fees and interests associated with the use of the financial product.



The experiment demonstrated that participants who viewed treatment statements had a better understanding of the information presented and were better equipped to identify the consequences of using revolving credit or installment repayments.

## DATA

The online panel system selected a balanced sample based on age, gender, and socioeconomic status quotas. We collected experimental measures from those eligible to participate until 3,022 observations were reached. From this sample, 1,008 participants were randomly allocated to the control group, 1,008 to treatment group 1 and 1,006 to treatment group 2. We did not find significant differences among the treatment and the control groups before the intervention.

Participants provided demographic information at the beginning and end of the survey as well as information on financial literacy and selected financial behavior. Statements were customized to adjust the balance to the income level reported by the respondent in the demographic data collected. The scenarios for repayment decisions were presented to respondents after the initial demographic questions and were also customized based on reported income. All respondents were asked to decide on repayment in two different contexts: one where it was feasible to repay the full amount and another where it was necessary to choose from one

of the debt-based repayment options on the statement, either revolving credit or installments. For the last scenario, we also asked the reasons for choosing that option. After answering the decision-making questions, participants were exposed to questions about the understanding of costs and fees of credit cards. Anchoring and default effects were also tested at the repayment decisions screens, as explained previously.

## KEY FINDINGS

The experiment demonstrated that participants who received the treatment statements showed a better understanding of the information presented and were better equipped to identify the consequences of using revolving credit or installment repayments. While for the control group the average of correct answers were 4.5, for the treatment group 1 the average was 6.6 and for treatment 2 it was 6.8, out of a total of 14 questions. Additionally, when asked to make a financial decision, the **treatment groups performed better, with participants of treatment groups deciding to pay, on average, 3.9 percentage points more than compared to the control group**, in the scenario where they



Taking the level of education into account, the effects were even higher for respondents with lower levels of formal education.

This shows that adopting a redesigned credit card statement that conveys information clearly might further impact those with a low education level and low income.

did not have the full amount of money to pay for the whole bill. This was a statistically significant difference.


Basic information, such as the total amount due and credit limits, presented high percentage of correct answers in both the control and treatment groups, with slightly, but statistically significantly, higher rates for the treatment group. For “total amount due”, 75% of the control group had the correct answer, while 78% of the treatment group had the correct answer. Additionally, the difference of correct answers for credit limit used was 14p.p, 55% of correct answers from the control group and 69% from the treatment group.

**When asked about the total cost with interest associated with the revolving credit option, the difference between groups was exceptional. In the control group only 1% of the respondents provided the correct answer, while in the treatment groups, the rate was 34%.** Questions regarding the consequences of installment repayments also showed differences between the groups, having the treatment groups have significantly higher levels of correct answers compared to the control group.

Taking the level of education into account, the **effects were even higher for respondents with lower levels of formal education.** Therefore, we concluded that adopting a behaviorally-informed credit card statement might further impact those with a low education level and low income.

Another analysis made was the time respondents took to give answers for the set of 14 questions on costs and fees associated with the cards. Overall, the treatment statements significantly reduced the time needed to answer the entire set. We were able to observe significant differences in 8 of the questions. From these, in 6 of the questions the treatment group answered faster and in 2 they took more time to give the answer. In all of them, the treatment groups provided more correct answers.

Two hypothetical scenarios were put in place for the participants to make their repayment decisions. In one scenario they had money to pay for the whole bill, and therefore did not need to use the revolving or installment credit. In the second one, they did not have enough balance and had to choose between repayment options with debt. In both scenarios, the effect



A second intervention assessed if prefilling payment stubs had an effect on payment behaviors. On average, participants whose payment stub was prefilled with the total amount of the bill were more likely to repay a higher amount of the bill, decreasing interests and fees incurred.

On average participants with the prefilled stub paid 91% of their bills, which is 14.6 percentage points higher than those in the control group.

of treatment was measured in percentage points, and the effect was considered positive when people decided to repay higher amounts. In the first scenario, the treatment group had a 2.8 percentage points effect on average: the participants of the control group decided to pay, on average, 82% of the bill and those in the treatment groups decided to pay, on average, 85% of the bill. In the second scenario the size of the effect was 3.9 percentage points, as the participants from the control group decided to pay, on average, 38% of the bill and those in the treatment groups decided to pay, on average, 42% of the bill. Both were statistically significant.

Finally, the default/anchor effect that we introduced on the payment screens also showed positive effects on the repayment decisions. In the first scenario, those who had the answer box prefilled with the total amount (treatment group) decided to pay, on average, 91% of the bill, while

the respondents in the control group decided to pay, on average, 77% of the bill, an effect of 14.6 percentage points. In the second scenario, where they did not have enough money to pay for the full card balance, the treatment group decided to pay, on average, 42% of the bill while the respondents in the control group decided to pay, on average, 39% of the bill, an effect of 3.1 percentage points.

**The results of this experiment confirmed that minor changes in the way information is conveyed on a credit card statement, and clear and organized information offered to the financial consumer, have the potential to enhance understanding about financial products and incentivize better financial decisions** that could contribute to a better usage of credit cards and, ultimately, the reduction of over-indebtedness.

---

## Acknowledgement

The Central Bank of Brazil's Department for Financial Citizenship Promotion is deeply grateful to Plano CDE and to the Central Bank's Conduct Supervision Department.