#### Discussion: "Why are small businesses slow to adopt profitable opportunities?"

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## Summary

- Question: why are firms slow to adopt profitable opportunities?
  - "Managerial inertia"; "stickiness in organizational structure and practices"
  - Many underlying factors and vary by context, more so in developing countries?
  - Understanding why helps us to think about remedies  $\rightarrow$  policy implications
- This paper explores 3 channels:
  - Present bias
  - Limited memory
  - Lack of trust
- And these channels may further interact...
  - For example, remedies against present bias and limited memory (i.e., deadlines and reminders) may be less effective if trust is lacking

## The Experiment

- Partner with a FinTech payment provider in Mexico
  - → 33,798 existing clients who are active clients of the firm
- The Opportunity: <u>a lower merchant fee</u> for each payment received
  - Two levels of reduced fee amount; registration cost is very minimal
- Adoption is far from perfect!
- To shed light on the potential barriers/channels, experimentally vary:
  ➢ Deadlines: no deadline, 1 week vs. 1 day → present bias
  ➢ Reminders: no reminders, unanticipated vs. anticipated → limited memory; lack of trust
- Interpret the experimental results through a theoretical model
  - E.g., what do we expect to see w and w/o deadlines if firms are present biased, and hence can we falsify the hypothesis that firms are present biased?

### Main Comments

- A lot to like about this paper:
  - The empirical setting is very rich: RCT + admin data + survey
  - Experiment is very nicely executed with a number of different arms
  - Interpretation of the results is guided by a theoretical framework
  - (Structural estimation forthcoming?)
- Main comments and suggestions:
  - 1. Understanding the context/sample better
  - 2. Organizing/Streamlining the experimental findings
  - 3. A microfoundation of the trust channel

### 1. Understanding the context/sample better

- The sample of 33,798 firms: top quartile in terms of average monthly sales
  - Already large & active clients of the FinTech firm → trust issue is less binding?
    Esp. registration required the same information already submitted
- That said, still quite a lot of heterogeneity even among the top users:



- Value of the offer very much depends on the amount of transactions through the provider
- In particular, the amount of transactions through the provider as a share of total transactions
  - Check the correlation between the absolute amount of transactions and the percentage of transactions
  - Explore this heterogeneity among firms

## 1. Understanding the context/sample better

- Explore the baseline **administrative data** patterns more
- First, do firms appear to make suboptimal decisions?
  - Two types of rate charges: a fixed rate and sliding scale
  - Identify firms who make suboptimal decisions (to different degrees) who are they (in terms of sector, age, size, other characteristics?)
  - Can examine if these firms are also less (or more?) likely to respond to various remedies offered under the experiment
- Second, how well-informed firms are about their current rate and hence the perceived value of the new offer?
  - In some sense, the value of the offer is really the "difference" between the new offer rate and their perceived current rate (or, new offer rate – current rate, if perceived rate is not observed for the full sample)

## 2. Organizing the experimental findings

- Challenge: many treatment arms 1+ 2 X 2 X 3 + 2
  - 1 control: no offer
  - 2 offer levels: 3% or 2.75% (better to use the difference?)
  - 2 deadline groups: no deadline and deadline at end of the 8<sup>th</sup> day
  - 3 reminder groups: no reminder, unanticipated reminder on the 7<sup>th</sup> day, anticipated reminder on the 7<sup>th</sup> days
  - +2: 1 day deadline, no reminder, 3% or 2.75%
- Many ways to dissect the subgroups: main effect + potential interactions
  - More rationale for the specific cross randomizations would be useful
- Suggest one way to organize the results
  - Reflecting my main takeaways at this point

# First, overall take-up rates of the offers is far from being perfect

• Without any remedies (equivalence of Figure 5)



- Alt Treatment definition by the difference between new rate and current rate (or perceived rate)
- Examine heterogeneity across firms:
  - By the absolute or percentage amount of transactions/sales volume
  - Those who were making more or less suboptimal decisions at baseline
- Can also look at the "intensive" margin of takeup:
  - Amount of transactions through the payment technology → better understanding the "gains"
  - Qn: any qualitative evidence on what other types of payment technologies firms are switching away from? And to what extent this represents an overall increase in sales volume?

## Second, deadline does not increase takeup...

- Focus on the deadline-only groups (no reminders): no deadline, 1-day deadline, 8-day deadline
  - This jump in the graph below is due to the reminder effect
- Again can explore heterogeneity in terms of the actual "size/attractiveness" of the offer to the recipient
  - Behavioral issues may be less of a binding constraint when the opportunity becomes more attractive?



- Experimental finding: deadline does not increase takeup during the first 8 days, and seems to have decreased takeup in the longer term.
- This may not be sufficient to rule out present bias because the result is a combination of "overcoming present bias" (increase takeup) and "having bad cost draws during the short active period of the offer" (reduce takeup)
  - Comparing the 1-day versus 8day deadline groups may help

Third, reminders significantly increase takeup, and the effect persists in the longer term

• Focus on the reminder-only groups (no deadlines): no reminder, unanticipated reminder and anticipated reminder



### Zooming into the different reminders...



- No (negative) effect of the anticipated reminder on day 1:
  - Interpretation: since we've seen that firms are forgetful (from the main effect of reminders), then if firms rationally anticipate that, knowing that there will be a future reminder should decrease initial take-up. The fact that we don't see such initial decrease suggests firms are over-confident about their memory.
- Two suggestions:
  - This may be most salient for the deadline groups can check that?
  - The comparison group here can include the no reminder group as well
- Could it be that firms did not pay attention to this information about the future reminder?
  - Survey evidence? Heterogeneity by the amount of time spent reading the offer?

### Zooming into the different reminders...



- Higher post-reminder takeup among the anticipated group compared to unanticipated:
  - Interpretation: an increase in trust upon receiving the anticipated reminder
- Effect seems to kick in before the reminder?
- Since this is the key to establish the trust story, I would explore more robustness:
  - Robust across different deadline groups and offer level groups?
  - Robust across various sectors of firms?
- This story requires firms to be somewhat skeptical about the initial offer but yet pay attention to the details of the offer and remembering about the future reminder mentioned in the initial offer.
  - Explore the length of time spent reading the offer email?

## 3. A microfoundation of the trust channel?

- Conceptually, why do we think that receiving an anticipated reminder would boost trust level?
  - Based on the qualitative survey evidence, it is (mis)trust about "who" sent the offer, rather than whether the offer is genuine
  - Currently modeled in a "reduced-form" way
- Can imagine a signaling model with different types of sellers, and in equilibrium, only the honest type would choose to send/fullfil anticipated reminders
  - Perhaps because of differences in costs or returns?
- Understanding this will help to generalize the findings to other contexts – how to design such reminder systems to increase takeup

### Conclusion

- A paper that goes after an important question
- Very rich empirical context and well-executed experiment
- Further streamlining the results to highlight the main takeaways
  - A lot of promising directions the authors can explore with the data
- Further tightening the link between theory and empirics:
  - Use the model to motivate all the cross-randomization arms, and to think about all the potential interaction effects
  - Provide a microfoundation to understand the trust channel