

A Bank on Every Corner:

Relationship Contracting and Firm Dynamics

Daniel Ehrlich (UChicago)
Vishan Gandhi Nigam (MIT)

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Motivation

- ▶ Retail firms are one of the largest sources of short-term consumer credit in India
 - ▶ CMIE
 - ▶ IHDS
 - ▶ NSS
- ▶ Firms view the bundling of credit and goods as a key source of comparative advantage
 - ▶ Credit Provision
- ▶ Why does bundling of credit and real goods occur? And what are the implications on firm dynamics and consumer welfare?

Historical Parallel in the United States

The credit score and the credit card were **invented** to solve this exact friction

*The extension of trade credit was **common**, and merchants traditionally **relied on soft information** accumulated over time and through repeated personal interactions to make their credit decisions...*

(Liberti and Petersen 2018)

Results preview

Empirical Results:

- 1) Smaller firms have a comparative advantage in learning + enforcing private information
- 2) Private Information + Bundling \Rightarrow Market Power

Four Sources of Data

- 1) Household consumption surveys
 - ▶ CMIE Consumer Pyramids Household Survey
 - ▶ NSS Debt & Investment Survey
 - ▶ India Human Development Survey
- 2) NSS Unincorporated Enterprise Survey, Economic Census
- 3) Our own firm-level survey of retail firms
- 4) Transaction level data on trade credit from a financial platform

Data: App transaction records

- ▶ In place of a paper book/ledger (*khata*), firms can use a Google Play Store app ('the App') to keep accounts and send SMS reminders to customers
- ▶ We have a sample from one district: Rajsamand, Rajasthan
 - ▶ 30k firms → 300k accounts → 4mn+ transactions
 - ▶ Main industries are kirana, fruit and vegetable, dairy, mobile recharge
- ▶ Variables:
 - ▶ Transactions (4.2mn): date, direction, text description, amount in INR
 - ▶ Self-reported defaults (1k)
 - ▶ Repayment reminders (650k)
 - ▶ Phone numbers of merchants and customers
 - ▶ Social network (phone contacts) of merchant

Data: Firm level survey

Pilot:

- ▶ Survey of 200 firms (half urban, half rural) in Delhi area from August-September 2023
- ▶ Captures extensive margin, info sources

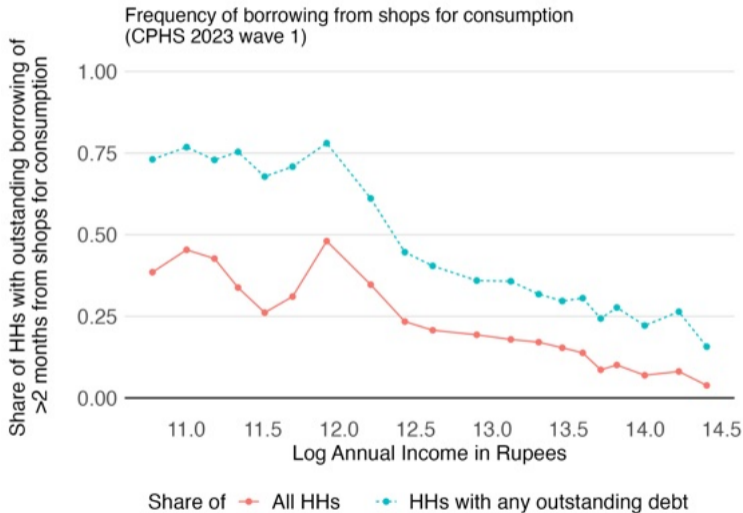
Full survey:

- ▶ In progress in Rajsamand, Rajasthan, India
- ▶ Goal: \sim 2000 firms and \sim 1000 customers on de-anonymized 'App' users

Descriptive facts

- 1) Firm size/profits are increasing in the customer base [▶ Figure](#)
- 2) Persistence of the customer base depends on the provision of credit [▶ Figure](#)
- 3) Provision of credit is decreasing in firm size [▶ Figure](#)
- 4) Firms learn customer types through repeated interactions [▶ Figure](#)

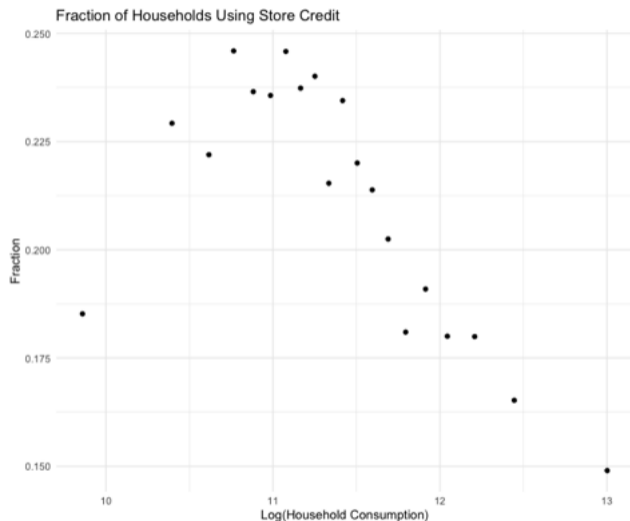
Firms are a large source of short-term consumer credit (CMIE)



Source: CMIE Consumer Pyramids Household Survey, January-April 2023

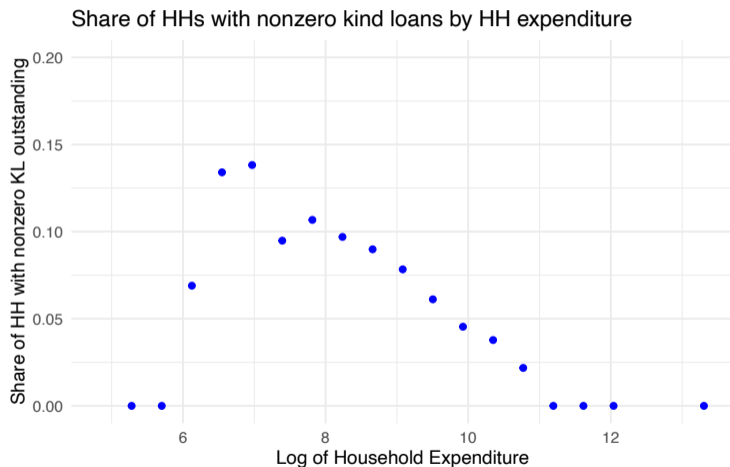
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Firms are a large source of short-term consumer credit (IHDS)



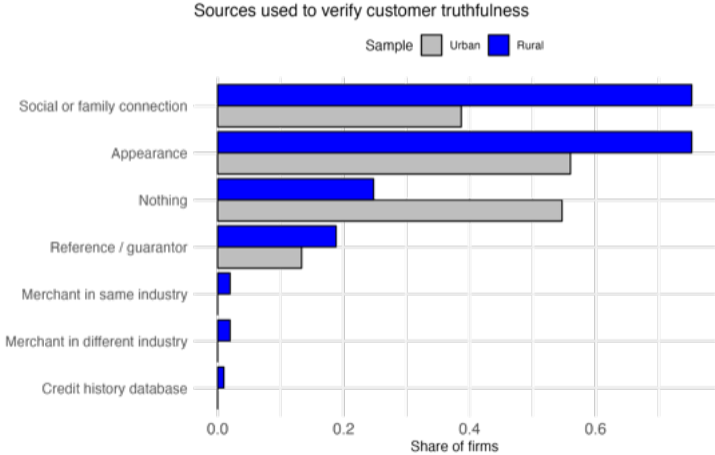
Source: India Household Development Survey [▶ Back](#)

Firms are a large source of short-term consumer credit (NSS)



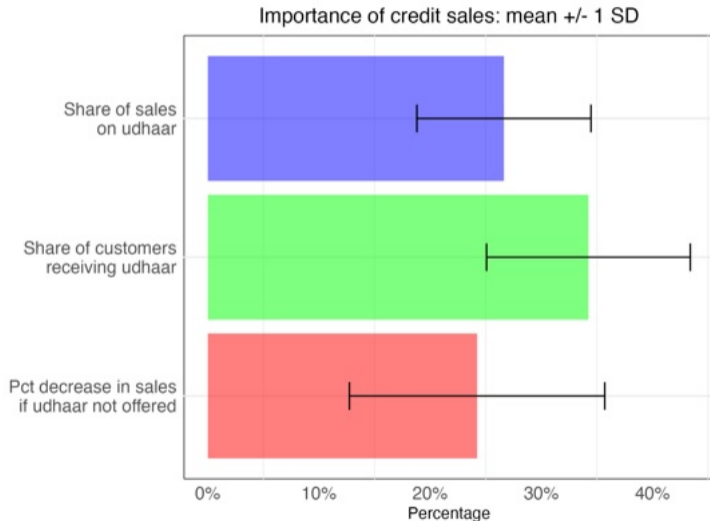
Source: National Sample Survey Debt and Investment (2019) [▶ Back](#)

Sources of Soft Information



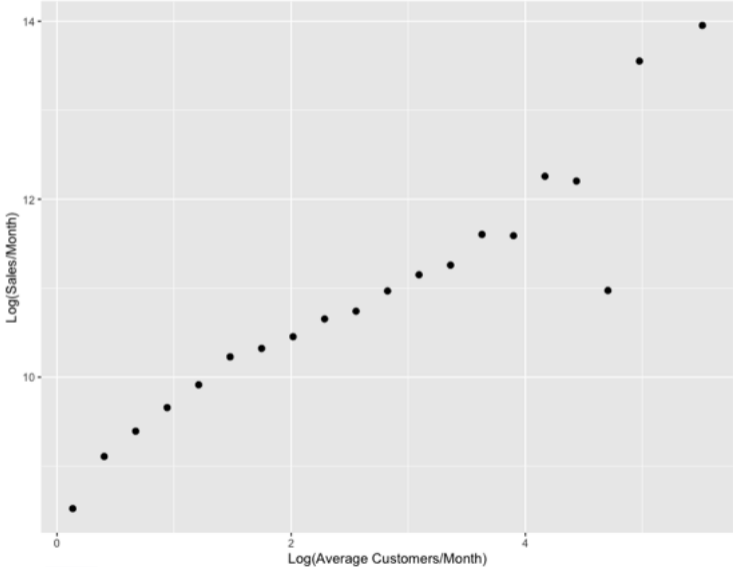
Source: Firm Survey [▶ Back](#)

Trade credit as a key service



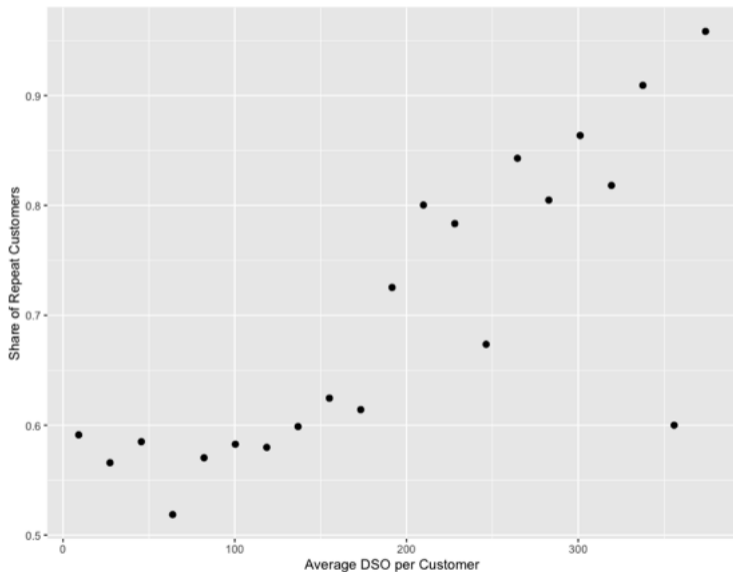
Source: Firm Survey [▶ Back](#)

Profits increasing in firm customer base



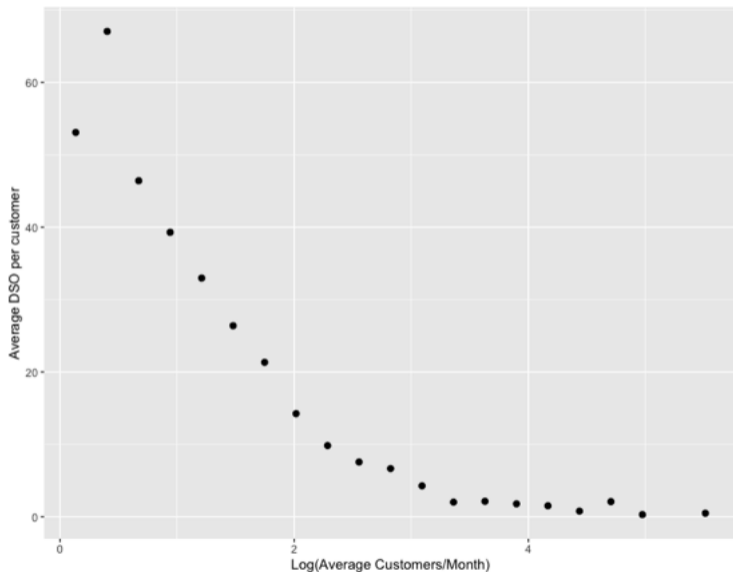
Source: App Data [▶ Back](#)

Customer retention varies with trade credit



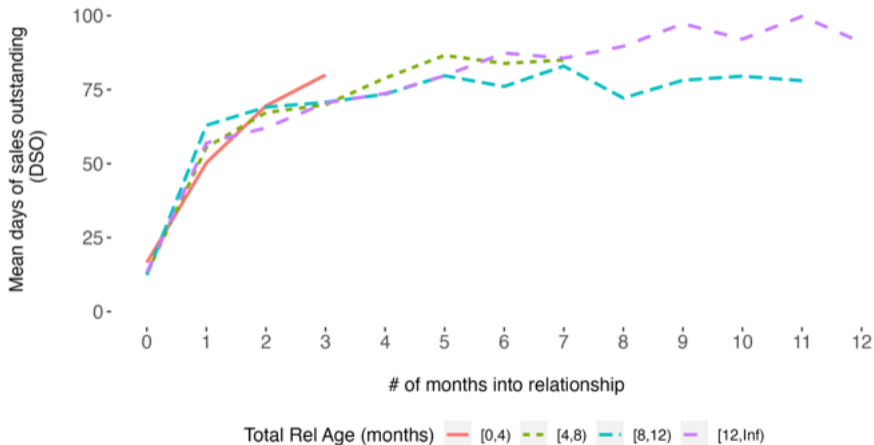
Source: App Data [▶ Back](#)

Trade Credit decreasing in firm size



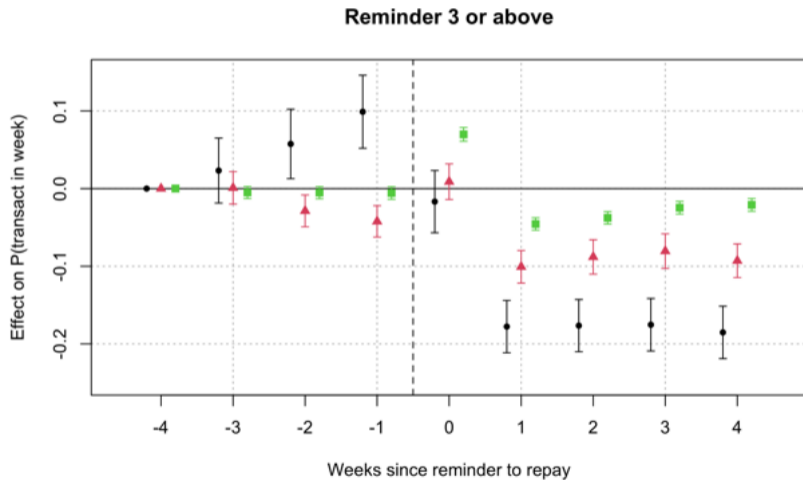
Source: App Data [▶ Back](#)

Trade credit offered grows slowly over time



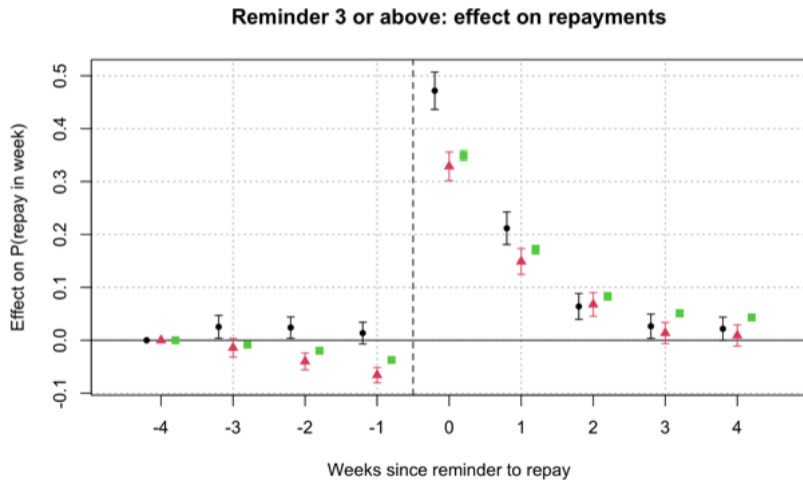
Source: App data, relationships initiated 1/1/2020-4/1/2022

Learning after relationship-shock



Source: App data [▶ Back](#)

Learning after relationship-shock



Source: App data [▶ Back](#)