# Skills, Practices, and Aspirations of Small-scale Entrepreneurs in Low-income Settings

Julius Rüschenpöhler

UC Berkeley, CEGA

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# Lecture Overview


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*Business Practices*
- Business Practices Around the World
- Classical MSME Training
- Extensions of the Classical Approach
- Measurement of Firm Performance
- Mechanisms
- Alternative Approaches

2 **PART II: Paper**
*Curating Local Knowledge*

# ?

- Bloom and van Reenen (2010, 2019): Business practices, motivation

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# Heterogeneity in Business Practices

- Bloom and van Reenen (2010): Heterogeneity

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- Bloom and van Reenen (2019): Correlation with productivity

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# Business Practices of Small Firms

- McKenzie and Woodruff (2009, 2017): Heterogeneity and predictiveness

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# Business Practices of Small Firms

- McKenzie and Woodruff (2009, 2017): Example categories and practices

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# Best Practices for Small Firms

- McKenzie and Woodruff (2017): Portable best practices

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# History and Prevalence

- At least USD 1 billion per year (to 4-5 million beneficiary entrepreneurs; McKenzie, 2020)
- Classical training programs *precede* evidence that business practices vary and are predictive for productivity
- Examples:
  - Start and Improve Your Business (ILO)
  - Business Edge (IFC)
  - EMPRETEC Entrepreneurship Training Workshop (UNCTAD)

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# Typical Training Program

- Content

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# Typical Training Program

- Delivery

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# Impact on Businesses

- First wave (Karlan and Valdivia, 2011, Field, et al., 2010; Bruhn & Zia, 2013; Bulte et al., 2017; Anderson, Chandy, and Zia, 2018)

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# Impact on Businesses

- Econometric and implementation issues (McKenzie and Woodruff, 2014)

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# Impact on Businesses

- Recent evaluations (McKenzie, 2020)

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# Targeted Training

- Female entrepreneurs

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# Targeted Training

- Young entrepreneurs

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# Targeted Training

- Gazelles

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# On-site Consulting

- Bloom, et al. (2013); Karlan et al (2015); Bruhn, Karlan & Schoar (2019)

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# On-site Consulting

- ?

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# Complementary Constraints

- McKenzie cash JDE paper

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# Imprecision of Outcome Measures

- Confidence Intervals, pic?

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# Reliability of Self-reports

- Self-reports of aggregate

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# Reliability of Self-reports

- Disaggregating quantities in self-reports

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# Reliability of Self-report

- Direct measures

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# Sales vs. Profits

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# Heterogeneity of Impact

- Heterogeneity of treatment effect poorly understood across different approaches
- Potential constraints are manifold, and likely context-dependent

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# Education and literacy

- Drexler, Fischer & Schoar (2014)

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# Family Commitments

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# Identity Concerns

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# Aspirations

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# Local Relevance of Best Practices

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# Rules of Thumb

- Drexler, Fischer & Schoar (2014)

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# Local Knowledge

- Cai and Szeidl (2019), Brooks et al. (2018), Lafortune et al. (2020), Seither (2020), Abebe et al. (2020)?

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# Role Models

- La Ferrara et al. (2012); Chong and La Ferrara (2009); Berg and Zia (2013); Riley (2018)

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# Questions

- Any questions?

  .. before we move on to our paper?

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# Curating Local Knowledge

## Experimental Evidence from Small Retailers in Indonesia

Patricio S. Dalton[1] Julius Rüschenpöhler[2] Burak Uras[1] and Bilal Zia[3]

[1]Tilburg University

[2]UC Berkeley, CEGA

[3]The World Bank

March 04, 2021

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- Motivation
- Our Approach
- Data and Design
- Results
- Discussion
- Conclusion

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# Background

- Micro & Small firms (MSEs) main source of employment in the developing world
- In Indonesia, MSEs represent 99% of all firms and 94.5% of employment
- Understanding the factors fostering efficiency and growth of MSEs is an important research and policy goal

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# A Growing Focus on Management

- Classroom Training: Field, et al. (2010); Karlan & Valdivia (2011); Bruhn & Zia (2013); McKenzie & Woodruff (2014, 2017); Bulte et al. (2017); Anderson, Chandy & Zia (2018); Lafortune et al. (2018)

- Consulting: Bloom, et al. (2013); Karlan et al (2015); Bruhn, Karlan & Schoar (2019)

- Mobilizing Peer Knowledge:
  - Brooks et al. (2018) $\rightarrow$ Local mentors (market information)
  - Cai & Szeidl (2018) $\rightarrow$ Business meetings
  - Abebe et al. (2019) $\rightarrow$ Management experience matching

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# Harnessing Cross-Firm Heterogeneity

- Some facts about business practices in firms:
  - Vast heterogeneity in business practices and performance across similar businesses (de Mel, McKenzie & Woodruff, 2009)
  - Variation in practices accounts for more than 20% of variation in productivity within the same firm in the US (Bloom et al, 2019)

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# Harnessing Cross-Firm Heterogeneity

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- Research thus far has mostly overlooked this underlying heterogeneity in design and implementation of programs

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# Harnessing Cross-Firm Heterogeneity

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  - Vast heterogeneity in business practices and performance across similar businesses (de Mel, McKenzie & Woodruff, 2009)
  - Variation in practices accounts for more than 20% of variation in productivity within the same firm in the US (Bloom et al, 2019)
- Research thus far has mostly overlooked this underlying heterogeneity in design and implementation of programs
- Our idea is to make it central to the research design:
  - Use variation across businesses to identify business practices associated with successful performance
  - Instead of teaching set courses, provide consulting, or matching; we curate what works from local peers
  - Test different communication channels and their cost-effectiveness

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# Selecting Local Best Practices

- Detailed qualitative interviews with local business peers:
  - Understand and codify their practices (record-keeping, financial planning, stocking-up, marketing, and joint decision-making)
  - Identify implementation norms and beliefs regarding each practice (e.g. whether they are complicated, necessary, etc.)
  - Document locally relevant tips and rule of thumbs
- Baseline quantitative survey
  - Measure practices and outcomes
  - Quantitative association of business practices with profits and sales

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# Disseminating Knowledge

- Handbook
  - Pure information: Which practices, how to adopt, and why?

Supplemented with two types of experiential learning:

- Movie
  - Psychological and emotional involvement→ social learning is possible through observing the successful experience of similar others.
  - Bernard, et al. (2014); La Ferrara et al. (2012); Chong and La Ferrara (2009); Berg and Zia (2013).

- On-site Assistance
  - Hands-on involvement → social learning is possible through own experience, with a small nudge (Kolb, 1984).
  - Facilitated by local lay person

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# Research Questions

- Adoption
  - Do retailers adopt these practices once peer best practices are aggregated and made common knowledge?
  - If so, ...
    - Does the type of experiential involvement matter?
- Impact
  - Does firm profitability increase?
  - If so, what are the channels?

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# Sample

- Listing of 2042 small retail businesses from 29 administrative communities (Kelurahan) in urban Jakarta
- Selection criteria for firm listing:
  - At least $4m^2$ in size
  - At least two different product categories on offer
  - At least 30 meters distance to next business in sample $\rightarrow$ to minimize spillovers
- Random sample of 1301 from the list
- Randomization to treatment arms stratified by
  - Gender
  - Firm space (4-6$m^2$, 6-10$m^2$, 10 and above $m^2$)
  - Composite score of business practices above or below median
  - Kelurahan

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# Experimental Design

- Three types of information provision:
  - Handbook with best practices and tips
  - Movie with successful peers
  - Best-practice on-site implementation assistance
- Five experimental groups
  1. Handbook only (N=260)
  2. Handbook and invitation to movie screening (N=260)
  3. Handbook and offer of two assistance visits (N=260)
  4. Handbook and both movie and assistance (N=260)
  5. Control (N=261)

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# Timeline

1. September 2015: Qualitative Interviews
2. January 2016: Firm listing ($\rightarrow$ survey instrument)
3. Feb-Apr 2016: Baseline survey
4. Oct-Nov 2016: Interventions
5. Apr-May 2017: Midline survey
6. Apr-May 2018: Endline survey

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# Typical Business in the Sample

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# Typical Business in the Sample

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# Best-practices Handbook

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# Handbook Content

## Why you should try these best practices in your shop

*Evidence from a large-scale study on Jakarta-based retailers*

### RECORD-KEEPING

Shop owners who keep business records report 28% higher monthly sales and 26% higher monthly profits than those who do not keep business records.

Shop owners who track their customers' debts report 40% higher monthly sales and 36% higher monthly profits than those who do not track their customers' debts.

### STOCK-UP SCHEDULING

Shops that maintain stock-up schedules earn 26% more in monthly sales and 25% more in profits than those that do not maintain stock-up schedules of their primary products.

Shops that stock up daily rather than weekly earn 48% more in monthly sales and 37% more in monthly profits.


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# Handbook Content

## A step-by-step guide to record-keeping

### Step 1: Separating household and business finances

The best way to start keeping records is by establishing a clear separation between your personal and business finances. We do not mean this in the strictest sense of keeping your business cash away from your personal life completely, rather we advise you to not lose sight of your cash flow.

The most convenient and effective way to separate your personal and business finances is by **physically separating the funds into two different cash boxes, purses, or drawers**. **Label them clearly;** use one compartment for business purposes and another for personal.

Use only your business compartment to follow this handbook from this point forward. Make sure that money in your business compartment is used only for business purposes. Be meticulous about it - this is the first step to get your finances organized!

There is an activity at the end of this section that requires an additional compartment. If you have one more cash box, purse, or drawer available, please reserve it for this activity (record-keeping, extra step).

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# Movie with Successful Peers

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# Implementation Assistance for Business Practices

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# Summary Statistics

| | Control | HB only | HB & MOV | HB & HELP | HB & MOV & HELP |
|---|---|---|---|---|---|
| | *N = 261* | *N = 260* | *N = 260* | *N = 260* | *N = 260* |
| Firm Owner Characteristics | | | | | |
| Gender (Male=1) | 0.28 | 0.3 | 0.29 | 0.3 | 0.28 |
| Age | 45.22 | 45.27 | 45.28 | 45.16 | 45.38 |
| Education (Years) | 9.1 | 9.52 | 9.36 | 9.42 | 9.55 |
| Risk Preference (0 - 10 "Perfectly Risk-Seeking") | 3.74 | 3.76 | 3.88 | 3.6 | 3.68 |
| Time Preference (0 - 10 "Perfect Patience") | 5.19 | 5.07 | 5.21 | 5.25 | 5.2 |
| Firm Characteristics | | | | | |
| Firm Age (Years) | 12.76 | 13.77 | 14.03 | 13.98 | 13.47 |
| Family Member Is Business Partner | 0.56 | 0.6 | 0.63 | 0.59 | 0.62 |
| Total Number of Workers | 2.03 | 2.05 | 1.9 | 1.99 | 2.04 |
| Business Has Tax ID | 0.2 | 0.21 | 0.2 | 0.15 | 0.18 |
| Total Sales Last Month (USD PPP) | 4454.37 | 4730.64 | 4840.55 | 4761.4 | 5139 |
| Total Profits Last Month (USD PPP) | 889.58 | 961.1 | 926.78 | 825.25 | 934.66 |
| Applied for Bus Loan in Last 12 Months | 0.2 | 0.17 | 0.15 | 0.22 | 0.17 |
| Obtained Bus Loan in Last 12 Months | 0.18 | 0.15 | 0.14 | 0.18 | 0.14 |
| Business Practices | | | | | |
| Management Practices Aggregate Score | 0.37 | 0.36 | 0.37 | 0.35 | 0.37 |
| Marketing Subscore | 0.23 | 0.23 | 0.25 | 0.23 | 0.24 |
| Stocking-up Subscore | 0.45 | 0.47 | 0.47 | 0.47 | 0.46 |
| Record-keeping Subscore | 0.33 | 0.28 | 0.3 | 0.29 | 0.3 |
| Financial-planning Subscore | 0.51 | 0.47 | 0.47 | 0.43 | 0.47 |

- Test of Joint Orthoganality from Multinomial Logit (P-value): 0.857

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# Movie: Take Up and Assessment

| | (1) | (2) |
|---|---|---|
| | HB & MOV | HB & MOV & HELP |
| | (A) | (B) |
| | *N=260* | *N=260* |
| Attendance | | |
| Business Owner or Partner Attended Film Screening | 0.52 | 0.49 |
| Evaluation (1-4 Scale): | | |
| Has Learned Something New | 3.34 | 3.21 |
| Feels Inspired | 3.31 | 3.30 |
| Feels Hopeful | 3.60 | 3.42 |
| Feels Bored | 0.83 | 0.97 |

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# Assistance: Take Up and Assessment

| | (1) HB & HELP (A) N=260 | (2) HB & MOV, & HELP (B) N=260 |
|---|---|---|
| **Attendance** | | |
| Business Owner or Partner Attended 1st Session | 0.77 | 0.78 |
| Business Owner or Partner Attended 2nd Session | 0.68 | 0.68 |
| **Evaluation (1-4 Scale)** | | |
| Has Learned Something New | 2.88 | 2.89 |
| Feels Inspired | 2.76 | 2.83 |
| Feels Hopeful | 2.88 | 2.97 |
| Feels Bored | 0.59 | 0.43 |


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# Impact on Business Practices

## Aggregate Scores

| | Record Keeping (1) | Planning (2) | Stocking-up (3) | Marketing (4) | Joint Decision-making (5) |
|---|---|---|---|---|---|
| Assigned Handbook | 0.025 | 0.027 | -0.007 | -0.011 | 0.011 |
| | (0.209) | (0.273) | (0.694) | (0.694) | (0.694) |
| Assigned Handbook & Movie | 0.057*** | 0.043 | 0.038 | 0.040 | 0.040 |
| | (0.009) | (0.107) | (0.117) | (0.166) | (0.217) |
| Assigned Handbook & Assistance | 0.065*** | 0.034 | 0.011 | 0.039 | 0.037 |
| | (0.004) | (0.166) | (0.664) | (0.166) | (0.239) |
| Assigned All Three | 0.054*** | 0.068*** | 0.053** | 0.061** | 0.059* |
| | (0.009) | (0.009) | (0.020) | (0.032) | (0.094) |
| R-squared | 0.204 | 0.192 | 0.187 | 0.150 | 0.120 |
| Sample Size | 2205 | 2204 | 2205 | 2205 | 2205 |
| Dependent Variable Mean of Control | 0.196 | 0.402 | 0.471 | 0.250 | 0.269 |
| Dependent Variable SD of Control | 0.252 | 0.310 | 0.270 | 0.320 | 0.420 |
| F-tests (p-value): | | | | | |
| Book = Book & Mov | 0.069 | 0.487 | 0.014 | 0.028 | 0.300 |
| Book = Book & Assistance | 0.025 | 0.754 | 0.304 | 0.030 | 0.348 |
| Book = All Three | 0.096 | 0.073 | 0.001 | 0.002 | 0.082 |

- Multiple hypothesis testing corrected p-values in parentheses
- ”All Three” improvement of 28 % in record-keeping, 17 % in planning, 11 % in stocking, 24 % in marketing and 22 % in joint decision making.

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# Business Profits

| | Profits last month (win 5%) (1) | Profits last month (IHS) (2) |
|---|---|---|
| Assigned Handbook | -91.307 | -0.067 |
| | (78.400) | (0.088) |
| Assigned Handbook & Movie | 110.378 | 0.055 |
| | (86.841) | (0.092) |
| Assigned Handbook & Assistance | 310.455*** | 0.261*** |
| | (89.488) | (0.096) |
| Assigned All Three | 191.088** | 0.199** |
| | (84.662) | (0.094) |
| R-squared | 0.179 | 0.211 |
| Sample Size | 2172 | 2172 |
| Dependent Variable Mean in Control Group | 894.544 | 6.817 |
| Dependent Variable SD in Control Group | 1127.783 | 1.348 |
| F-tests (p-value): | | |
| Book = Book & Mov | 0.020 | 0.167 |
| Book = Book & Assistance | 0.000 | 0.000 |
| Book = All Three | 0.001 | 0.003 |

- Profits increase by 35% (about 0.28 sd.) - ITT.


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# Business Sales

| | ITT Sales last month (win 5%) (1) | TOT Sales last month (win 5% (2) |
|---|---|---|
| Assigned Handbook | -396.976 | -417.198 |
| | (314.252) | -417.198 |
| Assigned Handbook & Movie | 335.489 | 601.221 |
| | (337.881) | (606.634) |
| Assigned Handbook & Assistance | 836.755** | 1031.692** |
| | (372.924) | (457.015) |
| Assigned All Three | 807.462** | 1558.326** |
| | (358.384) | (696.317) |
| R-squared | 0.492 | 0.483 |
| Sample Size | 2197 | 2197 |
| Dependent Variable Mean in Control Group | 4998.923 | 4998.923 |
| Dependent Variable SD in Control Group | 5623.257 | 5623.257 |
| F-tests (p-value): | | |
| Book = Book & Mov | 0.020 | 0.047 |
| Book = Book & Assistance | 0.000 | 0.000 |
| Book = All Three | 0.000 | 0.001 |

- Sales increase by 16% (about 0.15 sd.) - ITT



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# Other Outcomes

- No significant impacts on:
  - Business expenses
  - Size of the shop
  - Number of employees
  - Number of customers
  - Business credit

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# Efficiency Gains?

1. Unpacking impacts on practices shows improvements in efficiency practices:
   - Adjust stocks based on product profitability
   - Negotiate lower prices with suppliers
   - Consult with former customers
   - Offer discounts
   - Make joint decisions
   - Review financial performance to identify channels of improvement
   - Make anticipated budget for upcoming costs

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   - Make joint decisions
   - Review financial performance to identify channels of improvement
   - Make anticipated budget for upcoming costs
2. These are non-record-keeping practices. Also, variance in profits among the treated businesses does not converge
3. Causal-mediation analysis shows that the most important drivers of impact on sales and profits are stocking up and marketing practices.

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# Knowledge or Aspirations?

- Our interventions could have increased business performance and practice adoption through an increase in business aspirations rather than (or on top of) business knowledge.
- We directly measure business aspirations at baseline, midline, and endline for all shop owners in the sample.
- We elicit short (one year) and long-term (ideal) aspirations on various business dimensions:
  - sales
  - shop size
  - number of customers
  - number of employees
- No treatment effects on aspirations

→ Knowledge



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# Business Stealing?

Do treated businesses improve performance at the expense of the control?

- Sales and profits of control businesses do not decrease from baseline to endline (roughly equal)
- Sales and profits of control businesses closer to treated shops do not decrease by more than those further away

  $\rightarrow$ No evidence for business stealing

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# Cost-Effectiveness

Small costs (per firm):

- Cost Handbook alone: USD 100
- Cost Handbook & Movie: USD 125
- Cost Handbook & Assistance: USD 125
- Cost Handbook & Movie & Assistance: USD 150

Substantial Benefits

- Up to USD 330 per month in profits
- Adoption of top practices by retailers

Research design likely scalable and portable

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# Takeaways

- Curating local knowledge has value for business growth
- Information alone does not have impact, only combined with behavioral interventions
- Mechanism likely knowledge-based, not aspirations-based
- Behavioral interventions are inexpensive and scalable
  $\rightarrow$ Attractive for policy!

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