Promoting Better Business Practices and Growth in Small Firms

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Motivation

• Productivity (labor and TFP) is low in Brazil (and is falling since 2008)
  • Worse among MSMEs
  • Problem: 99% of businesses are MSMEs (2/3 of jobs)

• Large productivity gains can be obtained with adoption of existent (simple) technology such as good management practices
Puzzle

• Mgmt. practices affect productivity of firms and countries
  • Bloom et al. (2007); Bloom et al. (2013 and 2018); McKenzie and Woodruff (2015); Bruhn et al. (2018)

• Why don’t more firms have good management practices?
Lack of information seems to prevent firms from using better business practices

• Bloom et al (QJE, 2013) document two barriers to adopting better management practices
  • For the common practices, firms had heard of the practices but thought they would not be profitable to adopt
  • For uncommon practices, firms were simply not aware of these practices

• Nguyen and Nguyen’s RCT in Vietnam: providing information on the benefits of quality control leads more firms to improve their quality control, reduces defects and increases sales
Can simply providing information increase take-up rate of consulting (and firm performance)?

• Ongoing work in Brazil test if lack of information is a reason why firms don’t adopt better business practices

  • Collaborative work with the Brazilian Business Support Service to Micro and Small Businesses (SEBRAE) in Parana and Rio de Janeiro states

  • SEBRAE in business since 1972 and an important public policy player – present in all Brazilian states
The Program

• The program ‘Business to Business’ (Negocio-a-Negocio) exists since 2015 and covers the state of Parana – ~ 30k micro and small firms reached annually

• How it works:
  • Eligibility: micro (80%) and small (20%) formal firms
  • SEBRAE agent applies a face-to-face questionnaire on 29 business practices – 1 hour visit
  • 1-2 weeks later agent returns to deliver a dense 6-page (boring – see next page) report including
    • (1) Areas for improvement; (2) links to relevant SEBRAE courses; and (3) how many practices the firms is already using

• The visits happen between March and September each year
• The program targets new participants every year
Study design: Randomized Controlled Trial

- Target population: small firms (2-10 employees) from 3 regions of Parana state
- ~2000 (?) eligible firms identified in the 3 regions
- SEBRAE visited a certain number of business per week
- Stratification: number of weeks (21), whether a firm consumed any other SEBRAE service in the past, 3 regions – 82 strata in total
- 866 firms randomized into 5 groups:
  1. Control: received the status quo;
  2. Status quo + 1 pager benchmarking + invitation to participate in a SEBRAE’s event
  3. Status quo + 1 pager benchmarking + invitation to participate in a SEBRAE’s event + ‘threat’
  4. Status quo + 1 pager benchmarking + automatic enrollment in a SEBRAE’s event
  5. Status quo + 1 pager benchmarking + automatic enrollment in a SEBRAE’s event + ‘threat’
Benchmarking

‘Threat’ (perception)

Short-term (attainable) objectives

Procrastination bias
Preliminary results on take up of consulting services
Event attendance to SEBRAE’s Event

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Proportion of Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment 1</td>
<td>2.31</td>
</tr>
<tr>
<td>Treatment 2</td>
<td>1.76</td>
</tr>
<tr>
<td>Treatment 3</td>
<td>1.13</td>
</tr>
<tr>
<td>Treatment 4</td>
<td>3.37</td>
</tr>
</tbody>
</table>
Firms that **CONSUMED** a consulting service from SEBRAE after the intervention - March 2019

- **Treatment 1**: feedback + invitation
- **Treatment 2**: feedback + automatic enrollment
- **Treatment 3**: feedback + threat + invitation
- **Treatment 4**: feedback + threat + automatic enrollment

Note: treatment effects controlling for strata dummies and % of business practices adopted at baseline
Avg number of days between the intervention and contact with SEBRAE - March 2019

- **Treatment 1**: feedback + invitation
- **Treatment 2**: feedback + automatic enrollment
- **Treatment 3**: feedback + threat + invitation
- **Treatment 4**: feedback + threat + automatic enrollment

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Control</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment 1</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>Treatment 2</td>
<td>43</td>
<td>27</td>
</tr>
<tr>
<td>Treatment 3</td>
<td>43</td>
<td>42</td>
</tr>
<tr>
<td>Treatment 4</td>
<td>43</td>
<td>25</td>
</tr>
<tr>
<td>Pooled</td>
<td>43</td>
<td>33</td>
</tr>
</tbody>
</table>

Note: treatment effects controlling for strata dummies and % of business practices adopted at baseline
Firms that **CONSUMED a LOW INTENSITY** consulting service from SEBRAE after the intervention - March 2019

- **Treatment 1**: feedback + invitation
- **Treatment 2**: feedback + automatic enrollment
- **Treatment 3**: feedback + threat + invitation
- **Treatment 4**: feedback + threat + automatic enrollment

Note: treatment effects controlling for strata dummies and % of business practices adopted at baseline
Firms that **CONSUMED a HIGH INTENSITY** consulting service from SEBRAE after the intervention - March 2019

- **Treatment 1**: feedback + invitation
- **Treatment 2**: feedback + automatic enrollment
- **Treatment 3**: feedback + threat + invitation
- **Treatment 4**: feedback + threat + automatic enrollment

Note: treatment effects controlling for strata dummies and % of business practices adopted at baseline
# Heterogeneous Effects

Table – Average Treatment Effect on the Treated (ATT) for firms with # of business practices below and above the median at the baseline

<table>
<thead>
<tr>
<th></th>
<th># BP &lt;= median</th>
<th># BP &gt; median</th>
</tr>
</thead>
<tbody>
<tr>
<td>consumption of consulting services</td>
<td>0.26*** (0.047)</td>
<td>0.1 (0.064)</td>
</tr>
<tr>
<td>control mean</td>
<td>0.15</td>
<td>0.3</td>
</tr>
<tr>
<td># of services consumed</td>
<td>3.20*** (0.11)</td>
<td>-0.08 (0.69)</td>
</tr>
<tr>
<td>control mean</td>
<td>2.4</td>
<td>4.1</td>
</tr>
<tr>
<td>Avg return time - in days</td>
<td>-50.5*** (11.35)</td>
<td>5.1 (10.78)</td>
</tr>
<tr>
<td>control mean</td>
<td>62.8</td>
<td>45.05</td>
</tr>
</tbody>
</table>

Note: All regressions control for strata dummies and % of BP adopted at the baseline. The avg number of BP adopted by firms at first half of BP distribution is 8 (27%), and the avg. number adopted by firms at top half is 20 (70%). To estimate impacts on number of services consumed we use Tobit regressions to deal with censored data.
Lessons Learned

• **Mkt frictions**: too much focus on ‘what to do’ instead of ‘how to do it’

• **Take up**: difficult to predict demand
  - A long set of observed characteristics of firms, owners, and employees poorly predict demand for consulting services: $R^2 = 0.22$

• **Targeting strategies**: increase demand for consulting services (ex-ante) OR maximize impacts of the services (ex-post)

• **Scale**: Low intensity large scale vs. high intensity small scale programs?
Cost-Effectiveness to SEBRAE: Integrate IE in operations pays off

<table>
<thead>
<tr>
<th>Sample of our study: 866 MEs</th>
<th>Eligible group: 9588 MEs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost of adding the benchmark page (USD)</strong></td>
<td></td>
</tr>
<tr>
<td>Content development</td>
<td>5105.26</td>
</tr>
<tr>
<td>Training</td>
<td>2631.58</td>
</tr>
<tr>
<td>Data processing</td>
<td>3052.63</td>
</tr>
<tr>
<td>Printing</td>
<td>136.74</td>
</tr>
<tr>
<td><strong>Total cost (USD)</strong></td>
<td>10,926.21</td>
</tr>
<tr>
<td><strong>Total cost per firm</strong></td>
<td>12.62</td>
</tr>
<tr>
<td><strong>Total cost (R$)</strong></td>
<td>43,704.84</td>
</tr>
</tbody>
</table>

**Additional revenue from enrollment in SEBRAE programs**

| Avg. amount paid by each firm (USD) | 50 | 50 |
| Number of firms | 866*0.16 = 164.5 | 9588*0.16 = 1821.7 |
| **Total revenue (USD)** | 8,227.00 | 91,086.00 |
| **Total revenue (R$)** | 32,908.00 | 364,344.00 |
| **Rate of Return (n=5)** | 72% | 156% |
Why aren’t firms adopting best practices?

1. Maybe they already adopt the most common practices and lack resources (skill, $, and time) to adopt others;
2. Maybe they lack incentives (e.g. low competition, regulation...?)
3. Firms are optimizing given the constraints – what constraint to relax?
4. Quality of the consulting service/advice?
5. Firms don’t really care (misperception of returns?)
   ✓Should public policies target only who cares?
6. Agency problem?
Signal and Noise: Does the quality of consulting services matter?
(with Miriam Bruhn, Xavier Cirera and Rafael Dantas with SEBRAE-Rio de Janeiro)

• Conduct survey with 76 SEBRAE-RJ agents asking them to rank business practices in terms of importance for firm growth and easiness to adopt
  • Select the top 5 and bottom 5 (out of 23)

• How to measure quality?
  • Examine heterogeneity in answers, controlling for experience
  • Check if ranks correlate with practices adopted by firms surveyed by SEBRAE
  • Conduct same survey with top consulting firms in Brazil and compare answers across consulting firms and SEBRAE
Heterogeneous perception => Heterogeneous advice (noise)
RCT with SEBRAE-RJ
(with Miriam Bruhn and Rafael Dantas)

Firms don’t really care? (implications for targeting)

- Only ~50% answered this question
- Remarkable differences between ‘respondents’ and ‘non-respondents’
- Among those that responded, the avg WTP is
RCT with SEBRAE-RJ
(with Miriam Bruhn and Rafael Dantas)

Agency problem?

- Employee, not responsible for the mgmt, 39.9%
- Employee, responsible for the mgmt, 37.5%
- Owner, not responsible for the mgmt, 7.3%
- Owner, responsible for the mgmt, 15.3%

Predictive Margins in WTP by Respondent Type
Thank you

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