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

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Lecture Overview

1 PART I: Lecture

Business Practices and Training

- 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

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Takeaways

Business Practices in Large Companies

 Bloom and van Reenen (2010, 2019): Business practices, motivation (Bloom, Mahajan, McKenzie, and Roberts, 2010; ?) PART I: Lecture Business Practices and Training

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Business Practices in Large Companies

 Bloom and van Reenen (2010): Heterogeneity across mid-sized and large firms (Bloom, Mahajan, McKenzie, and Roberts, 2010; ?;?) PART I: Lecture Business Practices and Training

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Business Practices in Small Firms

McKenzie and Woodruff (2017) develop measurement instrument of 26 business practices

- Administered in 7 countries in Asia, Africa, and South America
- 4 major domains of business practices
 - 1 Book-keeping and accounting
 - 2 Financial planning
 - 3 Inventory management and stock control
 - 4 Marketing
 - ightarrow Vast heterogeneity in business practices (comp. Bloom, Mahajan, McKenzie, and Roberts, 2010)
 - \rightarrow Strong persistent component one year out (r = 0.59)

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Business Practices in Small Firms

McKenzie and Woodruff (2017) identify set of XX practices most closely associated with business performance

- Example practices:
 - 1 e.g.,
 - 2 e.g.,
 - 3 e.g.,
 - 4 e.g.,

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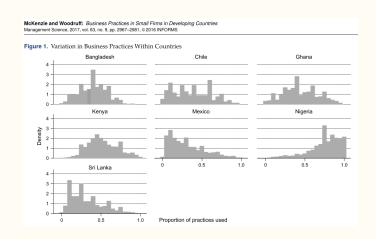
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Business Practices in Small Firms



 Hetereogeneity in business practices of MSEs across countries (McKenzie and Woodruff, 2017) ART I: Lecture
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Business Practices in the Production Decision

Standard Production Decision

• Owner maximizes output Y = f(A, L, M, K) at given wealth W:

$$\max_{K,M,L} \{ p f(A, L, M, K) - wL - sM - rK \}$$

s.t.
$$wL + sM + rK \le \lambda W$$

- .. where L is labor, M is materials, and K is capital.
- .. where p is the output price, w the cost of labor, s the cost of raw materials, and r cost of capital
- .. where A represents a productivity factor and λ parameterizes borrowing constraints
- 2 general conceptualizations of business practices
 - 1 As factor of production B chosen by owner at market price p_B
 - 2 As technology boosting productivity factor *A* (see, ?McKenzie and Woodruff, 2017)

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Takeaways

Business Practices in the Production Decision

Further potential channels of impact

- Better negotiation practices may affect raw material prices s
- 2 Record-keeping and financial planning practices may affect borrowing constraints λ through banks' willingness to lend (see, e.g., Bruhn and Zia, 2013)
- 3 Marketing practices may affect output price *p* by changing demand
 - ightarrow Plausible association between business practices and revenues, profits, and business growth
 - \rightarrow Prices (p, s, and p_B) and inputs (K, L, and M) likely endogenous to business practices B

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Business Practices and Performance

- Using panel data and a model that treats managerial capital as technology,? find differences in management practices account for about 30% of cross-country TFP differences
- Bloom and van Reenen (2019): Correlation with productivity across mid-sized and large firms (?)
- McKenzie2017: Robust association with performance and firm survival across industries and contexts in small firms

Open questions

- Does adoption of "best practices" cause performance to increase?
- How can adoption of practices best be encouraged?

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History and Prevalence

- At least USD 1 billion per year (to 4-5 million entrepreneurs; ?)
- 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)

PART II: Paper

Typical Training Program

Content

- Training is delivered by 600 local certified trainers and by a pool of approximately 60 international master trainers. All trainers are also entrepreneurs.
- Empretec Training Workshops offer different levels of instruction that include:
- 6-day courses (48 hours); 32-hour (usually spread over 4 days) for micro-entrepreneurs with low levels of literacy; Interactive coaching based on real business challenges of participants.

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Typical Training Program

Delivery

Impact on Performance

■ First wave (Karlan and Valdivia, 2011, Bruhn and Zia, 2013; Giné and Mansuri, 2014; Field, et al., 2010; Bulte et al., 2017; Anderson, Chandy, and Zia, 2018) (?) (?) (Bruhn and Zia, 2013) (?) (Anderson, Chandy, and Zia, 2018)

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Impact on Performance

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

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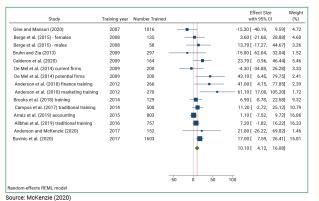
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Impact on Performance

Including more recent evaluations (see, ?)

Figure 2 Estimates of the impact of business training on firm profits



■ Small positive impact on practice adoption, profits, and • sales

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Refinements of the classical model

- Targeting specific subgroups of the population
 - Alleviating particularly severe constraints
 - → Marginalized or disadvantaged groups (e.g., women, youth)
 - Maximizing treatment impact or cost-effectiveness
 - → Promising entrepreneurs (e.g., high-growth firms)
 - Plus: Maximizing statistical power through homogeneity
- Training of skills in particular domains
 - Alleviating specific constraints
 - Investigating mechanisms of treatment impact

Female entrepreneurs

- Most common type of targeted training (potentially complementary to classical microfinance model)
- Example: Gender and Enterprise Together (GET Ahead, ILO; ??)
- **?**
- More severe constraints, e.g., due to household-level reallocation (??)

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Young entrepreneurs

- Typically embedded as entrepreneurship programs in school and university
- Example: University final year course in Tunisia (?)

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High-growth businesses ("gazelles")

- Marcel Fafchamps and Simon Quinn, (?)
- Small literature on business accelerators and incubators (see, e.g., ???)

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Training Specific Domains

Anderson, Chandy, and Zia (2018) assign 852 South African MSEs to distinct types of training:

1 Marketing/sales skills

2 Finance/accounting skills

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Takeaways

Training Specific Domains

Anderson, Chandy, and Zia (2018) assign 852 South African businesses to two distinct trainings:

- Marketing/sales skills
 - 61% increase in profits
 - "Growth focus" on higher sales, stock investments, and hiring
 - \rightarrow Benefits new businesses (= less market exposure)
- Finance/accounting skills

PART II: Paper

Training Specific Domains

Anderson, Chandy, and Zia (2018) assign 852 South African businesses to two distinct trainings:

- 1 Marketing/sales skills
 - 61% increase in profits
 - "Growth focus" on higher sales, stock investments, and hiring
 - → Benefits new businesses (= less market exposure)
- 2 Finance/accounting skills
 - 41% increase in profits
 - "Efficiency focus" on lower costs
 - \rightarrow Benefits established businesses
 - ightarrow Different "pathways to profits"

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Extensions of the Classical Approach

Typical Consulting Intervention

- Three-step procedure
 - Diagnostic of practices
 - 2 Identification of areas of improvement
 - 3 Problem solving within interactive relationship

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Typical Consulting Intervention

- Three-step procedure
 - 1 Diagnostic of practices
 - 2 Identification of areas of improvement
 - 3 Problem solving within interactive relationship
- Sustained and intensive
 - Total of 88 to 200 hours and more (?Bruhn, Karlan, and Schoar, 2018; ?; ?)
 - \rightarrow Typically several months
 - \rightarrow Meetings monthly to twice weekly, 2-4 hours
 - Total cost between USD 4,000 and 12,000 per firm (?Bruhn, Karlan, and Schoar, 2018)

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Typical Consulting Intervention

- Three-step procedure
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 - \rightarrow Typically several months
 - → Meetings monthly to twice weekly, 2-4 hours
 - Total cost between USD 4,000 and 12,000 per firm (?Bruhn, Karlan, and Schoar, 2018)
- Typically one-on-one (also group-based)
- Often gov't-subsidized (private contributions typically around 10%)
 - Empirical finding: Firms often unwilling to pay market price (?)
 - → Matching-grant programs

SME consulting (Bruhn, Karlan, and Schoar, 2018)

Evaluation of a matching grants program in Mexico

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Multimedia delivery

TV shows

- Examples: Ruka Juu in Tanzania (?) and El Mashroua in Egypt(?)
- ?

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Multimedia delivery

Text messages

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Complementary Constraints

McKenzie cash JDE paper

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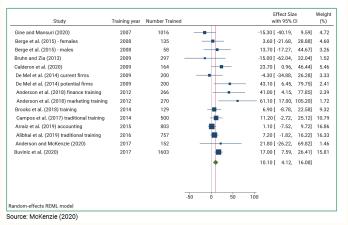
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Measurement of Firm Performance

Imprecision of Outcome Measures

Figure 2 Estimates of the impact of business training on firm profits



■ Extremely wide confidence intervals on impact estimates

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Takeaways

Self-reports and aggregation

■ Self-reports of aggregate (?)

Self-reports and aggregation

■ Disaggregating quantities in self-reports (?)

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Self-reports and aggregation

■ Direct measures (?)

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Sales vs. Profits



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Sales vs. Profits

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Sales vs. Profits

Direct measurements

- (?) Personalized Digital Assistants (PDAs) for MSEs in Ghana
 - → Vast majority of large changes in sales and profits genuine income volatility

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Heterogeneity of Impact

Heterogeneity of treatment effects poorly understood across different approaches

- Potential constraints are manifold, and likely context-dependent
- Some more obvious constraints (already mentioned in passing):
 - Credit constraints (see, e.g.,) McKenzie cash paper
 - Gender norms and constraints
 - Age-related network and knowledge/skill constraints

→ More recent literature highlights behavioral constraints

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Takeaways

Education and literacy

Most MSE entrepreneurs have limited education

McKenzie and Woodruff: Business Practices in Small Firms in Developing Countries

Management Science, 2017, vol. 63, no. 9, pp. 2967–2981, © 2016 INFORMS

Table 1. Summary Statistics

	Full sample		Means by country						
	Mean	SD	Bangladesh	Chile	Ghana	Kenya	Mexico	Nigeria	Sri Lanka
Male	0.23	0.42	0.99	0.09	0.78	0.00	0.00	0.85	0.47
Owner's age	41.0	12.6	41.9	36.6	39.3	35.7	45.3	30.9	37.3
Years of education	9.7	4.1	9.7	10.0	14.0	9.0	8.6	14.8	10.8
Digitspan recall	4.5	2.1	5.4	n.a.	6.5	5.0	3.3	7.5	6.4
Raven test score	5.0	2.9	n.a.	n.a.	n.a.	6.9	4.9	4.4	3.2

Number of observations	20,400		1,724	158	335	3,532	10,265	1,725	2,661

Notes. "n.a." denotes not asked in this data set. Business practice score is the proportion of 26 business practices used by the firm. Marketing (seven practices), buying and stock (three practices), record-keeping (eight practices), and financial planning (eight practices) are subcomponents.

- Typical small-firm owner dropped out of highschool
- Test scores on digitspan and Raven's matrices about % of Western university samples (comp.)

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Education and literacy

Potential for heuristics and rules of thumb

 Drexler, Fischer & Schoar (2014) (Drexler, Fischer, and Schoar, 2014) PART I: Lecture
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Dynamic complementarities in skill acquisition

Complementarities in skills

Learning styles

Family Commitments

■ Interesting; no beh const

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Segregated Markets

- Missing economies of scale
- Interesting; not behavioral constraint

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Takeaway:

Local Relevance of Business Practices

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Rules of Thumb

 Drexler, Fischer & Schoar (2014) (Drexler, Fischer, and Schoar, 2014) PART I: Lecture Business Practices and Training

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Rules of Thumb

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Takeaway:

Entrepreneurial mindset



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Entrepreneurial mindset

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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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Local Knowledge

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

Role Models

 La Ferrara et al. (2012); Chong and La Ferrara (2009); Berg and Zia (2013); Riley (2018) PART I: Lecture Business Practices and Training

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Questions

Any questions?

.. before we move on to our paper?

Curating Local Knowledge

Experimental Evidence from Small Retailers in Indonesia

Patricio S. Dalton¹ Julius Rüschenpöhler² Burak Uras¹ and Bilal Zia³

¹Tilburg University ²UC Berkeley, CEGA ³The World Bank

March 04, 2021

Paper Overview

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2 PART II: Paper

Curating Local Knowledge

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

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Motivation

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Motivation

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Background

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

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Motivation

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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) → Local mentors (market information)
 - Cai & Szeidl (2018) → Business meetings
 - Abebe et al. (2019) → Management experience matching

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Results

Discussion

Harnessing Cross-Firm Heterogeneity

Some stylized facts about business practices in small firms

- Vast heterogeneity in business practices and performance across similar businesses (?)
- Variation in practices accounts for more than 20% of variation in productivity within the same firm in the US (?)
 - \rightarrow Research has largely overlooked this heterogeneity in program design and implementation

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Harnessing Cross-Firm Heterogeneity

Some stylized facts about business practices in small firms

- Vast heterogeneity in business practices and performance across similar businesses (?)
- Variation in practices accounts for more than 20% of variation in productivity within the same firm in the US (?)
 - \rightarrow Research has largely overlooked this heterogeneity in program design and implementation

We make productive use of this heterogeneity in our research design:

- Use cross-firm variation to identify practices associated with business performance
- Curation of local best practices
- Test different modes of delivery, and their cost-effectiveness

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Discussion

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

Basic information intervention

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

Two complementary behavioral interventions:

- 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

Characterization of local best practices

- Which practices are associated with high profits?
- How do successful businesses implement them?

Adoption of best practices

- 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 on business performance

- Does firm profitability increase?
- If so, what are the channels?

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Sample

- Listing of 2042 small retail businesses from 29 sub-districts ("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 → to minimize spillovers
- Random sample of 1301 from the list
- Randomization to treatment arms stratified by
 - Gender
 - Firm space $(4-6m^2, 6-10m^2, 10 \text{ and above } m^2)$
 - Composite score of business practices above or below median
 - Sub-district

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Experimental Design

Three types of information delivery:

- 1 Handbook with best practices and implementation tips
- 2 Movie with successful peers
- 3 On-site assistance with practice adoption
 - \rightarrow Movie, assistance exclusively based on handbook

Five experimental groups

- 1 Handbook only (N=260)
- 2 Handbook + invitation to movie screening (N=260)
- 3 Handbook + offer of two assistance visits (N=260)
- 4 Handbook + movie + assistance (N=260)
- 5 Control (N=261)

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Timeline

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

Typical Business in the Sample



Typical Business in the Sample



Best-practices Handbook



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 <u>track their customers'</u> <u>debts</u> report 40% higher monthly sales and 36% higher monthly profits than those who do not track their customers' debts.

STOCK-UP SCHEDULING

Shops that <u>maintain stock-up schedules</u> 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. PART I: Lecture Business Practice and Training

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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 HE
	N = 261	N = 260	N = 260	N = 26PART I: Lecture Business Practices
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Firm Owner Characteristics				PART II: Paper
Gender (Male=1)	0.28	0.3	0.29	0.3 Curating Local
Age	45.22	45.27	45.28	45.16 ^{Knowledge}
Education (Years)	9.1	9.52	9.36	9.42 Motivation
Risk Preference (0 - 10 "Perfectly Risk-Seeking")	3.74	3.76	3.88	3.6 Our Approach
Time Preference (0 - 10 "Perfect Patience")	5.19	5.07	5.21	5.25 Data and Design
Firm Characteristics				Results
Firm Age (Years)	12.76	13.77	14.03	13.98 Discussion
Family Member Is Business Partner	0.56	0.6	0.63	0.59 Conclusion
Total Number of Workers	2.03	2.05	1.9	1.99
Business Has Tax ID	0.2	0.21	0.2	0.15
Total Sales Last Month (USD PPP)	4454.37	4730.64	4840.55	4761.4
Total Profits Last Month (USD PPP)	889.58	961.1	926.78	825.25
Applied for Bus Loan in Last 12 Months	0.2	0.17	0.15	0.22
Obtained Bus Loan in Last 12 Months	0.18	0.15	0.14	0.18

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)	(2)
	HB & HELP	HB & MOV,
		& HELP
	(A)	(B)
	N=260	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
reels Hoperul		

Impact on Business Practices

Aggregate Scores

	Record	Planning	Stocking-up	Marketing	
	Keeping (1)	(2)	(3)	(4)	PA Bus and
Assigned Handbook	0.025	0.027	-0.007	-0.011	PA:
	(0.209)	(0.273)	(0.694)	(0.694)	Kn
Assigned Handbook & Movie	0.057***	0.043	0.038	0.040	M
-	(0.009)	(0.107)	(0.117)	(0.166)	Oı
Assigned Handbook & Assistance	0.065***	0.034	0.011	0.039	
	(0.004)	(0.166)	(0.664)	(0.166)	Da
Assigned All Three	0.054***	0.068***	0.053**	0.061**	Re
-	(0.009)	(0.009)	(0.020)	(0.032)	Di
					Co
R-squared	0.204	0.192	0.187	0.150	
Sample Size	2205	2204	2205	2205	
Dependent Variable Mean of Control	0.196	0.402	0.471	0.250	
Dependent Variable SD of Control	0.252	0.310	0.270	0.320	
F-tests (p-value):					
Book = Book & Mov	0.069	0.487	0.014	0.028	
Book = Book & Assistance	0.025	0.754	0.304	0.030	
Book = All Three	0.096	0.073	0.001	0.002	

0.059*

Multiple hypothesis testing corrected p-values in parentheses

Business Profits

	Profits	Profits last month (IHS)	
	last month		
	(win 5%)		
	(1)	(2)	
Assigned Handbook	-91.307	-0.067	
<u> </u>	(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)	

Business Sales

	ITT	TOT
	Sales	Sales
	last month	last month
	(win 5%)	(win 5%
	(1)	(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**
<u> </u>	(358.384)	(696.317)

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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?

Impact on business practices \rightarrow efficiency practices:

- Adjust stocks based on product profitability
- Negotiate lower prices with suppliers
- Consult with former customers
- Offer discounts
- Make joint decisions
- Review performance to identify ways to improve
- Make anticipated budget for upcoming costs

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Efficiency Gains?

Impact on business practices \rightarrow efficiency practices:

- Adjust stocks based on product profitability
- Negotiate lower prices with suppliers
- Consult with former customers
- Offer discounts
- Make joint decisions
- Review performance to identify ways to improve
- Make anticipated budget for upcoming costs
 - → Non-record-keeping practices
 - → Stocking up and marketing practices appear to drive performance effects (causal-mediation analysis)
 - \rightarrow Variance in profits among treated firms does not converge
 - → Efficiency gains

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Business Knowledge or Aspirations?

Impact on practice adoption and business performance may work through ..

- .. acquisition of business knowledge and/or
- .. strengthening of business aspirations

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Business Knowledge or Aspirations?

Impact on practice adoption and business performance may work through ..

- .. acquisition of business knowledge and/or
- .. strengthening of business aspirations

We directly measure business aspirations ..

- .. at baseline, midline, and endline
- .. for short (one year) and long ("ideal business") time horizons
- .. for various dimensions of potential business expansion
 - Sales on a normal day
 - Physical size
 - Customers on a normal day
 - Employees
 - → No impact on aspirations
 - → Performance likely driven by increase in business 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
 - → 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
 - → Attractive for policy

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Discussio

- ANDERSON, S. J., R. CHANDY, AND B. H. ZIA (2018): "Pathways to Profits: The Impact of Marketing vs. Finance Skills on Business Performance," *Management Science*, pp. 1–25.
- BLOOM, N., B. EIFERT, M. APRAJIT, D. MCKENZIE, AND J. ROBERTS (2013): "Does Management Matter? Evidence from India," *Quarterly Journal of Economics*, 128(1), 1–51.
- BLOOM, N., A. MAHAJAN, D. MCKENZIE, AND J. ROBERTS (2010): "Why do firms in developing countries have low productivity?," *American Economic Review: Association and Proceedings*, 100(2), 619–623.
- Bruhn, M., D. Karlan, AND A. Schoar (2018): "The Impact of Consulting Services on Small and Medium Enterprises Evidence from a Randomized Trial in Mexico," *Journal of Political Economy*, 126(2), 635–687.
- BRUHN, M., AND B. H. ZIA (2013): "Stimulating Managerial Capital in Emerging Markets: The Impact of Business and Financial Literacy Training for Young Entrepreneurs," *Journal of Development Effectiveness*, 5(2), 232–266.

Evidence of Impact

Figure 1 Estimates of the impact of business training on firm sales

Study	Training year	Number Trained		Effect Size with 95% CI	Weight (%)
Karlan and Valdivia (2011)	2002	2732		-0.10 [-10.68, 10.48]	18.07
Drexler et al. (2014) accounting	2007	402		-7.80 [-26.03, 10.43]	6.09
Gine and Mansuri (2020)	2007	1016		-24.90 [-54.30, 4.50]	2.34
Berge et al. (2015) - females	2008	135		-0.50 [-26.76, 25.76]	2.93
Berge et al. (2015) - males	2008	58		13.00 [-21.30, 47.30]	1.72
Calderon et al. (2020)	2009	164		28.80 [4.89, 52.71]	3.54
De Mel et al. (2014) current firms	2009	200		-13.60 [-67.89, 40.69]	0.69
De Mel et al. (2014) potential firms	2009	200	-	40.90 [-5.75, 87.55]	0.93
Valdivia (2015)	2009	711		12.20 [-8.77, 33.17]	4.60
Anderson et al. (2018) finance training	2012	266		25.30 [-5.86, 56.46]	2.08
Anderson et al. (2018) marketing training	2012	270		64.40 [17.75, 111.05]	0.93
Chong and Velez (2020)	2013	568		35.80 [-4.58, 76.18]	1.24
Brooks et al. (2018) training	2014	129	-	3.30 [-11.60, 18.20]	9.12
Campos et al. (2017) traditional training	2014	500		5.60 [-11.06, 22.26]	7.29
Arraiz et al. (2019) accounting	2015	803		3.60 [-4.04, 11.24]	34.65
Alibhai et al. (2019) traditional training	2016	757		-0.90 [-27.16, 25.36]	2.93
Anderson and McKenzie (2020)	2017	152		20.70 [-28.89, 70.29]	0.82
			·	4.67 [0.17, 9.17]	
			-50 0 50	100	
andom-effects REMI model					

Source: McKenzie (2020)

■ Small positive impact on sales (back to profits)

References

APPENDIX