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

Julius Rüschenpöhler

UC Berkeley, CEGA

March 04, 2021

Lecture Overview

1 PART I: Lecture

Business Practices and Training

- Business Practices and Productivity
- Classical MSME Training
- Extensions of the Classical Approach
- Measuring Firm Performance
- Mechanisms
- Alternative Approaches
- 2 PART II: Paper

Curating Local Knowledge

PART I: Lecture Business Practices and Training

Business Practices and Productivity

Fraining

Classical Approach

Measuring Firm

eriormance

Mechanism

pproaches

akeaways

Business Practices and Productivity

PART I: Lecture
Business Practices
and Training

Business Practices

Classical MSME Training

Classical Approa

Measuring Firm

Mechanisms

Mechanisms

Curating Local Knowledge

Stylized facts about firms

Large country-level	Large country-level
heterogeneity	heterogeneity
in productivity	in mgmt quality
Large firm-level	Large firm-level
heterogeneity	heterogeneity
in productivity	in mgmt quality

PART I: Lectur Business Practic and Training

Business Practices and Productivity

> lassical MSM aining

Extensions of the Classical Approac

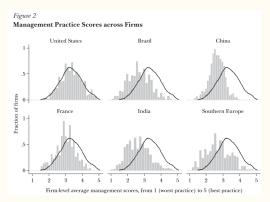
Measuring Firr

Mechanisms

Alternative

akeaways

Mid-sized and large companies



 Heterogeneity in mgmt practices across mid-sized and large firms (Bloom and Van Reenen, 2007; Bloom et al., 2010; ?) PART I: Lecture
Business Practices
and Training

Business Practices and Productivity

lassical MSM raining

Extensions of the Classical Approach

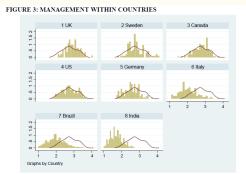
Measuring Firm

Mechanism

Alternative Approaches

Takeaways

Public-sector companies



Notes: Data from 1,851 schools showing the distribution of the firm level school scores. A smoothed kernel density plot of the US data is shown on each panel for easy comparison to the US management distribution.

 Heterogeneity in mgmt practices across schools (Bloom et al., 2015) and hospitals (Bloom et al., 2020) PART I: Lecture
Business Practices
and Training

Business Practional Productivit

llassical MSN raining

Extensions of the Classical Approac

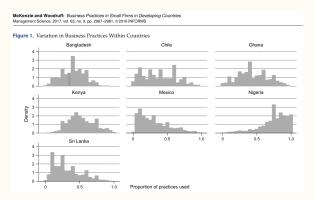
Measuring Firm Performance

Mechanisms

approacnes

PART II: Paper

Small firms



 Heterogeneity in business practices across micro and small enterprises (McKenzie and Woodruff, 2017) PART I: Lecture
Business Practices

Business Practices

lassical MSN

extensions of the

Measuring Firm

Mechanisms

Alternative

akeaways

Characterization of Business Practices

Set of general best practices for small firms

- McKenzie and Woodruff (2017) identify set of 26 business practices most closely associated with business performance
 - Validated 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

 \rightarrow Strong persistent component at one-year endline (r = 0.59)

P**AKI 1: Lectu**i Business Praction and Training

Business Practices

lassical MSN raining

Classical Approac

leasuring Firm

Mechanisms

Alternative Approaches

akeaways

Characterization of Business Practices

- McKenzie and Woodruff (2017) identify set of 26 business practices most closely associated with business performance
 - Example practices:
 - 1 e.g.,
 - 2 e.g.,
 - 3 e.g.,
 - 4 e.g.,

→ How exactly should we think about business practices translating into performance gains?

Business Practices and Training

Business Practices

lassical MSME raining

Classical Approac

Measuring Firm

Mechanisms

Alternative

akeaways

Business Practices in the Production Decision

Standard Production Decision

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

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

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

- .. where L is labor, M is materials, and K is capital.
- .. where w the cost of labor, s the cost of raw materials, r cost of capital, and p is the output price
- .. where A represents a productivity factor and λ parameterizes borrowing constraints

PART 1: Lecture
Business Practices
and Training

Business Practices and Productivity

> lassical MSME raining

Classical Approa

Performance

Mechanisms

Alternative Approaches

akeaways

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 \underline{w} the cost of labor, \underline{s} the cost of raw materials, \underline{r} cost of capital, and \underline{p} is the output price
- .. 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, Bloom et al., 2016; McKenzie and Woodruff, 2017; ?)

PART I: Lecture Business Practices and Training

Business Practices and Productivity

raining

Classical Approx

Performance

Mechanism

approaches

ADT II. Da

Business Practices in the Production Decision

Standard Production Decision

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

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

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

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

PART 1: Lecture Business Practice: and Training

Business Practices and Productivity

raining

Classical Appro

Measuring Firm Performance

Mechanisms

Approaches

ikeaways

Business Practices and Performance

- Using panel data and a model that treats managerial capital as technology, Bloom et al. (2016) find differences in management practices account for about 30% of cross-country TFP differences
- Correlation with productivity in mid-sized and large firms (?)
- Robust association with performance and firm survival across industries and contexts in small firms (McKenzie and Woodruff, 2017)

Open questions

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

PART I: Lecture Business Practices and Training

Business Practices

lassical MSME raining

Measuring Firm

Performance

Mechanism

Approaches

Takeaways

Classical MSME Training

PART I: Lecture Business Practices and Training

and Productivity

Classical MSMI Training

Extensions of the

Measuring Firm

Machanieme

Mechanisms

Takeaways

History and Prevalence

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

Business Pract and Training

Business Practi and Productivi

Training

Classical Appro

Performance

Mechanisms

lternative .pproaches

Takeaways

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.

PART I: Lecture Business Practices and Training

Business Practices and Productivity

Classical MSN Training

Classical Approa

Measuring Firm

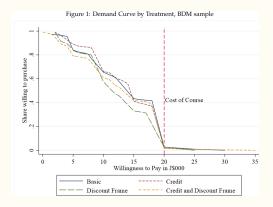
Mechanisms

Alternative

Takeaways

Typical Training Program

Demand for business training



Demand curve for business training in Jamaica: \sim 60-70% willing to pay half, \sim 10% full price (?)

PART I: Lecture Business Practices and Training

Business Pract and Productiv

lassical MSM raining

Extensions of the Classical Approach

> leasuring Firr erformance

Mechanisms

Approaches

akeaways

Typical Training Program

Delivery

PART 1: Lecture
Business Practices
and Training

and Productivity

Classical MS! Training

Extensions of the Classical Approach

Measuring Fir Performance

Mechanisms

Mechanisms

Takeaways

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) (Karlan and Valdivia, 2011) (?) ? (?) (?) (Anderson et al., 2018)

PART I: Lecture Business Practices and Training

Business Practices and Productivity

Classical MSN Training

Extensions of the

Measuring Firm

Mechanism

akeaways

Takeaways

Impact on Performance

 Econometric and implementation issues (McKenzie and Woodruff, 2014) PART I: Lecture
Business Practices
and Training

and Productivity

Classical MS Training

Extensions of the

easuring Firm

normance

Mechanisms

Alternative Approaches

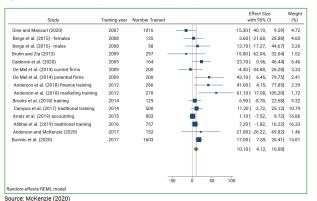
Takeaways

Impact on Performance

Including more recent evaluations (see, McKenzie and

Puerto)

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



PART II: Paper

Small positive impact on practice adoption, profits, and sales



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

Business Practi nd Training

and Productivit

lassical MSM raining

Classical Approa

Measuring Firm

Mechanisms

Alternative

akeaways

Female entrepreneurs

- Most common type of targeted training (potentially complementary to classical microfinance model)
- Example: Gender and Enterprise Together (GET Ahead, ILO; ??)
- **1** 3
- More severe constraints, e.g., due to household-level reallocation (?de Mel et al., 2009)

PART 1: Lecture Business Practices and Training

Business Practices and Productivity

Training

Classical Appro

Performance

Mechanisms

Approaches

Takeaways

Young entrepreneurs

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

Business Practices and Training

and Productivity

Classical MSN Training

Classical Approa

Measuring Firm

Mashaniama

Mechanisms

Takeaways

Takeaways

High-growth businesses ("gazelles")

- Marcel Fafchamps and Simon Quinn, (McKenzie, 2017)
- Small literature on business accelerators and incubators (see, e.g., ???)

PART 1: Lectur Business Practic and Training

and Productivi

Classical MS Training

Extensions of the Classical Approach

Measuring Firm

normance

Mechanisms

Approaches

akeaways

Training Specific Domains

Anderson et al. (2018) assign 852 South African MSEs to distinct types of training:

Marketing/sales skills

2 Finance/accounting skills

PART **1: Lecture** Business Practice and Training

Business Practi

Classical MS Training

Classical Approach

Measuring Firm

Mechanisms

Alternative Approaches

Takeaways

Training Specific Domains

Anderson et al. (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)
- Finance/accounting skills

PART II: Paper

Training Specific Domains

Anderson et al. (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
 - → Benefits established businesses
 - → Different "pathways to profits"

AKT 1: Lectur Susiness Practic nd Training

and Productivit

Classical MSN Iraining

Extensions of the Classical Approach

leasuring Fir

. . .

Mechanisms

Approaches

akeaways

Extensions of the Classical Approach

PART I: Lecture Business Practices and Training

and Productivity

Classical MSME Training

Extensions of the Classical Approac

Measuring Firm

. . .

Mechanisms

Approaches

Takeaways

Typical Consulting Intervention

- Three-step procedure
 - 1 Diagnosing practices
 - 2 Identifying areas of improvement
 - 3 Joint and interactive problem solving

PART I: Lecture Business Practice: and Training

and Productivity

Training

Extensions of the

Extensions of the Classical Approa

erformance

Mechanisms

A lt ---- - ti---

Takeaways

Typical Consulting Intervention

- Three-step procedure
 - 1 Diagnosing practices
 - 2 Identifying areas of improvement
 - 3 Joint and interactive problem solving
- Sustained and intensive
 - Total of 88 to 200 hours and more (?Bruhn and Schoar, 2018; ?; ?)
 - → Typically several months
 - → Meetings monthly to twice weekly, 2-4 hours
 - Total cost between USD 4,000 and 12,000 per firm (?Bruhn and Schoar, 2018)

ART I: Lecture Susiness Practices nd Training

and Productivity

Extensions of the

Measuring Firm

foobanieme.

Mechanist

akoarnana

Takeaways

Typical Consulting Intervention

- Three-step procedure
 - 1 Diagnosing practices
 - 2 Identifying areas of improvement
 - 3 Joint and interactive problem solving
- Sustained and intensive
 - Total of 88 to 200 hours and more (?Bruhn 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 and Schoar, 2018)
- Typically one-on-one (also group-based)
- Often gov't-subsidized (private contributions typically ~10%)
 - → Matching-grant programs

ART 1: Lecture usiness Practices nd Training

ad Productivity
assical MSME

xtensions of the

Measuring Firm

Mechanisms

Alternative

akeaways

SME consulting (Bruhn and Schoar, 2018)

Evaluation of a matching grants program in Mexico

PART 1: Lecture Business Practices and Training

and Productivity

Training

Extensions of the Classical Approa

erformance

. . .

Mechanisms

pproaches

Takeaways

Multimedia delivery

TV shows

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

PART I: Lecture Business Practices and Training

and Productivity

Extensions of the

Extensions of the Classical Approac

erformance

Mechanisms

Mechanisms

akoawawe

Takeaways

Multimedia delivery

TV shows

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

PART I: Lecture
Business Practices
and Training

and Productivity

Extensions of the

Extensions of the Classical Approac

erformance

Aachanieme

Mechanisms

Approaches

Takeaways

Multimedia delivery

Text messages

(?) (?)

Business Practices and Training

and Productivity

Training

Extensions of the

Extensions of the Classical Approac

erformance

Aechanisms

Mechanisms

претопене

Takeaways

Complementary Constraints

- McKenzie cash JDE paper
- (Giné and Mansuri, 2021)
- Berge et al. (2015)
- de Mel et al. (2014)

Business Practices and Training

and Productivity

Training

Extensions of th

Extensions of the Classical Approa

erformance

Mechanism

Approache

Takeaways

Complementary Constraints

■ McKenzie cash JDE paper

PART I: Lecture
Business Practices
and Training

and Productivity

Training

Extensions of the

Extensions of the Classical Approac

Measuring Fir

fechanisms

uternative Approaches

Takeaways

Measuring Firm Performance

PART I: Lecture
Business Practices
and Training

and Productivity

Training

Extensions of the

Classical Approac

Measuring Firm

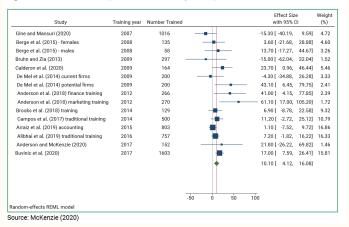
Mechanisms

Mechanisms

Takeaways

Imprecision of Outcome Measures

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



■ Extremely wide confidence intervals on impact estimates

ART I: Lecture dusiness Practices and Training

lusiness Practices nd Productivity

Training

Classical Approac

Performance

Mechanism

Alternative Approache:

Takeaways

(?) (de Mel et al., 2009) (?)

PART 1: Lecture
Business Practices
and Training

Business Practice and Productivity

Classical MSM

Extensions of the

Measuring Firm

Terrormance

Mechanisms

Alternative

Takeaways

■ Self-reports of aggregate (de Mel et al., 2009)

PART I: Lecture
Business Practices
and Training

Business Practices and Productivity

Training

Extensions of the Classical Approac

Measuring Firm

Mechanisms

Mechanisms

Takeaways

■ Disaggregating quantities in self-reports (de Mel et al., 2009)

PART I: Lecture Business Practices and Training

Business Practices and Productivity

Training

Extensions of the Classical Approach

Measuring Firm

Machaniama

Mechanisms

Alternative Approaches

Takeaways

■ Direct measures (de Mel et al., 2009)

PART I: Lecture Business Practices and Training

Business Practices and Productivity

Training

Extensions of the Classical Approach

Measuring Firm

Mashaniana

Mechanisms

Approache

Takeaways

Sales vs. Profits

■ (de Mel et al., 2009)

PART 1: Lecture Business Practices and Training

Business Practices and Productivity

Classical MSME

Extensions of the

Measuring Firm

Mechanisms

Altornativo

Takeaways

iakeaways

Curating Local Knowledge

Sales vs. Profits

■ (de Mel et al., 2009)

PART 1: Lecture
Business Practices
and Training

Business Practices and Productivity

> Classical MSME Training

Extensions of the

Measuring Firm

Mechanisms

Alternative

Takeaways

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

PART I: Lecture Business Practices and Training

and Productivity

Classic Trainin

Extensions of the

Measuring Firm Performance

Mechanism

Alternative

Takeaway

PART I: Lecture Business Practice and Training

and Productivity

Classic Trainin

Extensions of the

Measuring Firm

Mechanism

Alternative

Takeaway

Mechanisms

PART I: Lecture Business Practices and Training

Business Practices and Productivity

Training

Extensions of the Classical Approach

Measuring Firm

Mechanisms

Alternative Approaches

Takeaways

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

Business Practices and Training

Business Practice and Productivity

Classical MSN Training

Classical Appro

Measuring Firm Performance

Mechanisms

Alternative Approaches

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.)

PART I: Lecture Business Practices and Training

> usiness Practices ad Productivity

aining

Classical Approa Measuring Firm

Measuring Firm Performance

Mechanisms

Alternative Approaches

akeaways

Education and literacy

Potential for heuristics and rules of thumb

■ Drexler, Fischer & Schoar (2014) (Drexler et al., 2014)

PART 1: Lecture Business Practices and Training

and Productivity

Classical MSN Training

Classical Approac

Measuring Firm Performance

Mechanisms

Approache

Takeaways

Dynamic complementarities in skill acquisition

Complementarities in skills

Learning styles

Family Commitments

■ Interesting; no beh const

PART I: Lecture Business Practices and Training

Business Practices and Productivity

> Classical MSN Training

Extensions of the

Measuring Firm

Mechanisms

Alternative Approaches

Takeaways

Segregated Markets

- Missing economies of scale
- Interesting; not behavioral constraint

Business Practices and Training

Business Practices and Productivity

Classical MSN

Training
Extensions of the

Measurine Firm

Measuring Firm

Mechanisms

Approache

Takeaways

Aspirations

PART I: Lecture Business Practices and Training

Business Practices and Productivity

Training

Classical Approa

Measuring Firm Performance

Mechanisms

Alternative Approaches

Takeaways

Local Relevance of Business Practices

PART I: Lecture
Business Practices
and Training

Business Practices and Productivity

Training

Classical Approa

Measuring Firm Performance

Mechanism

Approaches

Takeaway:

Alternative Approaches

PART I: Lecture
Business Practices
and Training

Business Practices and Productivity

Training

Classical Appro

Performance

Mechanisms

Alternative Approaches

Takeaways

Rules of Thumb

■ Drexler, Fischer & Schoar (2014) (Drexler et al., 2014)

PART I: Lecture
Business Practices
and Training

Business Practice and Productivity

Classical MSME Training

Extensions of the

Measuring Firm

Mechanisms

Alternative Approaches

Takeaways

Rules of Thumb

(?) (?)

PART I: Lecture Business Practices and Training

Business Practices and Productivity

> Jassical MSA Training

Extensions of the Classical Approach

Measuring Firm

Mechanisms

Alternative

Takeaways

Entrepreneurial mindset



Business Practices and Productivity

Fraining

Extensions of the Classical Approach

Measuring Firm

Mechanism

Alternative Approaches

Takeaway



Entrepreneurial mindset

(?) (?)

Business Practices and Training

Business Practices and Productivity

> Classical MSMI Training

Extensions of the Classical Approach

Measuring Firm

Mechanisms

Alternative

Takeaway

Local Knowledge

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

PART I: Lecture
Business Practices
and Training

Business Practice and Productivity

Classical MSM Training

Extensions of the Classical Approach

Measuring Firm

Performance

wiechanisms

Alternative

Takeaways

Local Knowledge

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

PART I: Lecture Business Practices and Training

> Business Practice and Productivity

Classical MSM Training

Extensions of the Classical Approach

Measuring Firm

....

Alternative Approaches

Takeaways

Local Knowledge

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

PART I: Lecture Business Practices and Training

and Productivity

Classical MSM Training

Extensions of the Classical Approach

Measuring Firm

Performance

iviecitatiisiiis

Alternative

Takeaways

DA DT II. Dan

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

and Productivity

Classical MSM Training

Extensions of the Classical Approach

Measuring Firm

Performance

Mechanisms

Alternative

Takeaways

PART II: Paper
Curating Local

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

and Productivity

Training

Extensions of the Classical Approach

Measuring Firm

. . . .

Mechanisms

Alternative Approaches

Takeaways

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

and Productivity

Classical MSM Training

Extensions of the Classical Approach

Measuring Firm

Performance

rectanisms

Alternative

Takeaways

Takeaways

PART I: Lecture Business Practices and Training

Business Practices and Productivity

Training

Classical Approach

Measuring Firm Performance

Mechanisms

Alternative

Takeaways

Takeaways

PART I: Lecture Business Practices and Training

Business Practices and Productivity

Training

Extensions of the Classical Approach

erformance

Mechanisms

Altornativo

Takeaways

Questions

Any questions?

.. before we move on to our paper?

PART I: Lecture
Business Practices
and Training

Business Practices and Productivity

> Classical MSI Training

Extensions of the Classical Approach

Jassicai Approaci Measurine Firm

errormance

Mechanisms

A 11 ---- - 1:---

Takeaways

PART II: Paper Curating Local

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

1 PART I: Lecture

Business Practices and Training

2 PART II: Paper

Curating Local Knowledge

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

PART 1: Lecture
Business Practice
and Training

PART II: Paper Curating Local Knowledge

Mouvation

Our Approach

Resuits

. . .

Motivation

PART I: Lecture
Business Practices
and Training

PAKT II: Paper Curating Local Knowledge

Motivation

Data and Docion

cesures

Discussion

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

PART 1: Lecture
Business Practice
and Training

PART II: Paper Curating Local Knowledge

Wouvation

Our Approach

Data and Design

Roenlte

Discussion

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) (Karlan and Valdivia, 2011)
- 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

PART 1: Lecture Business Practice: and Training

PART II: Paper Curating Local Knowledge

Motivation

Our Approach

Data and Design

Kesults

Our Approach

PART I: Lecture Business Practices and Training

Curating Local Knowledge

.....

Our Approach

Data and Design

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 (de Mel et al., 2009)
- 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

PART I: Lecture
Business Practices
and Training

PART II: Paper Curating Local Knowledge

.....

Our Approach

Data and Design

oentle

Discussion

Harnessing Cross-Firm Heterogeneity

Some stylized facts about business practices in small firms

- Vast heterogeneity in business practices and performance across similar businesses (de Mel et al., 2009)
- 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

PART I: Lecture
Business Practices
and Training

PART II: Paper Curating Local Knowledge

Our Approach

Jata and Desig

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

PART I: Lecture Business Practice and Training

PART II: Paper Curating Local Knowledge

Our Approach

Data and Desig

Results

Discussion

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

ART I: Lecture Business Practices and Training

PART II: Paper Curating Local Knowledge

.....

Our Approach

ita ana Des.

esults

. . .

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?

PART I: Lecture Business Practice and Training

PART II: Paper Curating Local Knowledge

Our Approach

Data and Design

Discussion

Data and Design

Business Practice and Training

Knowledge

Our ripproach

Data and Desig

Results

Discussion

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

PART I: Lecture
Business Practices
and Training
PART II: Paper

Motivation

Our Approach

Data and Design

Jata and Desig

Discussion

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)

PART I: Lecture Business Practice and Training

PART II: Paper Curating Local Knowledge

Our Approach

Data and Dasies

Data and Desig

Discussion

Timeline

- 1 September 2015: Qualitative Interviews
- 2 January 2016: Firm listing (→ 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

PART I: Lectu Business Practi and Training

Curating Local Knowledge

Motivation

Our Approach

Data and Desigr

. . .

Discussio

Typical Business in the Sample



PART I: Lecture
Business Practices
and Training

Knowledge Motivation

.

Our Approach

Data and Desigi

.

Results .

^anchieian

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 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 <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 1: Lecture
Business Practice
and Training

PART II: Pape Curating Local Knowledge

Mouvation

Our Approach

Data and Desig

Results

Discussion

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).

PART I: Lecture Business Practice and Training

PART II: Paper Curating Local Knowledge

mouration

Our Approact

Juliu unu Desig

Results

Discussion

Movie with Successful Peers



PART I: Lecture ness Practices Training

> T II: Paper iting Local vledge ivation

Implementation Assistance for Business Practices



PART I: Lecture
Business Practices
and Training

Motivation

Our Approach

ata and Desigi

Populso

Discussion

Results

PART I: Lecture Business Practice and Training

Curating Local Knowledge

Motivation

Our Approach

Data and Design

esults

Discussion

Summary Statistics

	Control	HB only	HB & MOV	HB & HELP HE
	N = 261	N = 260	N = 260	N = 26PART I: Lecture Business Practices
				and Training
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
A ()		
Attendance	0.50	0.40
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

PART I: Lecture Business Practices and Training

nowledge

Mouvation

Our Approach

Results

Discussion

ciusion

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
- 1	2.88	2.97
Feels Hopeful		

PART I: Lecture
Business Practices
and Training

urating Local nowledge

Our Approach

ita ana Desi

Results

Discussion

Impact on Business Practices

Aggregate Scores

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

0.059*

^{94/10} 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	
	(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)

PART I: Lecture
Business Practices
and Training

Curating Local Knowledge

Motivation

Our Approach

sults

Discussion

Other Outcomes

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

PART I: Lecture Business Practice and Training

PART II: Paper Curating Local Knowledge

Monvation

Our Approach

ata and Desig

Results

Discussion

Discussion

Business Practice and Training

Curating Local Knowledge

Motivation

Our Approach

ata and Desigr

esults

Discussion

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

PART 1: Lecture
Business Practice
nd Training

PART II: Paper Curating Local Knowledge

Wouvation

Our Approach

loculto.

Discussio

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

PART I: Lecture
Business Practices
and Training

PART II: Paper Curating Local Knowledge

Our Approach

Data and Design

esults

Discussion

Business Knowledge or Aspirations?

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

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

PART I: Lecture Business Practices and Training

PART II: Paper Curating Local Knowledge

Jur Approach

esults

Discussion

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

PART I: Lecture
Business Practices
and Training

PART II: Paper Curating Local Knowledge

Our Approach

ata and Design

sults

Discussion

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

PART I: Lecture
Business Practices
and Training
PART II: Paper

Knowledge

Motivation

Our Approach

Roenlte

Discussion

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

PART I: Lectur Business Praction and Training

PART II: Paper Curating Local Knowledge

.

our Approach

sults

Discussion

Conclusion

Business Practice and Training

Curating Local Knowledge

Motivation

Our Approach

Data and Desig

Results

Discussion

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

PART I: Lecture
Business Practices
and Training
PART II: Paper

Knowledge Motivation

Data and Design

esults

Discussio

References

Stephen J. Anderson, Rajesh Chandy, and Bilal H. Zia. Pathways to Profits: The Impact of Marketing vs. Finance Skills on Business Performance. *Management Science*, pages 1–25, 2018.

Lars Ivar Oppedal Berge, Kjetil Bjorvatn, and Bertil Tungodden. Development: Evidence from a Field and Lab Experiment Human and Financial Capital for Microenterprise Development: Evidence from a Field and Lab Experiment. Management Science, 61(4):707–722, 2015.

Nicholas Bloom and John Van Reenen. Measuring and Explaining Management Practices Across Firms and Countries. *Quarterly Journal of Economics*, 122(4): 1351–1408, 2007.

Nicholas Bloom, Aprajit Mahajan, David McKenzie, and John Roberts. Why do Firms in Developing Countries Have Low Productivity? *American Economic Review*, 100(2):619–623, 2010.

Nicholas Bloom, Renata Lemos, Raffaella Sadun, and John van Reenen. Does Management Matter in Schools? *The Economic Journal*, 125(584):647–674, 2015. ISSN 1098-6596.

References

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			
indom-effects REMI model							

Source: McKenzie (2020)

■ Small positive impact on sales (back to profits)

References

APPENDIX