

# Panel Discussion

## Kaizen: Research-Action Nexus

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*(Goethe University Frankfurt)*

**GDC Session 2019**  
**Book Launch and Panel Discussion**

## Why Kaizen maybe more effective than other trainings

<b>Kaizen</b>	<b>Other management trainings</b>
Starts from firm-level needs	Industry best practice
Firms' identity is linked to products	Financial literacy training, accounting trainings ...
Involvement of workers	Leadership and high CEO discretion

## **Based on own field experiments in Zambia:**

### **Suggestion to extend Kaizen trainings**

Impacts of Production Management Training on Micro-Entrepreneurs  
(with Rajesh Ramachandran)

Marketing for Micro Entrepreneurs: A Digital Intervention  
(with Rajesh Ramachandran and Egbert Amoncio)

## **Kaizen has been applied in large & medium-sized firms**

- not: micro firms which provide the vast majority of firms (average size US vs India is 45 vs 2.6)
- Zambia: majority created by self-employment

**Suggestion for future research:  
Kaizen in micro firms**

## **Kaizen is about incremental improvements**

- how to measure incremental improvements in an environment of lower numerical capabilities?
- Zambia: tools are easy to count and no underreporting

**Suggestion for future research:  
Innovative and context-matching measurement**

## **Kaizen is a supply-side approach**

- do good products sell without help?
- Zambia: digital platforms for market access contributes substantially to growth

**Suggestion for future research:  
Teaching complementary skills**

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**THANK YOU!**

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# **APPENDIX**



## Facebook

**Lusaka League of Carpenters**  
@llcarpenters

- Startseite
- Shop
- Beiträge
- Bewertungen
- Fotos
- Info
- Community
- Seite erstellen

Gefällt dir Abonniert Teilen Nachricht

Foto/Video Freunde ma... Ich bin hier

**Shop**

Cabinet  
0,00 \$

Alle ansehen

**Beiträge**

Lusaka League of Carpenters hat 18 neue Fotos zu dem Album „Your Dreams, Our Furniture Collection“ hinzugefügt. 25. September 2018

Our partners in Lusaka League of Carpenters. Please check them out  
Mary Mwale of 10 Miles: +260976156690  
Grandson of Emmasdale: +260973222516  
John Mushabati of 10 Miles: +260979523863 ... Mehr anzeigen  
Übersetzung anzeigen

**Your Dreams, Our Furniture Collection**  
18 Fotos  
5 Kommentare

Möbel

**Community** Alle ansehen

- Lade deine Freunde ein, diese Seite mit „Gefällt mir“ zu markieren
- 10.431 Personen gefällt das
- 10.435 Personen haben das abonniert

**Info** Alle ansehen

- Nachricht senden
- tinyurl.com/lusakaleague
- Möbel
- Änderungen vorschlagen

**Seitentransparenz** Mehr anzeigen

Facebook liefert Informationen, mit denen du die Intention von Seiten besser verstehst. Hier erfährst du mehr zu den Personen, die die Seiten verwaltet und Beiträge darin posten.

Seite erstellt – 23. Mai 2018

**Gruppenmitglieder**

- Afraso Proje

**Ähnliche Seiten**

- National pensio... Lokales Unterneh... Gefällt mir
- Morgan Furnitures Möbel Gefällt mir
- Ama House for ... Werbung/Marketing Gefällt mir

Deutsch English (US) Türkçe Español Portugés (Brasil)

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**Lusaka League of Tailors**  
@liltailors

- Startseite
- Shop
- Beiträge
- Bewertungen
- Fotos
- Info
- Community
- Seite erstellen

Gefällt mir Abonniere Teilen Nachricht

Foto/Video Freunde ma... Ich bin hier

**Shop**

Chitenge Dress  
0,00 \$

Alle ansehen

**Beiträge**

Lusaka League of Tailors  
2. Oktober 2018

Thank you so much for the love and support!!  
Here is the list of partners around Lusaka! Find our partner that is closest to you!  
Magret Phiri Bvalya of Nyumba Yanga: +260977760828 ... Mehr anzeigen  
Übersetzung anzeigen

**LUSAKA of tailors**  
Lusaka League of Tailors  
Schuhgeschäft

Gefällt 11.346 Mal  
8 Personen sprechen dar... Seite gefällt mir

15 12 Kommentare

Gefällt mir Kommentieren Teilen

Lusaka League of Tailors geliebt.  
4. Februar

Who is getting ready for their Valentine? Check out Ms. Claudia's creation Love is definitely in the air. Call her at 0971996448  
Übersetzung anzeigen

Schuhgeschäft in Lusaka

**Community** Alle ansehen

- Lade deine Freunde ein, diese Seite mit „Gefällt mir“ zu markieren
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Seite erstellt – 23. Mai 2018

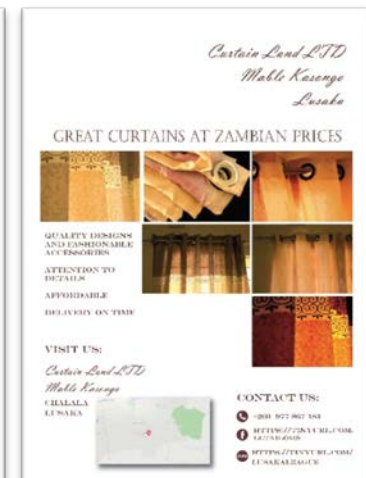
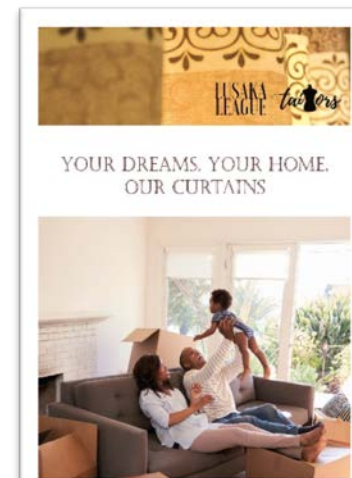
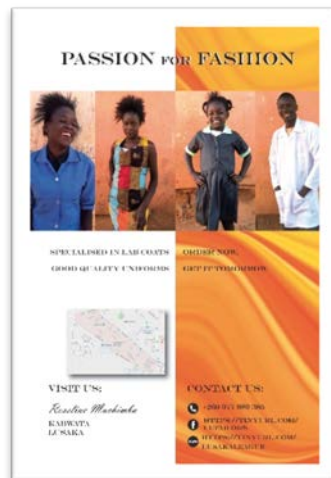
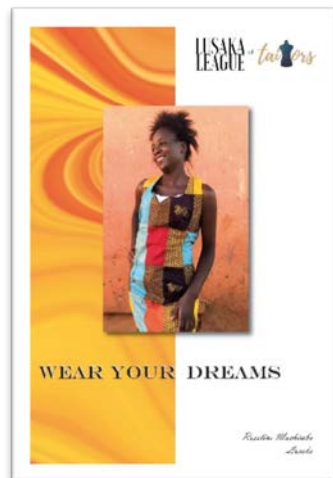
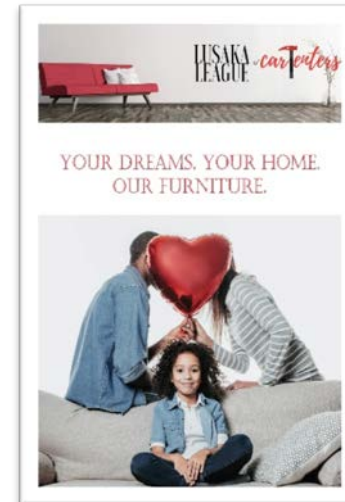
**Ähnliche Seiten**

- Fay Designs Professionelle Di... Gefällt mir
- Afrosparkles Sty... Bekleidung (Marke) Gefällt mir
- Salaula Busines... Unternehmensdi... Gefällt mir

Deutsch English (US) Türkçe Español Portugés (Brasil)

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Flyer



## Effect of Kaizen Training on Key Outcome Measures

	Management Practices		Business Indicators					Hours Worked (8) Hours Worked Normal Week
	(1) Index of 5s Activities	(2) Index of Cooperation Activities	(3) Purchase of Any Electric Tool	(4) Purchase of Electric Sanders	(5) Purchase of Electric Drills	(6) Purchase of Other Electric Tools	(7) Profits Directly reported Profit	
Treated Dummy	0.59*** {0.16}	0.086 {0.13}	0.093 {0.081}	0.18** {0.082}	0.13 {0.084}	0.19** {0.086}	-190 {347}	-6.68*** {2.45}
Dummy for Owned Any Electric Tool in 2015	No	No	Yes	No	No	No	No	No
Dummy for Owned Electric Sanders in 2015	No	No	No	Yes	No	No	No	No
Dummy for Owned Electric Drills in 2015	No	No	No	No	Yes	No	No	No
Dummy for Owned Other Tools in 2015	No	No	No	No	No	Yes	No	No
Observations	109	109	109	109	109	109	90	94
R-squared	0.118	0.004	0.298	0.176	0.273	0.157	0.003	0.075

Note: The dependent variable in column (1) is a standardized index of 5S activities, namely, (i) reporting of sorting the production area at least once a week; (ii) reporting that tools are never missing during production due to mishandling; (iii) reporting that timber is never spoilt due to poor storage; and (iv) reporting that timber is sorted and stored.

The dependent variable in column (2) is a standardized index of cooperative activities within the market, namely, cooperation through (i) subcontracting work to other producers; (ii) lending or borrowing machinery from other producers; (iii) in training workers; (iv) in product development;

(v) In marketing products; (vi) in purchase of raw materials excluding timber; and (vi) purchase of timber.

The dependent variable in column (3) - (6) is capturing investment into assets, namely, (i) any electric tool; (ii) electric sanders; (iii) electric drills; and (iv) other electric tools, respectively.

(5) The dependent variable in column (7) is hours worked in a normal week in April of 2016.

The dependent variable in column (8) is directly reported profit for a normal month in April of 2016.

All regressions estimated using ordinary least squares regressions. \*p < :10; \*\*p < :05; \*\*\*p < :01

## Corroborating hypothesized effects through test of channels

	(1) Change in Electricity Expense Last Month	(2) Change in Electricity Expense Normal Month	(3) Prefers Access to Technology
Dummy for owns Electric Tools in 2016	35.3* (20.5) [-5.58 - 76.2]	31.7 (19.9) [-8.07 - 71.4]	
Treated Dummy			0.24** (0.094) [0.054 - 0.43]
Constant	40.6** (15.9) [8.86 - 72.4]	42.1*** (15.5) [11.2 - 73.0]	0.37*** (0.067) [0.24 - 0.50]
Observations	78	78	108
R-squared	0.038	0.035	0.035

Note: The dependent variable in column (1) measures the reported change in expenditure on electricity comparing the reported last month of electricity expenditure at endline (March 2016) to the expenditure on electricity in the last month at baseline (March 2015).

The dependent variable in column (2) measures the reported change in expenditure on electricity comparing the reported normal month of electricity expenditure at endline (March 2016) to the expenditure on electricity in a normal month at baseline (March 2015).

The dependent variable in column (3) is a dummy that takes the value 1 in case the individual states that he prefers access to technology that reduces cost of production by 100 Kwachas. On the other hand, it takes the value 0 when the individual states he strictly prefer an increase in the sale price of an equivalent amount, or considers an increase in sale price or access to technology as equivalent. Note, only 9 individuals consider both to be equally good.

All regressions estimated using ordinary least squares regressions. \*p <:10; \*\*p <:05; \*\*\*p <:01