



*Tailored and intensive business upgrading programs can have the greatest impact, potentially increasing job growth at firms along with their financial performance.*

## EMERGING MARKET INSIGHTS

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# Upgrading Businesses for More and Modern Jobs: *What Works, For Whom, and When?*

BY ARTI GROVER

Even when firms in developing markets have a favorable combination of product, pricing, and marketplace, lucrative business opportunities may go unrealized.

How can these firms better reach their full potential?

A recent Emerging Markets Insights note, *Which Firms Create More Jobs?*<sup>1</sup>, emphasizes that firms with strong management and technological practices are far more likely to generate employment growth. But a critical question is how can these capabilities be developed<sup>2</sup> more effectively? In developing countries, over \$1 billion is invested annually in upgrading the capabilities of 4 million to 5 million entrepreneurs—a testament to the growing evidence<sup>3</sup> of its impact on firm performance.<sup>4</sup>

Business upgrading programs come in all shapes and sizes because they must address the myriad needs of different firms and entrepreneurs. From traditional business training to specialized consulting, recent meta-analysis<sup>5</sup> illustrates that well-designed business upgrading programs can raise sales and profits, strengthen survival rates, and spur job growth—especially when tailored to a firm's needs and stage of development. They can be effective in all sectors, ranging from agribusiness, textiles, and automobiles, to retail, public services, and health care.

## From Upgrading to Outcomes: The Path to Firm Growth

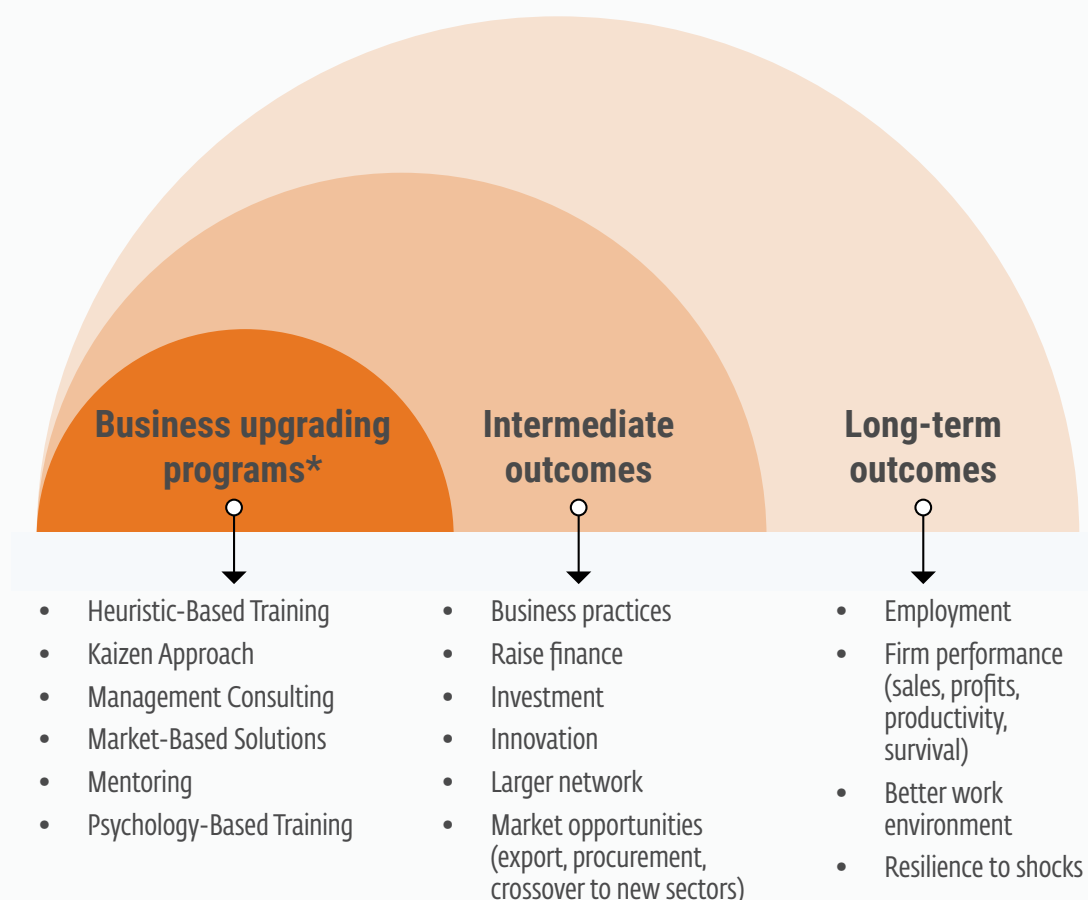
Upgrading in the form of improved structured management practices enables firms to produce more efficiently, reduce expenses,<sup>6</sup> better manage shocks and crises,<sup>7</sup> and anticipate market conditions.<sup>8</sup> Training in socio-economic skills can transform entrepreneurs' aspirations,<sup>9</sup> attitudes, and peer interactions, while technical skills trainings on management, financial literacy, and marketing strategies<sup>10</sup> upgrade their

business practices, improve working conditions,<sup>11</sup> help raise more funding,<sup>12</sup> and enter new markets<sup>13</sup> (**Figure 1**).

The impact? Business upgrading that focuses on improving structured management practices, for example, can help increase productivity,<sup>14</sup> profit margins,<sup>15</sup> and employment.<sup>16</sup> Trained entrepreneurs and managers grow their firms not merely by gaining market share<sup>17</sup> from insufficiently prepared competitors, but also due to their enhanced ability to innovate<sup>18</sup> and adopt new technologies that boost their

FIGURE 1

Business upgrading can unlock capabilities, capital and connections to enhance firm performance



\* See **Box 2** for the typology of business upgrading programs.

productivity. Evidence collected from 14 countries using the Management and Operational Practices Survey (MOPS) suggests stronger management capabilities are associated with larger employment in firms.<sup>19</sup> Numerous impact evaluations of business upgrading programs, ranging from basic goal-setting programs in Ghana<sup>20</sup> to intensive one-on-one consulting in India,<sup>21</sup> provide robust evidence of positive outcomes.

## The Impact of Business Upgrading Programs: What Works, and for Whom

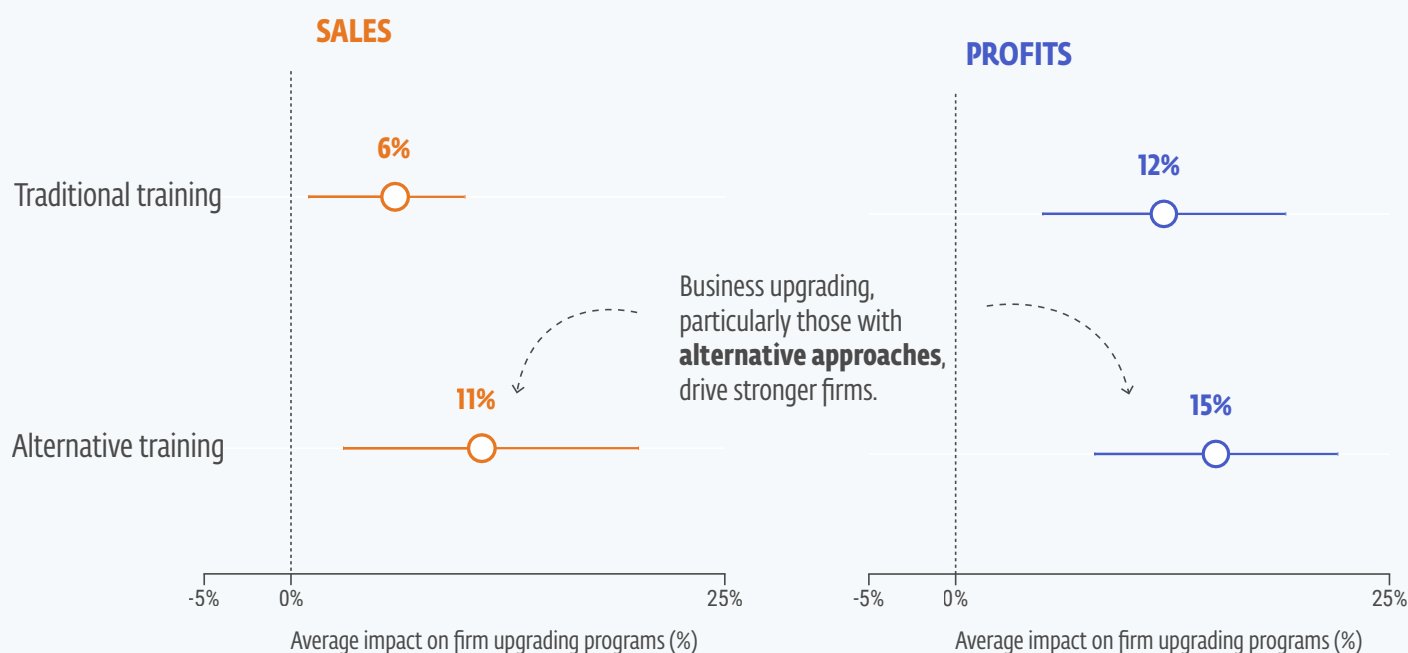
The performance metrics are compelling: Business upgrading programs can, on average, increase firm sales by 6 percent, profits by 6 to 12 percent, and the

probability of firm survival by 5 percent. Alternatives to traditional business training—such as psychology-based socio-emotional skills training programs, heuristics, incorporating gender considerations, peer or mentor support, customization to local contexts, and technical lean manufacturing—have been shown to be even more effective<sup>22</sup> in improving<sup>23</sup> firm performance (**Figure 2**).

The impact of business upgrading on job creation is mixed and varies with the type, intensity, and duration of the program. In some countries, longer-term follow-ups suggest that employment gains can emerge over time, even for micro firms. Moreover, some benefits of business upgrading may occur outside the participating firms,<sup>24</sup> as employees move on to managerial roles

FIGURE 2

### Upgrading programs improve many aspects of firm performance



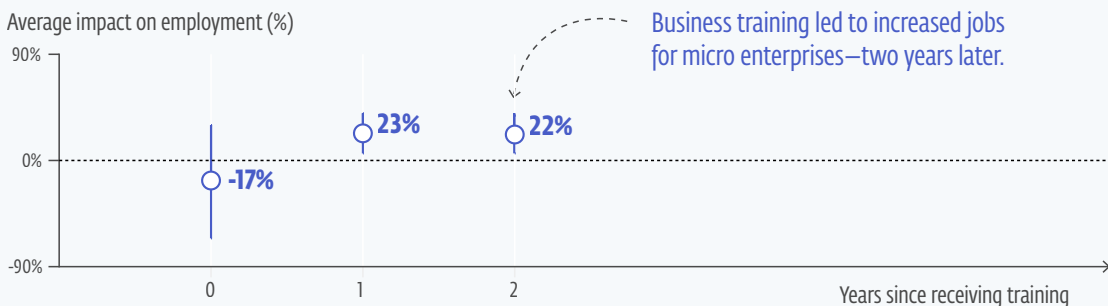
**Source:** McKenzie (2021); McKenzie et al. (2023)

**Note:** Rope ladder plot of average estimates from meta-analysis that compares the impact of traditional training and alternative upgrading programs. Points show estimated effects, horizontal lines show 95% confidence intervals. If the line crosses zero, the result is not statistically significant.

FIGURE 3

## Job creation impact on micro firms is not as likely, but may happen over time

### KYRGYZ REPUBLIC



### MEXICO



### SOUTH AFRICA



**Sources:** Chong and Velez (2020); Bruhn et al. (2018); Anderson et al. (2018)

**Note:** Plot of coefficient estimates from separate countries illustrates regressing employment on a measure of business upgrading program. Points show estimated effects, vertical lines show confidence intervals. Because program design, beneficiaries, and contexts differ across countries and interventions, their magnitudes are not comparable.

at other companies—implying that the broader labor market gains of these programs may be underestimated, particularly in the short run (**Figure 3**).

When considering firm size, traditional business upgrading tends to improve survival rates<sup>25</sup> in microenterprises, helping sustain livelihoods (**Figure 4**). They have limited effects on job creation, partly due to the multiple constraints they face and the time it typically takes to add employees. However, alternative training programs, such as psychological-based programs like personal initiative training, have shown promise in boosting sales, profits, and employment.

For small-sized firms,<sup>26</sup> slightly more sophisticated and specialized upgrading programs such as kaizen,<sup>27</sup> or MBA-style programs,<sup>28</sup> can improve management practices,

productivity, and firm survival. For mid-sized firms, consulting services have demonstrated significant gains in profitability, employment, and business outcomes.

These findings underscore the importance of tailoring business upgrading programs by firm size and specific needs to drive stronger performance and more job creation (**Table 1**).

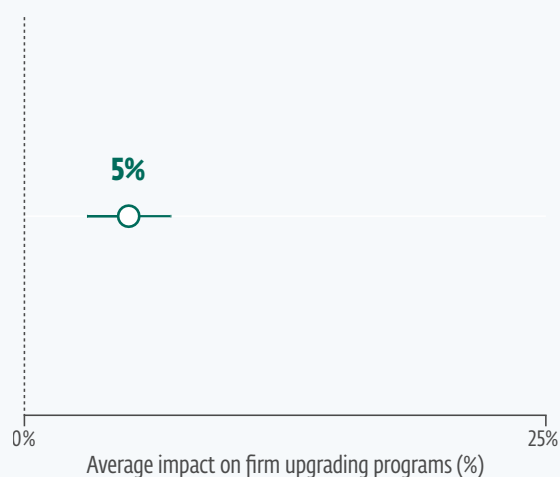
When it comes to gender, traditional training programs are less effective for women entrepreneurs, especially in locations where restrictive social norms limit<sup>29</sup> their opportunities.<sup>30</sup> However, innovative approaches are showing promise:

- **Gender-specific content**, such as the International Labour Organization's GET Ahead program in Kenya,<sup>31</sup> enabled women-led firms to introduce new products, resulting in a boost in sales.
- **Combining traditional training with socio-economic skills** like personal initiative training has delivered results in Mexico and Togo.<sup>32</sup> However, in Togo,<sup>33</sup> a follow-up study found these gains faded over time, largely due to women's limited access to capital
- **Other novel strategies** such as involving peers<sup>34</sup> in training, using role models,<sup>35</sup> or pairing<sup>36</sup> women with female mentors in Uganda, helped set ambitious goals and expand credit access, though job creation remained limited (**Figure 5**).

FIGURE 4

## Upgrading programs enhance survival rates in microenterprises

### FIRM SURVIVAL



**Source:** Busso et al. (2023)

**Notes:** Rope ladder plot of average estimates from meta-analysis with all training programs collected for the study. Points show estimated effects, horizontal lines show 95% confidence intervals. If the line crosses zero, the result is not statistically significant.



MBM Garments factory in Bangladesh. Photo © Kazi House Productions/IFC

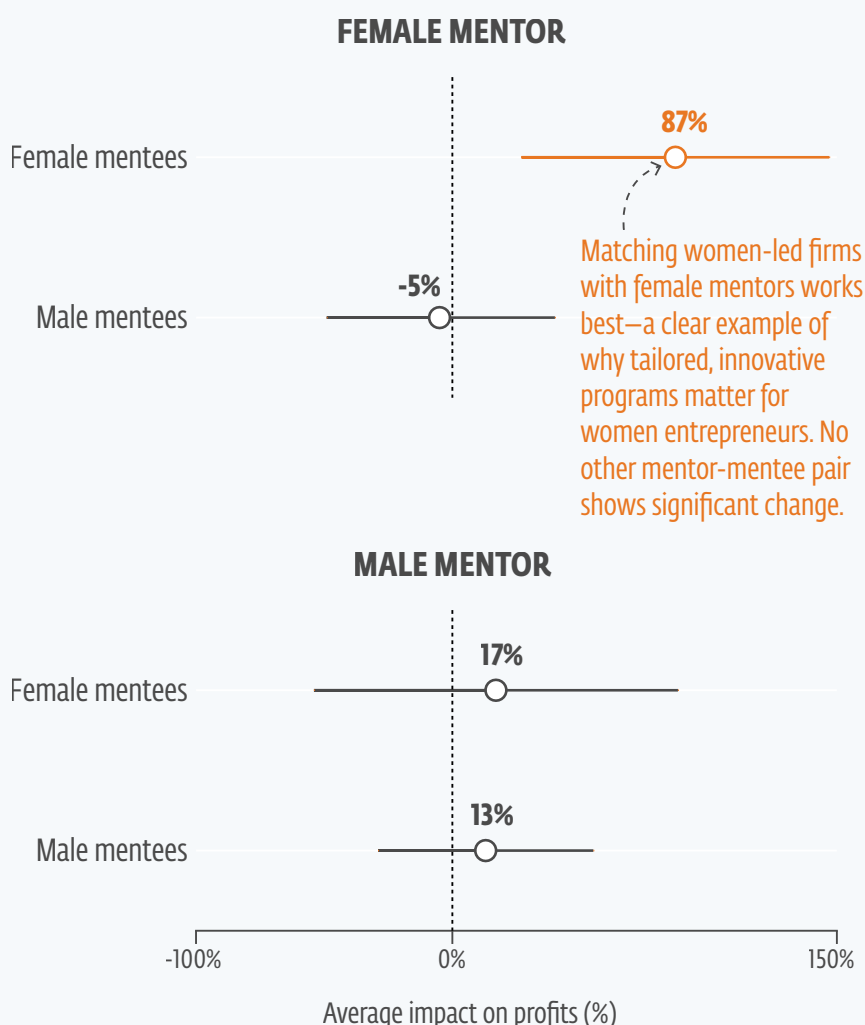
TABLE 1

## Tailored approaches to business upgrading

FIRM TYPE	COUNTRY	BUSINESS UPGRADING PROGRAM	FIRM OUTCOME
Micro	Ghana <sup>37</sup>	Goal setting	Profits ↑ 33%, workers' pay ↑ 30%, output ↑ 16%
Micro	Togo <sup>38</sup>	Personal initiative training	Profits ↑ 30%, workers ↑ 10%
Micro	Dominican Republic <sup>39</sup>	Rule of thumb/heuristics	Sales/profits ↑ 5–9%
Micro	Ecuador <sup>40</sup>	Rule of thumb/heuristics	Sales/profits ↑ 7–8%
Micro	Jamaica <sup>41</sup>	Personal initiative + business practices	Increased profits
Micro	Jordan <sup>42</sup>	Short video-based digital marketing training (women entrepreneurs)	Weekly revenue ↑ 18%
Micro	Indonesia <sup>43</sup>	Light-touch consulting + business practices Handbook	Sales ↑ 17%, profits ↑ 35%
Small	Tanzania <sup>44</sup>	Kaizen (management upgrading)	Sales ↑ 90% after 3 years
Small	Viet Nam <sup>45</sup>	Kaizen (management upgrading)	Increase in sales and value added
Small	Ghana <sup>46</sup>	Kaizen (management upgrading)	Increase in value added and profits (~18 times the training cost)
Small	Mozambique <sup>47</sup>	MBA-style training	Increase in return on assets
Mid-sized	Mexico <sup>48</sup>	Management consulting services	Short-run impact on productivity and return on assets (↑ by 0.2 standard deviation); employment ↑ 57% after 5 years
Mid-sized	Nigeria <sup>49</sup>	Outsourcing specialized services	Employment ↑ 25% after 2 years
Mid-sized	Uganda <sup>50</sup>	Marketing consulting	Paid employment ↑ 24%, sales ↑ 52%, profits ↑ 36%, assets ↑ 31%
Mid-sized	Colombia <sup>51</sup>	Group consulting	Improved management practices, employment ↑ 6–15 workers, sales ↑ 28–33%, profits ↑ 5–26%
Mid-sized	India <sup>52</sup>	One-on-one consulting (large textile firms)	Long run labor productivity ↑ 35%, reduced inventory/defects, profits ↑ \$325,000 annually

FIGURE 5

## Innovative training approaches led to improved outcomes for women-led firms in Uganda



**Source:** Anderson et al. (2024)

**Note:** Points show estimated effects, horizontal lines show 95% confidence intervals. If the line crosses zero, the result is not statistically significant.

## Breaking Barriers: Spurring Private Investments in Business Upgrading

The cost of upgrading programs varies by country, content, intensity, and modality of delivery. After upgrading, an average firm can earn enough to recoup the cost of training within two years, suggesting a potential private market investment opportunity. For example, in Nigeria,<sup>53</sup> outsourcing specialized services led to monthly profit increases of \$98, indicating that the costs of the full program (\$2,000) could be covered in less than two years.

Private markets for firm upgrading services, however, have been slow to develop due to low willingness to pay for such programs. For example: In Jamaica,<sup>54</sup> participation dropped sharply when firms were asked to pay over 25% of training costs.

What are the key factors driving this phenomenon?

- **Uncertainty of returns:** Firms are unsure about the benefits of investing in upgrading relative to their costs, but vouchers or subsidies<sup>55</sup> can encourage firms to participate.
- **Unclear market opportunity:** Firms may hesitate to upgrade without a clear market opportunity. This can be addressed through complementary supplier development<sup>56</sup> or export promotion programs.
- **Information asymmetry:** Firms may not be aware of what services they need or which providers are reliable. Providing a list of screened providers<sup>57</sup> can reduce search costs and signal quality.



- **Information barriers:** Firms do not know what they do not know, meaning they are typically not aware of gaps in their managerial abilities, or overestimate them. Providing information about preferred managerial practices and benchmarking<sup>58</sup> can improve outcomes.
- **Behavioral and time constraints:** Procrastination and inattention on the part of entrepreneurs can be overcome via a regular cadence of prompts,<sup>59</sup> as well as more flexible training schedules.

## Design for Impact: Lessons from Successful Programs

**Tailored business upgrading programs** adapted to a firm's context, size, and stage of development are the most effective. Strategies for customization include:

- *Adapting training materials* to reflect local market conditions,<sup>60</sup> cultural norms,<sup>61</sup> and business practices, such as the one created for small retailers in Indonesia, or for women entrepreneurs in Jordan.
- *Match program intensity to growth potential* by offering hands-on support to more sophisticated or high-growth firms,<sup>62</sup> while using lighter-touch approaches for smaller or early-stage enterprises, such as in Colombia, where high-growth businesses received intensive capital training.
- *Customize firm-specific diagnostic and solutions* on the critical managerial, operational, or market-access constraints, as evidenced in India, where individualized consulting<sup>63</sup> improved productivity and job creation at larger firms.

**High-quality mentors and intensive programs** have a larger and persistent impact on small and medium enterprises. Short duration<sup>64</sup> programs typically lead to only modest and temporary effects on sales and profits. By comparison, programs with intensive interactions resulted in lasting impacts on mid-size to larger firms.

### BOX 1

## Some illustrative examples of IFC projects, with suggestive results

### **Better Work Gender Equality and Returns**<sup>65</sup>

(Bangladesh): Technical and soft-skills training helped women garment workers advance into supervisory roles. The program is indicative of increased earnings by 40 percent and improved production line efficiency by up to 4.3 percentage points.

### **Food Safety Advisory Program**<sup>66</sup> (Viet Nam):

Following investment in the GS25 convenience store chain, paired with food safety advisory services, suggestive results support that the program created over 1,500 direct jobs and thousands more indirectly through 154 new stores.

**Bundled services**, such as combining business training and grants,<sup>67</sup> are more impactful than either intervention involving only training or grants, as evidenced in Tanzania and Uganda. Even with rigorous selection of accelerators,<sup>68</sup> high-growth-potential enterprises benefit from bundled services. For example, Startup Chile business accelerator participants receiving additional training reported a 21 percent increase in secured financing, a tripling of raised capital, and a doubling of workforce within five years. In the Western Balkans, a comprehensive investment-readiness program<sup>69</sup> increased the likelihood of receiving external financing for smaller firms by 15 percentage points. While the evidence on the impact of bundling is usually positive, program design should also consider cost-effectiveness —ensuring that the combined services are not partly substitutable and deliver greater value collectively than individually.



## Scaling Smart: Approaches to Expand Business Upgrading

Leveraging technology to develop skills at small firms in collaboration with large firms or multinationals can potentially enable scalable outcomes at lower costs. For example, a self-paced training program<sup>70</sup> on business management delivered to nearly 500 franchise store owners in Guatemala, in partnership with a large multinational firm, increased sales of franchise stores by 6 to 13 percent, and profits by 16 to 22 percent.

From video training paired with virtual consulting to AI chatbots, technology-enabled business upgrading programs have delivered measurable gains in firm performance across diverse settings. The figure below highlights recent evidence (**Figure 6**).

Several additional scalable approaches can effectively deliver firm upgrading while managing costs (**Figure 7**).

- *Disseminating local best practices* with light-touch mentoring, as seen in Indonesia,<sup>71</sup> cost around \$100 per firm and yielded up to \$310 in monthly profits

### BOX 2

## Typology of business upgrading programs

### Heuristic-Based Training

Focuses on guidelines for financial management, especially for less-educated firm owners. Examples include training in the Dominican Republic and Ecuador. New technologies are used as well; for example, recommendations on savings or inventory management are provided through mobile money apps, agents, or text messages.

### Incubators and Accelerators

Provide consulting, specialized training, mentoring, networking, seed capital, and workspace for high-growth startups, for example through StartUp Chile.

### Kaizen Approach

Inspired by Japanese factory organization, this focuses on continuous improvement and quality management. Examples include training for firms in Viet Nam and Tanzania.

### Management Consulting

Provides intensive, tailored consulting services for firm operations, including diagnostics and benchmarking of management practices, and identifies specific areas for improvement. For instance, a one-on-one consulting project for medium-sized textile plants in India focused on 38 management practices that are standard at American, European, and Japanese manufacturing firms. These practices are categorized into five broad areas: factory operations, quality control, inventory control, human resources management, and sales and orders management.

### Market-Based Solutions

Encourages firms to hire external experts such as accountants or marketing consultants, often using vouchers or subsidies; for example, a program in Nigeria subsidized the outsourcing of business services.

### Mentoring

Uses peers to share business knowledge and provide practical advice. Implemented for micro or smaller firms in Kenya and elsewhere.

### Psychology-Based Training

Develops soft skills like personal initiative and proactive mindset using psychological principles. Successful implementations include programs in Togo and Mexico, and cognitive behavioral therapy in Pakistan.

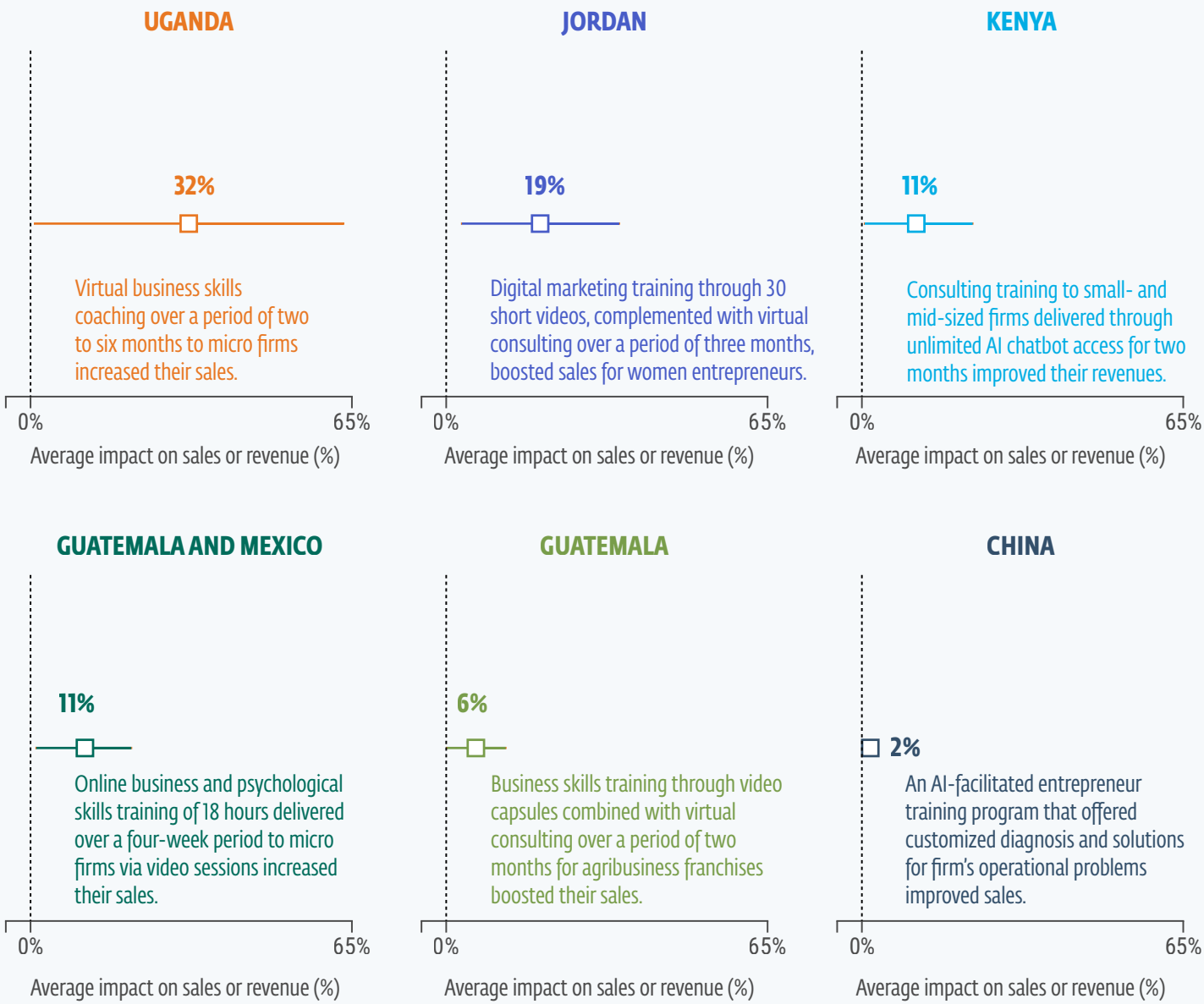
### Traditional Business Training

Classroom-based training on practices like accounting, marketing, HR, and inventory management. Examples include ILO's Start and Improve Your Business program, Freedom from Hunger's courses, and IFC's Business Edge program. These trainings can be tailored for specific goals:

- *Content to Address Targeted Group*: Programs such as ILO's GET Ahead in Viet Nam and Kenya were targeted at women-led firms and included modules on addressing gender-specific constraints.
- *Local Best Practices*: Customized materials like handbooks for Indonesian retailers or videos on digital marketing for Jordanian women entrepreneurs.

FIGURE 6

Leveraging technology for low-cost, impactful firm upgrading at scale



Sources: Anderson et al. 2024; Alhor (2024); Otis et al. (2023); Davies et al. (2023); Estefan et al. (2024); Jin and Sun (2023)

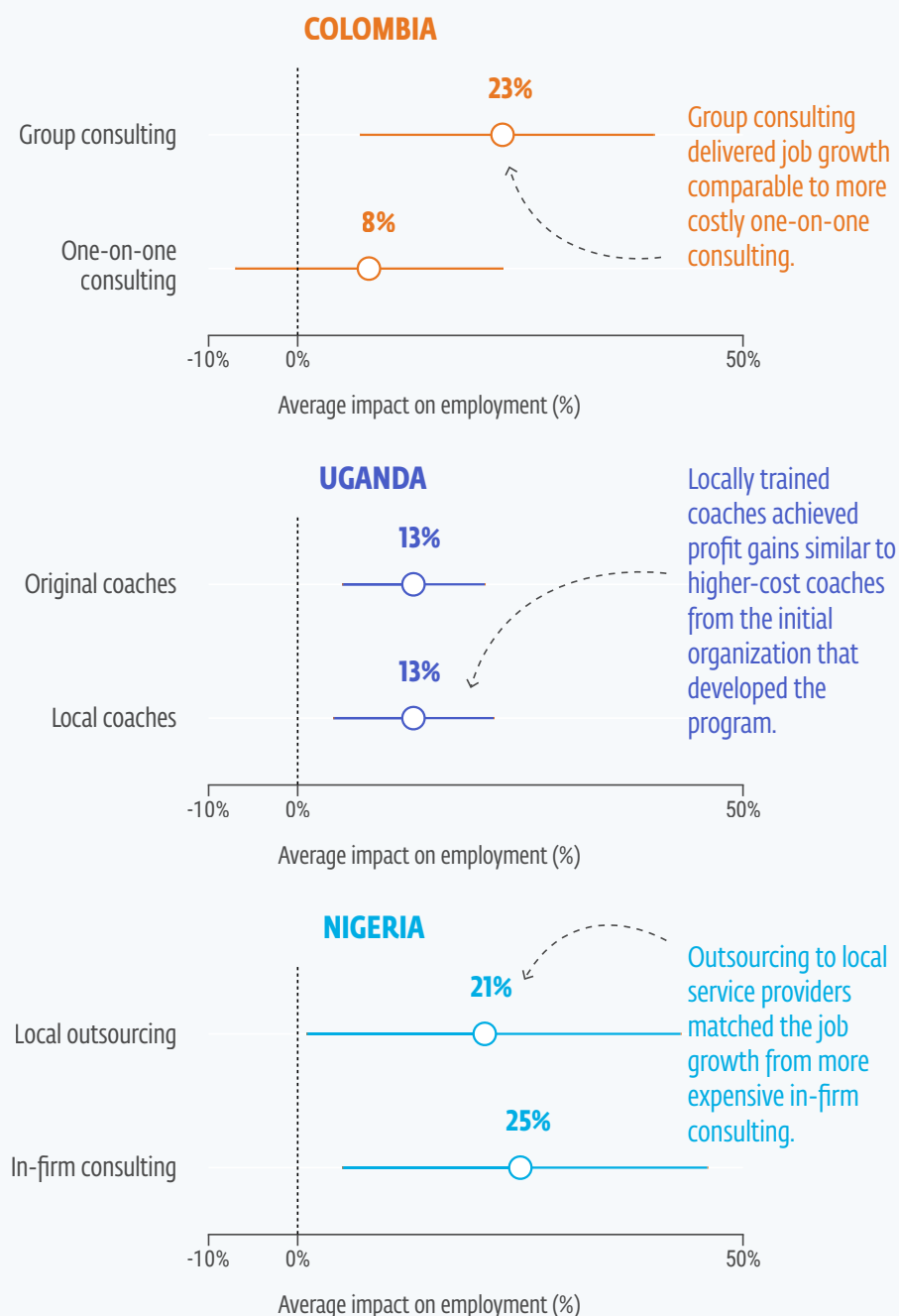
- **Group consulting** in Colombia<sup>72</sup> achieved similar outcomes to individualized consulting in India but at one-third the cost.
- **Decentralized implementation**, such as in Uganda,<sup>73</sup> where using local trainers alongside coaches from the initial organization that developed the program, delivered comparable results.
- **Outsourcing specialized services**, like accounting or marketing in Nigeria,<sup>74</sup> proved to be half as expensive as individualized consulting, with similar impacts on profits.

When firms with the high potential for growth receive tailored support of the right type—whether through targeted training, peer mentoring, or partnerships with larger firms—entrepreneurs can turn near-misses into growth stories.

For policymakers and impact investors, the lesson is clear: When investments are made in building the capabilities of entrepreneurs, much more is unlocked than firm growth. Conditions are improved or created for generating new jobs, stronger local economies, and a new generation of leaders and firms that can compete—and thrive—in both local markets and globally ■

FIGURE 7

## Various methods can help deliver firm upgrading at scale



**Sources:** Iacovone et al. (2018); Casabianca et al. (2024); Anderson and McKenzie (2022)

**Note:** Plot of coefficient estimates from separate countries illustrates regressing employment in Colombia and Nigeria and profits in Uganda on a measure of the given business upgrading program. Points show estimated effects, horizontal lines show confidence intervals.

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**Cover Photo:** A training session at Zoona—a digital financial services platform in Zambia. Photo © Nyani Quarmyne/IFC

**Editing** by Scott Wenger  
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## Endnotes

- 1 Grover, Arti. "Which Firms Create More Jobs?" August 2025. Washington, DC: The World Bank. <https://www.ifc.org/en/insights-reports/2025/which-firms-create-more-and-better-jobs>
- 2 Bloom, Nicholas, Erik Brynjolfsson, Lucia Foster, Ron Jarmin, Megha Patnaik, Itay Saporta-Eksten, and John Van Reenen. "What Drives Differences in Management?" May 2019. American Economic Review, Volume 109, No. 5, pp. 1,648–1,683. <https://www.aeaweb.org/articles?id=10.1257/aer.20170491>
- 3 Bloom, Nicholas, Takafumi Kawakubo, Charlotte Meng, Paul Mizen, Rebecca Riley, Tatsuro Senga, and John Van Reenen. "Do Well Managed Firms Make Better Forecasts?" December 2021. National Bureau of Economic Research, Working Paper 29591. <https://www.nber.org/papers/w29591>
- 4 Scur, Daniela, Scott Ohlmacher, John Van Reenen, and Florian Zimmermann. "The international empirics of management." November 2024. PNAS. <https://www.pnas.org/doi/10.1073/pnas.2412205121>
- 5 McKenzie, David. "Small business training to improve management practices in developing countries: re-assessing the evidence for 'training doesn't work'." June 2021. Oxford Review of Economic Policy, Volume 37, Issue 2, pp. 276–301. <https://doi.org/10.1093/oxrep/grab002>
- 6 Bloom, Nicholas, Jonathan S. Hartley, Raffaella Sadun, Rachel Schuh, and John Van Reenen. "Management and Firm Dynamism." April 2025. Harvard Business School, Strategy Unit Working Paper 25-052. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=5237311](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5237311)
- 7 Karplus, Valerie J., and Grover, Arti. "Coping with COVID-19: Does Management Make Firms More Resilient?" 2021. Washington, DC: The World Bank, Policy Research Working Paper, Number 9514. <https://openknowledge.worldbank.org/entities/publication/ee8c5e80-4548-576a-bcdf-7d7cbdoe892c>
- 8 Bloom, Nicholas, Takafumi Kawakubo, Charlotte Meng, Paul Mizen, Rebecca Riley, Tatsuro Senga, and John Van Reenen. "Do Well Managed Firms Make Better Forecasts?" December 2021. National Bureau of Economic Research, Working Paper 29591. <https://www.nber.org/papers/w29591>
- 9 Dimitriadis, Stefan, and Rembrand Koning. "Social Skills Improve Business Performance: Evidence from a Randomized Control Trial with Entrepreneurs in Togo." June 2020. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3459643](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3459643)

- 10 Anderson, Stephen J., Pradeep Chintagunta, and Naufel Vilcassim. "Do Marketers Matter for Entrepreneurs? Evidence from a Field Experiment in Uganda." January 2021. *Journal of Marketing* Volume 85, Issue 3. <https://journals.sagepub.com/doi/abs/10.1177/0022242921993176>
- 11 Karplus, Valerie J., and Grover, Arti. "Coping with COVID-19: Does Management Make Firms More Resilient?" 2021. Washington, DC: The World Bank, Policy Research Working Paper, Number 9514. <https://openknowledge.worldbank.org/entities/publication/ee8c5e80-4548-576a-bcdf-7d7cbdoe892c>
- 12 Gonzelez-Urbe, Juanita, and Michael Leatherbee. "The Effects of Business Accelerators on Venture Performance: Evidence from Start-Up Chile." April 2018. *The Review of Financial Studies*, Volume 31, Issue 4, pp. 1,566-1,603. <https://doi.org/10.1093/rfs/hhx103>
- 13 Cusolito, Ana P., Ornella Darova, and David McKenzie. "Capacity building as a route to export market expansion: A six-country experiment in the Western Balkans." September 2023. *Journal of International Economics*, Volume 144. <https://www.sciencedirect.com/science/article/pii/S0022199623000806>
- 14 Bloom, Nicholas, Aprajit Mahajan, David McKenzie, and John Roberts. "Do Management Interventions Last? Evidence from India." April 2020. *American Economic Journal: Applied Economics*, Volume 12, No. 2, pp. 198-219. <https://www.aeaweb.org/articles?id=10.1257%2Fapp.20180369>
- 15 Iacovone, Leonardo, William Maloney, and David McKenzie. "Improving Management with Individual and Group-Based Consulting: Results from a Randomized Experiment in Colombia." May 2019. Washington, DC: The World Bank, Policy Research Working Paper No. 8854. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/121371546237097316/improving-management-with->
- 16 Bruhn, Miriam, Dean Karlan, and Antoinette Schoar. "The Impact of Consulting Services on Small and Medium Enterprises: Evidence from a Randomized Trial in Mexico." April 2018. *Journal of Political Economy*, Volume 126, No. 2. <https://www.journals.uchicago.edu/doi/full/10.1086/696154>
- 17 McKenzie, David, and Susana Puerto. "Growing Markets through Business Training for Female Entrepreneurs: A Market-Level Randomized Experiment in Kenya." 2021. *American Economic Association*. <https://www.openicpsr.org/openicpsr/project/119063/version/V1/view>
- 18 Asiedu, Edward, Monica Lambon-Quayefio, Francesca Truffa, and Ashley Wong. "Female Entrepreneurship and Professional Networks." February 2023. <https://pedl.cepr.org/publications/female-entrepreneurship-and-professional-networks>
- 19 Scur, Daniela, Scott Ohlmacher, John Van Reenen, and Florian Zimmermann. "The international empirics of management." November 2024. *PNAS*. <https://www.pnas.org/doi/10.1073/pnas.2412205121>
- 20 Cettolin, Elena, Kym Cole, and Patricio S. Dalton. "Improving workers' performance in small firms: A randomized experiment on goal setting in Ghana." 2024. *Review of Economics and Statistics*. [https://www.researchgate.net/publication/386128066\\_Improving\\_Workers'\\_Performance\\_in\\_Small\\_Firms\\_A\\_Randomized\\_Experiment\\_on\\_Goal\\_Setting\\_in\\_Ghana](https://www.researchgate.net/publication/386128066_Improving_Workers'_Performance_in_Small_Firms_A_Randomized_Experiment_on_Goal_Setting_in_Ghana)
- 21 Bloom, Nicholas, Takafumi Kawakubo, Charlotte Meng, Paul Mizen, Rebecca Riley, Tatsuro Senga, and John Van Reenen. "Do Well Managed Firms Make Better Forecasts?" December 2021. National Bureau of Economic Research, Working Paper 29591. <https://www.nber.org/papers/w29591>
- 22 McKenzie, David. "Small business training to improve management practices in developing countries: re-assessing the evidence for 'training doesn't work'." June 2021. *Oxford Review of Economic Policy*, Volume 37, Issue 2, pp. 276-301. <https://doi.org/10.1093/oxrep/grab002>
- 23 McKenzie, David, and Christopher Woodruff. "Training Entrepreneurs." September 2023. *VoxDev*, Issue 3. <https://voxdev.org/voxdevlit/training-entrepreneurs>
- 24 Gonzelez-Urbe, Juanita, and Santiago Reyes. "Identifying and boosting 'Gazelles': Evidence from business accelerators." January 2021. *Journal of Financial Economics*, Volume 139, Issue 1, pp. 260-287. <https://www.sciencedirect.com/science/article/abs/pii/S0304405X20302208>
- 25 Busso, Matías, Kyunglin Park, and Nicolás Irazoque. "The Effectiveness of Management Training Programs: A Meta-Analytic Review." 2023. Inter-American Development Bank, Working Papers 12782. <https://ideas.repec.org/p/idb/brikps/12782.html>
- 26 Mano, Yukichi, Alhassan Iddrisu, Yutaka Yoshino, and Tetsushi Sonobe. "How Can Micro and Small Enterprises in Sub-Saharan Africa Become More Productive? The Impacts of Experimental Basic Managerial Training." 2012. *World Development*, Elsevier, Volume 40(3), pp. 458-468. <https://ideas.repec.org/a/eee/wdevel/v40y2012i3p458-468.html>

- 27 Mano, Yukichi, John Akoten, Yutaka Yoshino, and Tetsushi Sonobe. "Teaching KAIZEN to small business owners: An experiment in a metalworking cluster in Nairobi." September 2014. Journal of the Japanese and International Economies, Volume 33, pp. 25-42. <https://www.sciencedirect.com/science/article/pii/S0889158313000531>
- 28 Custodio, Claudia, Diogo Mendes, and Daniel Metzger. "The Impact of Financial Education of Executives on Financial Practices of Medium and Large Enterprises." January 2025. Swedish House of Finance, Research Paper No. 20-29. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3450851](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3450851)
- 29 Gine, Xavier, and Ghazala Mansuri. "Money or Management? A Field Experiment on Constraints to Entrepreneurship in Rural Pakistan." December 2019. Economic Development and Cultural Change. [https://www.researchgate.net/publication/337724900\\_Money\\_or\\_Management\\_A\\_Field\\_Experiment\\_on\\_Constraints\\_to\\_Entrepreneurship\\_in\\_Rural\\_Pakistan](https://www.researchgate.net/publication/337724900_Money_or_Management_A_Field_Experiment_on_Constraints_to_Entrepreneurship_in_Rural_Pakistan)
- 30 Jayachandran, Seema. "Social Norms as a Barrier to Women's Employment in Developing Countries." June 2020. IMF Economic Review, Volume 69(3), pp. 576-595. [https://ideas.repec.org/a/pal/imfocr/v69y2021i3d10.1057\\_s41308-021-00140-w.html](https://ideas.repec.org/a/pal/imfocr/v69y2021i3d10.1057_s41308-021-00140-w.html)
- 31 McKenzie, David, and Susana Puerto. "Growing Markets through Business Training for Female Entrepreneurs: A Market-Level Randomized Experiment in Kenya." 2021. American Economic Association. <https://www.openicpsr.org/openicpsr/project/119063/version/V1/view>
- 32 Campos, Francisco, Michael Frese, Markus Goldstein, Leonardo Iacovone, Hillary C. Johnson, David McKenzie, and Mona Mensmann. "Teaching personal initiative beats traditional training in boosting small business in West Africa." September 2017. Science, Volume 357, Issue 6357, pp. 1287-1290. <https://www.science.org/doi/10.1126/science.aan5329#supplementary-materials>
- 33 Campos, Francisco, Michael Frese, Leonardo Iacovone, Hillary C. Johnson, David McKenzie, and Mona Mensmann. "Long-Term and Lasting Impacts of Personal Initiative Training on Entrepreneurial Success." 2025. American Economic Review: Insights. <https://www.aeaweb.org/articles?id=10.1257/aeri.20240581&from=f>
- 34 Field, Erica, Seema Jayachandran, Rohini Pande, and Natalia Rigol. "Friendship at Work: Can Peer Effects Catalyze Female Entrepreneurship?" May 2016. American Economic Journal, Volume 9, No. 2, pp. 125-53. <https://www.aeaweb.org/articles?id=10.1257/pol.20140215>
- 35 Lafortune, Jeanne, Julio Riutort, and José Tessada. "Role Models or Individual Consulting: The Impact of Personalizing Micro-entrepreneurship Training." October 2018. American Economics Association, Volume 10, No. 4. pp. 222-245. <https://www.aeaweb.org/articles?id=10.1257/app.20170077>
- 36 Anderson, Stephen J., Pradeep Chintagunta, and Naufel Vilcassim. "Do Marketers Matter for Entrepreneurs? Evidence from a Field Experiment in Uganda." January 2021. Journal of Marketing Volume 85, Issue 3. <https://journals.sagepub.com/doi/abs/10.1177/0022242921993176>
- 37 Cettolin, Elena, Kym Cole, and Patricio S. Dalton. "Improving workers' performance in small firms: A randomized experiment on goal setting in Ghana." 2024. Review of Economics and Statistics. [https://www.researchgate.net/publication/386128066\\_Improving\\_Workers'\\_Performance\\_in\\_Small\\_Firms\\_A\\_Randomized\\_Experiment\\_on\\_Goal\\_Setting\\_in\\_Ghana](https://www.researchgate.net/publication/386128066_Improving_Workers'_Performance_in_Small_Firms_A_Randomized_Experiment_on_Goal_Setting_in_Ghana)
- 38 Mano, Yukichi, John Akoten, Yutaka Yoshino, and Tetsushi Sonobe. "Teaching KAIZEN to small business owners: An experiment in a metalworking cluster in Nairobi." September 2014. Journal of the Japanese and International Economies, Volume 33, pp. 25-42. <https://www.sciencedirect.com/science/article/pii/S0889158313000531>
- 39 Gonzalez-Urbe, Juanita, Michael Leatherbee, and Santiago Reyes. "Untangling the Benefits of Business Accelerators. Experimental Evidence of What Works and For Whom." October 2024. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=5001710](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5001710)
- 40 Arráiz, Irani, Syon P. Bhanot, and Carla Calero. "Less is more: Experimental Evidence on Heuristics-Based Business Training in Ecuador." July 2019. Inter-American Development Bank, No. 18. <https://idbinvest.org/en/publications/report-less-more-experimental-evidence-heuristics-based-business-training-ecuador>
- 41 Maffioli, Alessandro, David McKenzie, and Diego Ubfal. "Estimating the Demand for Business Training: Evidence from Jamaica." October 2023. Economic Development and Cultural Change, Volume 72, No. 1. <https://www.journals.uchicago.edu/doi/pdfplus/10.1086/719031>
- 42 Alhorr, Layane. "Virtual Windows Through Glass Walls? Digitalization for Low-Mobility Female Entrepreneurs." June 2024. Washington, DC: The World Bank, Policy Research Working Paper 10803. <https://documents1.worldbank.org/curated/en/099347306132442378/pdf/IDU-3eb13acf-4061-48ec-a6df-a4686e5627fd.pdf>

- 43 Dalton, Patricio S., Julius Rüschepöhler, Burak Uras, and Bilal Zia. "Curating Local Knowledge: Experimental Evidence from Small Retailers in Indonesia." October 2021. Journal of the European Economic Association, Volume 19, Issue 5, pp. 2,622-2,657. <https://academic.oup.com/jeea/article/19/5/2622/6134759#305549460>
- 44 Higuchi, Yuki, Edwin Paul Mhede, and Tetsushi Sonobe. "Short- and medium-run impacts of management training: An experiment in Tanzania." February 2019. World Development, Elsevier, Volume 114, pp. 220-236. <https://www.sciencedirect.com/science/article/abs/pii/S0305750X18303887>
- 45 Higuchi, Yuki, Vu Hoang Nam, and Tetsushi Sonobe. "Do Management Interventions Last? Evidence from Vietnamese SMEs." March 2023. Economic Research Institute for ASEAN and East Asia. <https://ideas.repec.org/p/era/wpaper/dp-2022-42.html>
- 46 Mano, Yukichi, Alhassan Iddrisu, Yutaka Yoshino, and Tetsushi Sonobe. "How Can Micro and Small Enterprises in Sub-Saharan Africa Become More Productive? The Impacts of Experimental Basic Managerial Training." 2012. World Development, Elsevier, Volume 40(3), pp. 458-468. <https://ideas.repec.org/a/eee/wdevel/v40y2012i3p458-468.html>
- 47 Custodio, Claudia, Diogo Mendes, and Daniel Metzger. "The Impact of Financial Education of Executives on Financial Practices of Medium and Large Enterprises." January 2025. Swedish House of Finance, Research Paper No. 20-29. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3450851](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3450851)
- 48 Bruhn, Miriam, Dean Karlan, and Antoinette Schoar. "The Impact of Consulting Services on Small and Medium Enterprises: Evidence from a Randomized Trial in Mexico." April 2018. Journal of Political Economy, Volume 126, No. 2. <https://www.journals.uchicago.edu/doi/full/10.1086/696154>
- 49 Anderson, Stephen J., and David McKenzie. "Improving Business Practices and the Boundary of the Entrepreneur: A Randomized Experiment Comparing Training, Consulting, Insourcing, and Outsourcing." January 2022. Journal of Political Economy, Volume 130, No. 1. <https://www.journals.uchicago.edu/doi/full/10.1086/717044>
- 50 Alhorr, Layane. "Virtual Windows Through Glass Walls? Digitalization for Low-Mobility Female Entrepreneurs." June 2024. Washington, DC: The World Bank, Policy Research Working Paper 10803. <https://documents1.worldbank.org/curated/en/099347306132442378/pdf/IDU-3eb13acf-4061-48ec-a6df-a4686e5627fd.pdf>
- 51 Iacovone, Leonardo, William Maloney, and David McKenzie. "Improving Management with Individual and Group-Based Consulting: Results from a Randomized Experiment in Colombia." May 2019. Washington, DC: The World Bank, Policy Research Working Paper No. 8854. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/121371546237097316/improving-management-with->
- 52 Bloom, Nicholas, Aprajit Mahajan, David McKenzie, and John Roberts. "Do Management Interventions Last? Evidence from India." April 2020. American Economic Journal: Applied Economics, Volume 12, No. 2, pp. 198-219. <https://www.aeaweb.org/articles?id=10.1257%2Fapp.20180369>
- 53 Anderson, Stephen J., and David McKenzie. "Improving Business Practices and the Boundary of the Entrepreneur: A Randomized Experiment Comparing Training, Consulting, Insourcing, and Outsourcing." January 2022. Journal of Political Economy, Volume 130, No. 1. <https://www.journals.uchicago.edu/doi/full/10.1086/717044>
- 54 Maffioli, Alessandro, David McKenzie, and Diego Ubfal. "Estimating the Demand for Business Training: Evidence from Jamaica." October 2023. Economic Development and Cultural Change, Volume 72, No. 1. <https://www.journals.uchicago.edu/doi/pdfplus/10.1086/719031>
- 55 Anderson, Stephen J., and David McKenzie. "Improving Business Practices and the Boundary of the Entrepreneur: A Randomized Experiment Comparing Training, Consulting, Insourcing, and Outsourcing." January 2022. Journal of Political Economy, Volume 130, No. 1. <https://www.journals.uchicago.edu/doi/full/10.1086/717044>
- 56 Atkin, David, Amit K. Khandelwal, and Adam Osman. "Exporting and Firm Performance: Evidence from a Randomized Experiment." May 2017. The Quarterly Journal of Economics, Volume 132, Issue 2, pp. 551-615. <https://academic.oup.com/qje/article/132/2/551/3002609>
- 57 Anderson, Stephen J., and David McKenzie. "Improving Business Practices and the Boundary of the Entrepreneur: A Randomized Experiment Comparing Training, Consulting, Insourcing, and Outsourcing." January 2022. Journal of Political Economy, Volume 130, No. 1. <https://www.journals.uchicago.edu/doi/full/10.1086/717044>
- 58 Bruhn, Miriam, and Caio Piza. "Missing information: Why don't more firms seek out business advice?" October 2022. Washington, DC: The World Bank. <https://blogs.worldbank.org/en/developmenttalk/missing-information-why-dont-more-firms-look-out-business-advice>



- 59 Dalton, Patricio S., Julius Rüschepöhler, Burak Uras, and Bilal Zia. "Curating Local Knowledge: Experimental Evidence from Small Retailers in Indonesia." October 2021. Journal of the European Economic Association, Volume 19, Issue 5, pp. 2,622-2,657. <https://academic.oup.com/jeea/article/19/5/2622/6134759#30554946060>
- 60 Dalton, Patricio S., Julius Rüschepöhler, Burak Uras, and Bilal Zia. "Curating Local Knowledge: Experimental Evidence from Small Retailers in Indonesia." October 2021. Journal of the European Economic Association, Volume 19, Issue 5, pp. 2,622-2,657. <https://academic.oup.com/jeea/article/19/5/2622/6134759#305549460>
- 61 Alhorr, Layane. "Virtual Windows Through Glass Walls? Digitalization for Low-Mobility Female Entrepreneurs." June 2024. Washington, DC: The World Bank, Policy Research Working Paper 10803. <https://documents1.worldbank.org/curated/en/099347306132442378/pdf/IDU-3eb13acf-4061-48ec-a6df-a4686e5627fd.pdf>
- 62 Gonzalez-Urbe, Juanita, Michael Leatherbee, and Santiago Reyes. "Untangling the Benefits of Business Accelerators. Experimental Evidence of What Works and For Whom." October 2024. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=5001710](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5001710)
- 63 Bloom, Nicholas, Takafumi Kawakubo, Charlotte Meng, Paul Mizen, Rebecca Riley, Tatsuro Senga, and John Van Reenen. "Do Well Managed Firms Make Better Forecasts?" December 2021. National Bureau of Economic Research, Working Paper 29591. <https://www.nber.org/papers/w29591>
- 64 McKenzie, David. "Small business training to improve management practices in developing countries: re-assessing the evidence for 'training doesn't work'." June 2021. Oxford Review of Economic Policy, Volume 37, Issue 2, pp. 276-301. <https://doi.org/10.1093/oxrep/grab002>
- 65 Woodruff, Christopher, and Atonu Rabbani. "Creating Better Jobs for Women and Boosting Productivity in Bangladesh's Garment Factories: An assessment of the Gender Equality and Returns Program." 2025. International Labour Organization, World Bank Group/International Finance Corporation. [https://betterwork.org/wp-content/uploads/Final\\_GEAR-Report\\_July-16-2025.pdf](https://betterwork.org/wp-content/uploads/Final_GEAR-Report_July-16-2025.pdf)
- 66 Berman, Daphna. "Empowering Leaders and Transforming Agriculture, One Supply Chain at a Time." 2025. World Bank Group/International Finance Corporation. <https://www.ifc.org/en/stories/2025/powering-leaders-and-transforming-agriculture>
- 67 Berge, Lars Ivar Oppedal, and Armando José Garcia Pires. "Measuring Spillover Effects from an Entrepreneurship Programme: Evidence from a Field Experiment in Tanzania." July 2021. The Journal of Development Studies, Volume 57, Issue 10. <https://www.tandfonline.com/doi/full/10.1080/00220388.2021.1945039>
- 68 Gonzalez-Urbe, Juanita, and Michael Leatherbee. "The Effects of Business Accelerators on Venture Performance: Evidence from Start-Up Chile." April 2018. The Review of Financial Studies, Volume 31, Issue 4, pp. 1,566-1,603. <https://doi.org/10.1093/rfs/hhx103>
- 69 Cusolito, Ana P., Ornella Darova, and David McKenzie. "Capacity building as a route to export market expansion: A six-country experiment in the Western Balkans." September 2023. Journal of International Economics, Volume 144. <https://www.sciencedirect.com/science/article/pii/S0022199623000806>
- 70 Estefan, Alejandro, Martina Improta, Romina Ordoñez, and Paul Winters. "Digital Training for Micro-Entrepreneurs: Experimental Evidence from Guatemala." May 2024. The World Bank Economic Review, Volume 38, Issue 2, pp. 394-421. <https://academic.oup.com/wber/article/38/2/394/7280557>
- 71 Dalton, Patricio S., Julius Rüschepöhler, Burak Uras, and Bilal Zia. "Curating Local Knowledge: Experimental Evidence from Small Retailers in Indonesia." October 2021. Journal of the European Economic Association, Volume 19, Issue 5, pp. 2,622-2,657. <https://academic.oup.com/jeea/article/19/5/2622/6134759#305549460>
- 72 Iacovone, Leonardo, William Maloney, and David McKenzie. "Improving Management with Individual and Group-Based Consulting: Results from a Randomized Experiment in Colombia." May 2019. Washington, DC: The World Bank, Policy Research Working Paper No. 8854. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/121371546237097316/improving-management-with->
- 73 Casabianca, Maria Sofia, Megan Lang, and Julia Seither. "Scaling Skills." December 2024. American Economic Association. [https://www.juliaseither.org/wp-content/uploads/2024/12/ScalingSkills\\_Dec24.pdf](https://www.juliaseither.org/wp-content/uploads/2024/12/ScalingSkills_Dec24.pdf)
- 74 Anderson, Stephen J., and David McKenzie. "Improving Business Practices and the Boundary of the Entrepreneur: A Randomized Experiment Comparing Training, Consulting, Insourcing, and Outsourcing." January 2022. Journal of Political Economy, Volume 130, No. 1. <https://www.journals.uchicago.edu/doi/full/10.1086/717044>