DCED

The Donor Committee for Enterprise Development

What do we know about the effectiveness of Business Management Training?

Key studies referenced in the DCED Evidence Framework

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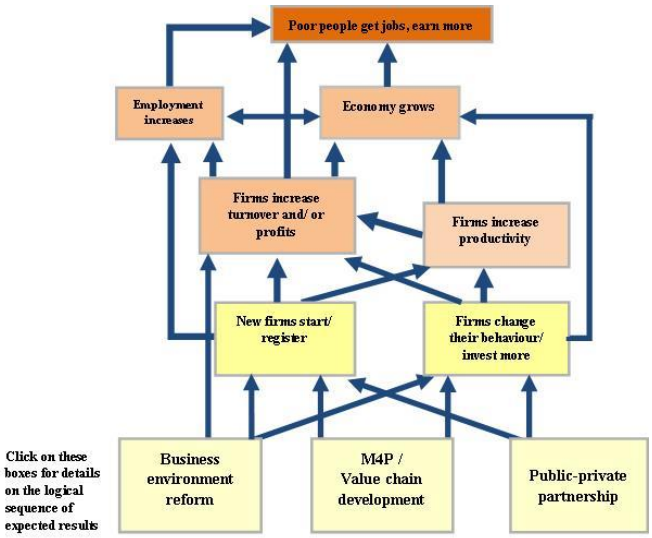
Introduction

The Evidence Framework on the DCED website seeks to provide a central point of access for convincing evidence on the results of private sector development programmes, including entrepreneurship and business management training. It is designed as a results chain to organise evidence according to the sequence in which PSD practitioners typically expect their work to lead to pro-poor impacts. Available research on results can be viewed by clicking on the blue arrows on the website, at: http://www.enterprise-development.org/what-works-and-why/evidence-framework/



Below, you can find a list and summary of findings of the studies on entrepreneurship and business management training referenced across the framework (original research and literature reviews).

Literature reviews

Elahi, Muhammad Hussein Noure (2015). 'Significant Points We Learn from Business Training and Entrepreneurship Evaluations from the Developing World' in *European Journal of Business and Management*, Vol.7, No.25, pp72-87

This literature review examined 16 studies (several of which are listed below). Several conclusions are presented. Among the few studies that looked at impacts on survivorship of existing businesses, there is some weak evidence for a positive effect for male-owned businesses. However, for female-owned businesses training is found to have either zero or a slightly negative effect on survivorship. Stronger results relating to the impacts of training programs on new business start-ups have been found. All the training programs studied that have content specifically intended to help people to start a new business have found training helps firms start-up, although there is some evidence that

training may merely speed up the entry of firms who were going to enter anyway, and potentially change the selection of who enters.

Almost all training programs find that treated firms start implementing some of the business practices taught by the training, although the magnitude of the impacts is rather small in many cases. The combination of relatively small changes in business practices and low statistical power means that few studies have found any impacts of training on sales or profitability, although the studies with most power have found some positive short-term effects. Studies which work with microfinance clients have also looked at outcomes relevant to the microfinance institution. There is some evidence that training changes rates of client retention and the characteristics of loan applicants. Finally, the three studies which examine the impact of individualized consulting provided to larger firms find evidence that consulting services can improve the performance of firms, including those with multiple plants and over 200 workers.

McKenzie, David and Christopher Woodruff (2012): *What are we learning from business training and entrepreneurship evaluations around the developing world?* World Bank Policy Research Working Paper.

This paper offers a review of impact evaluations of business training programmes, summarising findings and gaps in existing research (such as longer term and market-wide impacts). In the context of changes in business behaviour following training, the review notes that almost all training programs find that treated firms start implementing some of the business practices taught by the training. However, the magnitude of the impacts is rather small in many cases, with a typical change being 0.1 or 0.2 standard deviations, or 5 to 10 percentage points with low statistical power. In addition, all the training programmes studied which aim to help people start a new business have found training helps firms start-up, although there is some evidence that training may merely speed up the entry of firms who were going to enter anyway, and potentially change the selection of who enters. Few studies have found impacts of training on sales or profitability. Two studies with the most statistical power have found some positive short-term-effects: These include Oppedal et al (2012) and de Mel et al (2012). Two studies suggest that training is more effective in increasing revenues when combined with a grant (de Mel et al, 2012) or technical assistance (Valdivia, 2011).

Cho, Yoonyoung and Honorati, M (2013). *Entrepreneurship programmes in developing countries: A meta regression analysis*. World Bank Policy Research Working Paper.

This paper provides a systematic review on the effectiveness of various entrepreneurship programs in developing countries. It adopts a meta-regression analysis using 37 impact evaluation studies that were in the public domain by March 2012, and draws out several lessons on the design of the programs. The paper observes wide variation in program effectiveness across different interventions depending on outcomes, types of beneficiaries, and country context. Overall, entrepreneurship programs have a positive and large impact for youth and on business knowledge and practice, but no immediate translation into business set-up and expansion or increased income. At a disaggregate level by outcome groups, providing a package of training and financing is more effective for labour activities. In addition, financing support appears more effective for women and business training for existing entrepreneurs than other interventions to improve business performance.

Original research

Bloom, Nicholas ; Dressel, Leonie and Yam, Emilie (2018): Management delivers. Why firms should invest in better management practices, International Growth Centre**.**

This paper shows that introducing management practices to firms can have a lasting impact on their productivity and growth. This finding is based on follow-up research to a randomised control trial of large Indian textile firms that were introduced to good management practices by a consulting firm. The original research showed that firms that adopted good management practices increased their productivity by 17% in the first year, and within three years, they opened more production plants.

Eight years later, treatment firms saw average long-run increases of 34% in production and 9% in productivity compared to control firms. Management improvements also spilled over to plants that did not. Out of the 38 practices introduced to the firms in the original intervention, the 14 practices that persisted for most plants related to immediate improvements in quality and inventory – including recording quality defects systematically, having a system for monitoring and disposing of old stock, and carrying out preventative maintenance of machines. The paper also reviews other recent evidence on the long-term effects of good management practices.

Bloom, N., Eifert, B., Mahajan, A., McKenzie, D., and Roberts, R (2013). Does Management Matter? Evidence from India' in The Quarterly Journal of Economics, 128 (1): 1-51.

This research paper estimates the impacts of management consulting services for medium-sized Indian textile manufacturers. Free consulting was provided to randomly chosen treatment plants over a period of 4 months following one month of diagnostic consulting and their performance compared with a set of control plants, who only received diagnostic consulting. After the end of the consulting services, the authors find an increased adoption of the recommended practices by 38 percent. After one year, adoption practices dropped by only 3 percent. The control plants increased their adoption of the management practices by only 12 percentage points. The improvements in management practices among consulted firms led to productivity improvements of 17% within the first year. Based on these changes, firms' annual profitability increased by about $325,000 and within three years they opened more production plants.

Bruhn, M., Karlan, D., and Schoar, A (2012). *The Impact of Consulting Services on Small and Medium Enterprises: Evidence from a Randomized Trial in Mexico.* Yale Economics Department Working Paper No. 100.

In a randomized control trial in Puebla, Mexico, the authors randomly assigned 150 out of 432 small and medium size enterprises to receive subsidized consulting services, while the remaining 267 enterprises served as a control group that did not receive any subsidized training. Treatment enterprises were matched with one of nine local consulting firms and met with their consultants once a week for four hours over a one year period. Results from a follow-up survey, conducted after the intervention, show that the consulting led to a 13% increase in marketing efforts and a 7% increase in keeping formal accounts. The survey also found that treated enterprises had increased monthly sales by 80%, and productivity and profits by 120% compared to the control group.

Bruhn, Miriam and Bilal Zia (2011). *Stimulating managerial capital in emerging markets: the impact of business and financial literacy for young entrepreneurs*

This paper studies the impact of a comprehensive business and financial literacy program on firm outcomes of young entrepreneurs in an emerging post-conflict economy, Bosnia and Herzegovina. The authors conduct a randomized control trial and find that while the training program did not influence business survival, it significantly improved business practices and investments.

Calderon, G., Cunha, J., and de Giorgi, G (2012). *Business Literacy and Development: Evidence from a randomised control trial in rural Mexico*, Preliminary Paper.

Working with an NGO, the authors devised a randomized controlled trial in which 164 female entrepreneurs were given 48 hours of training, over six weeks, on topics such as measuring costs, setting prices, maximizing profits, marketing, and handling the legal issues that arise in a small business. They find that the entrepreneurs who were randomly assigned to treatment earn higher profits, have larger revenues, and serve a greater number of clients than those not benefitting from the training (186 controls in treatment villages, 522 in pure control villages). The authors also find that they are more likely to use formal accounting techniques and know how profitable they are. Furthermore, the positive treatment effects persisted two and a half years after the training.

de Mel, S., McKenzie, D., and Woodruff, C (2012*): Business training and female enterprise start-up, growth, and dynamics: experimental evidence from Sri Lanka*. World Bank Policy Research Working Paper.

The authors conduct a randomized experiment among women in urban Sri Lanka to measure the impact of the Start-and-Improve Your Business program. They work with a random sample of women operating subsistence enterprises and a random sample of women who interested in starting a business. They track the impacts of two treatments -- training only and training plus a cash grant -- over two years with four follow-up surveys. For women already in business, training alone leads to some changes in business practices but has no impact on business profits, sales or capital stock. In contrast, the combination of training and a grant leads to large and significant improvements in business profitability in the first eight months, but this impact dissipates in the second year. For women interested in starting enterprises, business training speeds up entry but leads to no increase in net business ownership by the final survey round. Both adoption of good business practices and profitability and sales (by 43% and 40%) by the new entrants are increased by training, suggesting training may be more effective for new owners than for existing businesses.

Fiala, N (2014): *Stimulating Microenterprise Growth: Results from a Loans, Grants and Training Experiment in Uganda*. Working Paper of the German Institute for Economic Research.

This paper presents the results of a randomized experiment involving microenterprise owners in Uganda designed to explore the effect of offering loans and grants, with and without entrepreneurship training, on firm profits. Individuals from a pool of business owners who expressed interest in expanding their enterprises were randomly selected to receive loans, cash grants, business skills training from ILO's 'Start and Improve Your Business' entrepreneurship training programme, or a combination of these. Participants were then followed quarterly to determine the short-run effects

on business and household outcomes. The combination of loans and training seems to have the strongest impact, with an increase of profits by 50% as compared to the control group. The effects of offering loans only seem to fade away relatively quickly (initially 30%, but almost gone in 2nd follow up survey). Grants with or without training did not work. It seems that the perspective of having to pay back the money leads to a more effective use of funds. Moreover, there are no effects for women from any of the interventions. The results suggest that highly motivated and skilled male-owned microenterprises can grow through finance, but the current finance model does not work for female-owned enterprises.

Frese, M., Gielnik, M., and Mensmann. M (2016). 'Psychological Training for Entrepreneurs to Take Action: Contributing to Poverty Reduction in Developing Countries' in *Current Directions in Psychological Science*, Vol. 25(3) 196–202

The authors of this study purport that effective entrepreneurship requires psychological approaches—in particular, approaches that put learning into action. This study summarises the findings from an 'action-regulation training' approach, which: combined knowledge acquisition with direct actions, requiring all participants to act as entrepreneurs; included action-related knowledge about goal setting, information and opportunity search, planning, and feedback seeking. Two types of training were delivered, the first focused on enhancing personal initiative in entrepreneurs[1] and the second on increasing start-up rates by improving participants' entrepreneurial skills and motivation[2].

The personal initiative training for existing entrepreneurs was evaluated with a 1-year study based on a randomized pretest-posttest control-group design in Uganda and showed a high degree of effectiveness. The training increased participants' personal initiative behaviour, and this increase was responsible for higher business success after the training (full mediation). The sales level of training participants rose 27%, from 2.67 million Ugandan shillings before the training to 3.39 million Ugandan shillings 1 year later, and the number of employees per firm increased by 35%, from 7.88 to 10.67 employees per firm (these numbers decreased across the year for the waiting control group).

The second training to develop an entrepreneurial mindset among undergraduate students was similarly tested with a long-term evaluation study using a randomized pretest-posttest design with a waiting control group. The evaluation study provided evidence for the positive impact of the training 1 year after the training intervention. The results showed that the percentage of start-ups grew from 16% to 51%, which was 50.1% higher than in the control group. After a year, training-group entrepreneurs created 1.06 jobs on average—twice as many additional jobs as business owners in the control group, who generated an average of 0.51 jobs in addition to their own. The positive effect on job creation became even more pronounced after 18 months, with an average of 2.82 jobs created by entrepreneurs in the training group versus 2.00 jobs created by entrepreneurs in the control group. The training also increased participants' entrepreneurial self-efficacy (that is the degree to which participants see themselves as having the ability to successfully perform the entrepreneurship roles

[1] The first training included content on In developing the training goal setting, scanning actively to understand the environment, action planning and execution, monitoring, and feedback seeking) with aspects of personal initiative, e.g. self-starting, long-term orientation, and persistence.

[2] The second training focused on teaching knowledge needed to perform activities related to starting a business. This type of knowledge is referred to as action knowledge. Major content areas included marketing, financial management, acquisition of starting capital, accounting, business planning, and legal issues. Leadership, planning creativity and opportunity identification, effective customer management, networking, and personal initiative is also covered.

and tasks), entrepreneurial goal intentions, action planning, and action knowledge, as well as opportunity detection.

Giné, X and Mansuri, G (2012) *Money or Ideas? A Field Experiment on Constraints to Entrepreneurship in Rural Pakistan*.

The authors conduct a field experiment in rural Pakistan where a half of 747 groups of male and female microfinance clients were offered 8 full time days of business training and the opportunity to participate in a lottery to access business loans of up to 100,000 Rs (USD 1,700), about seven times the average loan size. They find that offering business training leads to increased business knowledge, better business practices and improvements in several household and member outcomes. These effects are mainly concentrated among male clients, however. Among men, business training also leads to lower attrition among baseline businesses and better financial decisions. Women improve business knowledge but show no improvements in other outcomes. Access to the larger loan, in contrast, has little effect, indicating perhaps that existing loan size limits already meet the demand for credit for these clients.

Higuchi, Y., Mhede, E.P., and Sonobe, T (2016). Short-and Longer-Run Impacts of Management Training: An Experiment in Tanzania. World Bank: Washington DC

This paper reports the results of a randomized controlled trial of short-term training programs featuring Kaizen management for small garment manufacturers in Dar es Salaam, Tanzania. The study collected baseline and follow-up data of the firms in treatment and control groups four times in the span of four years, with negligible incidence of attrition. The training intervention significantly improved the management practices of the treated firms, and the impact remained significant even three years after the intervention. The authors note that this is in contrast to other research and suggest that other studies evaluated training impacts too early to detect the impact on business performance. Moreover, the initially insignificant impacts of the training on value added became significant three years later for a sub-group of the treated firms, those that received both classroom and on-site training components. The training's effect on business performance was reinforced by the treated firms' adaptive efforts to select useful management practices and to modify them to fit their business operation.

Karlan, D., Knight, R., and Udry, C (2014). *Consulting and Capital Experiments with Micro and Small Tailoring Enterprises in Ghana*.

The paper presents the findings from a randomized trial in Accra, Ghana with 160 microenterprise urban tailors from 2008-2011. A capital treatment group of 36 tailors received grants of about US $133, doubling their average working capital. A consulting treatment group of 41 tailors received one year of management consulting services. Business consultants, who know the local business environment, were assigned to these 41 firms for one year to provide advisory services. A third treatment group of 36 tailors received both the cash grant and the management consulting. The control group contained 45 tailors. The study found that all three treatments led to their immediate intended effects: changed business practices and increased investment. However, no treatment led to higher profits on average, and certainly not to the large effects hypothesized. In fact, each

treatment at some point led to lower profits. Then, in the long run, the researchers found that the microentrepreneurs in either consulting treatment group reverted back to their prior business practices, and that microentrepreneurs in the cash treatment group reverted back to their prior scale of operations.

Karlan, D and Valdivia, M (2010). 'Teaching Entrepreneurship: Impact of Business Training on Microfinance Clients and Institutions' in *The Review of Economics and Statistics*, May 2011, 93(2): 510–527.

Using a randomized control trial, the authors measure the marginal impact of adding business training to a Peruvian group lending program for female micro entrepreneurs. Treatment groups received thirty to sixty-minute entrepreneurship training sessions during their normal weekly or monthly banking meeting over a period of one to two years. Control groups remained as they were before, meeting at the same frequency but solely for making loan and savings payments. While business knowledge improvements are observed and client retention rates increased for the microfinance institution, little or no impact is found on business revenue, profits or employment.

Klinger, B and Schuende, M (2011): Can entrepreneurial activity be taught? Quasi-Experimental Evidence from Central America' in *World Development*, Vol 39, Issue 9.

The authors study whether business training can lead to increasing numbers of businesses started or expanded by analysing the results of a business training programme that the NGO Technoserve held in Nicaragua and El Salvador during 2002–05. They compare 377 trained and 278 rejected applicants who wished to start or expand a business using regression discontinuity design to establish causal effects of the training. The authors find that the training lead to a four to nine percent higher probability of business start-ups, for those trainees that did not own a business before. Moreover, the training lead to a 25-56 percent higher probability of business expansion, for those participants who owned a business before.

McKenzie, D and Puerto, S (2017). Growing Markets through Business Training for Female Entrepreneurs: A Market-Level Randomized Experiment in Kenya. Policy Research Working Paper 7993. World Bank, Washington DC.

This study is based on a randomized experiment in 157 rural markets in Kenya that tested how business training (the International Labour Organization (ILO)'s Gender and Enterprise Together program) affected the profitability, growth and survival of female-owned businesses, and assessed whether any gains in profitability come at the expense of other business owners. The study found that impacts were clearer over three years than one year and concluded that the business training program improved the survival, profitability, and growth of businesses that receive training.

Training was offered to participants and then 18 month after the training has taken place, half of the sample assigned to training was then offered a subsequent mentoring intervention intended to test whether additional group-based and in-person support strengthens the impacts of training. Firms assigned to training are 3 percentage points more likely to survive after three years, earn 18% higher sales, and make 15 percent higher profits. Their owners also had better mental health and a higher subjective standard of living; which were greater at three years than at one year after the training.

The gains are also similar for firms assigned to training only as for firms also assigned to a mentor. There is no significant spill-over effects on untreated firms operating in the same markets, and total sales and the total number of customers are higher in the treated markets than control markets. The researchers also found no reduction in new entry into these markets after training and the market growth appears to be related to better customer services, better business practices, and the introduction of new products, with no significant impacts on access to finance or input management. The authors conclude that, in underdeveloped markets, microenterprise growth need not come at the expense of competitors, and business training can help the overall market grow.

The cost of training was approximately US$200 per person assigned to training, and the gain in weekly profits was 221 KSH ($2.60). The gain in profits would therefore need to last for at least 76 weeks, or approximately 1.5 years, for the benefits of the program to exceed the costs. Although the study did not include a long-time series to examine these benefits, the benefits are greater three years than one year, suggesting this appears plausible. However, the additional mentoring treatment does not produce greater benefits than the cost incurred. Mentoring cost approximately $553 USD per individual.

Mano, Yukichi et al (2012). 'How Can Micro and Small Enterprises in Sub-Saharan Africa Become More Productive? The Impacts of Experimental Basic Managerial Training' in W*orld Development*, Vol 40, Issue 3.

Based on a randomised controlled experiment, this study analyses the effects of management training of MSEs in a cluster of garage mechanics and metalwork enterprises in Kumasi, Ghana. 167 entrepreneurs were randomly selected, of whom 60 attended a 3-week training course in 2007, largely based on ILO courses. A follow-up survey was conducted about a year later. The percentage of firms keeping and analysing records increased by 36 and 44% in the treatment group, as opposed to only 6 and 3% in the control group. Still, over one third of the firms trained did not adopt the recommended practices. This seems to be due to large variations in both personal aptitudes and education levels, and workers' abilities and motivation. While there were decreases in sales and gross profits for the whole cluster, they were slightly smaller for the treatment group (by 7 and 3 percent). Moreover, participation in the training increased the probability of firm survival by 8 or 9%. Using a smaller sample of 113 businesses (excluding entrepreneurs who had previously received training, and MSEs evicted from their premises), the authors also find a statistically significant effect on gross profit, estimated at 13,400 GHS (18 times the training cost).

Oppedal, B., Bjorvatn, L.I.K., and Tungodden, B (2011). *Human and financial capital for microenterprise development: Evidence from a field and lab experiment*. Working Paper of the Norwegian School of Economics and Business Administration.

This study examines the impacts of business management training delivered to clients of PRIDE, Tanzania's largest micro-finance institution, by comparing 319 trained to 325 non-trained entrepreneurs. Overall, the authors observe a positive impact of management training on the business practices of male entrepreneurs, e.g. in terms of marketing initiatives (increase by 12%), record keeping (increase by 25%), and business registration (increase by 8%). The effects are less pronounced for female entrepreneurs. Training also had a statistically significant effect on the businesses of males, increasing profits by around 20-30 percent through an increase in sales at the

same level. Again, the authors do not find any evidence of the training improving the profits of the businesses of females. A business grant given to a randomly selected subset of the trained and non-trained entrepreneurs did not have any impact on business practices or profits.

Valdivia, M (2011): *Training or technical assistance? A field experiment to learn what works to increase managerial capital for female microentrepreneurs*.

This study evaluates the impacts of a business training program serving female micro entrepreneurs in Lima that have previously benefited with the titling of their urban parcels. The intervention included personal development, business management and productive skills. 1983 eligible women were randomly allocated to treatment and control groups. Women in the two treatment groups (1416) were offered business training in 36 three-hour sessions over approximately 12 weeks (regular training). In addition, half of them were offered an individualized support in the form of technical assistance (TA) over a period of three extra months. A follow -up survey was conducted about four months after the end of the treatment. The author finds that trained women made some adjustments in their business practices, although they differ depending on the type of treatment received. Those that also received TA were more prone to plan and execute innovations, as well as to increase their association with business peers and use informal credit sources. Furthermore, such innovations led to an increase in sales of at least 18%. Both, business income and practices effects accrue among those with relatively larger businesses, suggesting the existence of a threshold above which this kind of business training can help.