

Our latest note examines how sensitive the demand for business training is to price, and whether charging a higher price causes firm owners to exert more effort in training.

How should business training be priced? A demand experiment in Jamaica

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At least one billion dollars is spent annually training at least 4 to 5 million potential and existing entrepreneurs in developing countries. In the majority of cases, including in many World Bank projects, this training is given by governments to firms for free.

Free training is often justified on the grounds that firms are too poor or credit-constrained to afford the costs of training, and that poorly managed firms may underestimate the benefits of improving their business practices.

However, these programs use public money to provide private benefits for the participating firms. Charging a positive price may improve the financial sustainability of such programs, and enable governments to train more firms with a given budget. Higher prices may also help target training towards the firms that expect to benefit most from it. Finally, a sunk cost effect may operate, whereby paying for training causes firm owners to value it more, and exert more effort in learning from training.

These arguments are all theoretically plausible, but what is missing is empirical evidence on how sensitive the demand for training is to price, and on whether this sunk cost effect operates in practice.

1. A Demand Experiment in Jamaica

We conducted two pricing experiments to measure these effects in partnership with the Jamaica Business Development Corporation. In both cases the training course offered was a 40-hour course that had modules on improving business practices, and on personal initiative. The cost of providing the course was \$150 per

firm. The firms were microenterprises in a wide range of industries, with median monthly profits of \$30-60 in our two samples, so the full cost of the course would be 3-5 months of profits.

We began by inviting firms to attend demonstration sessions, where they could learn about the course, get examples of its content, and hear results from other entrepreneurs that had taken part previously. At the end of the session, firms were then offered the opportunity to purchase the course.

The first experiment uses the Becker-deGroot-Marschak (BDM) mechanism with 457 entrepreneurs. This asks firms to state their maximum willingness to pay for the course. A price is then randomly drawn, and if this price is below the maximum willingness to pay, the entrepreneur buys the course at the drawn price. For example, if the entrepreneur is willing to pay \$50, they get the course for \$30 if a price of \$30 is drawn, but are not allowed to purchase the course if a price of \$60 is drawn.

The second approach uses the simpler take-it-or-leave-it (TIOLI) approach with 374 firms. Here one of four prices (free, \$37, \$75, \$112) was drawn, and the firm could decide whether or not to buy the course at this price.

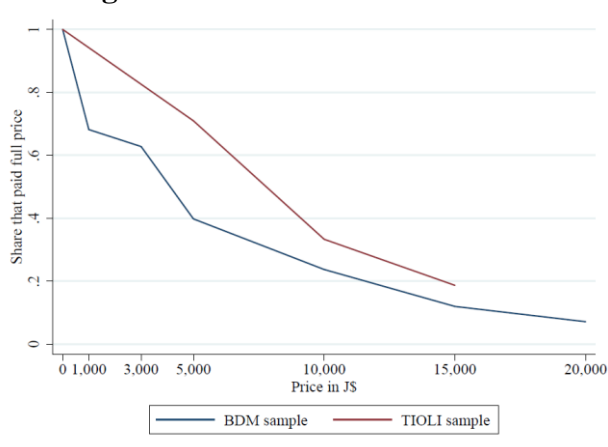
In both experiments we also randomized whether entrepreneurs had to pay for the whole course at once, or whether they could receive credit and pay in three installments.

2. Results

Charging higher prices reduces demand

Figure 1 shows how the demand for business training varies with price in the two experiments. The full cost of the training was J\$20,000 (\$150). We see that the share of entrepreneurs who purchase the course when it is offered at its full cost is very low. However, demand is inelastic, so that doubling the price cuts demand by less than one half.

Figure 1: Demand Curve for Business Training



As a result, fewer people are trained at higher prices: In our BDM sample, 76% of entrepreneurs attend at least one training class when it is free, 65% when they have to pay a nominal fee of 5%, 43% when charged one-quarter of the cost, 29% when charged half the cost, and only 11% when charged the full cost. In the TIOLI sample, which consists of somewhat wealthier entrepreneurs with larger firms, 90% attend at least one class when it is free, and demand falls to 48% when charged half the cost, and 37% when charged three-quarters of the cost. In both cases, offering the opportunity to pay in three installments did not affect demand.

Higher prices change who is trained: higher prices screen out poorer, older, and more risk-averse entrepreneurs with smaller businesses. However, higher prices do not differentially affect female business owners.

Higher prices both select entrepreneurs who are more likely to attend training, and have a sunk cost effect: entrepreneurs with a higher willingness to pay are more likely to attend when selected for training; and conditional on willingness to pay, those who are randomly assigned higher prices and pay for training go to more sessions.

3. Policy Recommendations

Our results suggest the optimal price for business training is unlikely to be either free or full cost. Charging for training does screen out those firm owners who are less likely to attend, selects those who expect to benefit more from it, and induces more effort in attending training. But a lot of these effects occur from charging only one-quarter of the full cost, and charging close to or at full recovery cost ends up screening out many business owners and increasing recruiting costs.

Finally, policy efficiency would suggest targeting training at those firms that will benefit most from it. A key question is then whether the entrepreneurs who have higher willingness to pay actually benefit more from training. We were unable to measure this with the sample sizes in our study, and this is an important topic for future work to evaluate.

For further reading see: Maffioli, A., McKenzie, D. and Ubfal, D. “[Estimating the Demand for Business Training: Evidence from Jamaica](#)”, World Bank Policy Research Working Paper 9415, September 2020.

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