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Estimating the Demand for Business Training. Evidence from Jamaica

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ABSTRACT

We estimate the demand for business training among entrepreneurs in Jamaica. We use either a re-framed version of the Becker-DeGroot-Marschak (BDM) mechanism or take-it-or-leave-it (TIOLI) offers to elicit willingness to pay for business training. We find that the majority of entrepreneurs have a positive willingness to pay for training, which suggests some scope for providers to help partially recover the costs of offering training. Our results indicate that charging a higher price for the course screens out a large share of entrepreneurs, in particular those entrepreneurs with fewer assets, who are more risk-averse business owners, and those who do not expect to benefit as much from the training. Providing a credit option does not affect take-up of the course. We find that higher willingness to pay is correlated with higher attendance, and conditionally on paying a positive price, those who are offered higher prices are more likely to attend, pointing to psychological or sunk-cost effects. However, this does not fully compensate for the reduction in participation in training due to the extensive margin effect of charging higher prices. Finally, we find some evidence that business training encourages higher adoption of business practices and improves business knowledge. Our follow-up survey suffered from high attrition, which limits our ability to detect impacts on sales and profits. We do not see that effects are stronger for entrepreneurs paying higher prices or with higher willingness to pay, but a lack of statistical power also means that we cannot rule out the possibility that those who pay higher prices do benefit more. We conclude that the optimal price for governments to charge may therefore lie somewhere in between free or nominal cost and market price, and depend on how governments trade-off equity and efficiency.

Key words: business training, entrepreneurs, programmes, Jamaica, payments

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1 Introduction

How should business training programs be priced? Billions of dollars are spent subsidizing entrepreneurship programs around the world, and most of these programs are offered for free in developing countries.[1] However, these programs aim to generate private benefits for the firms participating in them, in the form of higher profits and greater survival, and it is therefore not clear whether or not offering these programs for free to everyone is the optimal solution.

Charging a positive price may have three beneficial effects: i) it can help improve the financial sustainability of these programs and develop a market for business services; ii) it may help screen those entrepreneurs with the highest returns to training; and iii) entrepreneurs paying a positive price might value the training more, exert more effort in the learning process and be more likely to adopt the practices recommended. Conversely, there are several reasons why impacts could be largest for those who are least willing to pay: i) there is suggestive evidence from existing studies that those initially less interested in getting the training may benefit more from it (Karlan and Valdivia, 2011); ii) firm owners might not know whether they are poor managers and whether business training can be useful in their particular context (Bloom and Van Reenen, 2010); and iii) liquidity-constrained entrepreneurs with good ideas will get screened out by charging for training.

This papers provides the first experimental estimates of the demand for business training. We do this with two samples of Jamaican entrepreneurs using two different methodologies. First, we conduct a selective trial (Chassang et al., 2012) with a sample of 457 entrepreneurs. We use a version of the Becker-DeGroot-Marschak (BDM) to elicit willingness to pay for training, and then randomize offered prices to assign entrepreneurs to training if price is not above willingness to pay. Second, we randomize take-it-or-leave-it (TIOLI) offers comprising four levels of prices with a sample of 374 entrepreneurs. With the first method, we can estimate exact willingness to pay for each individual in the sample, while with the second one, we only observe the share of people willing to purchase the training at a certain price. Using these data, we first estimate the demand schedule for the training. Second, we test whether there is a sunk-cost effect by which those who pay a higher price for the program exercise more effort (attend the training more regularly).

This paper is also the first to investigate what factors determine an entrepreneur's willingness to pay for business training. Existing empirical research offers little guidance about

[1] For example, McKenzie and Woodruff (2014) review 14 recent randomized control trials on business training and note that in every case the training was offered for free to entrepreneurs.

what types of entrepreneurs would choose to purchase training at market prices, nor on what the effects of training are for this subgroup of entrepreneurs.

Finally, we test experimentally for the impact of the training and whether this impact varies with willingness to pay. In particular, whether those entrepreneurs who are willing to pay more for business training show greater impacts from it. We focus on the training impacts on business knowledge, business practices adopted, improvements in soft-skills, and business outcomes (profitability and sales) from six months to one year after the training.

The training program we study offers a total of 40 hours of classes spread over 10 weeks. It combines elements of the ILOs Improve Your Business program (adapted to the Jamaican context), which focus on teaching recommended business practices, with a soft-skills training focused on personal initiative, which teaches entrepreneurs to develop a pro-active entrepreneurial mindset (Frese and Gielnik, 2014; Frese et al., 2016).

We find that a large share of entrepreneurs are screened out from the training by charging a positive price. Demand sharply decreases with price. Only 12% of entrepreneurs in our first sample and 19% in our second sample (of somewhat wealthier entrepreneurs with a larger firms) purchase the course when offered a price equal to three quarters of its cost. We find that willingness to pay is correlated with risk taking, higher expected returns to the training, wealth (proxied by access to the internet and reservation wage) and larger business size (having at least one employee). This implies that higher prices screen out poorer entrepreneurs with smaller businesses, who are not so willing to take the risk of purchasing the course.

We include two randomized interventions in our study to test for how credit constrains and discount framing affect willingness to pay. We find that offering participants to pay the agreed price for the course in three installments does not affect willingness to pay or actual payments. Framing the price as a discount from the full cost of the course does not have significant effects either.

Conditional on paying for the course, we find some evidence of sunk-cost effects. Entrepreneurs paying higher prices are more likely to attend the course. This is mainly led by our first sample where we have larger variation in prices and sample size.

This paper contributes to the literature evaluating business training programs. There has been rapid growth in the number of impact evaluations conducted on business training programs in developing countries. McKenzie and Woodruff (2014) provide a review of 14

of these studies. They conclude that while most studies find that business training improves business practices, few studies have been able to trace this impact through onto impacts on business performance. They offer several possible explanations for this, including that standard training programs are often too short and deliver too small a change in business practices to yield detectable impacts, and that low take-up and very heterogeneous samples limit statistical power. They also note that the existing literature has offered the training programs for free, and so is not able to claim whether or not impacts would be higher for those who are willing to pay higher prices for training.

Several recent studies suggest that more intensive training that goes beyond the traditional accounting and finance-based training programs can have larger impacts. For example, Anderson-Macdonald et al. (2018) find that a marketing-based training program offers strong positive impacts on small business growth in South Africa. Most relevant to this study is work showing that training programs that teach personal initiative, a psychological-based mindset intervention, has spurred firm growth in Uganda (Glaub et al., 2014) and Togo (Campos et al., 2017). However, a recent experiment in Jamaica finds only short-term average effects of a similar training provided for free. These effects vanish after one year and are only observed for men (Ubfal et al., 2019). The heterogeneity found in this last study in Jamaica highlights the importance of better targeting the training. This paper tests whether moving to a market-based solution, can help screen entrepreneurs and increase average returns among those who participate in the training.

The second literature this paper draws on is the one on the methods to estimate the demand curve for a product or service. Recent applications in development economics have used two main methods: the Take-it-or-leave-it (TIOLI) method and the BDM mechanism. The TIOLI method consists in randomizing the offer price that potential clients face and to observe whether the product/service is purchased or not at that price. Due to its simplicity, it has been widely used to inform the debate on the pricing of health products (See Dupas and Miguel (2017) for a recent survey). The closest application to our paper is Berry and Mukherjee (2019) who use TIOLI offers to estimate the demand for private education in India. Alternatively, the Becker-DeGroot-Marschak (BDM) method allows obtaining the exact willingness to pay for each participant, which gives more power to detect heterogeneous treatment effects of the services provided (Becker et al., 1964). Some recent applications include Guiteras and Jack (2018) for reservation wages in Malawi and Ben Yishay et al. (2017) for latrines in Cambodia.

Two recent papers compare demand estimates obtained with TIOLI and BDM, and find overall consistent results. Berry et al. (2019) conduct a field experiment to test for potential

differences in the results obtained with the two mechanisms. They conclude that the BDM mechanism can work well even in populations with low literacy levels, but that it does generate some differences with respect to simpler TIOLI offers. They argue that the differences are likely due to how risk averse agents perceive the randomness of the BDM mechanism. Similarly, Cole et al. (2019) conduct two field experiments with different products, and they also find no evidence of systematic differences between both methods. They show through simulations that BDM can lead to faster learning about demand. Moreover, they highlight the fact that a variation of the BDM method using a discrete set of prices can reduce the influence of focal points, which seemed to generate some of the differences with TIOLI. The BDM variation we implement uses multiple price lists to guide the elicitation. In this way, it can lead participants to focus more on the trade-off between the value they attribute to the product and less on the randomization, and thus providing a good alternative to a pure BDM mechanism (similar arguments were made by de Meza and Reyniers (2013)).

Our paper also highlights the challenges in using a BDM mechanism for a setting where the product purchased has uncertain returns and it is not consumed immediately. Moreover, we explain the limitations of this design in a context where a large share of the sample does not follow-up with their commitments (e.g., they do not pay what they agreed to pay in a signed contract), and it is not possible to charge on the spot the full price of the product.

The paper proceeds as follows. Section 2 describes our sample, the context, the intervention and the data. Section 3 discusses the methods used to elicit willingness to pay and to estimate demand. Section 4 delivers the main results. Finally, Section 5 concludes.

2 Sample and Context

2.1 Context and Implementation Partner

Our intervention takes place in Jamaica, a small, open economy dependent on inflows from remittances and tourism. Informality is widely spread, with the non-agricultural informal sector capturing around 40% of employment (STATIN, 2014).

According to World Bank Group (2019), Jamaica ranks well in terms of the ease of opening a business and access to credit. The main challenges for operating a business in Jamaica are the enforcement of contracts, taxes, property registration and electricity provision. The lack of contract enforcement is a particularly relevant challenge for our intervention, which relies on entrepreneurs paying the amount they commit to pay after signing a contract. Moreover, very high crime rates and a high prevalence of scams by call centers erode trust

among local entrepreneurs, which affects recruitment and survey response.[2]

In this context, we partner with the Jamaica Business Development Corporation (JBDC), an organization with experience in promoting entrepreneurship in Jamaica. JBDC is an agency of the Government of Jamaica that facilitates the development of micro, small and medium-sized enterprises (MSMEs). It is assigned in the National MSMEs and Entrepreneurship Policy as the lead agency charged with the execution of training. It provides services across the spectrum, from guiding start-ups to a wide range of consultancy services for more established businesses.

In 2016-2017, Ubfal et al. (2019) conducted a randomized control trial with JBDC in Kingston to estimate the effect of two business training programs combining hard and soft skills. Training courses were fully subsidized to participants. JBDC would have been unable to continue offering these courses free of cost without external subsidies. They estimate the cost of the training to be around 20 thousand Jamaican dollars (around US$150), but they were not sure how much Jamaican entrepreneurs would be willing to pay for it. For this reason, we work with them to estimate willingness to pay with a sample of entrepreneurs that has not been exposed to their training.

2.2 Sampling

The target sample for this study are micro, small, and medium enterprises (MSMEs) in the Western regions of Jamaica (parishes of St. James, Wesmoreland, Trelawny, Hanover, Manchester and Saint Ann). For the second part of this study, we complement this sample with entrepreneurs in Kingston, the capital city. Our recruitment process is divided in two stages. The first part of the sample (457 entrepreneurs taking part of the BDM elicitation method -hereafter BDM sample-) is recruited in the city of Montego Bay (44%) and surrounding parishes. While the second part (374 firms receiving TIOLI offers -hereafter TIOLI sample-) is recruited mainly in Kingston (72%), with a smaller share recruited in Montego Bay (18%) and surrounding parishes.

Entrepreneurs were mobilized for the project through a variety of communication methods. These included emails from the existing client database of JBDC, advertisement via social media, newspaper and radio, and messages from other MSMEs support organizations. The goal was to reach 2,000 MSMEs, with a target of having 1,000 of them attend a

[2]See, for example, the article in The Economist (2018) reporting a state of emergency in regions of the country where most of our first sample operates. The state of emergency was called following an increase in violence among call centers, which fight for the contact lists used to scam people.

demonstration workshop, where the content of the course and the methodology to determine the price would be explained and willingness to pay for the course would be elicited. A baseline survey was conducted on the phone or online upon enrollment to the study to provide basic background on the firm, including characteristics that can be used to examine what factors help predict willingness to pay.

This process launched in late June 2017 and was extended until May 2018. Overall, 1,823 entrepreneurs showed interest in the training and answered the baseline survey. We dropped 8 respondents who reported not having a business, and one respondent who did not provide any contact detail. We also removed from the sample 20 outliers in terms of monthly sales (more than USD 10,000) and 9 entrepreneurs with more than 15 employees.[3] We remained with 1,782 eligible entrepreneurs that were invited to come to demonstration sessions conducted at the JBDC facilities that were closer to the business of the respondent.

We conducted a pilot with 7 entrepreneurs at JBDC Montego Bay office to test the implementation of the BDM mechanism. From August to November 2017, 457 entrepreneurs came to the demonstration sessions and completed the BDM elicitation method (BDM sample). From February to May 2018, 374 entrepreneurs came to demonstration sessions and received TIOLI offers (TIOLI sample).

2.3 Characteristics of the Sample

Table A1 provides summary statistics for the BDM sample, the TIOLI sample and the sample of entrepreneurs who completed the baseline, but did not come to any demonstration session. Overall, we see that the BDM sample is quite similar to those who did not showup at any demonstration session, while the TIOLI sample appears to be different in terms of wealth and business outcomes.

In terms of demographic characteristics of the entrepreneurs, 56-58 percent of the business owners are female in both samples, and approximately half are married. Average age is 46 in the BDM sample, and 41 in the TIOLI sample. Education levels are high, with 88 percent having completed at least secondary education in the BDM sample and 95 percent in the TIOLI sample. The share of entrepreneurs with access to the internet is larger in the TIOLI sample (96 percent vs. 83 percent in the BDM sample). However, the share of entrepreneurs choosing to complete the application form online instead of on the phone is

[3]For the BDM sample we removed 17 firms with more than 10 thousand dollars in monthly sales. From the TIOLI sample we removed 3 firms with more than 35 thousand dollars in monthly sales, allowing in the sample firms with more that 15 employees and more than 10 thousand dollars in sales.

similar (around 13 percent, not reported). Participants score high on a personal initiative index (average of 6.3 over 7 for both samples) and in willingness to take risk (7.5 over 10 in the BDM sample, and 8 over 10 in the TIOLI sample). However, when they compare themselves to other entrepreneurs in terms of proactiveness, they report a value of 6.6 over 10 (6.9 over 10 for the TIOLI sample). Finally, their reservation wage to work in a salaried job is J$89K (median 65K) for the BDM sample and 150K (median 100K) for the TIOLI sample.[4]

In terms of business characteristics, 39 percent of businesses in the BDM sample have a paid employee, while 44 percent of those in the TIOLI sample do. TIOLI sample firms are larger, with 17 and 4 percent of firms having more than 5 employees, in the TIOLI and BDM samples, respectively. There is room to improve business practices in both samples, with the mean firm doing 49 percent (BDM sample) and 55 percent (TIOLI sample) of the business practices we measure. When they compare themselves to other entrepreneurs in terms of business practices, entrepreneurs in both samples give a score of 5.4 over 10.

Firms cover a wide mix of industries, with the majority of businesses in the BDM sample being in services (38 percent), retail (30 percent) and manufacturing (23 percent), while in the TIOLI sample we have a larger share in services (53 percent), a similar share in manufacturing (24 percent) and a smaller share in retail (18 percent). Monthly sales and profits are much larger in the TIOLI sample, sales average J$86K (median 30K) in the BDM sample and J$214K (median 40K) in the TIOLI sample, while profits average 13K (median 3.8K) and 89K (median 8k), respectively. Interestingly, the median firm would be able to pay for the cost of the course with less than one month of sales, but it would take firms in the BDM (TIOLI) sample around 5 (3) months of profits to pay for the full cost of the course. Moreover, only 14-15% in both samples indicate they would not be able to finance an investment of J$20,000 (the cost of the course). It is likely that a large share of entrepreneurs have access to collateral since 53-54% of them report owning a vehicle for the business.

Around 80 percent of participants in the BDM sample expect that the training will increase their sales by more than 10 percent, while the other 20 percent expect an increase of up to 10 percent. In the TIOLI sample, 89 percent of participants expect an increase of at least 10 percent in sales from the training.

Finally, the mean (non-incentivized) willingness to pay for business training is J$13K (median 5K) in the BDM sample and J$17K (median 20K) in the TIOLI sample. This implies that the median firm in the BDM sample reports being willing to pay up to one fourth of

[4]The exchange rate at the time of the study was around 130 Jamaican dollars per one US dollar.

the cost of the course, while in the TIOLI sample, the median firm reports being willing to pay the full cost. For the sample not attending any demonstration session, reported willingness to pay is 9.5K (median 5K), which is not statistically significantly different from the mean in the BDM sample.

Overall, the TIOLI sample is composed of wealthier, more educated entrepreneurs who own relatively larger, more profitable firms. They expect more from the training, and they also report willing to pay more for it. The BDM sample of entrepreneurs is more similar to the pool of applicants who were interested in purchasing the course, but who did not show up to any demonstration session.

2.4 Data

We rely on three sources of data: baseline data, administrative data on payment and attendance, and follow-up data. The baseline survey was conducted either on the phone or online on a rolling basis between June 2017 and May 2018. Attendance and payment data were recorded by JBDC.

We conducted a phone follow-up survey with all entrepreneurs who attended demonstrations sessions from late September 2018 to February 2019. We hired a private local survey firm with international experience, and as we expected, given the low trust levels and high incidence of violence, attrition was an important problem. From the BDM sample, 302 (66%) answered the survey, while from the TIOLI sample 266 (71%) did. Compared to other phone surveys, these response rates are not low. However, they limit the range of analysis we can conduct given that response rates are highly correlated with price paid, particularly so for the BDM sample.

2.5 Intervention

The program for which we elicit willingness to pay is a 40-hour business-training course divided in ten four-hour lectures. It is a combination of two training programs: the first component focuses on soft skills and the second one on recommended business practices.

The training material has been prepared by a team with expertise on entrepreneurship, organizational behavior and work psychology. The first training module, covered in the first five classes, is based on a soft-skill component focusing on personal initiative, a psychological intervention aimed at making business owners more proactive with respect to new ideas, and more persistent in overcoming challenges (Frese and Gielnik, 2014; Campos

et al., 2017; Ubfal et al., 2019). The second component, covered in the second five classes, is a standard training program that teaches a set of best business practices based on ILOs Improve your Business (IYB) training, adapted to the Jamaican context. The cost of providing the course is approximately J$20,000 Jamaican dollars (US$150) per participant.

3 Estimating the demand for business training

BDM method

To elicit willingness to pay for business training, we implement the BDM method with our first sample of entrepreneurs, from August to November 2017. We invite entrepreneurs to attend a demonstration session in the same facilities where the training is provided. Sessions are conducted in small groups, with less than 20 participants. During the session, entrepreneurs learn about the contents of the training program. This step is important to reduce uncertainty about the course and can help build trust on the organization providing the course since entrepreneurs are exposed to its trainers and get to know the facilities where the course will be implemented.

Entrepreneurs are told that the cost of providing the course is J$20,000, but that there is an opportunity to get the course at a discounted price if they purchase it at the end of the session. After a 30-minute description of the course by JBDC trainers, the BDM elicitation method is described in detail and an example of the mechanism is conducted for a token price (e.g., a pen or a notebook) with one of the participants in front of all the others. Entrepreneurs are explained that it is convenient for them to reveal their true willingness to pay for the course; over-reporting the price would imply they might have to pay a higher amount than the one they are really willing to pay, and under-reporting would reduce their chances of getting the course at a price they would be willing to pay.

After this explanation, they conduct individual interviews with an enumerator. We use a multiple price list approach to elicit the amount they are willing to pay for the course. We begin by asking if they would take the course if offered for free, and as long as they answer positively, we continue by asking whether they are willing to pay J$1,000 to take the course, then J$3,000, J$5,000, J$10,000, J$15,000, and J$20,000. Every time they answer yes, we ask them to confirm if they are sure they would be ready to pay that amount. Whereas when they answer negatively, we ask them if they are sure that if we offered a price below that amount, they would not be willing to purchase the course at that price. Once we find the price at which they would not buy the course, we ask for the exact price they would be willing to pay between the price they accepted and the price they rejected.

They then sign a commitment statement for the price they accept to pay.[5] After signing the contract, they roll two dice, and add up the sum. The sum determines the price they are offered the course at according to a pre-specified schedule unknown to participants.[6] The determination of the price through the rolling of the dice has the advantage of making the selection of the price transparent to the business owner, which is very important in contexts of low trust as the one faced in Jamaica.[7]

If participants are offered a price at or below their willingness to pay, they are asked to pay for the course before the first class, and if not they are told that they cannot participate in the training. The random choice of one of the six offered prices induces experimental variation in exposure to treatment: some individuals have a willingness to pay (WTP) equal or greater than the price offered and others do not. Indeed, Table 1 shows that, overall, baseline observable characteristics of entrepreneurs in our sample are not correlated with the price offered (Column 2).

In order to further test the role of liquidity constraints and reference points in determining willingness to pay, the sample of entrepreneurs is randomized into four groups, in a 2x2 design. To test for liquidity constraints we randomized whether participants are asked to pay the full amount at once (practically within one or two weeks, and before the first class of the course), or with credit, in 3 installments, with the second payment due after class 6, and the third after class 8. To test for framing effects, we randomize the way the questions in the elicitation are asked. The standard questions ask: "are you willing to pay X Jamaican dollars for the course?", while the question for the framing group emphasizes the discount: "are you willing to pay X Jamaican dollars for the course? This would be a discount of Y% over 20,000, the cost per person of providing the course." Both treatments are randomized by randomly ordering the forms read to each participant in batches of 4 (standard, credit, discount frame, credit and discount frame). Participants are told about their respective treatment (i.e., the possibility of paying in installments or the discount frame question) before reporting their willingness to pay. We expected higher willingness to pay if there is flexibility as to when the payment is made, and if the price is framed as a discount.

[5]The commitment says: "I commit to pay X Jamaican dollars if the price offered to me is equal to that amount or any amount below it if the price you offered me is lower. I understand that if the rolling of the dice determines a price above that amount, I will not be able to take the training."

[6]A sum of the dice equal to 2 implies a price of J$20,000, of 3 or 11 a price of J$3,000, of 4 or 10 a price of J$1,000, of 5 or 9 a price of J$5,000, of 6 or 8 a price of J$10,000, of 7 a price of J$0, and of 12 a price of J$15,000.

[7]We chose different probabilities for each price since we believed few firms were likely to be willing to pay for the course at prices that reflect the full cost of offering the training, and we needed to have sufficient firms receiving training to measure the treatment impact. We therefore put the highest probability on getting offered zero price, and the next highest on getting offered prices which are half, and one-quarter of the full cost.

The BDM mechanism is incentive-compatible for expected utility maximizers.[8] It is usually preferred to the commonly used elicitation method of simply asking participants to report their willingness to pay (WTP) in an unincentivized way (Dupas and Miguel, 2017). Unincentivized WTP measures can be affected by lack of attention, expectations of additional discounts, or just enumerator demand effects (e.g., overstating WTP to please the enumerator). We included an unincentivized question on WTP in our baseline survey and its correlation with elicited WTP using the BDM mechanism is low (0.07) and not statistically significant.[9] When we restrict the sample to those who completed the exercise, we see that median unincentivized WTP (measured before coming to the demonstration session) is J$5,000 and median elicited WTP is $15,000.

We encountered logistical problems in the implementation of the BDM method. A significant share of respondents did not pay the amount they agreed to pay, even when they signed a contract for that amount. Out of the 457 respondents who completed the BDM mechanism, 392 (86%) bought the course by reporting a WTP at least as high as the price offered. In this group, 318 participants were assigned a positive price for the course, but only 46% of them paid the agreed amount for the course, while 50% paid at least part of the agreed amount.[10]

This implies that our measure of willingness to pay for the course can be biased. Moreover, this might not be true only for respondents who did not end paying the required amount, but also for those who paid it, since we do not know if they would have paid the full amount had the price they received been greater. Respondents could have chosen to report a price above their WTP to increase their chances of entering the course, with the expectation that they would be allowed into the training even if they did not pay that price.

Table 3 presents evidence that our WTP measure is informative. We see that for those who purchased the course, a measure of consumer surplus (i.e., difference between WTP and price offered) is highly correlated with paying in full the offered price (Column 1), coming at least one class to the course (Column 2), and number of classes attended (Column 3). However, this table can also be interpreted as evidence for over-reporting WTP as in Hoff-

[8] As Horowitz (2006) explains the BDM mechanism may not elicit true willingness to pay for individuals who are not expected utility maximizers.

[9] It is important to clarify that at baseline participants had not been told the cost of the course, and had not been clearly explained the contents of the course, which can certainly affect their valuation.

[10] Among those assigned to the credit treatment arm, 42% paid the full amount and 48% paid a partial amount, while among those not offered credit these shares were 50% and 52%, respectively. More precisely, 10 entrepreneurs did not complete payment for the 3 installments, and that is the reason of the larger difference between full payment and partial payment in the credit arm.

mann (2018). In the case of true revelation of WTP, the difference between WTP and the price offered should not affect payment, since everyone with WTP as least as high as the price is supposed to pay.

It is also possible that respondents changed their mind after the demonstration session. In particular, for the first round of demonstration sessions it took almost a month until JBDC could start the courses. They did not want to ask participants to pay until they were ready to confirm the start date of the course. Therefore, participants had some time to think over their decision and to change their mind. When participants were called to come to the training and pay, an important share was either not found or reported not being any longer interested.

Given these issues, we decided to continue with a simpler strategy. With our second sample of entrepreneurs, we randomized take-it-or-leave-it offers.

TIOLI method

With the second part of our sample, we elicited demand by randomizing the price each entrepreneur was offered, from March to July 2018.[11] Following the same procedure as with the BDM sample, we invited entrepreneurs to come to demonstration sessions where the content of the course was explained. In this case, we informed entrepreneurs about the cost of the course in the invitation script, which might have affected selection into coming to the sessions. Moreover, in this case we did not randomize the discount frame treatment since all entrepreneurs were told that at the session that they could receive a discount ranging from 25% to 100% of the cost of the course. Entrepreneurs attending demonstration sessions were randomly allocated to 4 prices: J$0 or 5,000 with probability one third and 10,000 or 15,000 with probability two thirds. In this case, JBDC was better prepared to pre-announce the dates of the training and to commit to those dates. This was reflected in overall higher attendance levels as we show below.

In order to implement the randomization, we asked each participant to randomly pick a card where a code was written. As they picked the card, they exited the room and went to another room where they were told the treatment condition that corresponded to that card. In this case, all treatments were framed as an scholarship for the course.[12] Moreover, half of the participants assigned to a positive price were randomly allocated to a credit option,

[11] We were not able to randomize who was part of the BDM sample and who was part of the TIOLI sample. Indeed, as shown above, the characteristics of the two samples differ significantly.

[12] For example, respondents were told "You won a scholarship of 75%, you are invited to take the course at a price of J$5,000. You need to pay this amount within the next 2 weeks to be admitted into the course."

as in the BDM design, they were allowed to pay in 3 installments (before the first, sixth and eight class, respectively).

Training Implementation

Entrepreneurs who purchased the course were invited to attend the training. For the BDM sample, the training started in December 2017 and lasted for 10 weeks. Seven groups were formed in 6 different locations. For the TIOLI sample, there were two training periods, one from March to May 2018 (8 groups in 4 locations), and the second one from May to July 2018 (3 groups in Kingston).

Table 1 shows that random allocation to offered prices worked well in both samples. Overall, baseline characteristics are uncorrelated with the offered price. Table A2 shows that these characteristics are also well balanced across the treatments in the BDM sample (credit, discount frame, and the combination of credit and discount frame). Finally, Table A3 shows that balance was also achieved for the TIOLI sample across treatments (credit vs no credit).

4 Results

4.1 Demand for Business Training

BDM Sample

We first estimate the demand schedule for business training for the BDM sample. Our first proxy for demand is whether entrepreneurs purchased the course according to the BDM procedure (i.e., their WTP was at least as high as the offered price) regardless of actual payment. Table 2 shows how the randomly offered price affects this outcome. In Column (1), we use a continuous measure for price offered. Demand is downward sloping, with the point estimate indicating that a J$1,000 increase in price reduces take-up by 3.3 percentage points. In Column (2) we include binary variables for each level of price offered to entrepreneurs. Increases in the price from 0 (the omitted category) to $1,000 or $3,000 do not have statistically significant effects on demand. However, extra increases in price reduce demand significantly. Indeed, we can reject that the reduction in demand is linear with prices.[13] For example, charging a price equal to the cost of the course (J$20,000) would reduce demand in 67 percentage points. Column (3) includes indicators for treatment variations; we do not see any effect from either the credit or the discount frame intervention.

[13] If we express the coefficients in terms of reductions in demand per $1,000 increase in price, we get: 0, 0.007, 0.01, 0.02, 0.03, and 0.03, respectively.

However, as explained above, almost half of participants did not pay the agreed amount, and thus the BDM rule is not the most appropriate indicator for demand. In Columns (4)-(6), we use actual payment of the full price offered for the course as demand proxy. In this case, the decrease in demand with price is even more pronounced: a J$1,000 increase in price reduces demand by 4.7 percentage points. Moreover, while we can still reject linearity of price effects, the pattern of effects is reversed: the decrease in demand is now higher at lower prices than at higher prices.[14] This means that charging higher prices for the course, even at a fraction of its actual cost, discourage an important share of entrepreneurs from taking it.[15]

In Columns (3) and (6) we see that the credit and discount frame treatments do not have significant effects on demand. The fact that credit does not play an important role affecting demand is in line with the sample not reporting significant credit constraints at the full cost of the course. However, the interaction of credit and discount frame has a significant negative effect on the probability of paying, but not on willingness to pay (Column 1). One possibility is that the combination of discount and credit was perceived as a negative signal of the quality of the course, but it has to be a signal that affects only actual payment, since we do not see effects in willingness to pay.

Figure 1 presents a graphical illustration of the demand schedule based on elicited willingness to pay in the BDM sample, by treatment arm. We do not see significant differences by treatment arm at any price level. Table 6 presents detailed summary statistics by price offered. We find that 37 percent of the sample report a willingness to pay at least as high as the full cost of the course; 80 percent report being willing to pay a price as high as half of the cost of the course, and 92 percent a price of 25 percent of the cost. Figure 2 adds to the previous plot the demand schedule by using actual payment of the offered price as a measure of demand. Only 7 percent of those who are offered a price equal to the cost of the course actually pay it (11 percent paid a positive amount at that price, but less than the full price). 12 percent of those offered a price that is 75% of the cost of the course pay it, and still only 40 percent pay if assigned an offer price of 50% of the cost of the course.

[14] If we express the coefficients in terms of reductions in demand per J$1,000 increase in price, we get: 0.32, 0.12, 0.12, 0.08, 0.06, and 0.05, respectively. The large decrease from a price of 0 to one of J$1,000 is overestimated since a large share of the sample does not attend the training even when it is offered free of cost. Coefficients expressed in terms of extra reductions from demand at J$1,000 are: 0.02, 0.055, 0.045, 0.038, and 0.031, respectively.

[15] It is important to note that the logistical fixed costs of paying a positive amount were not high, since everyone was allowed to pay when they came to the first session of the training.

Panel A of Figure 3 plots the demand schedule by credit treatment (pooling the two groups with and without discount frame treatment). We can see that, while the overall impact of credit was not significant, there is heterogeneity by price paid. On the one hand, for prices below J$10,000 (half of the cost of the course), credit hampered actual payment, but the effect is not very large and it is not statistically significant. On the other hand, for the two highest prices, credit significantly increased the probability of paying, which might indicate the existence of some liquidity constraints in the sample at these amounts.[16]

TIOLI Sample

To estimate demand for the TIOLI sample, we regress a dummy for take-up of the course (paying the offer price) on the offer price. Column (7) in Table 2 shows that, as expected, demand is downward sloping: a J$1,000 increase in price reduces demand by 5.5 percentage points. In this case, the reduction in demand is more or less proportional with price, but we can still reject linearity (Column 8, p-value for linearity test=0.04).[17] We do not see any effect of the credit treatment on take-up (Column 9).

Column (10) in Table 2 shows that the effect of prices on demand is 17% larger for the TIOLI sample than for the BDM sample (the interaction coefficient is -0.008, while the effect for BDM is -0.047), a difference that is statistically significant. Figure 4 compare the demand curves for TIOLI and BDM samples. The shares paying the offer price at 75% or 50% of the cost of the course are larger for the TIOLI sample than for the BDM sample: they are 19 and 33 percent for the TIOLI sample, vs. 12 and 24 percent for the BDM sample, respectively (see Table 6 for details). However, the main difference between the two samples is observed at a price equal to 25% of the cost of the course. At this price, 71% of the TIOLI sample pays, while only 50% of the BDM sample does.

Finally, Panel B of Figure 3 shows that also for the TIOLI sample the credit option slightly increases demand at higher prices, and hampers it at lower prices, but the effects are smaller than for the BDM sample and are not statistically significant. This is in line with the fact that this sample of entrepreneurs is richer, and probably less affected by liquidity constraints.

[16] It is important to reiterate that the credit treatment does not affect elicited willingness to pay at any price. This implies that respondents might have been over-optimistic about their ability to pay.

[17] If we express the coefficients in terms of reductions in demand per J$1,000 increase in price, we get: 0.058, 0.067, 0.054, respectively.

4.2 Correlates of Willingness to Pay

There are several market failures than can justify subsidizing business training. The first, and one for which there is most support in the literature (e.g., Karlan and Valdivia (2011); Bloom and Van Reenen (2010)) is that of an information failure, whereby the value of business training services is not understood by entrepreneurs, and may be particularly understated by those with the most to gain, who do not realize how poorly run their firms are. A second market failure is credit constraints: firms may find it harder to borrow to finance training, an intangible asset, than to finance assets, which can be seized by a bank in the event of non-repayment. There is strong evidence that many small firms are credit-constrained, but much weaker evidence to support the view that this is the key constraint to them purchasing business training services. A third possibility is insurance market failures, with firm owners reluctant to take training even if they think it has a high expected payoff, because they are unable to insure against the possibility that it does not work. There is some recent evidence to support the view that risk is a constraint to start-up and investment in small businesses (e.g. Bianchi and Bobba (2012)), but no evidence we are aware that shows that alleviating this constraint leads to more purchases of training. Finally, an alternative is that there is no such market failure, and the reason firms do not buy business training without subsidies is that they have low returns to undertaking such training. However, if information failures are prevalent, actual returns may deviate from expected returns, and it is expected returns that will drive training decisions.

We draw on these hypotheses to examine the extent to which existing business practices, self-perception about existing skills, access to finance, risk preferences, and expected returns determine willingness to pay for training.

We first use our experimental treatments to determine whether WTP varies with liquidity effects and framing. Table 4 presents the results from regressing elicited WTP in the BDM sample on observable characteristics measured at the baseline survey. We include fixed effects to control for week and location of the demonstration. Column (1) includes only the randomized treatment variations; we confirm that neither the possibility to pay in installments, nor the discount frame or their combination has significant effects on WTP. It is possible that the possibility to pay in installments is only relevant for those who report not being able to finance the cost of the course. In Column (2) we pool the two credit treatment arms and we interact the credit treatment with a dummy for reporting not being able to finance J$20K (the cost of the course). We find that entrepreneurs who report not being able to finance J$20K have a WTP that is lower by J$3.2K (23% of the mean WTP, which is 13.8K). However, the interaction between the credit treatment and credit constraints is

positive, but not statistically significant; offering to pay in 3 installment does not change WTP even for those who cannot finance the full value of the course.

In Column (3) we add controls for risk propensity, expected value of the training, a measure of assets (owning a vehicle for the business), and reported WTP in order to determine the relationship between these variables and elicited willingness to pay. Entrepreneurs who have a higher risk propensity exhibit a statistically significantly higher WTP (at the 10 percent level), which is in line with the argument that entrepreneurs might not be willing to pay for the training because of failures in the insurance market.

Similarly, those entrepreneurs who expect that the training will have a larger effect on their sales (more than 10 or 20 percent) have a higher WTP than those who expect lower returns from training, although the effect is only significant at the 10 percent level for one of the two dummies, and not statistically significant for the other. It is important to note that during the demonstration session, but after the baseline survey when expectations are measured, all entrepreneurs are told that a similar training program generated a 30% average increase in profits in Togo, where a randomized control trial was conducted (Campos et al., 2017). Given that the group with lower expected returns to the training exhibits lower WTP even after being told this information, it has to be the case that either they do not believe the information we provided, or that they think their returns to the training are below the ones for the average participant in Togo. On the one hand, if entrepreneurs are able to correctly predict individual returns to the training, this means that WTP is a good screening device. On the other hand, it is possible that they underestimate their own returns, and thus more personalized information on returns (e.g., providing information about the heterogeneity in returns by observable characteristics) is required to increase WTP.[18] Column (5) shows that those who think they are worse than other entrepreneurs in terms of business practices or proactiveness are not more willing to pay for the course. Similarly, those reporting implementing a lower share of business practices in their business do not have a higher WTP.[19]

Column (3) also shows that owning a vehicle, which is a measure of wealth (highly correlated with reservation wage) is positively correlated with willingness to pay, but the correlation is not statistically significant. Surprisingly, reported WTP is not correlated with elicited WTP. As we explained before, this could be because at the moment of completing the survey, they did not have much information about the course, or because they simply

[18] We do not see that gender is significantly correlated with willingness to pay for the training. Given that Ubfal et al. (2019) have found larger short-term returns to the training for men, our results suggest that price is not helping select entrepreneurs on predicted returns. However, expected returns to the training are indeed correlated with WTP.

[19] The correlation between expected returns and the score for business practices is positive and significant.

did not report their WTP truthfully.

In Column (4), we see that younger entrepreneurs, with access to the internet and higher reported reservation wage have a higher WTP, while gender, marital status, and education are not correlated with WTP. Having taking a previous business-training course is negatively correlated with WTP, but the correlation is not statistically different from 0. Column (6) shows a positive and significant correlation with WTP for having employees (a good proxy for firm's size in our sample) and being in the services sector.

When we pool all variables together in Column (7), only the (marginal) statistically significant correlation of risk propensity, age, reservation wage, internet access and services sector hold. In future work, we plan to use machine learning techniques to select the most significant predictors of WTP.

Overall, we have some evidence that richer entrepreneurs (proxied by reservation wage and internet access), who are more willing to take risks, who expect larger returns to the training, and have larger firms report higher levels of willingness to pay for the training. This group, is therefore less likely to be excluded from the training by charging a positive price.

Column (2) of Table 5 shows that the correlations are similar when we restrict the sample to those with WTP at least as high as the price offered. The only difference is that now unincentivized WTP is statistically significant. In Column (3) we show the correlates for a binary variable indicating whether the entrepreneur did not pay the agreed price. As expected, the higher the price offered, the larger the probability of reneging the payment was. Interestingly, the only strongly significant predictor on top of prices is the level of education of the entrepreneur. Entrepreneurs that are highly educated (more than complete high school), are less likely to renege payments than those with lower education levels.

Finally, Column (4) of Table 5 presents the correlates for paying for the course in the TIOLI sample. Price offered is negatively correlated with paying, as we saw before. The only marginally significant coefficient is the one for having employees. This lack of strongly significant correlations for willingness to pay for a business course is in line with previous research indicating that it is difficult to predict who is going to be a successful entrepreneur (McKenzie and Sansone, 2019).

4.3 Training Attendance

After seeing that higher prices can indeed screen out a significant share of entrepreneurs, we test whether paying a higher price encourage entrepreneurs who purchase the course to exercise more effort in the learning process. Our main outcome of interest is training attendance, which is typically low when courses are offered for free.[20]

BDM Sample

As we can see in Table 6, training attendance in the BDM sample was not particularly high. While 76% of those offered to take the course for free attended at least 1 class, only 59% attended at least 5 of the 10 classes of the course (Column 1). The average number of classes attended for this group was 5.4 classes.

In Table 7 we test for selection effects by studying how WTP correlates with attendance and for the causal effect of prices on attendance.

We first conduct the analysis using the full sample. We see that conditional on price paid, either as a continuous measure in Column (1) or binary categories in Column (2), WTP is positively and significantly correlated with attending at least one class of the course. Similarly, there is a significant negative effect on prices on attendance. Overall, these results confirm the patterns in demand found above. However, they do not directly provide evidence for selection or sunk-cost effects since the effects can be in part mechanical due to the BDM rule (those with WTP no less than price are entitled to come to the course).

Then, in Columns (3) and (4), we restrict the sample to those who purchased the course according to the BDM rule, regardless of actual payment. We still see that conditional on the offer price, those with higher WTP are more likely to attend at least one class. Among those who purchased the course in the lower category of WTP, who were willing to pay less than J$3,000, attendance rate was only 25 percent. Attendance jumps significantly by 35 percentage points for the next WTP category (willing to pay from J$3,000 to J$5,000). It then exhibits smaller monotonic increases for the higher WTP categories, except for those who reported a WTP above the actual cost of the course. This indicates that incentivized measures of WTP can be a good way of screening those who are less likely to show-up to the course.

[20] McKenzie and Woodruff (2017) report that the average share of entrepreneurs that attend at least one class to courses offered for free around the world is 65%.

The picture looks a bit differently if we focus on the further selected sample of those who purchased and actually paid a positive price for the course. In this case, among those who paid for the course and are in the lowest WTP category we see a 67 percent show-up rate.[21] The increase in all the other categories is very large, implying show-up rates above 90 percent for all groups. However, due to the smaller sample size, effects are not statistically significant (Columns (5) and (6)). A similar conclusion is derived if we study the effect on total number of classes attended out of 10 classes. Among those who reported WTP above offer price in the lowest WTP category, average attendance was 2.4 classes (Column 8), while average attendance in this category among those who paid a positive price was 6.3 (Column 11). Higher WTP is significantly correlated with total attendance among the former, but not among the latter.

Conditionally on WTP, an increase in the offer price is still negatively correlated with attendance for those who bought the course, regardless of payment (Column 4). This is in part reflecting the fact that a higher price, even conditionally on WTP, generated lower compliance with the BDM contracts. Therefore, the negative effect of prices discouraging attendance prevails over any potential sunk-cost effects. However, when we restrict the sample to those who actually paid a positive price for the course, we do see some positive effects of prices on attendance (Column 6), which become a big larger if we do not condition on WTP (Column 7). In particular, among those who paid a positive price for the course, 93 percent of those paying J$1,000 showed-up, the increase for those paying J$3,000 is of 3 percentage points (not significant), but the ones for higher prices are larger and imply show-up rates that are close to 100 percent. More interestingly, we also find significant positive effects of prices on attending at least 5 classes (not shown) and total number of classes attending (Column 12), providing evidence for sunk-cost or psychological effects.

TIOLI Sample

As Table 6 shows, training attendance was much higher in the TIOLI sample than in the BDM sample, consistent with the fact that entrepreneurs in the TIOLI sample have higher expectations of the course. 90% of those offered to take the course for free attended at least 1 class, and 78% attended at least 5 of the 10 classes of the course (Column 1). The average number of classes attended in this group was 7 classes.

In Table 8, we study the effects of the randomly allocated offer price on attendance. Here again, when studying the full sample, we see that price monotonically decreases the probability of attending at least one class (Columns (1)-(2)). When we restrict the sample to

[21] We only have 3 people in this category, thus we should take these results with caution.

those who paid a positive price for the course, we find small effects of price paid that are not statistically different from 0. However, there is not much margin for variation since 98 percent of those paying our lowest price of J$5,000 attended at least one class. The share of those who attended the course increases to 100 percent for those who paid 10 or 15 thousand (Column 4). The total number of classes attended average 8 classes for those who paid J$5,000, and we do not see significant effects of paying a higher price. The lack of effects when comparing those who paid 5 thousand vs. those who paid 10 or 15 thousand is similar to the results for the BDM sample in Table 7.

It is important to note that compared to those who were offered the course for free (dropped from the regressions in Columns (3)-(6) of Table 8), the selected sample of entrepreneurs who were offered a positive price and paid for it have significantly higher attendance rates.[22]

This means that while the evidence for sunk-cost effects is more nuanced for the TIOLI sample, these effects seem to be present also in this sample. However, they are not large enough to counteract the extensive margin effects on attendance generated by an increase in prices that prevent many entrepreneurs from purchasing the course.

4.4 Effects of Business Training

Our next goal is to study the effect of being offered the training and whether this effect varies with willingness to pay. Our main outcome variables were obtained in a six-month to nine-month follow-up survey. We first include a measure of direct impact: business knowledge (number of correct answers in a knowledge test covering five questions related to the course). Then, we include as intermediate outcomes indexes of business practices and of personal initiative. Finally, we include a measure of firm size (having at least one employee), and four measures of business outcomes (positive profits and sales, and the winsorized level of sales and profits).[23]

[22] As we can see in Column (1) of Table 8, 90 percent of those offered the course for free attend at least one class, this share increases to 97 percent for those paying 5,000 (marginally statistically significant difference) and to 99.5 percent for those paying 10 or 15 thousand (statistically significant). In terms of total attendance, the effect compared to those offered a price of 0 is statistically significant for those who paid 5 or 10 thousand, but not for those who paid 20 thousand. Results available upon request.

[23] See Appendix B for details on the construction of these variables.

BDM Sample

Conditional on WTP fixed effects, we can recover the intention-to-treat effect of the training in the BDM sample by running regression 1.

$$Y_i = \alpha + \gamma Treatment_i + \rho Y_{i,0} + \sum_j \delta_j WTP_j + \epsilon_i \quad (1)$$

Where the dummy variable $Treatment_i$ equals one if the WTP is no less than the price randomly chosen in the lottery. We control for WTP in a flexible way (binary categories WTP_j) and to gain statistical power we employ ANCOVA regressions by including the baseline value of the outcome ($Y_{i,0}$). This estimation strategy compares individuals who are offered to receive the program because the price draw is larger than their WTP with individuals who are not offered to receive the program because the price draw is below their WTP, holding constant their willingness to pay for the program.

One important limitation is that survey attrition levels were high and strongly correlated with our treatment measure in the BDM sample. Column (1) in Table 9 shows that only 40 percent of those not offered the training because of the BDM rule completed the follow-up survey. Completion rates were 32 percentage points higher for the group assigned to the training, a very large difference. Table A4 shows that, conditional on WTP fixed effects, treatment and control groups are balanced in baseline characteristics for the full sample (only 2 out of 23 variables present significant differences, as expected by chance). However, Table A6 indicates that some imbalances appear when we consider the sample completing the follow-up survey (e.g., differences in profits). Given this large differential attrition, any bounding exercise would be uninformative. We present results weighing observations with inverse probability of attrition weights, but even if they are quite similar to those without the weights, we should take results with caution.

Table 10 presents the results for our 8 outcomes using regression 1. We see a strong significant effect on the share of business practices adopted (an increase of 37 percent over the control mean) and no effects on personal initiative, which is consistent with the findings in Ubfal et al. (2019).[24] Surprisingly, we do not see effects on the number of correct answers related to the course. However, the coefficient represents an increase of 17 percent, and it is imprecisely estimated; we cannot exclude effects as large as 100 percent. We do not see

[24]The result on business practices does not survive to adjusting the p-values for the fact that we are testing 8 hypotheses in this table (the adjusted p-value is 0.13). We obtain family-wise adjusted p-values using the implementation by Jones et al. (2018) of the free step-down procedure of Westfall and Young (1993). Detailed results are available upon request.

any effects on business outcomes, but here again coefficients are imprecisely estimated and we cannot exclude large effects. Panel B presents results using inverse probability weights, and they are overall similar to the ones without weights, although the effect on business practices, our only statistically significant coefficient, is reduced from 15 to 11 percentage points.

Overall, three factors contributed to reducing our statistical power to test for the effects of the course: 1) WTP higher than expected implied that 86 percent of participants were assigned to the treatment group, 2) low take-up of training partially due to lack of payment (only 53 percent of those who purchased the course according to the BDM rule showed-up to at least one class), and 3) high survey attrition.

In Table 11 we study heterogeneity in treatment effects by WTP. These results are of course affected by the same problems as for the average effect, and suffer even more from the lack of statistical power. Then it is not surprising that we find that most interaction coefficients are not statistically significant. We only find two statistically significant interactions that point in opposite directions: the treated with higher WTP are less likely to provide correct answers to the knowledge test, but they are more likely to report positive profits.[25]

Finally, Table 12 presents the results of IV regressions where we instrument the treatment dummy with the price offered for the course. This gives the treatment effect for the complier group, those entrepreneurs whose treatment status changes as a result of experimental variation in the offer price. We see larger significant effects on business practices, and also significant effects on positive profits.[26] These results can also be affected by differential attrition. Table 9 shows that the price offered is significantly negatively correlated with attrition (Columns (2) and (3)).

TIOLI Sample

For the TIOLI sample we can only estimate the relative ITT effects of being offered a higher price for entrepreneurs who were offered positive prices vs. those who were offered a price of 0, since no entrepreneur was automatically excluded from the training. Fortunately, differential attrition is not a serious issue for this sample. As Columns (4) and (5) in Table 9 show, attrition was 30 percent, but it is not correlated with the offer price. Moreover,

[25] When we adjust the p-values for multiple hypotheses, the p-value for correct answers becomes 0.065, and the one for positive profits 0.41.

[26] Only the coefficient on positive profits remains statistically significant after adjusting the p-values for multiple hypotheses testing.

baseline characteristics remained balanced by offer price in the sample that completed the follow-up survey (see Table A6).

In this case, our main regression is:

$$Y_i = \alpha + \gamma_1 Price5_i + \gamma_2 Price10_i + \gamma_3 Price15_i + \rho Y_{i,0} + \epsilon_i \quad (2)$$

Where $Price_{i,j}$ are dummy variables indicating whether the randomly allocated offer price was 5, 10 or 15 thousand Jamaican dollars. Table 13 presents the results from running regression 2. In general, we do not see effects of the price offered on outcomes. We only see that those offered the highest price, who are less likely to attend the training, have a significantly lower number of correct answers about course-related topics.

We then use the three price offer dummies to instrument the indicator for attending at least one class of the course. The first stage is strong.[27] The exclusion restriction assumes that the only reason why a higher price offered for the course affects business outcomes is through attending the course. The main challenge to this assumption is the existence of a negative income effect of paying a higher price, but that should not be so relevant for outcomes such as business practices, personal initiative or business knowledge. We estimate the effect of attending the course for those who attend because they offered a lower price, and would not have attended otherwise. Table 14 shows a strong effect on business knowledge (course-related material), but we do not see effects on any other outcome.

5 Conclusion

This is the first paper estimating the demand for business training in an experimental way. Our main conclusion is that it is possible to charge for business training and this can help providers recover part of the costs of offering the course. However, charging prices that are close to the full cost of the course would exclude a large share of entrepreneurs.

Typically the provider will have to choose a single price to charge all entrepreneurs. If we assume that the provider can draw from a fixed sample of entrepreneurs that have similar characteristics to the ones in our BDM sample, then it would maximize revenues by choosing a price that is 50 percent of the cost of the course.[28] For the TIOLI sample the price

[27] The F-statistic for excluded instruments is 37. We also present the Cragg-Donald F-statistic, which is larger than the relevant critical values provided by Stock and Yogo.

[28] In order to make this claim we multiply full payment rates for the BDM sample at prices equal to 5, 15,

that maximizes revenues among the three ones we study is equal to 25 percent of the cost of the course.[29]

We do not find evidence that charging a higher price helps screen those entrepreneurs with highest returns to the training. Our estimates are affected by low statistical power due to high attrition and low take-up of the training, then the evidence in this regard is not conclusive. However, we do find some evidence that those entrepreneurs paying a positive price are more likely to attend the course, which indicates that sunk-cost or psychological effects can be relevant and a powerful tool to increase participation to the course. Overall, we find that any sunk-cost effects from higher prices are outweighed by the dissuasive effects of higher prices on payment rates.

Our evidence indicates that entrepreneurs with smaller firms, who are less willing to take risks and expect lower returns to the course have lower willingness to pay for the training, and thus are more likely to be screened out from it. Our credit intervention allowing entrepreneurs to pay for the course in installments does not significantly affect willingness to pay or payment rates. Therefore, we cannot claim that liquidity constraints are the main reason for not taking the course. Our findings are consistent with an explanation based on lack of insurance and lack of information about individual returns to the training. They are also consistent with the possibility that entrepreneurs are making an optimal choice when they decide not to participate in the course, since we do not find that average returns are significant. Future work, with larger sample sizes, should study whether there is significant heterogeneity in returns to training, most business training experiments have not been powered enough to explore heterogeneity in treatment effects within subgroups.[30]

Finally, our paper points to the limitations of using a BDM mechanism in a context of low trust and low contract enforcement, and for an intangible service with benefits that are uncertain and only observed in the long run. In our case, a large share of participants refused to pay the agreed price, even after signing a contract where they committed to pay that price. This implies that the mechanism is no necessarily truth revealing. In order to make it incentive compatible, it would be necessary to charge participants on the spot, after they agree on the price they are willing to pay, and before telling them the offer price.[31]

25, 50, 75 and 100 percent of the cost of the course. Of course, revenue-maximizing does not necessarily imply profit-maximizing, since the fixed costs of holding classes implies that the marginal cost of having another student attend the course will typically be lower than the average cost.

[29] We compare revenues from charging prices equal to 25, 50 and 75 percent of the cost of the course.

[30] An exception is Campos et al. (2018) who study heterogeneity by gender and education and find no significant differences.

[31] In our context this was not feasible since most participants did not bring enough cash with them and

We hope our results will help inform the design, targeting, and pricing of business development services that are a common component of government projects.

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did not have credit cards, and because the provider on the training was reticent to charge on the spot before confirming the formation of the courses.

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6 Tables

Table 1: Balance table by price. Full sample

	(1)	(2)	(3)	(4)	(5)
	BDM sample		TIOLI sample		BDM vs TIOLI
	Mean	Diff.	Mean	Diff.	Diff.
Exp. sales incr. 10%-20%	0.34	0.01	0.30	-0.01	-0.04
	(0.48)	(0.00)	(0.46)	(0.01)	(0.04)
Exp. sales incr. by more than 20%	0.44	-0.01	0.59	0.00	0.15***
	(0.50)	(0.00)	(0.49)	(0.01)	(0.04)
Cannot finance 20k invest.	0.14	-0.00	0.10	-0.00	-0.04
	(0.34)	(0.00)	(0.30)	(0.00)	(0.02)
Share of bus. practices	0.49	0.00	0.55	-0.00	0.06***
	(0.26)	(0.00)	(0.26)	(0.00)	(0.02)
Has employees	0.39	0.00	0.44	0.00	0.05
	(0.49)	(0.00)	(0.50)	(0.00)	(0.03)
Sector: services	0.38	0.00	0.53	0.01	0.16***
	(0.49)	(0.00)	(0.50)	(0.00)	(0.03)
Sector: retail	0.30	-0.00	0.18	-0.01	-0.12***
	(0.46)	(0.00)	(0.39)	(0.00)	(0.03)
Sector: agriculture	0.10	0.00	0.06	-0.00*	-0.04**
	(0.30)	(0.00)	(0.23)	(0.00)	(0.02)
Owns vehicle for business	0.54	0.00	0.63	-0.01	0.09***
	(0.50)	(0.00)	(0.48)	(0.00)	(0.03)
Has internet access	0.83	-0.00	0.96	-0.00*	0.13***
	(0.38)	(0.00)	(0.20)	(0.00)	(0.02)
Age	45.91	-0.04	41.82	0.04	-4.09***
	(11.68)	(0.10)	(11.88)	(0.12)	(0.83)
Woman	0.56	-0.01	0.58	-0.01	0.01
	(0.50)	(0.00)	(0.49)	(0.00)	(0.03)
Married	0.52	0.00	0.47	-0.01	-0.05
	(0.50)	(0.00)	(0.50)	(0.01)	(0.04)
Education: more than secondary	0.88	-0.01*	0.95	-0.00	0.07***
	(0.32)	(0.00)	(0.21)	(0.00)	(0.02)
Personal initiative index [1-7]	6.27	-0.00	6.34	0.00	0.07
	(0.72)	(0.01)	(0.64)	(0.01)	(0.05)
Risk taking index [0-10]	7.54	0.03*	8.08	-0.04**	0.54***
	(2.21)	(0.02)	(1.90)	(0.02)	(0.14)
Took previous bus. training	0.30	0.01***	0.39	0.00	0.09***
	(0.46)	(0.00)	(0.49)	(0.00)	(0.03)
Comparison with others on bus. practices	5.39	-0.02	5.44	0.02	0.04
	(1.93)	(0.02)	(1.94)	(0.02)	(0.14)
Comparison with others on proactiveness	6.59	-0.01	6.90	0.02	0.31**
	(2.07)	(0.02)	(2.08)	(0.02)	(0.15)
Reservation wage	89,047	549	150,482	-181	61,435***
	(85,901)	(902)	(235,407)	(2,135)	(14,171)
Declared WTP	12,915	217	17,384	-347*	4,469*
	(49,514)	(650)	(15,997)	(186)	(2,694)
Sales last month	86,174	-1,953	214,396	6,704	128,222***
	(168,244)	(1,232)	(685,088)	(7,396)	(38,277)
Profits last month	13,447	-313	89,448	7,265	76,001***
	(76,717)	(678)	(467,655)	(5,080)	(26,690)
Observations	457		374		831

Columns (1) and (3) show the mean and standard deviation for the BDM sample and TIOLI sample, respectively. Columns (2) and (4) show the coefficient of an OLS regression of each covariate on the price offered (the price is expressed in thousands of Jamaican dollars), and the associated standard error. Column (5) shows the coefficient of an OLS regression of each covariate on an indicator for the TIOLI sample, and the resulting standard error. Regressions in column (4) also include fixed effects for demonstration session. Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 2: Demand

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		WTP $\geq$ Price (BDM)			Paid full price (BDM)			Paid full price (TIOLI)		Paid full (Pooled)
Price (000)	-0.033***			-0.047***			-0.055***			-0.047***
	(0.003)			(0.003)			(0.003)			(0.003)
Price = 1,000		-0.000	0.000		-0.318***	-0.322***				
		(0.000)	(0.005)		(0.058)	(0.058)				
Price = 3,000		-0.023	-0.015		-0.372***	-0.362***				
		(0.023)	(0.025)		(0.074)	(0.074)				
Price = 5,000		-0.058**	-0.051**		-0.602***	-0.596***		-0.290***	-0.292***	
		(0.023)	(0.022)		(0.049)	(0.049)		(0.058)	(0.063)	
Price = 10,000		-0.220***	-0.214***		-0.763***	-0.768***		-0.667***	-0.668***	
		(0.038)	(0.038)		(0.039)	(0.040)		(0.042)	(0.049)	
Price = 15,000		-0.520***	-0.514***		-0.880***	-0.886***		-0.813***	-0.814***	
		(0.101)	(0.101)		(0.065)	(0.065)		(0.035)	(0.042)	
Price = 20,000		-0.679***	-0.668***		-0.929***	-0.923***				
		(0.089)	(0.089)		(0.049)	(0.053)				
Credit			0.005			0.015			0.002	
			(0.036)			(0.055)			(0.050)	
Discount Frame			-0.053			-0.021				
			(0.041)			(0.055)				
Credit and Discount Frame			-0.009			-0.118**				
			(0.037)			(0.053)				
TIOLI * Price										-0.008**
										(0.004)
TIOLI										0.192***
										(0.039)
Observations	457	457	457	457	457	457	374	374	374	831
R-squared	0.275	0.296	0.300	0.272	0.344	0.354	0.347	0.360	0.360	0.306
P-val. linear Price eff.		0.00	0.00		0.00	0.00		0.04	0.04	
P-val. effect of 3 treat.			0.515			0.046				

OLS regressions of demand measures on price (in 1000s Jamaican dollars). The omitted category for prices is "Price = 0". Each coefficient on "Price" measures in how much demand is reduced when price increases from 0 to that price. In Columns (1)-(3) the dependent variable is a dummy for willingness to pay, elicited with the BDM mechanism, being above offered price regardless of actual payment. In Columns (3)-(10) the dependent variable is a dummy for having paid the full price offered (equal to 1 if offered price is \$0). Columns (1)-(6) present results for the BDM sample, and Columns (7)-(9) for the TIOLI sample. Column (10) presents results from a pooled regression including both samples. **Credit**: respondent was allowed to pay in 3 installments, **Discount Frame**: respondent was presented the price as a discount. Standard errors are robust to heteroscedasticity. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 3: WTP informativeness

	(1) Paid full	(2) At least 1 class	(3) N. of classes
Consumer surplus	0.02***	0.02***	0.11***
	(0.00)	(0.00)	(0.03)
Observations	318	392	392

OLS regression. **Consumer surplus** is defined as the difference between WTP and price offered if the former is greater than the latter, or 0 otherwise. The sample is restricted to those who purchased the course (WTP no less than price). **Paid Full**: defined as missing for those who were offered the course for free. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 4: Determinants of WTP

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Elicited WTP in J$000s						
Credit	0.03		0.23	-0.19	-0.11	-0.15	-0.21
	(0.80)		(0.79)	(0.80)	(0.82)	(0.78)	(0.82)
Discount Frame	-1.20		-1.24	-1.20	-1.40	-1.20	-1.34
	(0.82)		(0.81)	(0.82)	(0.83)	(0.81)	(0.82)
Credit and Discount Frame	-0.86		-0.80	-1.08	-1.02	-1.02	-1.10
	(0.85)		(0.84)	(0.85)	(0.86)	(0.83)	(0.85)
Credit (pooled)		0.09					
		(0.59)					
Credit × Cannot finance 20k		0.51					
		(2.04)					
Cannot finance 20k invest.		-3.17*					-1.30
		(1.34)					(1.06)
Risk taking index [0-10]			0.30*				0.28*
			(0.14)				(0.14)
Exp. sales incr. 10%-20%			1.74*				1.31
			(0.85)				(0.87)
Exp. sales incr. by more than 20%			1.55				0.97
			(0.79)				(0.81)
Owns vehicle for business			1.16				-0.18
			(0.59)				(0.61)
Reported WTP (in J$000s)			0.01				0.00
			(0.01)				(0.01)
Age				-0.08**			-0.06*
				(0.03)			(0.03)
Woman				-0.40			-0.30
				(0.58)			(0.58)
Married				0.31			0.24
				(0.59)			(0.59)
Education: more than secondary				0.43			0.16
				(0.90)			(0.87)
Personal initiative index [1-7]				0.66*			0.48
				(0.32)			(0.34)
Took previous bus. training				-0.63			-0.53
				(0.66)			(0.65)
Has internet access				2.54**			2.00*
				(0.89)			(0.96)
Reservation wage (in J$000s)				0.01**			0.01*
				(0.00)			(0.00)
Comparison with others on bus. practices					0.13		0.01
					(0.19)		(0.19)
Comparison with others on proactiveness					0.17		0.05
					(0.17)		(0.19)
Share of bus. practices					0.75		0.29
					(1.16)		(1.16)
Has employees						1.52**	0.93
						(0.55)	(0.57)
Sector: services						2.30**	1.59*
						(0.76)	(0.80)
Sector: retail						0.08	-0.14
						(0.90)	(0.86)
Sector: agriculture						-0.12	-0.73
						(1.12)	(1.08)
Observations	457	457	457	457	457	457	457
R-squared	0.041	0.059	0.090	0.140	0.056	0.090	0.202
Mean dep. var.	13.80	13.80	13.80	13.80	13.80	13.80	13.80

OLS regressions of elicited WTP for the BDM sample on covariates. All regressions control for week and location of demonstration sessions when the WTP was elicited. For all the baseline covariates, we replace missing values with zeros and include dummies for covariates with missing values. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 5: Determinants of WTP and Payment

	(1)	(2)	(3)	(4)
	BDM			TIOLI
	WTP	WTP (if WTP $\geq$ Price)	Reneged (if WTP $\geq$ Price)	Paid
Credit	-0.14	0.15	0.00	-0.03
	(0.81)	(0.90)	(0.07)	(0.05)
Discount Frame	-1.21	-0.88	0.07	
	(0.83)	(0.90)	(0.07)	
Credit and Discount Frame	-1.02	-1.19	0.16*	
	(0.86)	(0.92)	(0.07)	
Price (in J$000s)			0.03***	-0.04***
			(0.01)	(0.01)
Risk taking index [0-10]	0.31*	0.27	-0.00	0.00
	(0.14)	(0.16)	(0.01)	(0.01)
Exp. sales incr. 10%-20%	1.38	0.76	-0.02	-0.09
	(0.85)	(0.98)	(0.07)	(0.12)
Exp. sales incr. by more than 20%	1.03	-0.21	-0.01	-0.07
	(0.78)	(0.91)	(0.07)	(0.10)
Owns vehicle for business	0.03	0.26	0.01	0.07
	(0.61)	(0.66)	(0.05)	(0.06)
Reported WTP (in J$000s)	0.00	0.01**	0.00	0.00
	(0.01)	(0.00)	(0.00)	(0.00)
Age	-0.06*	-0.07*	-0.00	0.00
	(0.03)	(0.03)	(0.00)	(0.00)
Woman	-0.23	0.30	-0.04	0.09
	(0.59)	(0.62)	(0.06)	(0.06)
Married	0.18	0.57	0.01	0.01
	(0.60)	(0.63)	(0.05)	(0.06)
Education: more than secondary	0.29	-0.28	-0.24**	0.13
	(0.83)	(0.95)	(0.08)	(0.12)
Personal initiative index [1-7]	0.45	0.44	0.02	0.02
	(0.34)	(0.33)	(0.03)	(0.04)
Took previous bus. training	-0.63	0.23	-0.07	0.02
	(0.65)	(0.72)	(0.07)	(0.06)
Has internet access	2.20*	1.01	-0.06	0.10
	(0.93)	(1.07)	(0.08)	(0.12)
Reservation wage (in J$000s)	0.01*	0.01*	-0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Comparison with others on bus. practices	0.03	0.08	-0.01	-0.03
	(0.19)	(0.20)	(0.02)	(0.02)
Comparison with others on proactiveness	0.07	0.06	-0.01	-0.00
	(0.19)	(0.20)	(0.02)	(0.02)
Share of bus. practices	0.25	-1.08	0.04	-0.07
	(1.17)	(1.30)	(0.11)	(0.11)
Has employees	1.00	0.95	0.00	0.11*
	(0.56)	(0.61)	(0.06)	(0.06)
Sector: services	1.66*	1.86*	-0.13	-0.10
	(0.80)	(0.85)	(0.07)	(0.07)
Sector: retail	0.23	0.53	-0.07	-0.16
	(0.85)	(0.97)	(0.08)	(0.08)
Sector: agriculture	-0.37	-0.62	-0.10	-0.11
	(1.09)	(1.24)	(0.12)	(0.13)
Observations	457	318	282	311
R-squared	0.213	0.200	0.455	0.257
Mean dep. var.	13.80	15.15	0.50	0.35

OLS regressions of outcome variables on covariates. Columns 1-3 present results for the BDM sample, all regressions control for week and location of demonstration sessions when the WTP was elicited. Column 1 includes the full sample, while in Columns 2-3 the sample is restricted to those who were supposed to pay (i.e., offered a positive price not greater than their WTP). **WTP**: elicited willingness to pay using BDM (expressed in thousands of Jamaican dollars). **Reneged**: indicator for not paying the positive price agreed in the BDM mechanism. Column 4 presents results for the TIOLI sample, the dependent variable is and indicator for paying the full price offered for the coursem, controls for location of demonstration sessions are included. For all the baseline covariates, we replace missing values with zeros and include dummies for covariates with missing values. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 6: Statistics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				Price offered				
	0	1,000	3,000	5,000	10,000	15,000	20,000	Obs.
Panel A. BDM sample								
WTP $\geq$ Price	1.00	1.00	0.98	0.94	0.78	0.48	0.32	457
Paid something	.	0.70	0.65	0.43	0.29	0.16	0.11	383
Paid full	.	0.68	0.63	0.40	0.24	0.12	0.07	383
Paid full (if credit)	.	0.63	0.65	0.33	0.19	0.27	0.14	185
At least 1 class	0.76	0.65	0.63	0.43	0.29	0.16	0.11	457
At least 3 classes	0.65	0.59	0.60	0.41	0.29	0.16	0.07	457
At least 5 classes	0.59	0.53	0.58	0.38	0.27	0.16	0.07	457
At least 5 classes (if paid full)	.	0.78	0.89	0.93	0.93	1.00	1.00	146
All 10 classes	0.18	0.15	0.19	0.13	0.06	0.04	0.00	457
N. of classes	5.43	4.89	5.00	3.34	2.29	1.28	0.68	457
N. of classes (if at least 1)	7.18	7.51	7.96	7.82	7.94	8.00	6.33	211
N. of classes (if paid full)	.	7.09	7.74	8.17	8.07	9.00	8.50	146
Observations	74	66	43	103	118	25	28	457
Panel B. TIOLI sample								
Paid something	.			0.79	0.44	0.33		311
Paid full	.			0.71	0.33	0.19		311
Paid full (if credit)	.			0.65	0.35	0.20		158
At least 1 class	0.90			0.79	0.48	0.37		374
At least 3 classes	0.86			0.76	0.43	0.32		374
At least 5 classes	0.78			0.68	0.40	0.27		374
At least 5 classes (if paid full)	.			0.89	0.90	0.87		109
All 10 classes	0.32			0.24	0.11	0.05		374
N. of classes	6.95			6.18	3.54	2.43		374
N. of classes (if at least 1)	7.68			7.82	7.43	6.64		211
N. of classes (if paid full)	.			7.98	8.02	7.78		109
Observations	63			62	126	123		374

Table 7: Effects of WTP and Prices on Attendance, BDM sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	At least 1 class		At least 1 class (if bought)		At least 1 class (if paid)			N. classes (if bought)			N. classes (if paid)		
Price (000)	-0.04***		-0.03***		0.00			-0.23***			0.11**		
	(0.00)		(0.01)		(0.00)			(0.04)			(0.05)		
3,000 < WTP ≤ 5,000	0.22***	0.21***	0.35**	0.36**	0.33	0.33		2.42*	2.48*		1.13	1.07	
	(0.08)	(0.08)	(0.16)	(0.16)	(0.28)	(0.28)		(1.46)	(1.47)		(2.76)	(2.76)	
5,000 < WTP ≤ 10,000	0.31***	0.32***	0.37***	0.43***	0.26	0.24		2.53*	2.84**		1.58	1.36	
	(0.07)	(0.07)	(0.14)	(0.14)	(0.28)	(0.28)		(1.33)	(1.34)		(2.67)	(2.68)	
10,000 < WTP ≤ 15,000	0.40***	0.41***	0.44***	0.50***	0.32	0.31		2.66**	3.04**		1.35	1.23	
	(0.07)	(0.07)	(0.14)	(0.14)	(0.28)	(0.28)		(1.33)	(1.34)		(2.67)	(2.69)	
15,000 < WTP ≤ 20,000	0.45***	0.46***	0.48***	0.51***	0.30	0.29		2.85**	3.06**		0.87	0.77	
	(0.07)	(0.07)	(0.14)	(0.14)	(0.28)	(0.28)		(1.29)	(1.30)		(2.66)	(2.67)	
WTP > 20,000	0.34**	0.37**	0.37**	0.44**	0.32	0.30		1.42	1.84		-0.88	-1.17	
	(0.15)	(0.15)	(0.19)	(0.19)	(0.28)	(0.28)		(1.67)	(1.70)		(3.08)	(3.05)	
Price = 1,000		-0.10		-0.09					-0.45	-0.54			
		(0.08)		(0.08)					(0.70)	(0.70)			
Price = 3,000		-0.11		-0.11		0.03	0.03		-0.34	-0.31		0.59	0.65
		(0.09)		(0.09)		(0.05)	(0.05)		(0.81)	(0.80)		(0.70)	(0.70)
Price = 5,000		-0.34***		-0.34***		0.06*	0.07*		-2.09***	-1.89***		1.05*	1.08*
		(0.07)		(0.07)		(0.04)	(0.04)		(0.66)	(0.64)		(0.59)	(0.58)
Price = 10,000		-0.46***		-0.43***		0.05	0.07*		-2.74***	-2.50***		0.97	0.98
		(0.06)		(0.07)		(0.03)	(0.04)		(0.65)	(0.63)		(0.62)	(0.62)
Price = 15,000		-0.61***		-0.49***		0.05	0.07*		-3.09**	-2.77**		2.09***	1.91***
		(0.09)		(0.15)		(0.04)	(0.04)		(1.26)	(1.24)		(0.73)	(0.69)
Price = 20,000		-0.65***		-0.49***		0.05	0.07*		-3.65***	-3.32***		1.59**	1.41**
		(0.08)		(0.17)		(0.04)	(0.04)		(1.29)	(1.26)		(0.65)	(0.61)
Observations	457	457	392	392	146	146	146	392	392	392	146	146	146
R-squared	0.214	0.232	0.104	0.126	0.104	0.117	0.033	0.066	0.078	0.062	0.054	0.065	0.038
Mean Y for omitted P	0.757		0.757		0.933			5.432			7.089		
Mean Y for WTP<3K	0.10		0.25		0.67			2.42			6.33		
p-val 5K=10K		0.056		0.189		0.404	1.000		0.288	0.311		0.879	0.839
p-val 5K=15K		0.002		0.306		0.589	1.000		0.420	0.472		0.120	0.151

OLS regression, the dependent variable is a dummy for attending at least 1 class (Columns 1-7) or number of classes attended (Columns 8-13). The excluded categories are Price = 0 and 0 ≤ WTP ≤ 3,000. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 8: Effects of Prices on Attendance, TIOLI sample

	(1)	(2)	(3)	(4)	(5)	(6)
	At least 1 class		At least 1 class (if paid)		N. classes (if paid)	
Price (000)	-0.04***		0.00		-0.02	
	(0.00)		(0.00)		(0.06)	
Price = 5,000		-0.11*				
		(0.06)				
Price = 10,000		-0.43***		0.02		0.05
		(0.06)		(0.02)		(0.52)
Price = 15,000		-0.54***		0.02		-0.19
		(0.06)		(0.02)		(0.62)
Observations	374	374	109	109	109	109
R-squared	0.169	0.177	0.010	0.014	0.001	0.001
Mean Y for omitted P	0.90		0.98		7.98	

OLS regression, the dependent variable is total number of classes attended to the training (Columns 1 and 3) or a dummy for attending at least 1 class (Columns 2). The excluded category is Price = 0. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 9: Attrition by price

	(1)	(2)	(3)	(4)	(5)
	BDM			TIOLI	
	Non-attriter				
WTP $\geq$ Price	0.32***				
	(0.07)				
Price (in J$000s)		-0.01***		0.00	
		(0.00)		(0.00)	
Price = 1,000			-0.00		
			(0.08)		
Price = 3,000			0.04		
			(0.08)		
Price = 5,000			-0.06		0.01
			(0.07)		(0.08)
Price = 10,000			-0.13*		0.02
			(0.07)		(0.07)
Price = 15,000			-0.17		0.01
			(0.11)		(0.07)
Price = 20,000			-0.27**		
			(0.11)		
Observations	457	457	457	374	374
R-squared	0.059	0.026	0.028	0.000	0.000
Mean Y if P=0	0.40	0.73		0.70	

OLS regressions, the dependent variable is an indicator taking value 1 if the respondent completed the follow-up survey. Column 1 controls for WTP dummies. The excluded category in Columns 2-4 is Price = 0. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 10: ITT Effect on Main Outcomes, BDM sample

	(1) Business practices	(2) Personal initiative	(3) N. correct answers	(4) Has empl.	(5) Pos. sales	(6) Pos. profits	(7) Sales	(8) Profits
Panel A. No weights								
WTP $\geq$ Price	0.15***	0.01	0.34	0.04	0.12	0.14	20,439	18,523
	(0.06)	(0.16)	(0.29)	(0.10)	(0.09)	(0.11)	(26,803)	(11,853)
Observations	302	302	302	302	290	290	290	282
R-squared	0.087	0.083	0.031	0.121	0.037	0.021	0.168	0.025
Mean Y if WTP $<$ Price	0.41	5.78	1.96	0.58	0.77	0.31	73,808	-480
Panel B. Inverse probability of attrition weights								
WTP $\geq$ Price	0.11**	0.01	0.39	0.03	0.07	0.14	20,169	17,611
	(0.05)	(0.17)	(0.29)	(0.11)	(0.09)	(0.11)	(27,202)	(11,639)
Observations	300	300	300	300	289	289	289	281
R-squared	0.075	0.093	0.030	0.123	0.041	0.021	0.187	0.023
Mean Y if WTP $<$ Price	0.42	5.78	2.00	0.60	0.80	0.32	76,760	-500

OLS regressions of outcome variables on an indicator for being offered the course (when WTP is no smaller than offered price). We control for WTP dummies and the baseline value of the outcome; we replace missing values at baseline with 0s and we include an indicator for missing values. See Appendix B for details on the definitions of outcome variables. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 11: ITT Effect on Main Outcomes by WTP, BDM sample.

	(1) Business practices	(2) Personal initiative	(3) N. correct answers	(4) Has empl.	(5) Pos. sales	(6) Pos. profits	(7) Sales	(8) Profits
Panel A. No weights								
WTP $\geq$ Price	0.10	-0.17	-0.48	0.12	0.11	0.40***	29,456	30,356*
	(0.09)	(0.21)	(0.44)	(0.15)	(0.16)	(0.14)	(42,303)	(15,614)
WTP $\geq$ Price * WTP demeaned	-0.01	-0.03	-0.13***	0.01	-0.00	0.04**	1,426	1,890
	(0.01)	(0.03)	(0.05)	(0.02)	(0.02)	(0.02)	(7,280)	(2,491)
Observations	302	302	302	302	290	290	290	282
R-squared	0.089	0.086	0.056	0.123	0.038	0.035	0.168	0.026
Mean Y if WTP $<$ Price	0.41	5.78	1.96	0.58	0.77	0.31	73,808	-480
Panel B. Inverse probability of attrition weights								
WTP $\geq$ Price	0.07	-0.19	-0.43	0.10	0.07	0.41***	23,878	32,086**
	(0.09)	(0.20)	(0.43)	(0.15)	(0.17)	(0.14)	(41,112)	(15,902)
WTP $\geq$ Price * WTP demeaned	-0.01	-0.03	-0.13***	0.01	-0.00	0.04**	584	2,300
	(0.01)	(0.03)	(0.04)	(0.02)	(0.02)	(0.02)	(7,107)	(2,527)
Observations	300	300	300	300	289	289	289	281
R-squared	0.076	0.096	0.055	0.124	0.041	0.035	0.187	0.024
Mean Y if WTP $<$ Price	0.42	5.78	2.00	0.60	0.80	0.32	76,760	-500

OLS regressions of outcome variables on an indicator for being offered the course (when WTP is no smaller than offered price) and its interaction with WTP (demeaned). We control for WTP dummies and the baseline value of the outcome; we replace missing values at baseline with 0s and we include an indicator for missing values. See Appendix B for details on the definitions of outcome variables. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 12: LATE Effect on Main Outcomes, BDM sample

	(1) Business practices	(2) Personal initiative	(3) N. correct answers	(4) Has empl.	(5) Pos. sales	(6) Pos. profits	(7) Sales	(8) Profits
Panel A. No weights								
WTP $\geq$ Price	0.29***	0.08	0.49	0.19	0.34*	0.62***	104,504	53,777
	(0.11)	(0.30)	(0.48)	(0.20)	(0.18)	(0.21)	(96,461)	(34,419)
Observations	302	302	302	302	290	290	290	282
R-squared	0.068	0.083	0.029	0.116	0.015	.	0.161	0.015
Mean Y if WTP $<$ Price	0.41	5.78	1.96	0.58	0.77	0.31	73,808	-480
Panel B. Inverse probability of attrition weights								
WTP $\geq$ Price	0.24**	0.04	0.56	0.20	0.32	0.65***	102,466	61,428*
	(0.11)	(0.30)	(0.49)	(0.21)	(0.20)	(0.22)	(92,229)	(34,719)
Observations	300	300	300	300	289	289	289	281
R-squared	0.058	0.092	0.029	0.115	0.015	.	0.180	0.007
Mean Y if WTP $<$ Price	0.42	5.78	2.00	0.60	0.80	0.32	76,760	-500

2sls regressions of outcome variables on an indicator for being offered the course (when WTP is no smaller than offered price) instrumented with the price offered for the course. We control for WTP dummies and the baseline value of the outcome; we replace missing values at baseline with 0s and we include an indicator for missing values. See Appendix B for details on the definitions of outcome variables. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 13: ITT Effect on Main Outcomes, TIOLI sample

	(1) Business practices	(2) Personal initiative	(3) N. correct answers	(4) Has empl.	(5) Pos. sales	(6) Pos. profits	(7) Sales	(8) Profits
Price = 5,000	0.01	0.01	-0.36	-0.00	0.13*	0.02	-83,373	-23,940
	(0.05)	(0.19)	(0.28)	(0.10)	(0.08)	(0.11)	(55,540)	(19,053)
Price = 10,000	-0.03	0.22	-0.22	0.00	-0.00	-0.01	-78,776	-11,649
	(0.04)	(0.17)	(0.21)	(0.08)	(0.08)	(0.09)	(52,468)	(17,922)
Price = 15,000	-0.01	0.16	-0.60***	-0.05	0.03	0.02	-42,767	11,137
	(0.04)	(0.17)	(0.21)	(0.08)	(0.08)	(0.09)	(56,236)	(19,332)
Observations	266	266	266	266	249	249	249	240
R-squared	0.025	0.040	0.031	0.194	0.025	0.015	0.061	0.067
Mean Y if P=0	0.60	5.86	3.11	0.59	0.79	0.40	202,333	16,795

OLS regressions of outcome variables on price offered. We control for the baseline value of the outcome; we replace missing values at baseline with 0s and we include an indicator for missing values. The excluded category is Price = 0. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 14: Effect on Main Outcomes (IV), TIOLI sample

	(1) Business practices	(2) Personal initiative	(3) N. correct answers	(4) Has empl.	(5) Pos. sales	(6) Pos. profits	(7) Sales	(8) Profits
At least 1 class	0.05	-0.40	0.76**	0.07	0.06	-0.02	42,491	-29,663
	(0.07)	(0.26)	(0.36)	(0.13)	(0.13)	(0.16)	(87,105)	(31,847)
Observations	266	266	266	266	249	249	249	240
Cragg-Donald F-stat	16.67	17.03	17.04	17.10	15.08	15.24	16.06	15.03
Stock-Yogo crit. val.	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91

2SLS regressions of outcome variables on course attendance. The endogenous variable is an indicator taking value 1 if the respondent attended to at least 1 class; the instruments are 3 dummy variables for Price = 5,000, Price= 10,000, and Price = 15,000. We control for the baseline value of the outcome; we replace missing values at baseline with 0s and we include an indicator for missing values. See Appendix B for details on the definitions of outcome variables. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Figure 1: Demand Curve by Treatment, BDM sample

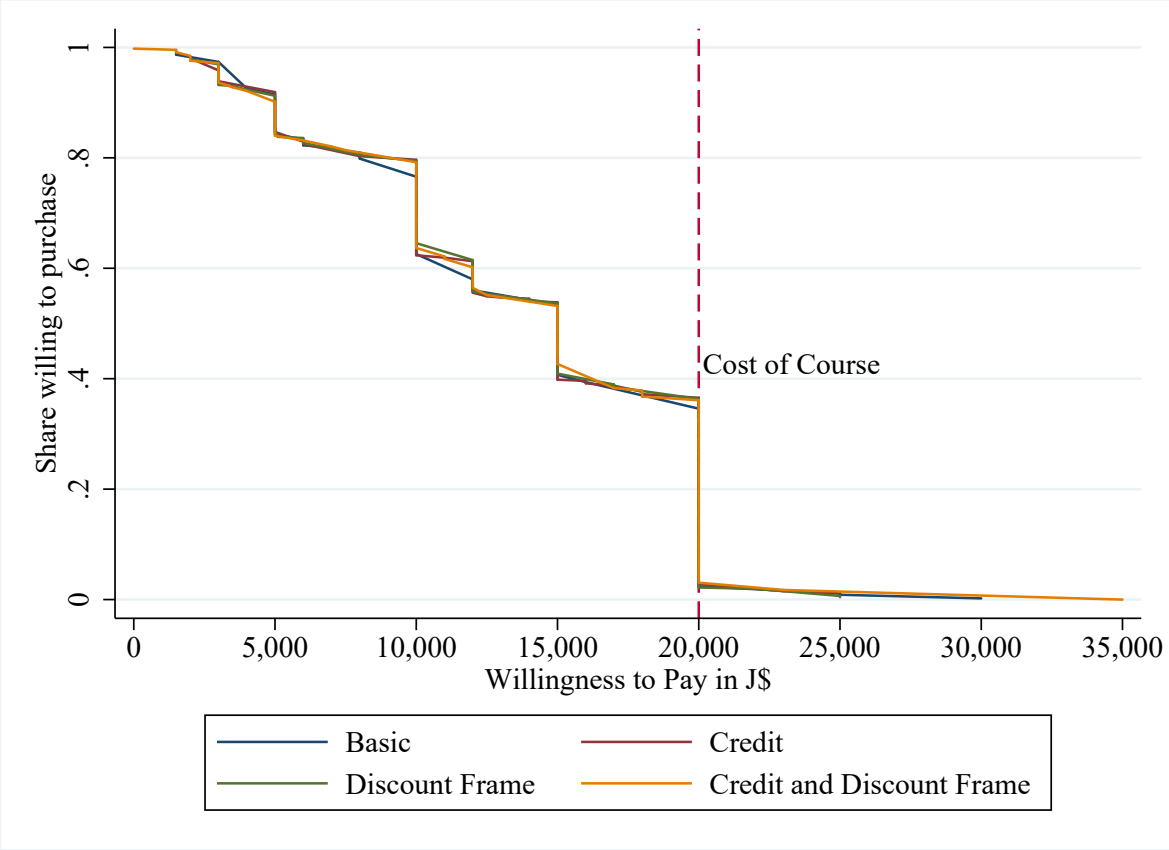


Figure 2: Demand Curve by Treatment: WTP vs actual payments, BDM sample

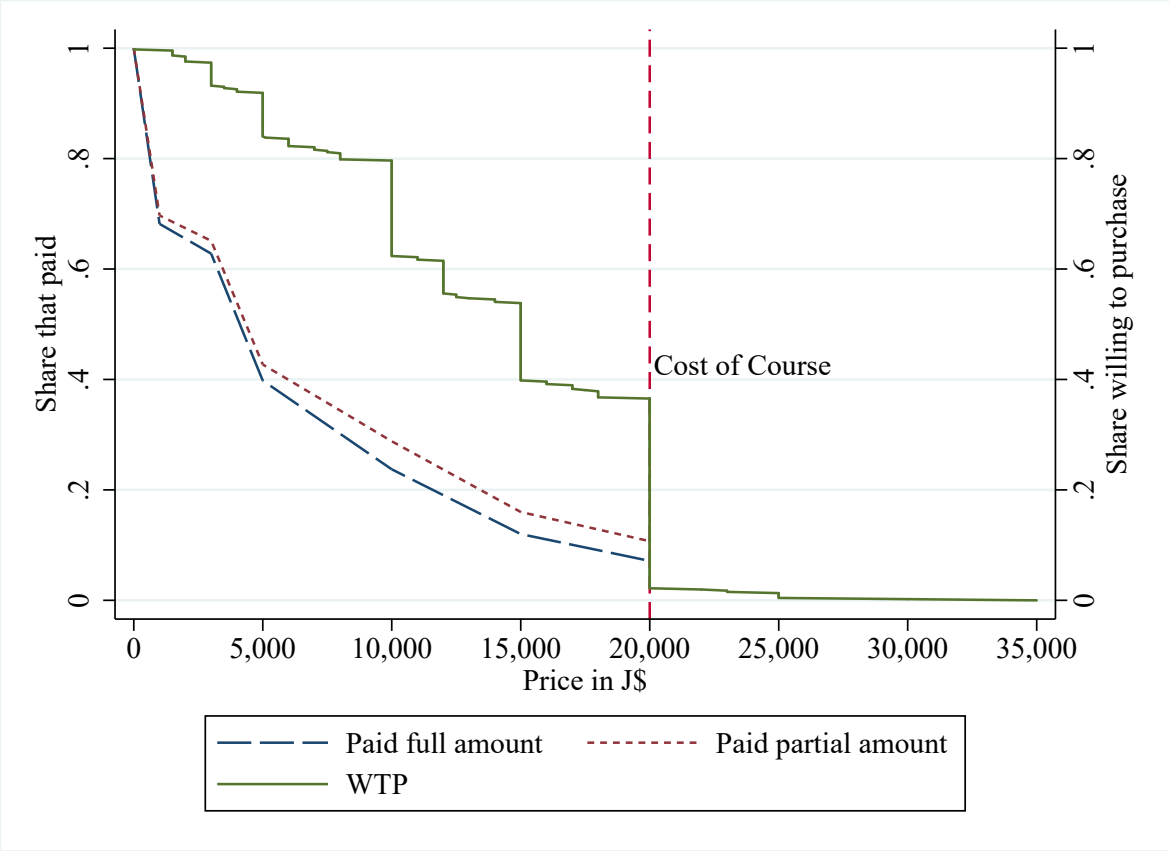


Figure 3: Demand Curve by Credit, full sample

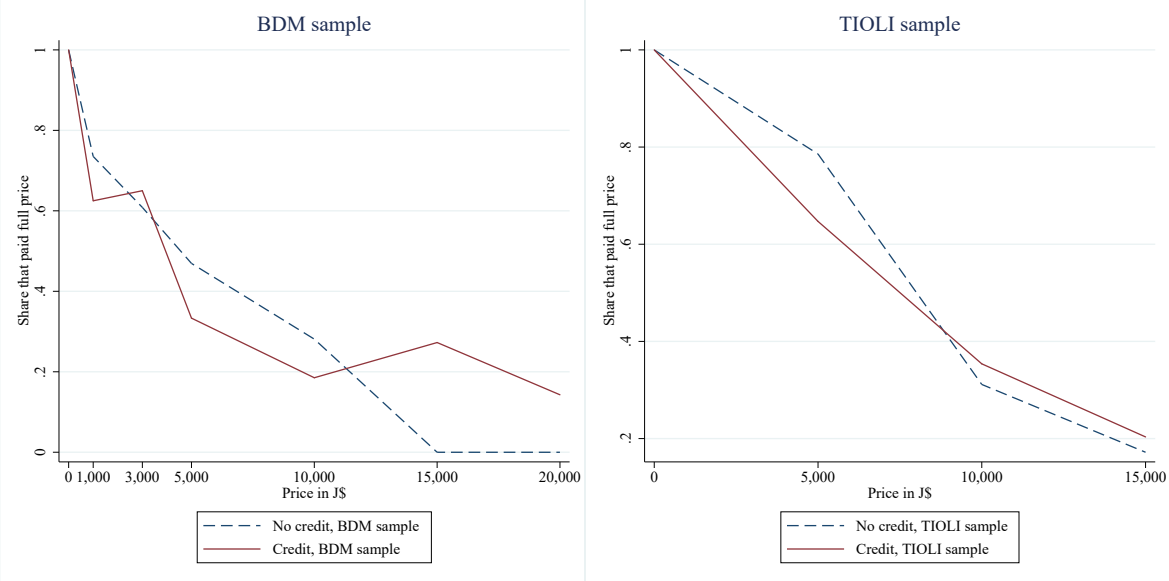
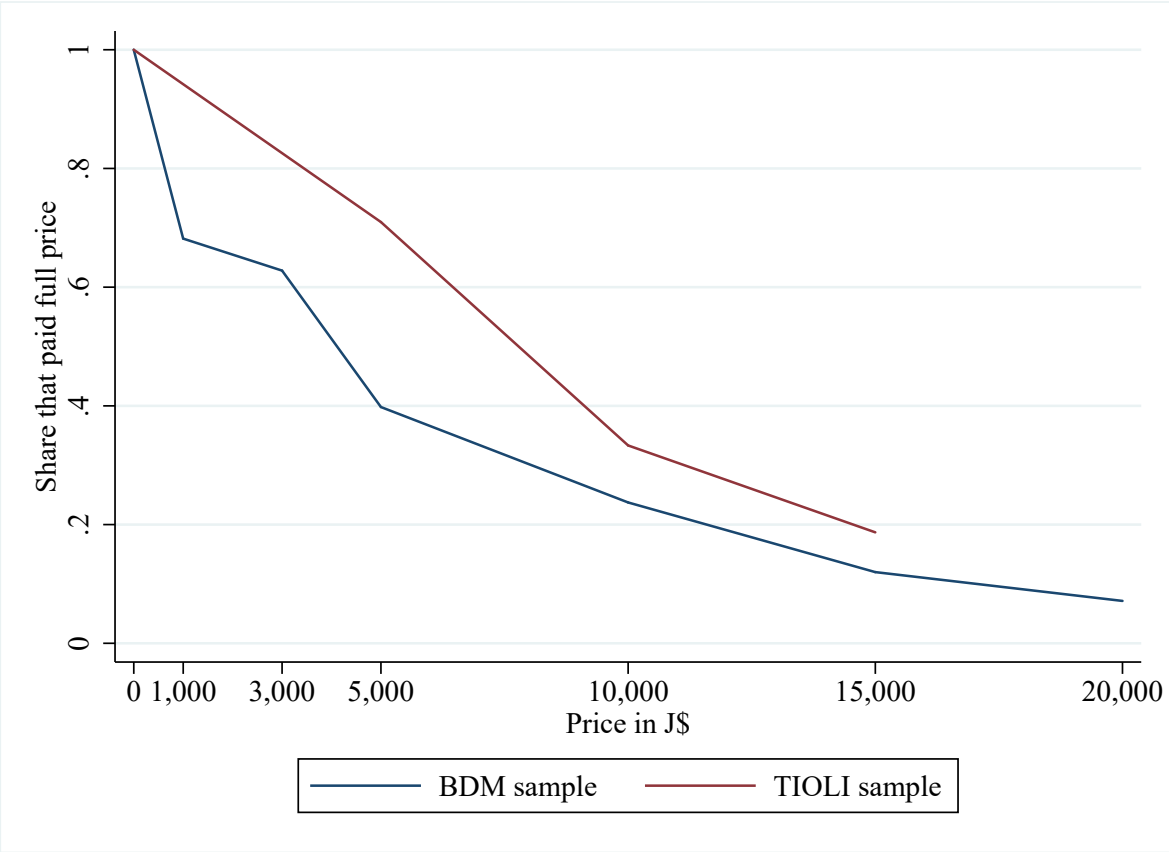


Figure 4: Demand Curve: Full Payment, full sample



Online Appendices

A Appendix Tables

Table A1: Summary Statistics: BDM, TIOLI and Non-participants

	(1) BDM	(2) TIOLI	(3) No demo	(4) BDM vs TIOLI	(5) BDM vs no demo	(6) TIOLI vs no demo
	Mean	Mean	Mean	Diff.	Diff.	Diff.
Exp. sales incr. 10%-20%	0.34	0.30	0.33	-0.04	0.01	-0.03
	(0.48)	(0.46)	(0.47)	(0.04)	(0.03)	(0.03)
Exp. sales incr. by more than 20%	0.44	0.59	0.43	0.15***	0.00	0.15***
	(0.50)	(0.49)	(0.50)	(0.04)	(0.03)	(0.03)
Cannot finance 20k invest.	0.14	0.10	0.15	-0.04	-0.01	-0.05**
	(0.34)	(0.30)	(0.36)	(0.02)	(0.02)	(0.02)
Share of bus. practices	0.49	0.55	0.50	0.06***	-0.01	0.05***
	(0.26)	(0.26)	(0.27)	(0.02)	(0.02)	(0.02)
Has employees	0.39	0.44	0.40	0.05	-0.01	0.04
	(0.49)	(0.50)	(0.49)	(0.03)	(0.03)	(0.03)
Sector: services	0.38	0.53	0.38	0.16***	-0.01	0.15***
	(0.49)	(0.50)	(0.49)	(0.03)	(0.03)	(0.03)
Sector: retail	0.30	0.18	0.37	-0.12***	-0.07**	-0.18***
	(0.46)	(0.39)	(0.48)	(0.03)	(0.03)	(0.03)
Sector: agriculture	0.10	0.06	0.08	-0.04**	0.02	-0.02
	(0.30)	(0.23)	(0.27)	(0.02)	(0.02)	(0.01)
Owns vehicle for business	0.54	0.63	0.53	0.09***	0.01	0.10***
	(0.50)	(0.48)	(0.50)	(0.03)	(0.03)	(0.03)
Has internet access	0.83	0.96	0.82	0.13***	0.01	0.14***
	(0.38)	(0.20)	(0.39)	(0.02)	(0.02)	(0.02)
Age	45.91	41.82	44.00	-4.09***	1.91***	-2.18***
	(11.68)	(11.88)	(11.94)	(0.83)	(0.68)	(0.73)
Woman	0.56	0.58	0.57	0.01	-0.00	0.01
	(0.50)	(0.49)	(0.50)	(0.03)	(0.03)	(0.03)
Married	0.52	0.47	0.53	-0.05	-0.01	-0.06*
	(0.50)	(0.50)	(0.50)	(0.04)	(0.03)	(0.03)
Education: more than secondary	0.88	0.95	0.87	0.07***	0.01	0.08***
	(0.32)	(0.21)	(0.34)	(0.02)	(0.02)	(0.02)
Personal initiative index [1-7]	6.27	6.34	6.29	0.07	-0.02	0.05
	(0.72)	(0.64)	(0.62)	(0.05)	(0.04)	(0.04)
Risk taking index [0-10]	7.54	8.08	7.64	0.54***	-0.09	0.44***
	(2.21)	(1.90)	(2.16)	(0.14)	(0.13)	(0.12)
Took previous bus. training	0.30	0.39	0.29	0.09***	0.01	0.09***
	(0.46)	(0.49)	(0.45)	(0.03)	(0.03)	(0.03)
Comparison with others on bus. practices	5.39	5.44	5.82	0.04	-0.43***	-0.39***
	(1.93)	(1.94)	(1.96)	(0.14)	(0.11)	(0.12)
Comparison with others on proactiveness	6.59	6.90	6.87	0.31**	-0.28**	0.03
	(2.07)	(2.08)	(2.13)	(0.15)	(0.12)	(0.13)
Reservation wage	89,047	150,482	94,117	61,435***	-5,070	56,365***
	(85,901)	(235,407)	(100,142)	(14,171)	(5,646)	(13,977)
Declared WTP	12,915	17,384	9,509	4,469*	3,406	7,875***
	(49,514)	(15,997)	(14,330)	(2,694)	(2,584)	(1,050)
Sales last month	86,174	214,396	101,659	128,222***	-15,486	112,736***
	(168,244)	(685,088)	(211,851)	(38,277)	(10,827)	(38,103)
Profits last month	13,447	89,448	39,612	76,001***	-26,165**	49,837*
	(76,717)	(467,655)	(362,742)	(26,690)	(13,164)	(29,276)
Observations	457	374	951			

Columns (1) and (3) show the mean and standard deviation for the BDM sample and TIOLI sample, respectively. Columns (2) and (4) show the coefficient of an OLS regression of each covariate on the price offered (the price is expressed in thousands of Jamaican dollars). Regressions in column (4) also include fixed effects for demonstration session. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A2: Balance table by form, BDM sample

	(1) Control	(2) Credit	(3) Discount Frame	(4) Credit + Frame	(5) Test equality
	Mean	Diff.	Diff.	Diff.	P-val.
Exp. sales incr. 10%-20%	0.39	-0.10	0.02	-0.10	0.174
	(0.49)	(0.07)	(0.07)	(0.07)	
Exp. sales incr. by more than 20%	0.41	0.07	-0.02	0.07	0.418
	(0.49)	(0.07)	(0.07)	(0.07)	
Cannot finance 20k invest.	0.18	-0.06	-0.08	-0.02	0.222
	(0.38)	(0.05)	(0.05)	(0.05)	
Share of bus. practices	0.43	0.10**	0.06	0.08*	0.029
	(0.25)	(0.04)	(0.03)	(0.03)	
Has employees	0.33	0.11	0.05	0.09	0.313
	(0.47)	(0.07)	(0.06)	(0.06)	
Sector: services	0.38	0.00	-0.03	0.01	0.903
	(0.49)	(0.07)	(0.06)	(0.06)	
Sector: retail	0.29	-0.05	0.07	0.01	0.229
	(0.46)	(0.06)	(0.06)	(0.06)	
Sector: agriculture	0.05	0.07	0.04	0.08*	0.119
	(0.23)	(0.04)	(0.03)	(0.04)	
Owns vehicle for business	0.56	-0.08	0.01	-0.02	0.616
	(0.50)	(0.07)	(0.07)	(0.07)	
Has internet access	0.83	0.06	-0.05	-0.01	0.135
	(0.38)	(0.05)	(0.05)	(0.05)	
Age	45.83	0.38	2.02	-1.94	0.082
	(11.62)	(1.57)	(1.55)	(1.55)	
Woman	0.63	-0.03	-0.13*	-0.09	0.187
	(0.49)	(0.07)	(0.07)	(0.06)	
Married	0.45	0.05	0.12	0.08	0.345
	(0.50)	(0.07)	(0.07)	(0.07)	
Education: more than secondary	0.85	0.06	0.00	0.07	0.246
	(0.36)	(0.04)	(0.05)	(0.04)	
Personal initiative index [1-7]	6.26	-0.00	0.05	-0.01	0.918
	(0.73)	(0.09)	(0.10)	(0.10)	
Risk taking index [0-10]	7.48	-0.04	0.22	0.06	0.821
	(2.31)	(0.30)	(0.30)	(0.30)	
Took previous bus. training	0.33	-0.11	-0.01	0.01	0.174
	(0.47)	(0.06)	(0.06)	(0.06)	
Comparison with others on bus. practices	5.36	0.07	0.11	-0.02	0.948
	(1.89)	(0.26)	(0.26)	(0.26)	
Comparison with others on proactiveness	6.41	-0.08	0.50	0.28	0.139
	(2.11)	(0.30)	(0.27)	(0.28)	
Reservation wage	88,883	3,984	5,495	-8,391	0.430
	(108,669)	(14,161)	(13,570)	(11,887)	
Declared WTP	9,744	5,778	6,833	271	0.648
	(12,506)	(5,703)	(8,308)	(2,393)	
Sales last month	98,340	-13,378	-20,539	-13,816	0.858
	(199,641)	(24,841)	(23,521)	(25,440)	
Profits last month	11,528	-4,478	10,376	1,151	0.357
	(49,541)	(13,283)	(6,735)	(7,836)	
Observations	113	109	115	120	

Column (1) shows the mean and standard deviation for the control group of the BDM sample. Columns (2)-(4) show the coefficient of an OLS regression of each covariate on an indicator for the respective treatment, and the associated standard error. Column (5) shows the p-value of a test of equality across the three treatment arms **Credit**: respondent was allowed to pay in 3 installments, **Discount Frame**: respondent was presented the price as a discount, a share from the cost of the course. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A3: Balance table by credit, TIOLI sample

	(1) Control	(2) Credit
	Mean	Diff.
Exp. sales incr. 10%-20%	0.30	-0.00
	(0.46)	(0.05)
Exp. sales incr. by more than 20%	0.58	-0.00
	(0.49)	(0.06)
Cannot finance 20k invest.	0.13	-0.09*
	(0.34)	(0.03)
Share of bus. practices	0.54	0.02
	(0.27)	(0.03)
Has employees	0.42	0.05
	(0.49)	(0.05)
Sector: services	0.50	0.09
	(0.50)	(0.05)
Sector: retail	0.21	-0.07
	(0.41)	(0.04)
Sector: agriculture	0.06	-0.02
	(0.25)	(0.02)
Owns vehicle for business	0.58	0.12*
	(0.50)	(0.05)
Has internet access	0.95	0.01
	(0.21)	(0.02)
Age	41.78	0.18
	(11.45)	(1.28)
Woman	0.60	-0.06
	(0.49)	(0.05)
Married	0.48	-0.02
	(0.50)	(0.06)
Education: more than secondary	0.95	0.01
	(0.22)	(0.02)
Personal initiative index [1-7]	6.33	0.04
	(0.71)	(0.07)
Risk taking index [0-10]	8.24	-0.37
	(1.75)	(0.20)
Took previous bus. training	0.36	0.07
	(0.48)	(0.05)
Comparison with others on bus. practices	5.40	0.13
	(1.96)	(0.21)
Comparison with others on proactiveness	6.88	0.06
	(2.08)	(0.22)
Reservation wage	139,387	23,856
	(199,318)	(28,963)
Declared WTP	18,084	-1,959
	(16,469)	(1,838)
Sales last month	160,675	138,650
	(387,128)	(87,970)
Profits last month	66,572	61,927
	(236,725)	(63,791)
Observations	216	158

Column (1) shows the mean and standard deviation for the control group of the TIOLI sample. Column (2) shows the coefficient of an OLS regression of each covariate on an indicator for treatment. **Credit**: respondent was allowed to pay in 3 installments Regressions in column (2) also include fixed effects for demonstration session. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A4: Balance table by BDM treatment

	(1) BDM sample	(2)
	Mean T=0	Diff.
Exp. sales incr. 10%-20%	0.36	-0.02
	(0.48)	(0.08)
Exp. sales incr. by more than 20%	0.32	0.08
	(0.47)	(0.08)
Cannot finance 20k invest.	0.24	-0.03
	(0.43)	(0.06)
Share of bus. practices	0.47	-0.01
	(0.26)	(0.04)
Has employees	0.38	-0.13*
	(0.49)	(0.07)
Sector: services	0.22	0.06
	(0.41)	(0.07)
Sector: retail	0.38	-0.00
	(0.49)	(0.07)
Sector: agriculture	0.15	-0.06
	(0.36)	(0.05)
Owns vehicle for business	0.48	-0.05
	(0.50)	(0.08)
Has internet access	0.72	-0.02
	(0.45)	(0.07)
Age	49.17	0.65
	(12.35)	(1.78)
Woman	0.54	0.08
	(0.50)	(0.08)
Married	0.56	-0.07
	(0.50)	(0.08)
Education: more than secondary	0.78	0.09
	(0.42)	(0.06)
Personal initiative index [1-7]	6.24	-0.03
	(0.50)	(0.08)
Risk taking index [0-10]	7.56	-0.42
	(1.91)	(0.32)
Took previous bus. training	0.46	-0.18**
	(0.50)	(0.07)
Comparison with others on bus. practices	5.11	0.12
	(1.98)	(0.30)
Comparison with others on proactiveness	6.37	0.12
	(1.94)	(0.30)
Reservation wage	67,534	6,519
	(39,564)	(7,123)
Declared WTP	6,454	2,923
	(9,313)	(2,939)
Sales last month	45,857	11,935
	(83,166)	(13,221)
Profits last month	7,200	6,584
	(33,856)	(6,264)
Observations	65	392

Columns (1) shows the mean and standard deviation for those not assigned to treatment in the BDM sample (WTP less than price). Column (2) shows the coefficient of an OLS regression of each covariate on a dummy for being assigned to treatment conditional on WTP fixed effects. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A5: Balance table by BDM treatment, non-attriters

	(1) BDM sample	(2)
	Mean T=0	Diff.
Exp. sales incr. 10%-20%	0.33	0.03
	(0.48)	(0.11)
Exp. sales incr. by more than 20%	0.38	0.02
	(0.49)	(0.12)
Cannot finance 20k invest.	0.19	-0.02
	(0.40)	(0.08)
Share of bus. practices	0.47	-0.01
	(0.22)	(0.05)
Has employees	0.38	-0.16
	(0.50)	(0.10)
Sector: services	0.12	0.19**
	(0.33)	(0.08)
Sector: retail	0.42	-0.06
	(0.50)	(0.11)
Sector: agriculture	0.27	-0.16*
	(0.45)	(0.09)
Owns vehicle for business	0.42	0.04
	(0.50)	(0.11)
Has internet access	0.69	0.05
	(0.47)	(0.10)
Age	50.36	-0.63
	(13.65)	(2.84)
Woman	0.50	0.10
	(0.51)	(0.11)
Married	0.38	0.12
	(0.50)	(0.11)
Education: more than secondary	0.72	0.14
	(0.46)	(0.10)
Personal initiative index [1-7]	6.28	-0.02
	(0.44)	(0.11)
Risk taking index [0-10]	7.62	-0.52
	(2.04)	(0.47)
Took previous bus. training	0.58	-0.33***
	(0.50)	(0.11)
Comparison with others on bus. practices	4.92	0.36
	(2.04)	(0.46)
Comparison with others on proactiveness	6.25	0.30
	(1.78)	(0.43)
Reservation wage	64,000	8,377
	(26,981)	(7,758)
Declared WTP	4,614	6,083
	(4,356)	(4,548)
Sales last month	42,404	13,204
	(90,343)	(19,444)
Profits last month	6,720	10,351**
	(16,341)	(5,142)
Observations	26	276

Columns (1) shows the mean and standard deviation for those not assigned to treatment in the BDM sample (WTP less than price). Column (2) shows the coefficient of an OLS regression of each covariate on a dummy for being assigned to treatment conditional on WTP fixed effects. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A6: Balance table by price, non-attriters

	(1) BDM sample	(2)	(3) TIOLI sample	(4)
	Mean	Diff.	Mean	Diff.
Exp. sales incr. 10%-20%	0.35	0.00	0.32	-0.01
	(0.48)	(0.01)	(0.47)	(0.01)
Exp. sales incr. by more than 20%	0.46	-0.00	0.61	0.01
	(0.50)	(0.01)	(0.49)	(0.01)
Cannot finance 20k invest.	0.11	-0.00	0.10	-0.01
	(0.32)	(0.00)	(0.30)	(0.00)
Share of bus. practices	0.49	0.00	0.54	-0.00
	(0.26)	(0.00)	(0.26)	(0.00)
Has employees	0.38	0.00	0.41	0.01
	(0.49)	(0.01)	(0.49)	(0.01)
Sector: services	0.39	-0.00	0.54	0.01
	(0.49)	(0.01)	(0.50)	(0.01)
Sector: retail	0.29	-0.01	0.16	-0.00
	(0.46)	(0.01)	(0.37)	(0.00)
Sector: agriculture	0.11	0.01**	0.06	-0.00
	(0.31)	(0.00)	(0.23)	(0.00)
Owns vehicle for business	0.53	-0.00	0.62	-0.01
	(0.50)	(0.01)	(0.49)	(0.01)
Has internet access	0.84	-0.00	0.95	-0.00*
	(0.37)	(0.00)	(0.21)	(0.00)
Age	46.08	-0.10	41.89	0.13
	(11.85)	(0.14)	(11.75)	(0.14)
Woman	0.56	-0.01	0.58	-0.01
	(0.50)	(0.01)	(0.49)	(0.01)
Married	0.51	-0.01	0.46	-0.01*
	(0.50)	(0.01)	(0.50)	(0.01)
Education: more than secondary	0.89	-0.01*	0.95	0.00
	(0.32)	(0.00)	(0.21)	(0.00)
Personal initiative index [1-7]	6.27	-0.01	6.28	-0.00
	(0.75)	(0.01)	(0.68)	(0.01)
Risk taking index [0-10]	7.53	0.03	8.02	-0.04*
	(2.24)	(0.02)	(1.92)	(0.02)
Took previous bus. training	0.31	0.02***	0.38	0.00
	(0.46)	(0.01)	(0.49)	(0.01)
Comparison with others on bus. practices	5.36	-0.03	5.48	-0.00
	(2.01)	(0.02)	(1.95)	(0.02)
Comparison with others on proactiveness	6.53	-0.00	6.85	0.01
	(2.15)	(0.02)	(2.10)	(0.03)
Reservation wage	84,759	1,354	157,828	580
	(64,578)	(1,278)	(272,461)	(2,923)
Declared WTP	14,147	654	16,984	-132
	(58,953)	(1,078)	(16,093)	(186)
Sales last month	88,936	-2,944*	185,012	5,973
	(173,515)	(1,710)	(682,217)	(9,530)
Profits last month	13,862	-545	82,880	9,500
	(84,912)	(942)	(513,795)	(6,700)
Observations	302		266	

Columns (1) and (3) show the mean and standard deviation for the BDM sample and TIOLI sample, respectively. Columns (2) and (4) show the coefficient of an OLS regression of each covariate on the price offered (the price is expressed in thousands of Jamaican dollars). Regressions in column (4) also include fixed effects for demonstration session. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

B Variable definitions

The main outcomes are defined in the following way.

Business practices: The share of business practices adopted by the respondent. This variable was recoded to 0 for those who do not have a business.

Personal initiative: An index built as the amean of seven variables, each one taking values ranging from 1 (”strongly disagree”) to 7 (”strongly agree”) depending on how much the respondent agreed with the following statements:

- ”I actively attacked problems”
- ”I took initiative immediately even when others did not”
- ”I used opportunities quickly in order to attain my goals”
- ”Whenever there was a chance to get actively involved, I took it”
- ”I searched for solutions immediately whenever something went wrong”
- ”I usually did more than I was asked to do”
- ”I have been particularly good at realizing ideas”

N. of correct answer: The number of correct answers (out of 5) to a knowledge test on the contents of the course.

Has employees: An indicator taking value 1 if the respondent has employees. This variable was recoded to 0 for those who do not have a business.

Positive sales: An indicator taking value 1 if the respondent reported having positive sales in the last month. This variable was recoded to 0 for those who do not have a business.

Positive profits: An indicator taking value 1 if the respondent reported having positive profits in the last month. This variable was recoded to 0 for those who do not have a business.

Sales: The reported amount of sales for the last month, in Jamaican dollars, winsorized at the top 99th percentile. This variable was recoded to 0 for those who do not have a business.

Profits: The reported amount of profits for the last month, in Jamaican dollars, winsorized at the bottom 1st and the top 99th percentile. This variable was recoded to 0 for those who do not have a business.