

Promoting E-Commerce in Georgia - Impact Evaluation Design

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Abstract:

This impact evaluation studies how the adoption of technology and access to online retail impacts firms' performance and job creation in Georgia. We offered a three-day training on digital marketing and e-commerce to a randomly selected group of small and medium enterprises in several municipalities from six regions of Georgia. Despite the short duration and potential benefits for the firms, the take-up rate was lower than expected. We then offered more flexible times and arrangements for the training, but the take-up rate remained relatively low. One of our hypotheses is that the firms do not foresee benefits of the training and that low participation in online markets could also be affected by low demand if customers are unused to or unwilling to participate in online markets. To investigate this hypothesis, we are currently implementing a second experiment: an induced demand-shock to incentivize firms to start online retail by offering to buy products and services from firms that attended training and are willing to have an online presence. Therefore, the experimental evaluation explores both a supply-side shock (strengthening firms' understanding of ecommerce and promoting their participation) and a demand-side shock (guaranteeing orders from firms if they go online). Taken together, the results strengthen the rationale for finding complementary analog support services to businesses to help them make the most out of digital technologies. It also help us understand some of the constraints firms face in fully engaging in online activities and how their demand for skilled versus unskilled labor changes as they increase their online presence. Finally, this impact evaluation supplements a companion paper – an ex-post study that, using a difference-in-differences approach, evaluates the impact of the historical rollout of broadband internet accross and finds that broadband is complementary to firms' initial endowments.

I. Introduction

Access to the internet facilitates development, but does not guarantee it. This is the message from the World Development Report 2016 (World Bank, 2016) on Digital Dividends, which is also present in the more recent impact evaluation literature that shows mixed benefits from broadband expansion (e.g. de Stefano *et al.* 2014). Despite the steady expansion of internet access and its promise of development impact, important challenges persist. Adoption barriers for the unconnected world remain substantial, and differential access has the potential to exacerbate existing inequalities and expanding the digital divide. Without appropriate analog complements, internet services may fall short of their potential, and drive a wedge between those with resources and those without, increasing barriers to entry for some markets and consolidating natural monopolies for incumbents.

This impact evaluation (IE) aims to understand ways to help small businesses grow and create jobs by using information & communication technologies (ICTs). We focus on providing knowledge on digital technologies and marketing and on testing how to get more micro and small-sized businesses in Georgia to actively engage in e-commerce. We will measure the resulting development impacts that come from this – in particular, how the demand for skilled versus unskilled labor changes as businesses shift from traditional to online sales. This feeds into the broader literature on technology adoption, automation and demand for labor (World Bank, 2018).

There is little direct and convincing evidence about what can be done to help economies and firms best utilize ICT adoption for growth and jobs creation. There is some theoretical work showing that adoption of ICT technology by firms depends on firm size and labor market characteristics (Brambilla, 2016). Recent empirical work exploring the impact of ICTs on firms can be found in Akerman *et al.* (2015) who estimate that the introduction of broadband internet in Norway led to increases in firms' productivity and skilled jobs. Hjort and Poulsen (2016), Canzian *et al.* (2015), and Brambilla and Tortarolo (2016) found similar results for South Africa, Italy and Argentina respectively, whereas Dutz *et al.* (2016) found mixed results for Brazil. While their results are encouraging, important questions remain regarding the mechanisms that are at work when broadband internet becomes available, and how analog complements can help realize the positive potential of ICTs.

On one hand, ICT adoption could be skewed in favor of well-endowed, formalized firms who are able to pay for the fixed cost investments in these technologies and absorb the risk of uncertain returns. If this is the case, the benefits of ICTs could be skewed towards these firms who generally also have the best access to analog complements to these services such as large networks, skilled laborers and a strong business climate. On the other hand, ICT adoption could allow smaller, less well-known firms to break into new markets where they have comparative advantages but where they were unknown due to high search costs. Additionally, these technologies could serve as a way for firms to more easily find analog complements for their business, or learn new ways to improve their productivity. If this is the case, then the gains from ICTs could go to small firms, allowing the most productive firms rise to the top. The appropriate policy response differs depending on which of these two scenarios are most prevalent. The first case justifies direct intervention at the firm level while the second case suggests that intervention should focus on public investments such as broadband infrastructure to ensure broad-based growth.

In a companion paper – an ex-post study on broadband expansion in Georgia - we explored this question. We used a difference-in-differences approach to measure the impact of the historical rollout of broadband internet across parts of Georgia on business performance and wage inequality (Coville et al., 2019). Our main findings suggest that impacts are consistent with broadband being a complement to initial endowments. We found null effects on turnover, employment and wages in aggregate, but suggestive evidence that firms with higher baseline endowments are more likely to benefit from broadband expansion, in line with the messages from the WDR16. Although the limits to our identification strategy means that the results should be considered with due caution, our results point to an increase in the existing wage gap between the top and bottom half of the wage distribution. However, some questions remained unanswered. Can governments intervene and support businesses that may otherwise fail to utilize the potential of the new digital economy? How should government target finite resources to generate the most impact?

This impact evaluation aims to answer these by exploring alternative approaches to support less-endowed firms to have a better chance of reaping digital dividends through e-commerce and understanding which firms are more likely to benefit from it. More specifically, this work answers (i) whether providing e-commerce training and increasing firms' online presence enables them to find new buyers, (ii) whether this affects performance (measured by turnover and revenues) and their demand for high-skilled versus low-skilled laborers; (iii) whether combining a supply-side training intervention with a demand-side shock can generate stronger impacts; and (iv) whether a short term demand shock (securing orders online) lead to strengthened market participation in the medium term.

We offered a three-day training on digital marketing and e-commerce to a randomly selected group of small and medium enterprises in several municipalities from six regions of Georgia. Businesses from Tbilisi were explicitly excluded from the project since its focus was on spurring participation in ecommerce outside of the main urban center. By exogenously varying firm's online participation, we explore the impacts of increased broadband utilization on firms – in particular, the potential labor redistribution that comes from active participation in e-commerce markets. Despite the short duration and potential benefits for the firms, the take-up rate was lower than expected. We then offered more flexible times and arrangements for the training, providing one-on-one support, but the take-up rate remained relatively low. One of our hypotheses is that the firms still do not foresee benefits of the training and that low participation in online markets could also be affected by low demand if customers are unused to or unwilling to participate in online markets. To investigate this hypothesis, we are currently implementing a second experiment: an induced demand shock to incentivize firms to start in online retail by offering to buy products and services from firms that attended training and are willing to have an online presence. Therefore, the experimental evaluation explores both a supply-side shock (strengthening firms' understanding of ecommerce and promoting their participation) and a demand-side shock (guaranteeing orders from firms if they go online). Taken together, the results will help to better understand the possible rationale for finding complementary analog support services to businesses to help them make the most out of high-speed internet and digital technologies, and can help unpack some of the constraints firms face in fully engaging in online activities

Finally, by testing different interventions to encourage internet and e-commerce adoption, the IE sheds light on the role of complementary activities in securing the development impacts of rapidly expanding ICT infrastructure.

II. Context

In Georgia, the transition to a market economy has faced important challenges. The economy shrank by almost 60% from 1989 to 2003. Since then, the country has made substantial investment climate reforms, moving from 115th place in 2005 to 6th in 2019 (ahead of Norway and the United States) in the *Doing Business* ranking. However, Micro, Small and Medium Enterprises (MSMEs) which represent 94% of the approximately 60,000 registered businesses in the country contribute less than 20 percent to the GDP (compared to 60% in the ECA region)¹. Low levels of innovation and productivity (estimated to be one third of large survey firms) has been identified as a major barrier to growth for these businesses (Project PAD). Georgia's ranking of 91 out of 141 in the Global Competitiveness Index's innovation pillar highlights the problem. What little innovation takes place is typically concentrated among large, well-established firms able to make use of the limited infrastructure in place to foster innovation. For instance, while 97.5% of firms have access to internet, only 9.5% engage in online sales, and this is mostly driven by businesses in Tbilisi.

To address these issues, the Government has prepared a National Innovation Strategy 2020, which aims to “maximize Georgia’s growth potential by creating an entrepreneurial, knowledge-based economy, where innovation-led growth will foster increased economic productivity and growth.” This backdrop has motivated the financing of the GeNIE project—a US\$40M IBRD project implemented by the Georgian Innovation & Technology Agency (GITA) under the Ministry of Economy and Sustainable Development (MoESD). GeNIE aims to foster innovation, particularly for otherwise marginalized firms, and will provide 3000 firms outside of the capital with tailored e-commerce training as part of its “Broadband for Development” program.

Since 2007, there has been a significant expansion in the broadband infrastructure in Georgia as part of an ambitious strategy of the Georgian government to maximize the country’s productivity, innovation and growth potential by creating an entrepreneurial and knowledge-based economy. An increase in access to internet can lead to more local development, but it does not guarantee it. This is a strong message that came out of the 2015 World Development Report on bridging the digital divide. Therefore, the Georgia National Innovation Ecosystem (GENIE) project, supported by the World Bank Group, is complementing the broadband infrastructure expansion with a tailored e-commerce training aimed at encouraging firms to take-up broadband internet, make better use of existing digital tools, establish a presence in e-commerce platforms and engage in online retail.

One component of this project, the Broadband-for-Development (BfD) program, is aimed at increasing the use of broadband Internet and e-commerce services among small businesses in Georgia. Given the importance of the program and the shortage of evidence on this type of intervention, the Development Impact Evaluation unit of the World Bank (DIME) and the Government of Georgia have agreed to carry

¹ Papiashvli, Tatiana (2012), “The Role of SME Sector in Georgian Economy”.

out an Impact Evaluation (IE) during the pilot phase of the BfD program to assesses the impact of the different interventions related to the program on key aspects of firm performance and outcomes.

III. Experimental Design

We use a firm-level randomized experimental design to estimate the causal effect of two interventions. First, we evaluate the effects of an e-commerce promotion package on firms' performance outcomes. The identification strategy relies on the exogenous variation provided by the random selection of firms into the training package. Second, we evaluate the impact of an induced demand shock to incentivize firms to start engaging in online retail by offering to buy their products and services from firms that attended training and are willing to have an online presence. The identification strategy relies on the exogenous variation provided by the random selection of firms into the demand-shock.

Data Collection and Sample

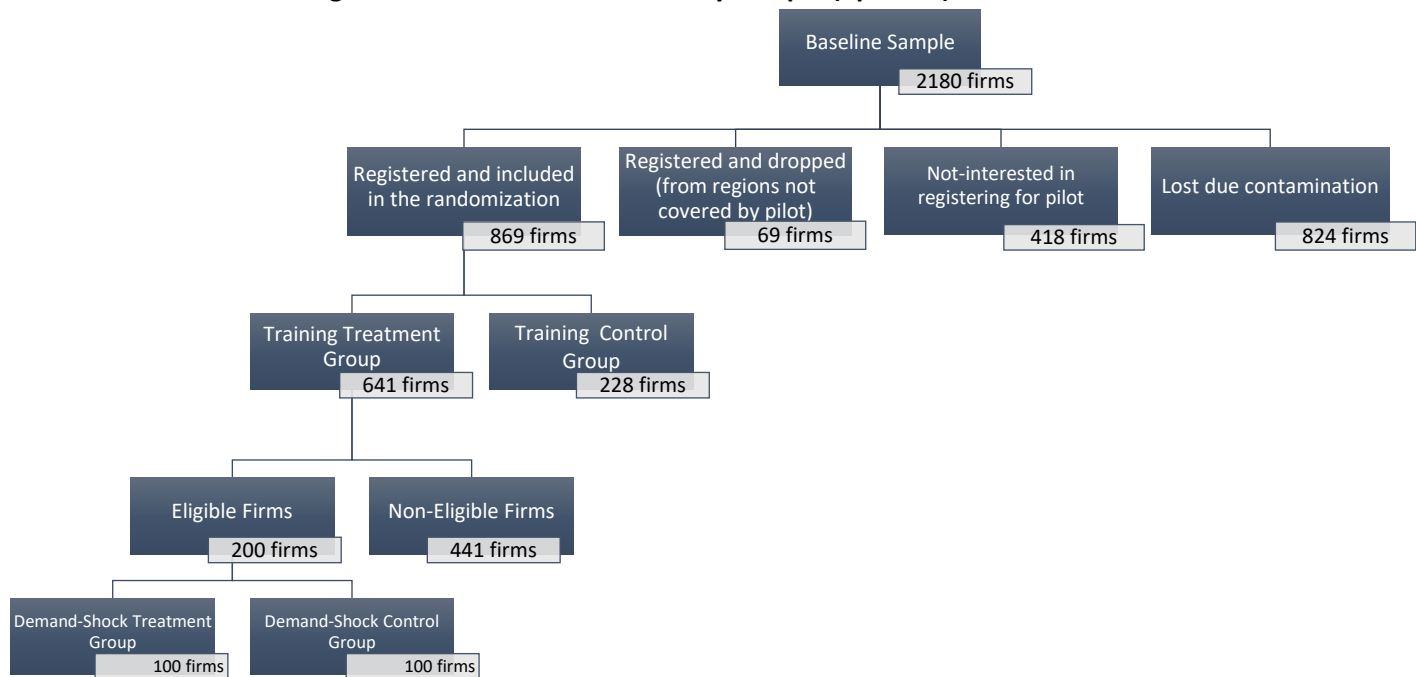
The baseline survey was implemented in July 2018. The team surveyed 2,180 active and legally registered businesses through a telephone survey. The sample was drawn from a census of businesses conducted by Geostat, the Georgian statistical agency and comes from six regions of Georgia (Shida Kartli, Kvemo Kartli, Samegrelo-Zemo Svaneti, Mtskheta-Mtianeti, Samtskhe-Javakheti, and Kakheti). The questionnaire covered firm characteristics, aspects of ICT access and use, business transactions, household characteristics, and a variety of questions on firms' outcomes such as revenues, profits, number of employees and employees' skills (see supporting Baseline Note for details).

Randomization Process

The original plan was to conduct the baseline survey, invite firms to register for the training, and then randomize firms that registered interest in participation in the training into treatment and control groups. This approach was decided upon based on previous evidence and experience from other training programs that showed low take up rates (e.g. McKenzie & Woodruff, 2013). However, after providing the baseline list to the partner implementing the training, a miscommunication resulted in all firms that registered during November and December 2018 being offered the training. This meant that, of the 2,180 baseline firms, 824 had to be excluded from the IE due to the resulting contamination. Once the communication challenges were resolved, the original randomization procedure was rolled out according to plan. In March 2019, we contacted via phone calls all remaining surveyed businesses that were not contaminated – 1,356 businesses – to screen for their interest in registering in the e-commerce training pilot and explain the lottery process. We took this path to reduce potential low take-up rates. A total of 938 interested firms registered to have a chance to participate in the training. Then, we dropped 69 firms that were located in villages not covered by the pilot. The experiment then randomly assigned the remaining 869 firms into two groups: (i) 228 firms to a pure control group (access to standard internet services without any support except for a light introductory training); and (ii) 641 firms to a treatment group receiving the training package. A second-stage randomization will be conducted to measure the impact of the demand shock whereby an organization will purchase approximately \$100-150 worth of goods/services from the firm, with the condition that this is done online. Among the 641 treated firms from the training group, we will assess eligibility for participating in the demand shock intervention (having a product/service that can be viably purchased online – found

out through a screening exercise). We anticipate approximately 200 firms will be eligible, of which we will randomly assign 100 to receive the demand shock. Assignment to the demand shock is stratified by whether the firms did or did not participate in the training based on the original invitation. For firms that did not participate, they will be advised that a precondition for receiving the online order will be for them to complete the training program. The study will be able to assess (i) the impacts of the training package; (ii) the effect of offering firms a guaranteed online order on willingness to participate in the training; and (iii) the impact of receiving training and the demand shock. Study design and randomization are shown in figure 1.

Figure 1 – Breakdown of the Study Sample (option 1)



Outcomes of interest:

The main outcomes of interest are:

- Profits: self-reported revenue minus expenses
- Revenue: self-reported
- Number of employees: self-reported
- Share of high-skilled labor: wages and Instructional level
- Productivity: revenue/employees or sales/employees
- Customer distribution: share of customers located within municipality; share of online customers located outside municipality
- Online sales: proportion of sales undertaken online
- Online presence: firm has a website; firm has an active Facebook Business page; firm is registered in an online platform.

IV. Summary of Baseline Analysis

While most firms have access to basic internet services like email, the majority of firms do not engage in e-commerce activities such as owning a website or selling online. Only 11.6 percent of firms have a business profile on Facebook, only 1.9 percent have already used an e-commerce platform, and 5.6 percent have already received an online order. Among the latter, the share of sales from online orders is 27 percent and the share of customers that buy online is 9.6 percent. Finally, 3.2 percent of firms have a company website. The main use of these websites, reported by 76.6 percent of firms, is cataloging goods and services.

The main correlates with ICTs uptake are the size of firms (measured by the number of employees), the legal status (individual entrepreneur or limited liability), and proportion of skilled employees. Having at least one employee with a university degree is positively correlated with all ICT variables, except for the one related to the access to internet from the firm. Sector and gender of the respondents have no clear correlation with ICT use.

Overall, the baseline descriptive statistics suggest that, while access to internet per se may not be an important constraint to firms' participation in online markets, firms in Georgia still do not seem to fully utilize the potential opportunities of e-commerce. This suggests that, unsurprisingly, smaller, less sophisticated and less formal firms are unlikely to use internet services to develop an online presence for ecommerce. While we do not have enough information to fully diagnose the reason for *why* firms are not engaging more with ecommerce, we are able to document a significant wedge between availability of broadband services and the utilization of these services, which is the puzzle that this IE explores. There could be multiple reasons for this wedge, but two plausible arguments are that (i) firms do not have the inputs (management skills, skilled labor, etc) necessary to engage online and (ii) there is a perception that the gains from participation may be low (e.g. if it is unlikely that firms will find a market for their products beyond their existing traditional markets). More details of the baseline results can be found in the accompanying baseline note.

V. Details of Interventions and Implementation

a) E-commerce Training:

The training is a 3-day face-to-face training on e-commerce basics, and covers:

- a) Day 1: How to use Google, Facebook, Instagram and Trip Advisor to increase the visibility of your business;
- b) Day 2: How to understand customers' profiles, and how to register in e-commerce platforms to increase sales (*like Bookings.com, Airbnb, hotels.com and other local platforms*) and;
- c) Day 3: How to develop a business model, access financial opportunities and grants, and participate in public procurement opportunities.

In addition to the training, firms receive consultations for website development.

To design the format of the e-commerce training, a joint World Bank project and IE team met with nearly 70 small businesses in Baghdati / Kharagauli (Imereti region), Tevali and Tbilisi, as well as approximately 20 internet service providers in December 2016. The interviews helped trace out the progression of firms as they move towards ecommerce. The transition from offline to online business follows a natural

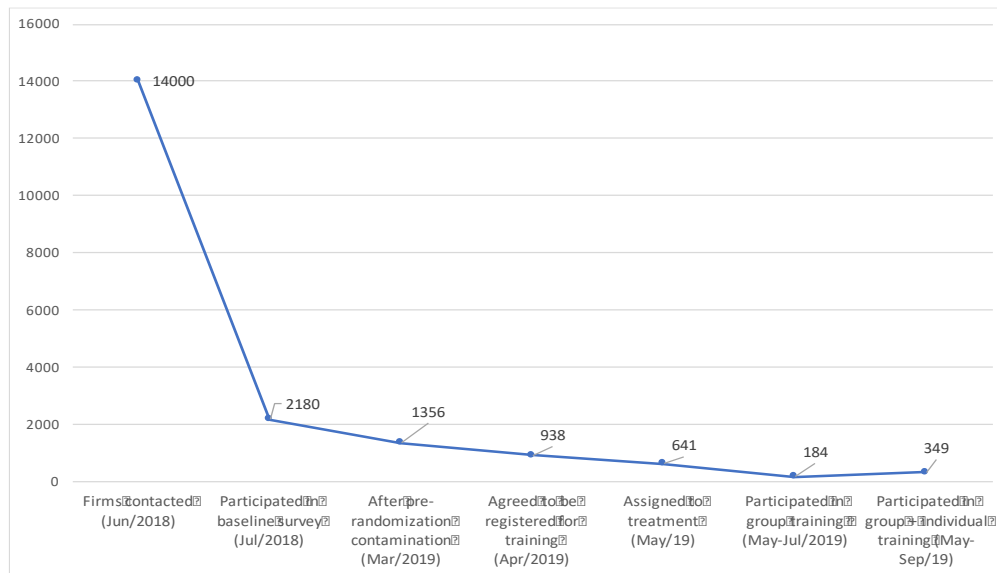
order as the experience and sophistication of the firm grows. It starts with using the internet for information to get ideas about new production approaches or potential markets. This expands to the use of social media platforms (predominantly Facebook) to build awareness of their product, and in some situations, to the use of ecommerce designated platforms for actual sales of this product. Adoption of online government services may take place at this point too. Online tax submissions through the Revenue Authority is the most common online service used, but other offers are also relatively common. As businesses start to build their online brand and expand the geographical customer range, transport logistics become an important consideration. Building trust through the brand and repeat customers starts to become more important as geographical scope expands, and with this, there is a greater need for consistently reliable and high-quality products/services. While still very limited in Georgia, once there is a trusted system available, actual online transactions may start to take place. With these tools, and a better understanding of relevant regulations and potential markets, firms may begin to export.

Right after randomization, all firms assigned to the treatment group were contacted and offered the three-day training and advised that transportation and basic food costs were covered. Firms were also informed if they completed three days of the course, they would get additional benefits: an invitation to have private consultations with trainers and the opportunity to have professional web developers, graphic designers and photographers helping them to develop their website.

Take-up:

The training started in May 2019. Despite the short duration of the training and clear benefits for the firms, the take-up rate was surprisingly lower than expected. After 2 months the take-up rate was approximately 27%. We then selected a subset of firms from the treatment group that had confirmed participation, but had not showed up to training to question their reasons for not attending the training. Many responded that, as the firms were small and had few employees, they could not leave their businesses on weekends – the busiest day – to attend training. When we asked if they were willing to participate if the training was offered in a different day, most answered positively. Thus, we tested a more promising approach to increase take up by offering more flexible time arrangements for the training and sending consultants (trainers) to provide individualized training in loco. With this strategy, we finished the intervention in September 2019 with a participation rate of 54.4 percent. Figure 2 shows the number of firms engaged in the project in each phase.

Fig 2 - Number of firms in each phase of the impact evaluation



b) Demand-Shock:

One of our hypotheses for low take-up in training was that the firms did not foresee benefits of the training if they are not aware of the potential of e-commerce to their business and if the demand for online services were still low in their region as customers are also unused to or unwilling to participate in online markets. This would mean making an upfront investment with uncertain returns to that investment. If it were possible to secure some returns to the investment, would this change the firms’ calculus and, by doing so, help firms overcome the startup barrier to ecommerce participation? To investigate this hypothesis, we developed a second experiment: an induced demand-shock to incentivize firms to start engaging in online retail by offering to buy products and services from firms that attended training and are willing to have an online presence. This is an ongoing exercise.

We are first contacting all 640 ecommerce training treatment firms for a short survey to identify firms that are eligible to participate in the demand-shock intervention. We will also collect information on what types of goods and services the firms offer, what is the average price of the main product or service offered by the firm; how these products or services could be purchased (whether by website, Facebook page, or another e-commerce platform); and what would be the best logistical option for delivery of the purchased products. Based on the information collected in the initial pilot assessment, we will develop the best strategy for the implementation of the intervention. Then, we will randomly select a subset of eligible firms (approximately 100) to be in this new treatment group and be exposed to a “demand shock” whereby an organization will purchase approximately \$150 worth of products or services from the firms, with the condition that they have participated in the three-day training and that the purchase is done online. Treatment will be stratified by whether the firms did or did not participate in the training based on the original invitation. For firms that did not participate, they will be advised that a precondition for receiving the online order will be for them to complete the training program. This will allow us to look at both how the demand shock may incentivize firms to participate in the training and engage in ecommerce, as well as understanding what the impact of this is on firm performance.

VI. Challenges and Lessons Learned

We present the main practical challenges to implementing the impact evaluation which include:

1. Low take up of the intervention resulting from low perceived benefit and high opportunity costs
2. Implementing partner pressure to provide the intervention to the control group as a way to overcome low take up challenges
3. Measurement difficulties for important outcomes of interest.

Low take-up

Low take-up rates reduce power and attenuate the treatment effect. From experience, we knew take-up could be an issue. The average participation rate across several impact evaluations where individuals received an invitation to training is only about 65 percent (McKenzie and Woodruff, 2013). Among studies that evaluate firm-level training, this average is even lower even when studies focus on samples that initially expressed interest in attending the rates (Bruhn and Zia, 2012; Valdivia, 2012).

So we prepared for this and carefully developed strategies to increase participation. First, we managed to have a large initial sample. Larger samples increase the power of the study and the ability to analyze which firms are benefiting more from the program (McKenzie and Woodruff, 2013). Second, we restricted our baseline survey only to people that said they were interested in the training. Then, we developed a strategy to contact firms and encourage them to participate. We conducted an initial pilot to assess their interest, estimate participation rates, and improve our pitch to firms. Then we contacted all baseline firms, invited them to register for the lottery, and, only then, we conducted the randomization among registered firms. Finally, we contacted the treatment group again to confirm training dates, remind them of all benefits they would get from the program, and confirm that we were providing transportation and food subsidies. We made sure that training was free of charge, and when required, the training company even offered transportation vouchers to cover travel costs.

Nonetheless, we finished the first round of training with a take-up rate of 27 percent. We discussed the possible reasons for low take-up with GITA and the implementing firm. In our case, the time of year when the training was implemented may have impacted the rates of participation. Firms indicated that they could not participate in trainings because they happened during the summer, which is the high-season for businesses in the countryside of Georgia. A relatively large share of our sample comes from the tourism sector and are busier in the months of May to September. Thus, it is harder for them to leave their businesses to participate in training during this period. In addition, the day of the week and location of training also seemed to play an important role in firm participation.

A new strategy that changed the timing (weekdays instead of weekends) and location (at the business' office instead of a central training location) increased participation rate to 54 percent by the end of the implementation.

For the future, one change that could be implemented in the training program or in new evaluations is to have more restrictive criteria for participation and concentrate the intervention towards firms from specific sectors. By doing so, we can have a more homogeneous set of firms. From the research design perspective, this would allow for a higher statistical power even with a small sample or lower take-up,

Homogenous sectors could also make the delivery of richer, more tailored training possible. However, in cases like Georgia with small numbers of businesses in different sectors, this may reduce the potential relevant population significantly which is an important tradeoff.

Implementation pressure

Low take up combined with the implementing partner needing to meet certain targets for firm trainings placed pressure on using the control group as a sample to offer the intervention to help reach targets. We had initially designed an experiment based on encouragement and registration before randomization. However, once firms had started registering for the training, a miscommunication led to the implementing partner making firm offers to allow these firms to receive training, rather than participate in the randomization to assign treatment and control groups. From an implementation perspective this made sense since these were all firms that expressed interest in training and, because of lower-than-anticipated take up, there was a need to increase training numbers. This miscommunication resulted in 824 firms receiving an offer to the training before randomization that we had to drop from our sample. Later, after randomization, our partner was preparing an intense dissemination strategy using social media and local governments to increase the take-up rate. We had to reinforce that, although increasing participation was crucial, by following that strategy, we may also be reaching the control group and facing the risk of additional contamination. A key challenge to the IE design was the need to provide the implementing partner with both the potential control and treatment firms. In other settings, where the partner only receives the list of treatment firms, this risk of contamination could be reduced. Regular monitoring, some flexibility, and close work with partners was essential to be able to mitigate the effects of these actions on the IE identification strategy and ensure the remaining implementation followed protocols that would allow for the IE to continue.

Measurement of outcomes: revenues

Measuring SME's revenues can be very challenging as some business owners do not typically register and keep track of financial flows (McKenzie and Woodruff, 2013). In general, the questions related to revenues have much lower response rates than the ones related to nonfinancial topics (McKenzie and Woodruff, 2013; Drexler et al., 2012). In our case where the survey was conducted telephonically, the baseline response rate for almost all of our questions was around 95 percent, but only 4.3 percent of firms reported their revenues. Nonresponse for such an important outcome can limit the conclusions we can draw from the study as it increases variation and reduces the power of the study. This is a primary motivation for planning a face-to-face survey for the follow up.

For now, other primary and secondary outcomes can provide valuable information to understand what was the impact of the training on firms' performance and online presence - for example, the number of low- and high-skilled workers, the number of full-time and part-time workers, the use of digital tools and online platforms, and the share of customers located within and outside the municipality. For the future, additional efforts to improve the measurement of sales, revenues, and profits can be implemented, such as working with a specific industry or sector to allow more focused production-level monitoring of physical outputs and inputs

VII. Next Steps

The training intervention was recently finalized and we are preparing for the demand-shock and under discussions regarding the optimal timing for the follow-up data collection. This will be guided by the expectation of when outcomes of interest are likely to manifest. For a training on e-commerce and digital tools, some impacts may be felt right after implementation as they are directly influenced by immediate changes in businesses' practices. For example, as firms start to create profiles in e-commerce platforms, their share of local sales may decrease. On the other hand, it may take some time for them to increase their demand for high-skilled workers. Impacts on firms survival rates may also appear only in the long-term (McKenzie and Woodruff, 2013). After collecting follow-up data, we will develop a policy note with project results and use this as a basis for discussion on policy implications. The results of the impact evaluation are expected to provide inputs to improve the design of the Broadband for Development component of the joint GITA-World Bank GeNIE project and also have implications for other components of the GeNIE. Consequently, the impact evaluation and project teams will also organize dissemination events for the implementing partners GITA, OpenNet and the Ministry of Sustainable Development of Georgia corresponding to each milestone of the Impact Evaluation. In addition, we will plan DC-based dissemination since we expect that the results of the Impact Evaluation will also carry useful lessons for the World Bank and the larger ICT community.

A summary of next steps and an indicative timeline are provided below.

Milestones	Activities	Completion Date
Demand-Shock Intervention	<ul style="list-style-type: none"> • Pilot test the new questionnaire under real conditions • Contact and interview all firms from training treatment group (641 firms) to identify eligible and interested firms • Randomize eligible firms • Develop a protocol for the intervention • Contact all firms in the treatment group and purchase approx. \$150 worth of goods and services from the ones that have completed training. • Develop a report of the intervention 	December 2019.
Follow-up data collection	<ul style="list-style-type: none"> • Develop TOR and hire Survey Firm • Prepare questionnaire, translate and pilot all questionnaires • Prepare survey protocols and field procedures plan • Recruit, contract and train experienced field staff • Implement survey data collection and data quality checks 	Planned for November 2020.
Data analysis	<ul style="list-style-type: none"> • Clean, manipulate and analysis data • Prepare data analysis outputs and cost-effectiveness of arms • Develop final policy note with results and discussion on policy implications 	Planned for February 2021.
Dissemination of results	<ul style="list-style-type: none"> • Final dissemination conference and ppt 	Planned for late 2021

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