

A series of trials with the Tax Administration of Kosovo demonstrate the power of behaviorally informed messaging for increasing tax compliance, and the importance of institutional capacity building for efficient administration of tax collection.

As in many countries, tax collection is a development challenge in Kosovo, one of the poorest and youngest countries in Europe in terms of gross domestic product (GDP) per capita, demographics, and statehood. Limited tax revenues hamper the government's ability to address economic cycles. Between 2011 and 2017, total government revenue amounted to about 14 percent of GDP, below the average of 19 percent among countries in Europe and Central Asia. Unlike other countries that collect significant nontax revenues (for example, from natural resources), the Kosovar government relies on taxes for more than 85 percent of its revenues. Mobilizing tax revenues is therefore critical from both an efficiency perspective (to ensure that taxes are collected at the lowest cost for the public administration) and an equity perspective (to ensure that all taxpayers comply by declaring and paying their due taxes).

The Tax Administration of Kosovo (TAK) requested assistance from the World Bank and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) to address this challenge using an evidence-based approach. Together, the World Bank and GIZ applied behavioral insights to promote tax compliance among specific groups of taxpayers. Three experiments were designed, implemented, and evaluated in 2018 that involved sending behaviorally informed reminders using letters, e-mails, and short messaging service (SMS) messages to various groups of taxpayers to induce timely and honest declarations and payments. The short-term objective of these trials was to increase the number and timeliness of tax declarations.

The Project

Between February and October 2018, the team supported TAK in the design, implementation, and evaluation of three experimental trials to improve tax compliance in Kosovo, with the goal of evaluating how innovative approaches to communication with taxpayers using evidence and adaptive learning could improve timely and honest compliance behavior at low or zero cost. These interventions targeted taxpayers subject to the personal income tax (PIT) and value added tax (VAT) across the country, and tested the impact of reminder messages on tax compliance outcomes. Initial research in Kosovo honed in on the success of the model that views the taxpayer as a client, informing the decision to promote positively framed messages, such as the benefits of paying taxes, rather than negatively framed messages, such as deterrence.

The first trial targeted letter reminders at PIT taxpayers who were late in filing their 2017 annual declarations. Taxpayers who, by four days after the due date, had not yet submitted their PIT declarations for the 2017 fiscal year were identified in the tax registry and were eligible to receive a letter in the mail. The second trial targeted all firms required to submit June VAT declarations; it involved the use of e-mail-based reminders on two occasions, the first well in advance of the monthly due date. All firms in the VAT registry, excluding those that had already submitted declarations by July 3, 2018, or for which no e-mail addresses were on file, were considered eligible to receive an e-mail reminder from the TAK Information Technology Department, first on July 4, then again on July 20, the due date of the June declaration. The third trial targeted all firms required to submit August VAT declarations; it involved the use of SMS-based reminders a few days in advance of the due date. All firms in the VAT registry, excluding those that had already submitted their declarations by September 17, 2018, or for which there was no cell phone number on file, were considered eligible to receive an SMS reminder, which was sent through a telecommunication firm in Kosovo.

The Results



All three communication trials succeeded in producing statistically significant impacts on the declaration rate or the payment rate in the short term, within four to six weeks.

The behavioral messages managed not only to induce more people to submit their declarations on time, but also to encourage more people to submit declarations.



Letter reminders to taxpayers late in submitting their annual declarations resulted in small, but statistically significant impacts on the declaration rate.

The PIT reminders were successful in inducing more people to submit declarations closer to the due date. Among those who were randomly assigned one of the two letters (the intent-to-treat group), there was an increase of 2 to 4 percentage points in the declaration rate within one month of the transmission of the letters. But despite the significant impacts on the declaration rate and the payment rate, no effects were identified on payment amounts – perhaps because the population of interest in this trial plausibly consisted of individuals who did not actually have anything to declare. Indeed, among those who were late in submitting declarations, but who did end up submitting in the absence of the reminder, only 18 percent claimed they owed something in taxes. These results were similar in the e-mail and SMS trials – declaration and payment rates improved, but payment amounts did not. In this case, the lack of an impact on payment amounts was likely due to the fact that nearly 8 of 10 firms on average declare no VAT taxes are owed.



Implementation challenges created unexpected outcomes.

Only 48% of letters made it to their intended recipients and less than one of four e-mails was actually opened. Moreover, the messages themselves were not always interpreted the way we intended: the augmented behavioral reminders did no better (and in fact, were less successful) than the simple behavioral reminders. These implementation challenges arose as a result of outdated (or incomplete) contact information, highlighting the need to establish processes that help to integrate tax collection functions and data systems; an unbalanced timing of message delivery, highlighting the sensitivity of communication strategies in tax trials; and an imperfect interpretation of messages, highlighting the need to carefully evaluate language in communications.



Collaboration and capacity building are essential.

Close coordination between the World Bank, GIZ, and TAK demonstrated that a behaviorally informed nudge might encourage a population of interest toward a common goal, but also create positive externalities by nudging the policy makers. By participating in the design and implementation of the trials through brainstorming sessions with the TAK Director General's Office and the TAK Information Technology Department, TAK staff were able to come to understand how behavioral science tools can change the mindsets of taxpayers and tax administrators by highlighting nuances in the communication with taxpayers, and underscored how TAK data systems could be pushed to the limit to identify new ways of doing business and interacting with taxpayers.

Policy Implications

As with other behaviorally informed interventions to improve tax compliance, our trials in Kosovo demonstrate the potential impact for improving taxpayer behavior without onerous traditional policy tools. But despite the successes of the three trials, implementation challenges created bottlenecks in design and, ultimately, evaluation; challenges that should be addressed in future trials. A lack of reliable contact information and accurate taxpayer data resulted in un-delivered letters, low email open rates, and other obstacles to implementation. For tax authorities in Kosovo, and other policy makers looking to learn from these trials, these hiccups provide important lessons for greater effectiveness as they continue to integrate behavioral science into tax messaging and policy. For instance, while TAK authorities initially preferred email messages to SMS, the latter were more successful in delivery, opening, and reading rates. Given cultural considerations, SMS messages might be the most effective in future trials simply because of the reliability of the contact information and accessibility (nearly universal use of smartphones).

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Crucially, the support of local partners is indispensable for successful implementation and long-term capacity building. Supporting the implementation of tax trials requires a hands-on approach by the project team, which is feasible only with local support. Because decisions are generally made in a tight time frame and data are shared on the fly, daily communication with the tax authority during implementation is crucial for success in these types of interventions. By closely collaborating during the trials, the World Bank and the GIZ were able to foresee

the challenges posed by the project and make quick adjustments when necessary. Ongoing cooperation between these two institutions is essential. Partners can learn from this implementation success, especially if the collaboration with a government counterpart is communication intensive. Close collaboration between the teams creates mutual learning and effective adaptation, instilling a behavioral mindset among partners and ensuring that future policies and programs incorporate behavioral design at the outset.

About eMBeD

The Mind, Behavior, and Development Unit (eMBeD), the World Bank's behavioral science team in the Poverty and Equity Global Practice, works closely with project teams, governments, and other partners to diagnose, design, and evaluate behaviorally informed interventions. By collaborating with a worldwide network of scientists and practitioners, the eMBeD team provides answers to important economic and social questions, and contributes to the global effort to eliminate poverty and enhance equity.

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