E-government can be good for business

Many developing countries face significant challenges associated with collecting taxes and tendering public contracts. High tax compliance costs due to cumbersome regulations and harassment by tax officials deter investment, encourage tax evasion, and undermine economic growth. The public procurement of goods and services is often rife with collusive practices and corruption, resulting in the misallocation or waste of resources and poor quality infrastructure. One possible solution is to adopt electronic government (e-government) systems that automate and simplify interactions between government and the private sector.

Over the past two decades, many countries have invested heavily in various types of e-government to improve their ability to manage financial and human resources and to improve the delivery of services to businesses and individuals. The World Bank, USAID, and other donors encourage developing countries to invest in appropriate technologies, and in many cases have helped implement e-government projects. However, very little is known about the returns on these investments.

To measure the impact of e-government, we look at cross-country data on e-government adoption dates and on the levels of systems functionality from the Global e-Government Systems Database, which is collected and maintained by the World Bank. We focus on two specific types of e-government: e-filing portals, which automate and streamline tax filing for businesses and individuals, and e-procurement portals, which publicize tenders and accept bids. We examine the effects of e-filing on tax compliance costs, tax revenue, and corruption and the effects of e-procurement on the competitiveness of public procurement and corruption.

We find that adopting e-filing systems reduces tax compliance costs as measured by the time to prepare and pay taxes, the likelihood and frequency of firms being visited by a tax official, and the perception of tax administration as an obstacle to firms' operation and growth. E-filing is also associated with a moderate increase in the ratio of income tax revenue to GDP. The results for e-procurement are weaker, with the number of firms securing or attempting to secure a government contract increasing only in countries with higher levels of development and better institutions. We find no strong, direct relationship between e-government and corruption.

In particular, the impact of adopting e-filing systems that permit paying taxes online is large, reducing the time to prepare and pay taxes by 12 per cent on average. However, we find that adopting simpler online e-filing systems without e-payment does not have a significant effect. Adopting e-filing systems also decreases the likelihood of being visited by tax inspectors by about 3–7 per cent and the number of such visits by 6–11 per cent. It decreases the perception of tax administration being an obstacle to firm operation and growth. In addition, e-filing reduces the solicitation of bribes during meetings with tax officials in the more developed Europe and Central Asia region, but not across the larger range of developing counties. E-government can thus encourage tax payment and increase tax receipts—a boon to both the private and public sectors. It can also reduce the discretion of public officials, which decreases the opportunities for corruption.

When we focus on tax revenue, we find that e-filing increases the ratio of income tax revenue to GDP in less developed countries by about 11 per cent on average, and decreases the ratio of goods and services tax revenue to GDP in more developed countries by 8 per cent on average. This seemingly mixed result can be explained by the different incentives faced by businesses and individuals in each income group. Less developed countries generally have lower tax collection rates and higher incentives to evade taxes. In addition, evading income taxes is easier and therefore more common than evading taxes on goods and services (e.g. VAT).

An increase in the ratio of income tax revenue to GDP therefore signals a reduction of tax evasion in less developed counties. This is consistent with our finding that e-filing systems decrease the likelihood and frequency of being visited by tax officials, which reduce opportunities to collude with tax officials for tax evasion. By contrast, more developed countries face fewer incentives to evade taxes and a higher ability to internalize the benefits of technology. The decrease of tax compliance costs therefore can raise firm profits and outputs without necessarily increasing in the ratio of tax to GDP.

We also find that e-procurement systems can improve public procurement competitiveness, although the effects are indirect. E-procurement increases the propensity of firms to apply for public tenders and decreases the likelihood that firms are expected to pay bribes to secure a government contract, but mostly in countries that are more technologically and economically developed and have better institutions.

In the Europe and Central Asia region, for example, the likelihood that firms apply for public tenders increases by 5–7 per cent after the adoption of e-procurement systems. These relatively weak results could be due to the very restricted definition of participation in public tenders in our data. Alternatively, it could be explained by the high degree of discretion government officials exercise in public procurement, which limits the benefits of e-government for procurement relative to e-filing. More data and research are therefore needed to assess the impact of e-government on public procurement competitiveness and corruption across countries.

Overall, our results show that e-government can substantially improve government capacity to raise and spend fiscal resources, but the effects often vary with counties' economic and institutional context and the functionality of e-government systems they adopt. We conclude that structural and institutional reforms must accompany investments in e-government, especially in less developed countries, if benefits are to be realised.

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Notes:

- *This blog post is based on the authors' paper Does e-government improve government capacity ? evidence from tax administration and public procurement, World Bank Policy Research Working Paper No. 7657, forthcoming in the World Bank Economic Review, and presented at the Royal Economic Society's 2017 Annual Conference, at the University of Bristol.*
- *The post gives the views of the authors, not the position of LSE Business Review or the London School of Economics.*
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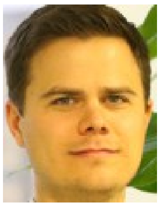

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