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BUSINESS TAXATION

Does E-filing Reduce Tax Compliance Costs in Developing Countries?

As the use of e-filing of tax returns has spread from developed to developing countries, it has been clear that this sort of reform can reduce errors and opportunities for corruption. Also, it has been widely assumed that taxpayer compliance costs would decrease with the use of e-filing, because less time is spent getting tax returns from the taxpayer to the revenue authority. This note summarizes findings from tax compliance cost surveys and offers a cautiously positive assessment of e-filing reforms in developing countries with a number of caveats. Countries should not rush to push e-filing on all taxpayers until the revenue authorities, infrastructure, and taxpayers are ready.

Over the past several years, the international tax community has been encouraging the introduction of e-filing as part of technical assistance programs to modernize and strengthen tax administrations. The World Bank Group's Doing Business website documented that 74 economies had fully implemented electronic filing and payment of taxes by 2011, and 29 of these adopted the system in the previous eight years.¹ It is clear that e-filing can reduce errors in taxpayer self-assessment and the processing of tax returns by revenue authorities; it can also provide increased convenience and flexibility for the taxpayer.² Another important advantage is the reduction in face-to-face interactions between taxpayers and tax officials, which should reduce opportunities for corruption.³ A number of countries have adopted a policy of mandatory e-filing by

business taxpayers [for example, several Organisation of Economic Co-operation and Development (OECD) countries and a number of developing countries, including Nepal, Peru, and Uganda]. Many in the international donor community supporting tax reforms also assumed that e-filing should reduce tax compliance costs for taxpayers.⁴ However, survey evidence from investment climate work conducted by the World Bank Group shows that this is not necessarily the case: under the wrong circumstances, requiring that small businesses use e-filing can add substantially to their costs and difficulties with tax compliance.

The Bank Group, which has carried out more than a dozen tax compliance cost surveys in developing and transition countries, has undertaken a meta-analysis of the survey data to

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The Investment Climate Department of the World Bank Group has an extensive research and knowledge development agenda in the area of business taxation. Knowledge products aim to capture lessons from existing advisory projects, conduct new analysis underpinning project operations, and engage at the discipline's cutting edge for developing countries. Compliance management adapted to firm size is one of five key themes.

learn more about the relationship between e-filing and tax compliance costs (Yilmaz and Coolidge, 2013). The purpose of this research has been to investigate the effect of electronic filing on total tax compliance costs incurred by small and midsize businesses in developing countries. *A priori*, most observers expect that use of e-filing should reduce tax compliance costs, but the analysis suggests that the assumption should be more nuanced.

E-Filing Policies in South Africa, Ukraine, and Nepal

The study first examined e-filing availability and policy implementation details in several developing countries. The team analyzed the determinants of firms' e-filing decisions and then focused on how e-filing may affect tax compliance costs, holding other variables (such as firm size, location, and sector) constant. Tax compliance cost surveys from South Africa, Ukraine, and Nepal were used in the analysis.

What factors drive the decision to use e-filing?

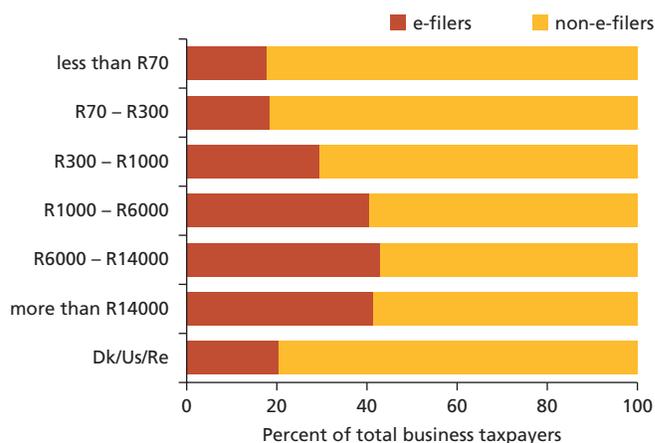
The surveys documented the compliance costs of a representative sample of business taxpayers in each country. Those who used e-filing could be compared with those that did not, taking into account differences in size, sector, location, and other attributes of businesses that used e-filing versus those that did not.

The descriptive analysis showed, as expected, that businesses with certain characteristics are more likely to use e-filing. These businesses tend to be relatively large in size, located in urban areas, operating in capital-intensive sectors, and paying multiple taxes [such as income tax, value-added tax (VAT), payroll taxes, and excise taxes]. The data from South Africa regarding e-filing use by company size (measured by annual turnover) are illustrative (see Figure 1).⁵

The reliable availability of Internet access and electricity, capability in computer usage, awareness of e-filing, and knowledge about the process are important not only for firms' e-filing decisions but also for their effective use of the system. According to the survey responses, firms rank issues in these areas as their main reasons for not signing up for e-filing. Moreover, other variables are found to be important in e-filing decisions. Firms reporting payment of numerous types of taxes or severe political instability are generally more likely to e-file, while firms experiencing difficulties in access to electricity are less likely to e-file.

Firms that perceive more corruption or informal treatment by government officials also appear more likely to file their tax returns electronically (which allows them to avoid face-to-face contact with bureaucrats). However, simple mean

FIGURE 1: PERCENTAGE OF FIRMS USING E-FILING BY TURNOVER (in thousands of rands)



Source: USAID 2008 (South Africa).

Note: Dk/Us/Re abbreviates the responses Don't know, Unsure, Refused to answer.

In South Africa, firms with greater turnover reported higher levels of e-filing.

comparison tests showed that e-filers generally spend more time in tax compliance activities or incur higher compliance costs than non-e-filers in the jurisdictions studied.

When one compares e-filers with non-e-filers in terms of average compliance costs, e-filers seem to face significantly higher costs. This may be explained in part by the fact that e-filers are usually larger firms; they have a larger volume of transactions, pay more different types of taxes, and therefore face higher total compliance costs regardless of their e-filing status. To further explore this issue, the team conducted a regression analysis on the determinants of e-filing, controlling for the factors associated with the decision to use e-filing as described above.⁶

What features of policy implementation influence tax compliance costs?

The results show that policy implementation plays a major role in the potential effectiveness of e-filing in reducing tax compliance costs. Among the three countries considered in the analysis, only South Africa managed the policy effectively, and only this country's results provide evidence that e-filing may be associated with a statistically significant decrease in compliance costs. In contrast, e-filers in Ukraine and Nepal experienced an increase in total costs, due largely to requirements for double reporting (paper filing and e-filing) or complicated filing processes.

Reduction in total tax compliance costs may not be realized in the short-run. The empirical evidence suggests there is a clear "learning by doing" process; the more firms

have had a chance to experience the system, the greater the reduction in costs they enjoy. In addition, the upfront investment (in capital, learning, and educating tax staff on the system) is sunk in the medium- to long-run and is thus irrelevant for e-filing decisions after it has been incurred.

Success in policy implementation is certainly critical. In countries where e-filing fully replaces paper filing (such as South Africa), firms may enjoy a reduction in compliance costs, while this effect is reversed in countries (such as Ukraine and Nepal) where e-filing is implemented in addition to a continued requirement for paper submissions (hard copies of the tax returns or required supporting documentation). These results are statistically significant and economically important: On average, e-filing usage in South Africa is associated with a 22.4-percent reduction in tax compliance costs. E-filers in South Africa also spend about 21.8 percent fewer hours in VAT compliance than non-e-filers, when all other factors are held constant. In contrast, Nepalese firms face a 33-percent increase in tax compliance costs associated with e-filing usage in terms of time and money, and Ukrainian firms face about a 20- to 25-percent increase in compliance costs, probably due to the poor design or implementation of the countries' e-filing procedures.

Implications and Recommendations

Evidence from the field suggests that a number of revenue authorities in developing countries have implemented e-filing in ways that unnecessarily add to tax compliance costs, and some have tried to force all businesses (including small businesses and those in rural areas) to use e-filing. There is ample reason to believe that e-filing can reduce errors in tax returns, facilitate data analysis and capacity for "risk-based audit" selection,⁷ and mitigate opportunities for corruption in interactions between taxpayers and tax officials. However, the benefits of reduced compliance costs for small business taxpayers can only be realized through an efficient, well-designed e-filing regime that avoids unnecessary duplication of effort and, in particular, eliminates the need for taxpayers to physically deliver materials to tax offices or rely on uncertain postal service.

The findings from the survey data suggest six key recommendations for public revenue authorities in implementing an e-filing policy for tax returns:

Design a simple, user-friendly system, and keep it voluntary for small business taxpayers, at least initially.

Small business taxpayers should not be forced to use e-filing until a majority have ready access to computer and Internet services and have had a chance to become familiar with the e-filing system on a voluntary basis.⁸ Governments should not require most taxpayers (particularly those outside

the Large Taxpayer Unit) to submit additional hard-copy returns or other documentation as a general requirement.

Ensure reliable, fast Internet connections.

Pilot systems to identify and remove "bugs." Respond promptly and effectively to complaints about hardware or software problems, Internet connectivity, or slow Internet speed. Taxpayers should not be required to e-file if they do not have ready access to electrical power, computers, or the Internet.

Ensure taxpayer awareness of e-filing options and benefits.

If there seems to be a lack of awareness about e-filing among the public, launch a communications campaign to explain the existence and benefits of e-filing, along with simple instructions on how to access and use it. Provide simple, concrete examples.

If taxpayers have difficulty accessing computers or the Internet, consider creating or encouraging "kiosks" (Internet portals providing access to e-filing, preferably staffed with knowledgeable people) in many towns and villages.

Phase in e-filing.

Consider which types of taxes yield the greatest benefits from e-filing. VAT and corporate income tax may be most appropriate for introducing e-filing of returns, because the businesses that pay these taxes are the most likely to have the capacity for e-filing (in terms of hardware and software as well as computer skills).

Offer training in how to e-file.

Revenue authorities should not push e-filing on small business owners who lack familiarity with computers. Offer a variety of forms of instruction (such as simple pamphlets, demonstrations, and short courses available at various times, including evenings and weekends).

Consider small, non-monetary incentives for e-filing.

The OECD (2008, 31) highlights ways to incentivize the use of e-filing in ways that ease the tax compliance burden:

A number of revenue bodies are also known to have introduced incentives for the use of electronic services that go some way to alleviating the administrative burden in taxpayers. For example, the [Australian Tax Office] provides an extended filing period of two weeks for businesses that file and pay electronically whether directly or through their tax agent, while the Irish revenue body provides taxpayers an additional 15 days to file returns and pay taxes where this is done using their electronic on-line service facility.

ABOUT INVESTMENT CLIMATE IN PRACTICE

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The Investment Climate Department of the World Bank Group helps governments implement reforms to improve their business environments and encourage and retain investment, thus fostering competitive markets, growth, and job creation. Funding is provided by the World Bank Group (IFC, the World Bank, and MIGA) and over 15 donor partners working through the multidonor FIAS platform.

Conclusion

E-filing can be a tremendous boon to revenue authorities in developing countries, reducing their administrative costs and error rates and improving their efficiency. However, e-filing does not necessarily reduce the tax compliance burden for small business taxpayers and can even exacerbate it without careful attention to proper design and implementation. A recent World Bank Group analysis suggests that compliance cost savings are often undermined by inefficient procedures associated with e-filing, which in turn drive up the time and cost of tax compliance for many businesses, especially small ones. In addition, the evidence suggests that small businesses often need more than a year or two to climb the learning curve for e-filing before they can expect to enjoy the benefits of lower tax compliance costs.

Notes

1. <http://www.doingbusiness.org/data/exploretopics/paying-taxes/good%20practices#Offering>
2. See Che Azmi and Kamarulzaman (2010).
3. See IFC (2009b).
4. For example, the *Doing Business 2008* section on "paying taxes" asked "What to reform? [in order to reduce the burden of tax compliance]" and answered, among others, "Introduce online filing" (p. 42). In later years, the *Doing Business* report was more nuanced and made note of several important caveats.
5. It is important to note that, aside from South Africa, the jurisdictions that requested a tax compliance cost survey from the World Bank Group were more likely to have concerns about the issue than other jurisdictions.
6. In the second set of estimates (addressing the association between e-filing and tax compliance costs), the methodology controlled for all the main determinants driving e-filing decisions and tax compliance costs to minimize potential endogeneity problems (for example, firms with certain unobserved, but non-random, characteristics

self-selecting for use of e-filing). There is still the possibility of an omitted variables bias in that firms with better management are more likely to be large in size and face more complexity in tax compliance and also more likely to choose e-filing than are firms with lower quality management.

7. Risk-based audit selection targets taxpayers with the highest risk of evasion, based on statistical analysis of objective data.
8. The time needed for micro and small firms to learn to use e-filing also suggests that positive outcomes from the introduction of e-filing may take more than a couple years to be realized.

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