

Findings of tax compliance cost surveys in developing countries

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Abstract

The World Bank Group (WBG) has carried out a number of tax compliance cost surveys (TCCS) for businesses in developing and transition countries in Africa, Asia, Latin America and the Middle East between 2006 and 2011. While there has long been plenty of evidence of regressivity in tax compliance costs in the developed world, the WBG has documented extremely regressive patterns in the developing world, with small businesses incurring tax compliance costs of up to 15% or more of turnover. Complex tax accounting requirements are associated with high tax compliance costs, while well-designed tax accounting software and e-filing in middle-income countries appear to yield significant reductions in such costs. The WBG surveys have also documented very high rates of tax inspections and audits (including all kinds of visits, official and unofficial, by tax authorities). While both tax evasion and corruption seem to be common issues in the majority of developing countries, some show more evidence of the problem than others, and in some countries, tax officials appear to have a significantly better reputation for competence, helpfulness and integrity than other government officials. Most surveys also include questions about tax morale and evasion, and questionnaires for informal businesses regarding their perceptions about tax compliance and likelihood of future registration.

1. INTRODUCTION

As the “tax and development” agenda has come to the fore as a priority for the G-20, the World Bank, the IMF, OECD and for governments around the world, one of the key issues of concern has been the task of broadening the tax base and ensuring fairness and inclusion especially for small businesses, many of which are currently operating in the informal sector. While the burden of tax payments themselves are obviously a deterrent to formalization, there is strong evidence that the burden of tax compliance – the time and cost associated with preparing tax returns, filing, effecting payment and interacting with the tax authorities – can often be heavier than the tax payments themselves.

The Investment Climate Department of the World Bank Group¹ (WBG) has undertaken about a dozen “tax compliance cost surveys” (TCCS) in developing and

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transition countries over the past several years, and has amassed a wealth of empirical data documenting the severity of the compliance burden for micro, small and medium enterprises, and perceptions about tax compliance from both formal and informal businesses.

The most commonly used definition for tax compliance costs² (TCC) appears to be one offered by Sandford (1995):

Costs incurred by taxpayers in meeting the requirements laid on them by the tax law and the revenue authorities ... over and above the actual payment of tax; costs which would disappear if the tax was abolished.

Key questions of interest to revenue authorities (and to donor agencies assisting with reforms) include the following:

- How severe are tax compliance costs as a percent of business turnover?
- To what extent do simplified tax regimes reduce tax compliance costs?
- To what extent do computerized tax accounting systems, e-filing, and e-payment reduce tax compliance costs?
- To what extent can “risk-based audit” reduce the burden of tax inspections for business taxpayers?
- Do high tax compliance costs deter business formalization and/or graduation from simplified to regular tax regimes?
- What are perceptions about tax compliance (and tax morale more generally) among informal businesses? How can they be encouraged to formalize?
- How can all businesses be encouraged to improve compliance in terms of tax filing, reporting more of their income/turnover, and making tax payments?

While definitive answers to such questions are not yet in hand (and will probably never be answered conclusively or comprehensively for all settings), the WBG TCCS database sheds new light on each of these topics, and more.

Gonzales, Raul Junquera-Varela and participants in a World Bank Group seminar on 1 February, 2012. All remaining errors are the responsibility of the author.

¹ Formerly known at the Foreign Investment Advisory Service of the World Bank Group (FIAS).

² There is also a distinction between gross versus net compliance costs. This article focuses on gross compliance costs unless otherwise noted.

The WBG TCCS database, as of end 2011, includes South Africa, Vietnam, Ukraine, Yemen, Peru, Uzbekistan, Armenia, Georgia, Laos, Kenya, Burundi, Bihar and Rajasthan (India), with Uganda and Bangladesh scheduled for early 2012 and several others in the pipeline. A repeat survey (after some reforms have been enacted) has recently been undertaken for South Africa and one will be carried out in Ukraine in 2012. (See Table below).

Topics covered by the surveys include:

- core time/cost questions for basic tax compliance tasks, usually broken down by:
 - type of tax (usually income tax, VAT and payroll taxes), and
 - by type of task (e.g., keeping up to date on changes in relevant laws and regulations, collecting financial information, making tax calculations, filling in tax forms, filing tax returns, making tax payments, responding to queries, being inspected/audited, etc.),
- bookkeeping practices (e.g., keeping receipts, simplified bookkeeping, full financial accounting, reliance on outsourcing),
- computer/internet access;
- experience with inspections/audits;
- tax morale;
- tax evasion;
- perceptions about tax authorities (e.g., competence, fairness, consistency, integrity).

Although the various TCCS are difficult to compare, due to the fact that each was tailored to the particular conditions and priorities in each country, they allow at least for direct comparison of the time required for specific tax compliance tasks in terms of person-hours per year. (For more details about survey methodology, please refer to Appendix A).

Section 2 presents illustrative findings regarding the basic time and cost associated with tax compliance. Section 3 discusses findings regarding tax inspections and audits. Section 4 focuses on findings on tax morale and perceptions of tax compliance. Section 5 discusses a possible future research agenda for deeper analysis of the TCCS data.

List of WBG TCCS and key characteristics

Country	Year of survey ³	Type of Respondents ⁴	Number of respondents ⁵	WBG Reports/Publications based on survey results ⁶
South Africa	2006	Tax Practitioners (re SMME)	2,530	FIAS (2007); Coolidge, et. al. (2008)
	2007	SMMEs	1,000	USAID (2008a), Coolidge, et. al. (2009)
	2007	Inf. businesses	1,000	USAID (2008b), Coolidge and Ilic (2009)
Vietnam	2007	Businesses	874	WB (inputs to country report)
Ukraine	2008	Companies	2,082	IFC (2009)
	2008	Sole Proprietors	1,000	IFC (2009) draft
Yemen	2008	Businesses	950	FIAS (2008) unpublished
	2008	Inf. businesses	860	(included in above)
Peru	2009	Tax Practitioners	1,949	WB (2008) inputs to country report
Uzbekistan	2009	Businesses	1,280	IFC (2010)
India (Bihar)	2009	Businesses	1003	IFC 2009
Kenya (module)	2010	Businesses	900	IFC (2011) unpublished
	2010	Inf. Businesses	600	(included in above)
Armenia	2010	Businesses	750	IFC (2011)
	2010	Sole Proprietors	250	(included in above)
Georgia	2010	SMMEs	820	(no report – findings incorporated in project)
Lao PDR	2011	Businesses	800	(no report – findings incorporated in project)
Burundi	2011	Businesses	250	(forthcoming)
	2011	Inf. Businesses	700	(forthcoming)
Nepal	2011	Businesses	990	(forthcoming)
India (Rajasthan)	2011	Businesses	929	(forthcoming)

³ In most cases, the surveys asked respondents about the most recently completed tax year.

⁴ “Tax Practitioners” are external bookkeepers or accountants hired by taxpayers to help with tax compliance tasks on a fee-for-service basis or retainer; “Businesses” are active business taxpayers and may sometimes be distinguished between “companies” (legal entities) and sole proprietors (physical persons); SMMEs are small, medium and micro-businesses; “inf. Businesses” are informal businesses defined as those not registered for tax (but usually with a fixed location).

⁵ Number of valid responses for the survey (for tax practitioners, total number of clients about which they reported). For businesses, most survey samples were stratified random samples drawn from the database of active business taxpayers, and designed to be representative.

⁶ Also includes USAID reports in cases where WBG had substantive involvement.

2. COMMON FINDINGS REGARDING BASIC TAX COMPLIANCE COSTS (TIME/COSTS)

The findings of the surveys can not necessarily be taken as typical for developing countries, as the majority of client governments only requested a tax compliance cost survey if there was a reason to believe that it was a problem for small business taxpayers (with the exception of South Africa, where we piloted the first such survey, and where tax compliance costs appear to be manageable for the majority of small businesses).

The core questions of interest are about the time and cost of basic tax compliance tasks, including primarily in-house staff time (in person-hours per year X gross wage rates) plus (when relevant) costs for hiring external tax preparers or advisors, tax forms, or other out-of-pocket expenses. We took care to separate the costs of tax compliance from those of general bookkeeping, asking specifically about both.

For example, in Armenia, the average business spent a total of about 400 person-hours per year on tax compliance, which was valued at just over \$1000. In other countries, the range has extended from less than 100 hours (or even 50 hours for sole proprietors using simplified tax regimes) to well over 1000 hours (e.g., in Ukraine before recent reforms). The table below illustrates the range for “medium” sized businesses, focusing on time required for income tax, VAT and payroll taxes in several of the countries in the database.

Time required for Tax Compliance Tasks (Medium sized businesses)⁷

	Total Hours of staff time per year
Armenia	699
Nepal	508
Peru	632
S. Africa	105
Ukraine	1870
Vietnam	1030
Yemen	649

Sources: WBG Tax Compliance Cost Surveys

Complexity of tax regimes (e.g., multiple taxes, several different bases, requirements for multiple filings per year, etc.) appear to drive up tax compliance costs, as do requirements to submit detailed accounting records along with tax returns (as in Peru and Armenia), especially if tax accounting differs significantly from financial accounting. Substantial changes to tax legislation and regulations, even if they are

⁷ “Medium” is defined relatively in each country: for South Africa, businesses with turnover between about US\$1 – 2 million; for Peru over \$1 million; for Ukraine between \$0.7 – 5 million; for Vietnam between \$0.5 – 15 million; for Yemen between \$100,000 to \$1 million; for Armenia between \$150,000 - 1.5 million; for Nepal between \$127,000 – 3 million.

designed to simplify the tax regime, require time for taxpayers to learn about them. In the case of Armenia, which enacted several major tax reforms in the year before the survey took place, taxpayers reported spending an average of over 80 hours (above and beyond the amounts reported above) just on learning about the changes.

Of course, there are several caveats and pitfalls regarding the survey data. Many small business taxpayers find it conceptually difficult to separate tax compliance costs from general bookkeeping, as they tend to carry out bookkeeping only to the extent required for tax compliance. Even knowledgeable tax experts may disagree with one another about where to draw the line, known as the “disentanglement problem”.⁸ In fact, Sandford and others have pointed out that there are benefits to tax compliance to the extent that small business management is improved by the financial knowledge gained from tax compliance that wouldn’t have happened otherwise. In such an analysis, gross tax compliance costs minus benefits of tax compliance equal net tax compliance costs.⁹ This report focuses on gross TCC.

For businesses that outsource some or all of their tax compliance work, the owners are usually unaware of the time spent by their accountant, while the accountant usually doesn’t know how much time the business spent internally on such tasks. In countries where almost all tax compliance work is done in-house, we would interview businesses directly; in countries where most such work is outsourced, we would interview the tax preparers. In countries where there is a broad mix of the two practices (e.g., in South Africa) it was necessary to interview both groups in order to get a comprehensive picture of the issue.

The surveys relied on a respondent’s memory about the “most recent tax-year”, and not on daily journals. Depending on what approach worked best in each country, interviewers would either walk a respondent through the details of each tax task for each type of tax, or started with an overall estimate of total time required for accounting and tax compliance and then broke it down by type of tax and type of task. Of course, in some businesses (especially the smallest ones), the owner or manager might have struggled through the tasks on a part-time basis while in medium and large businesses, it is common to have one or more accountants or bookkeepers on staff full time.

We noticed a pattern that in some regions where tax compliance tends to be relatively complicated and onerous (e.g., in former Soviet countries such as Ukraine) or where there is a legal requirement to do so (e.g., in some Latin American countries such as Peru), businesses either have one or more full time, certified accountants on staff or outsource to professional accountants.

⁸ See Turner, Smith and Gurd (2008).

⁹ See Sandford, Godwin and Hardwick (1989), Tran-Nam, Evan, Walpole and Ritchie (2000); and Lignier (2006 and 2009).

In other countries (e.g., Burundi) most small business owners or managers undertake the work themselves. The latter case makes the valuation of time particularly difficult, as they usually do not pay themselves a salary. The opportunity cost of a business-owner's time is problematic to assess: the late evening or weekend hours often devoted to such tasks may not, strictly speaking, take away from time devoted to alternative business activities and might therefore be considered quite low in value (especially for relatively low-profit businesses). On the other hand, time taken by a highly-skilled professional might carry quite a heavy opportunity cost.

For example, the first tax compliance cost survey in South Africa (in 2006-2007) yielded an estimate of about \$1000 per small business per year. A more recent survey undertaken in 2011, which showed slightly higher time requirements but used different sources of time valuation, yielded estimates almost an order of magnitude higher.¹⁰

Thus, while time estimates appear to be the most solid and easy to compare between years or across countries, cost estimates can be heavily influenced by assumptions about the value of time, especially for business owners/managers who do not pay themselves a regular salary (which is quite common among small businesses in developing countries).

2.1 Patterns of regressivity in tax compliance costs across countries

A very common pattern seen across all countries where TCC have been studied is a striking degree of regressivity: they are much heavier, as a percent of turnover, for smaller businesses than for larger ones.¹¹ While medium and large businesses usually spent less than 1/10th of 1% of their turnover in TCC, small businesses often face TCC of 5% or more of turnover, which can be compared to an extra tax burden.¹²

Studies undertaken on TCC in developed countries before 2000 typically show burdens of one tenth of one percent of turnover or less for businesses over about \$200,000. However, a more detailed study in New Zealand documented TCC of up to 20% for businesses with turnover under \$20,000 (Colmar Brunton, 2005; although most of these businesses may have been start-ups with both low turnover and relatively high costs in "learning the ropes" of business tax compliance). One key question which could be addressed by regression analysis would be the relative importance of the TCC burden of "start-ups" versus "smallness" in this pattern, given that most startups are also small.

¹⁰ Smulders (2012) forthcoming.

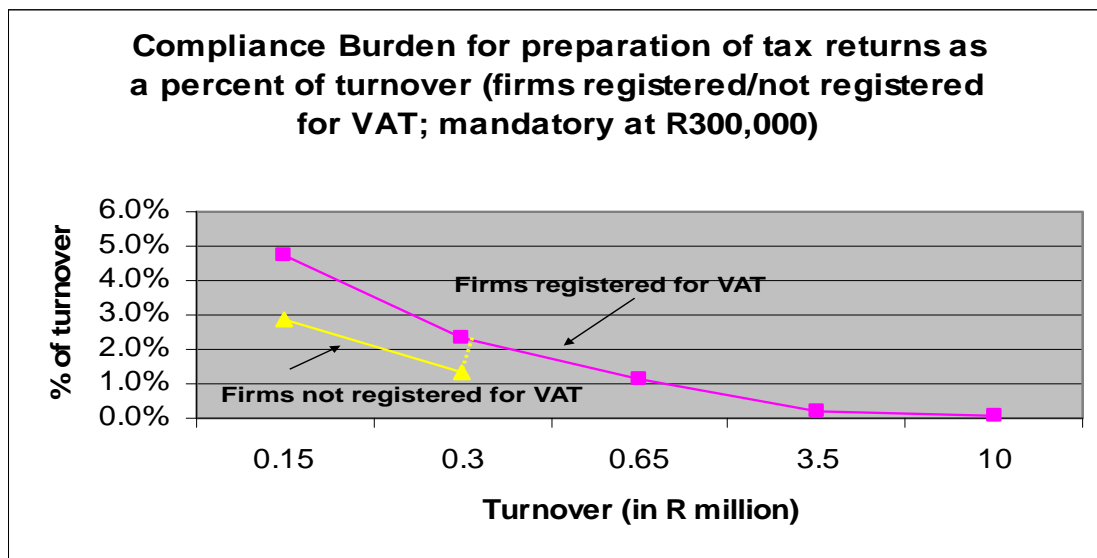
¹¹ See, for example, OECD (2012).

¹² It should be noted that in addition to the problems of the valuation of the time of small business-owners, such estimates can also be affected by under-reporting of turnover by business respondents.

The WBG's first TCCS was undertaken in 2006 in South Africa, where we estimated TCC of about 5% of turnover for businesses with turnover below \$50,000 and that were registered voluntarily for VAT. Those of similar size not registered for VAT had TCC / turnover of less than 3%.¹³ (See Figure 1)

Figure 1 Regressivity of Tax Compliance Costs in South Africa

South Africa Tax Compliance Cost Survey

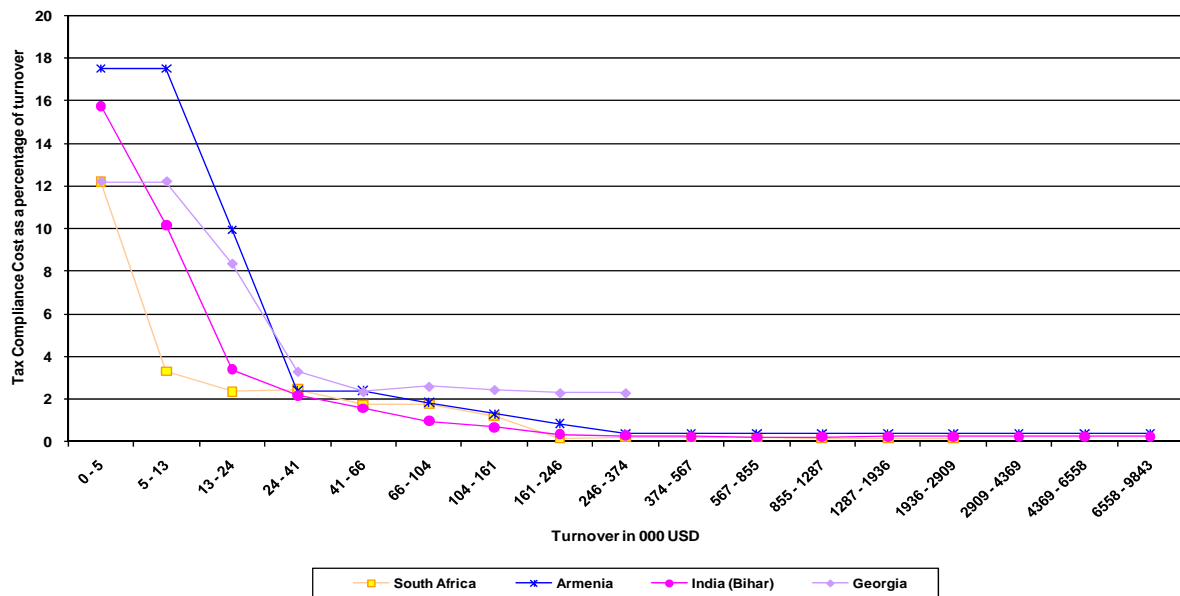


Source: FIAS 2007

Other countries showed even more extreme TCC burdens for small businesses, although some of the differences may be exaggerated due to relatively higher estimates of the imputed wages of owner/managers or possibly due to under-reporting of turnover by survey respondents. (See Figure 2).

¹³ Here it should be noted that businesses voluntarily registered for VAT were probably different from similar-sized businesses in other respects, such as numbers of employees and consequent implications for payroll and other taxes, so the difference can not necessarily be ascribed to VAT alone.

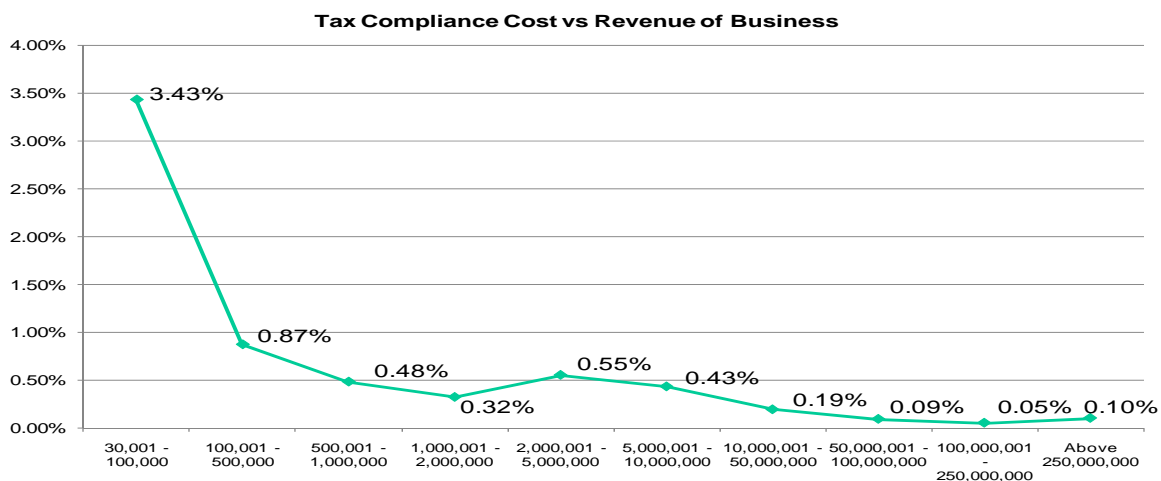
Figure 2: TCCS / Turnover in Selected Developing/Transition Countries



Source: Compilation from TCCS for countries cited

In two cases, the TCC Surveys showed a spike in TCC / turnover at the level of the VAT threshold. In the case of Nepal (see Figure 3) the data may suggest that the VAT threshold (about \$24,000) is currently too low, and may present a significant obstacle to growth for businesses below but close to the threshold. In the other case, Lao PDR, the spike might be related to the fact that the VAT had only very recently been introduced, and was still unfamiliar to businesses.

Figure 3, TCC / Turnover in Nepal



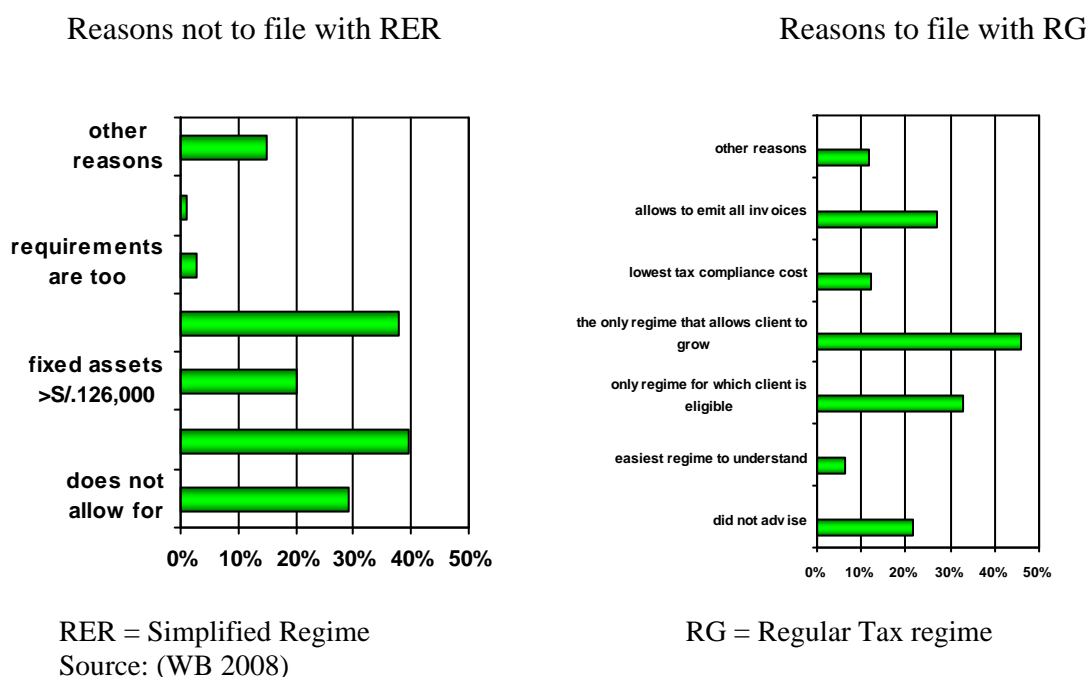
Source: IFC 2012 (forthcoming) [Nepal]

While many developed countries have no special tax regime for small businesses, most small businesses in developing countries face substantial capacity constraints: given the relatively low education levels, they often face problems of literacy and numeracy. They are often not capable of keeping books more detailed than simple journals, and struggle to understand tax forms and requirements for calculation of percentages or tax tables. In Yemen, for example, over 40% of micro-enterprises surveyed did not even keep physical receipts of transactions and only about two-third of them kept any books.

One of the most common forms of simplified (or “presumptive” taxation) for small businesses is a turnover tax in lieu of profit tax (and sometimes other taxes as well). Generally speaking, revenue authorities estimate typical profit margins and then design turnover taxes such that they will be a roughly equivalent tax burden for the majority of small businesses. They are intended to be less of a compliance burden, as businesses are not required to keep track of expenses and usually fill in a very simple form reporting turnover and the associated tax liability.

However, there are often differences between sectors in profit margins on turnover, with retail (usually the most common sector for small businesses in developing countries) facing the strongest competition and tightest profit margins. For such businesses, a turnover tax may be relatively unattractive. On the other hand, most revenue authorities limit eligibility to the presumptive regime not only with a threshold on turnover, but sometimes on the value of fixed assets and/or sector (e.g., excluding professional services on the assumption that professionals are fully capable of complying with the regular tax regime). For example, in Peru, the turnover tax regime was not very popular as it was seen as relatively restrictive (see Figure 4, below).

Figure 4: Perceived Advantages and Disadvantages of the simplified regime in Peru

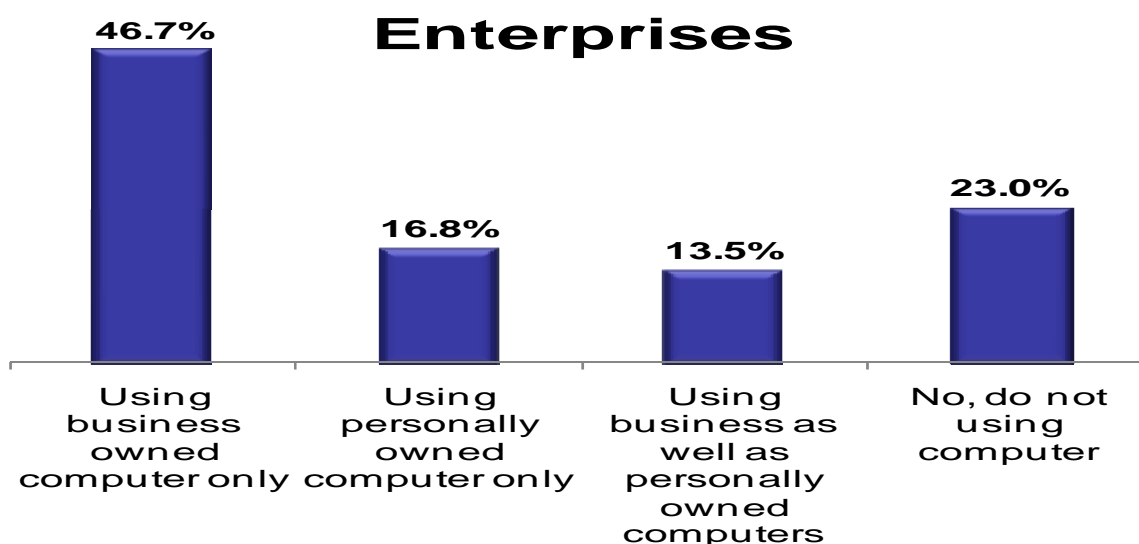


2.2 Differences between those using computer software, e-filing and e-payment and those not

Another way to reduce compliance costs is to encourage use of accounting software and e-filing, but of course most small businesses in developing countries have limited ability to make use of such technology.

In Armenia, the majority of micro and small businesses use manual accounts (including over 90% of sole proprietors), which is largely a reflection of those who can afford computers. Almost one quarter of all businesses in Armenia do not have access to a computer, but of those who do, almost three quarters have internet connections (See Figure 5). Among sole proprietors in Armenia, 83% do not have access to a computer, but among those who do, over 70% also have an internet connection.

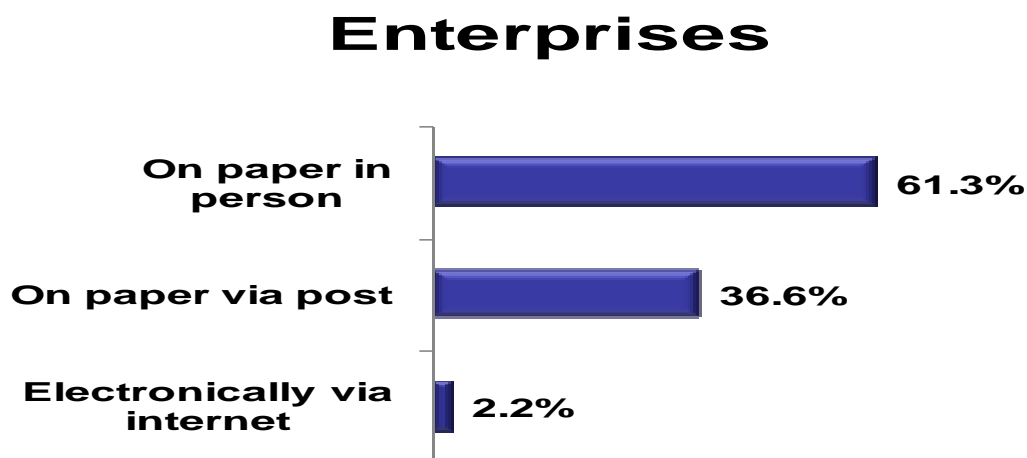
Figure 5: Use of Computers in Armenia



73.2% of enterprises who used computers had internet connection

Source: IFC 2011 [Armenia]

But access to internet and the possibility of e-filing still does not mean that businesses that are capable of e-filing will do so. In Armenia, barely 2% of business taxpayers use e-filing (roughly one-eighth of those with an internet connection). Just over one third send tax returns by mail, and almost two-thirds still bring it personally to the tax office (see Figure 6). The most common reason offered for physical filing of tax returns was that “it was the most reliable way,” but anecdotal evidence suggests that face-to-face interaction between taxpayers and tax officials may often be a venue for corruption.

Figure 6: Ways of submitting tax reports in Armenia

The most recent way of submission, share of enterprises

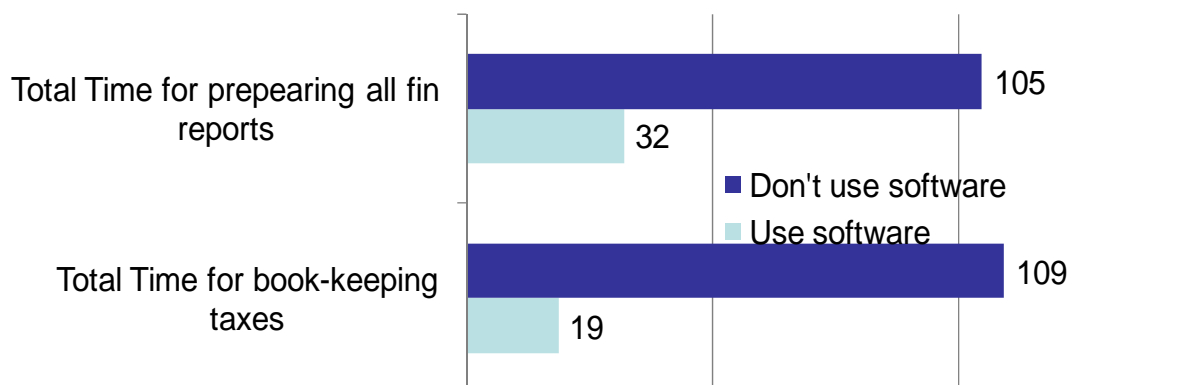
Source: IFC 2011 [Armenia]

Similarly, in Ukraine, even though e-filing is legally possible and many businesses had an internet connection at the time of the TCCS in 2007, relatively few bothered to use it because they were still required to submit hard copies of accompanying documentation, and focus group respondents told us that they were afraid of the possibility that the tax office could lose it. Although the relevant tax legislation protects taxpayers who submit required materials by registered mail, such protection was either not widely known or trusted. Thus in the case of Ukraine, even those who used e-filing did not show a significant reduction in tax compliance time, since they still visited the tax office to submit the required hard-copy documentation. On average, business taxpayers made 47 visits per year to tax offices in Ukraine, which is time-consuming and therefore drives up tax compliance costs.

In Uzbekistan, barely a quarter of businesses used accounting software in 2008. Such software reduced the time required for tax accounting by over 80% (from 109 hours per year to 19; see Figure 7).¹⁴ While e-filing is officially encouraged in Uzbekistan, barely 1% of businesses used it. Asked why not, most said there were “bugs” in the software sanctioned by the tax office, and that local tax inspectors unofficially discouraged it in favor of bringing returns in physically.

¹⁴ In other countries, use of computers and software does not appear to be associated with such a large reduction in time. Some observers have speculated that the availability of tax software facilitates and encourages more “tax planning”.

Figure 7: Staff time required for financial reporting and tax compliance in Uzbekistan (staff-hours per year).



Source: IFC 2009 [Uzbekistan]

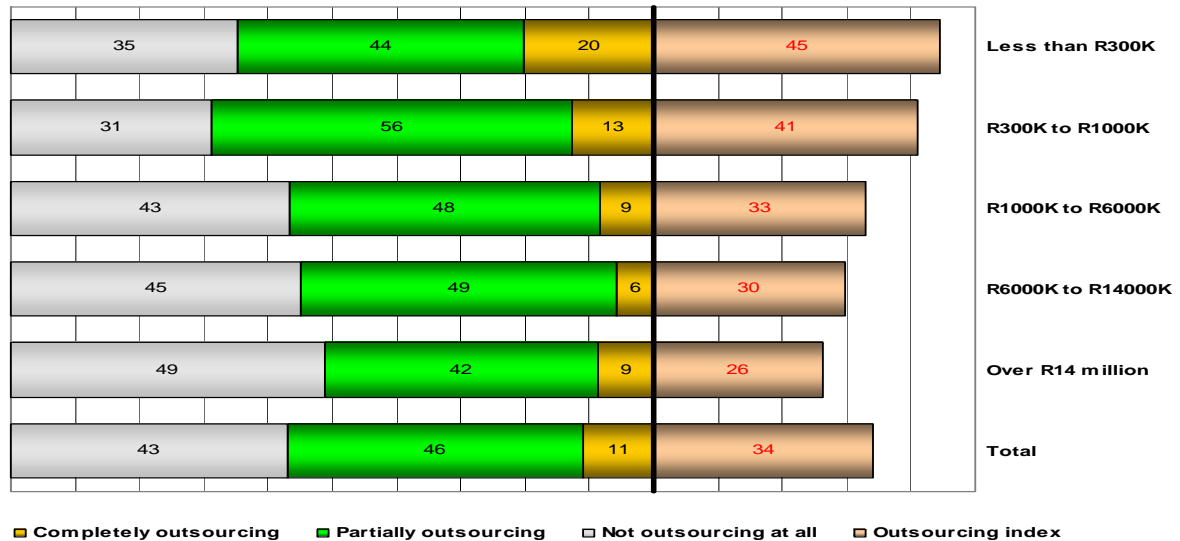
In Nepal, only about 16% of businesses are registered for e-filing. Of the remainder, about half said they are “considering it” but the remainder, when asked “why not” said they are “not required by law” or “don’t know the process”.

2.3 Difference between those who outsource tax compliance work and those who do it in house

As described above, countries differ substantially in their habits of outsourcing tax compliance. While most of the former Soviet countries involved in TCCS seem to prefer (or need) accountants on staff, those in Latin America are almost opposite: in Peru, for example, tax filings are legally required to be prepared by a certified accountant, most of whom service multiple clients (although large businesses seem to have them on staff).

In South Africa, the pattern is more mixed: some businesses do all their tax compliance work in-house, some outsource it entirely, and some use a mix of in-house work and outsourcing. (See Figure 8).

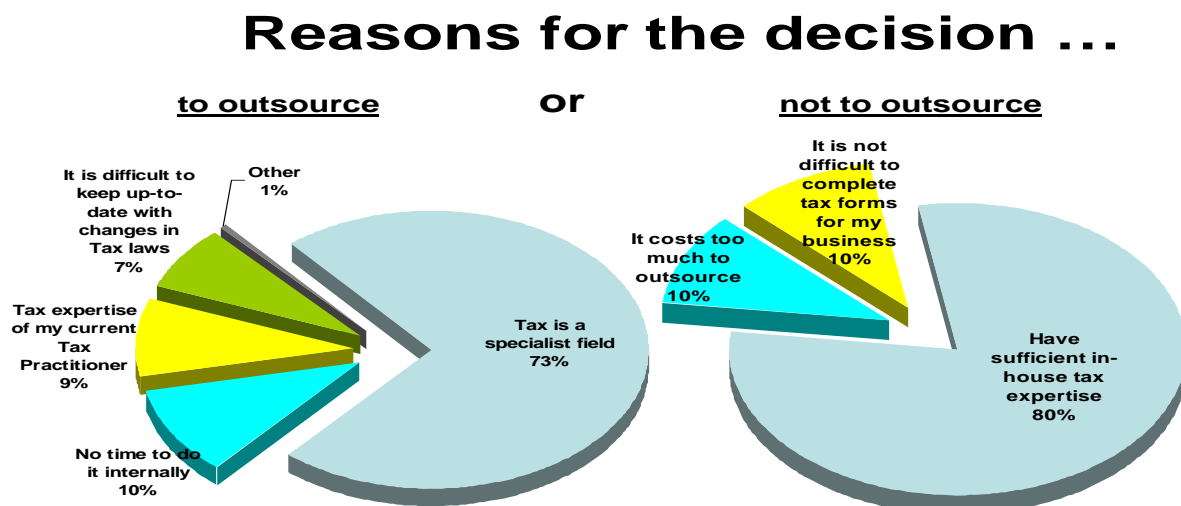
Figure 8 Outsourcing practices among small business taxpayers in South Africa



Source: Coolidge, et. al, 2009

For the most part, small businesses in South Africa base their decisions on the availability of the necessary skills. Among those who do most of their tax compliance work in-house, most say they have sufficient expertise. Among those who outsource, most say they do it because “tax is a specialist field” that they lack. Only about 10% of those who do not outsource say it is because it costs too much, although among the smallest businesses, 25% say that is their reason (see Figure 9).

Figure 9 Reasons for Decisions to Outsource or Not in South Africa



Source: Coolidge et. al, 2009

Examining the data in South Africa more deeply, it appeared that the mix of in-house and out-sourced tax compliance was significantly more expensive than either doing all the work in-house or out-sourcing all the work. Apparently, when part of the work is done in-house (e.g., basic bookkeeping, VAT accounting etc) and some tax compliance work is outsourced, the outside tax practitioner needs to review the in-house work before he/she can proceed to the tax compliance work, in order to check for mistakes and correct them if necessary.¹⁵

3. TAX INSPECTIONS AND AUDITS

Tax inspections and audits are usually a much more important concern for businesses in developing and transition countries than they are in developed countries, and add significantly to tax compliance costs. Most revenue authorities in developing and transition countries do not have a well-functioning system of “risk based audit”, nor of reliable “self assessment” on the part of taxpayers that they feel they can trust. Compounding the problem, many individual tax officials in such countries are alleged to unofficially “negotiate” with taxpayers to reduce their tax payments in return for a bribe. The latter practice may reduce overall costs (tax payments plus bribes) to the taxpayer at the expense of the Treasury.¹⁶

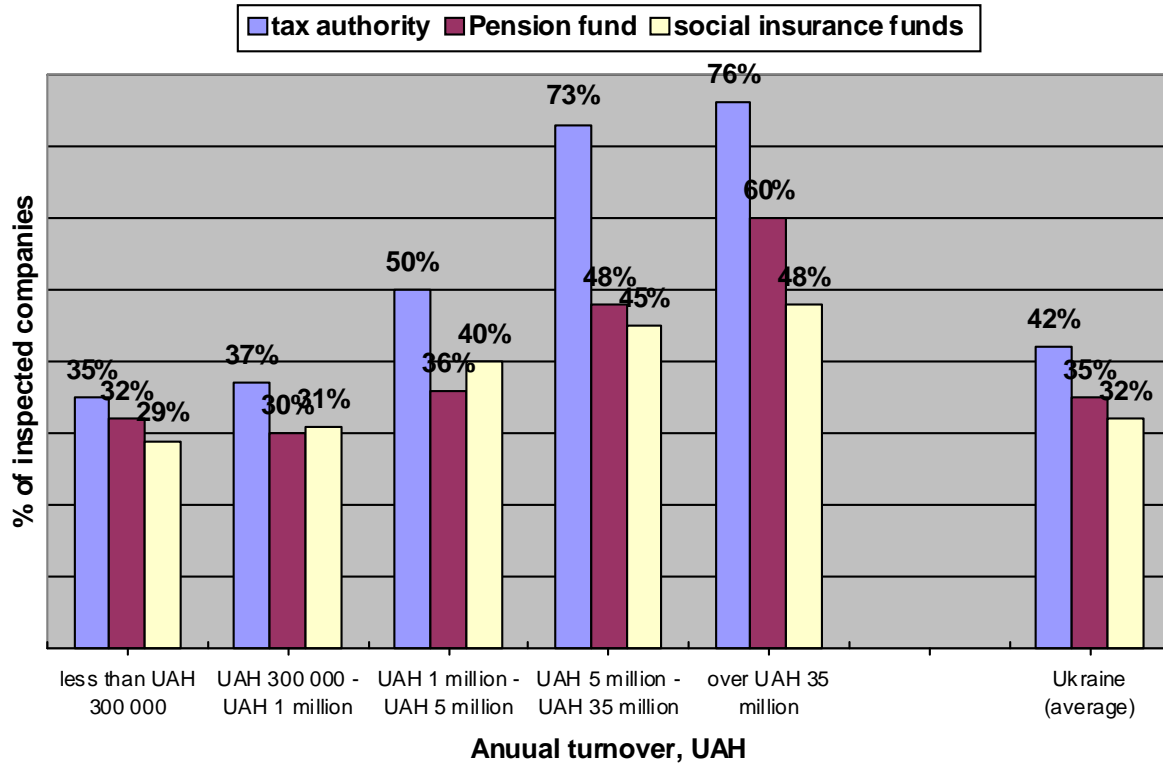
A well-designed and well-implemented system of risk-based audit, alongside self-assessment of tax liabilities by business taxpayers, should both improve the efficiency of the tax regime and reduce opportunities for bribery inherent in face-to-face contacts between tax officials and taxpayers. It also reduces wasted time for taxpayers and thereby reduces tax compliance costs.

In Ukraine in 2007, for example, even small businesses faced about a one-third chance of inspection not only by the tax authority but also by the pension fund and social insurance fund (See Figure 10).

¹⁵ Coolidge, et. al, 2009.

¹⁶ It is also possible that some tax officials threaten taxpayers with a higher tax bill than their legal liability; taxpayers may rather pay a bribe to the tax official to pay the “right” amount of tax than go through the uncertain (and usually lengthy and expensive) process of trying to appeal.

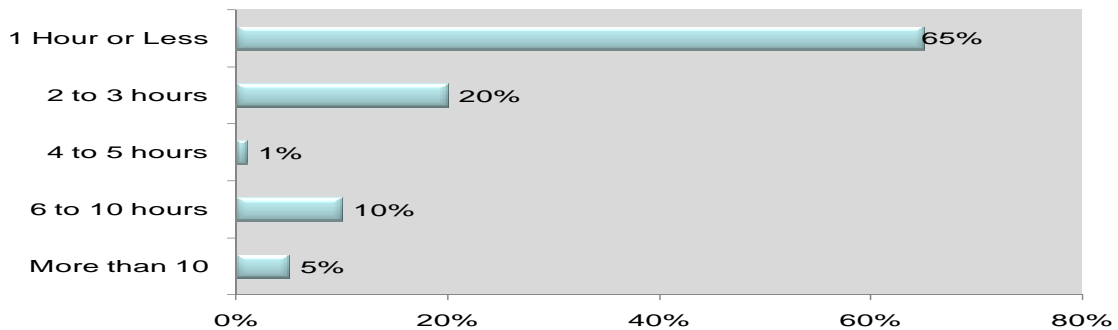
Figure 10 Incidence of Inspections among business taxpayers in Ukraine



Source: IFC (2009)

In Kenya, over half of small businesses and three quarters of medium-sized businesses reported an inspection in 2010, although almost two-thirds of such inspections were under one hour in duration and only 15% were over six hours. (See Figure 11).

Figure 11: Duration of tax inspections in Kenya, Percent of those inspected

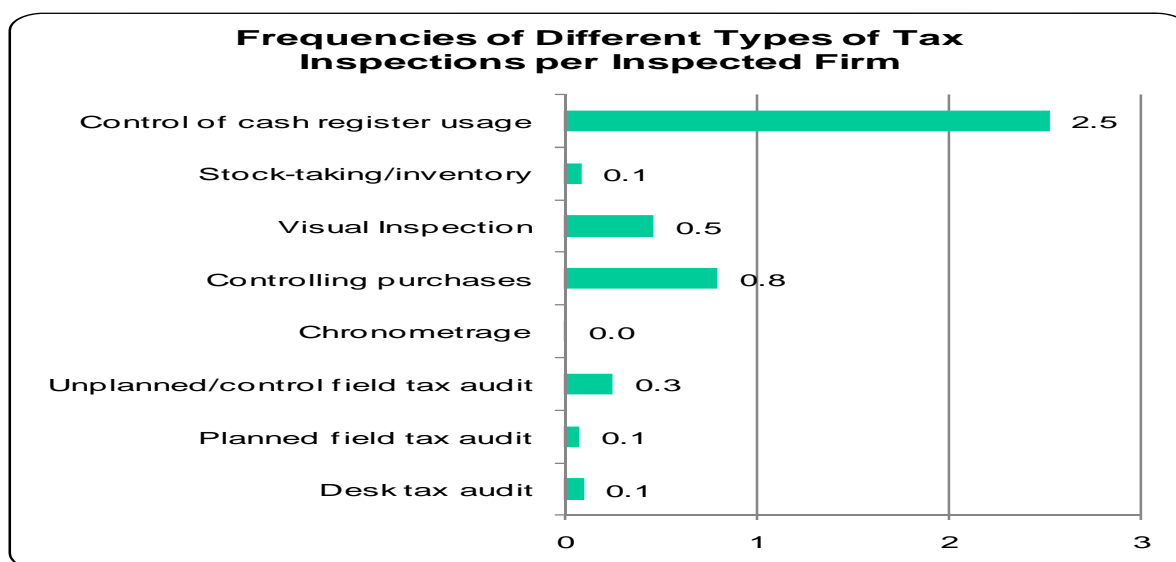


Source: IFC (2011)

In most countries where we have done a TCCS, the revenue authorities state that their official figures show a much lower rate of inspection. In the case of Ukraine, after discussions with the State Tax Committee and focus groups of business accountants, we concluded that the majority of “inspections” were in fact brief checks of cash registers. In the case of Kenya, officials from the Kenya Revenue Authority (KRA) said that many of the short visits were likely “informational visits” by tax officials, which were not inspections at all. However, they also speculated that there may be some “unofficial visits” or even fraud – i.e., people claiming to be tax inspectors who are not.

The TCCS in Georgia included a breakdown of types of inspections (see Figure 12):

Figure 12 Different types of Tax Inspections in Georgia



Source: IFC (2011) [Georgia]

Definitions of some of the more technical terms in the chart above are as follows:

control of cash register: Check that cash register is in compliance with set standards.

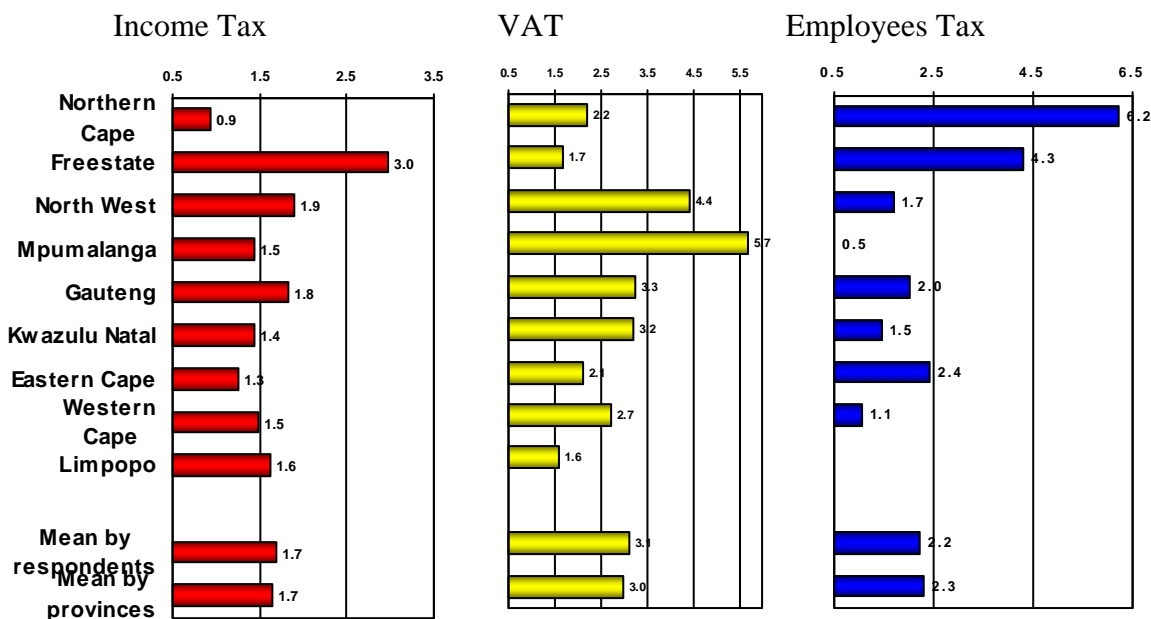
visual inspection: A visual inspection of premises without checking accounting documents, stock, etc.

controlling purchases: Tax inspectors buy goods from a store and check if salesperson registers the transaction in cash register and gives them receipt. If not, business is penalized. This is the most frequent form of tax inspection (usage of cash registers is a legal requirement).

chronometrage/invigilation: Tax inspectors monitor sales (of a restaurant or a hotel) for a certain period of time, usually for at least one week. If sales during this period exceed sales from previous period as reported by business, then the business gets penalized. Such penalties existed during the survey but have since been abolished.

By way of comparison, we have used the case of South Africa as an example of a country with a well-functioning system of Risk Based Audit. Overall, small and medium businesses in South Africa in 2006 (those with turnover under about \$2 million) faced only about a 2% chance of inspection for Income Tax and Employees taxes and about 3% for VAT. Some of the less populous provinces showed a slightly higher likelihood of inspection. (See Figure 13).

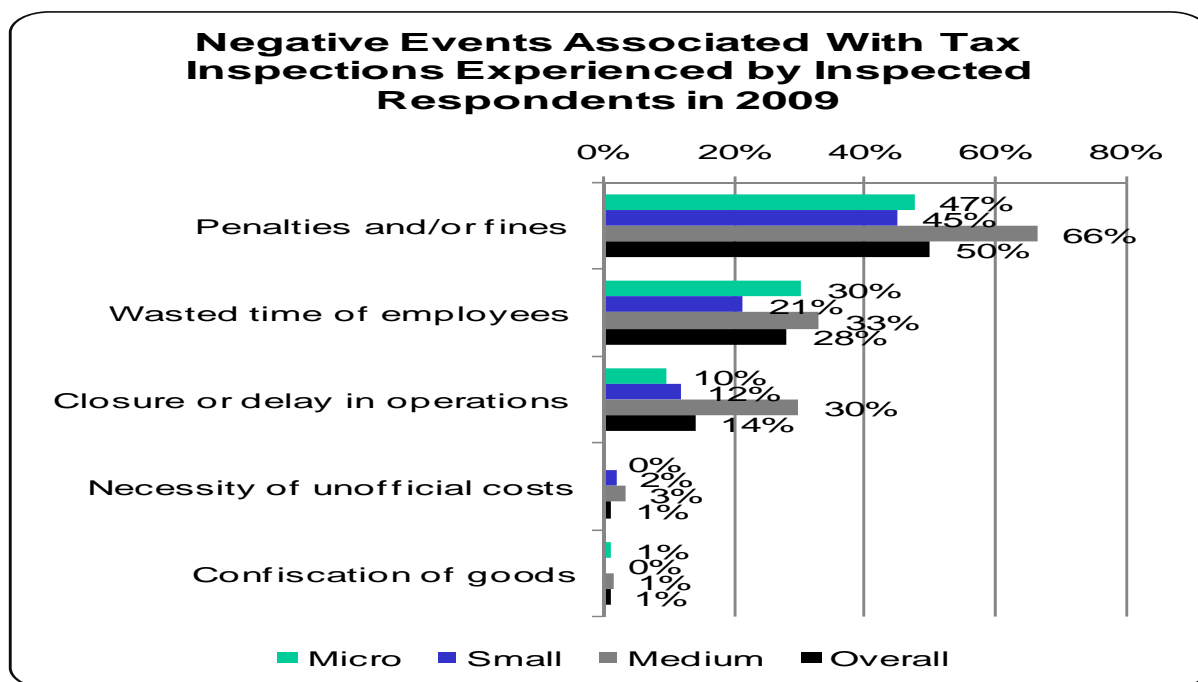
Figure 13 Incidence of Tax Inspections by type of tax and by region – South Africa (2006)



Source: FIAS, (2008)

From the point of view of business taxpayers, any visit from a tax official, no matter the duration or purpose, is a disruption to their work schedule and a cause for anxiety. From the point of view of those of us interested in improved governance and transparency, such visits are potential opportunities for corruption. The TCCS in Georgia provides some feedback from taxpayers on some of the consequences of inspections (See Figure 14).

Figure 14 “Negative Consequences” associated with tax inspections* in Georgia



* Among businesses reporting any inspection in 2009; Source: IFC (2011) [Georgia]

On the other hand, businesses also understand the need for at least some inspections to catch and deter evasion. They perceive, however, that many inspections are motivated by a need to achieve revenue targets, to extract bribes, or in some cases to harass “opposition figures” or competitors to “cronies” of politicians.

4. TAX MORALE AND PERCEPTIONS ABOUT TAX COMPLIANCE

Some TCCS include a number of questions about subjective perceptions of tax compliance, and some are accompanied by a survey of informal businesses (defined for these purposes as businesses not registered for tax, excluding itinerant hawkers) inquiring about their perceptions of tax compliance.

One of the first problems of getting informal businesses to register for tax is that they are often not even aware that they are legally required to do so. For example, in Kenya, 94% of informal businesses reported that they were required to have a business license (although many did not have one), while over three quarters of them, when asked whether they were required to pay taxes, answered “no.” In fact, businesses in Kenya face a legal requirement for both. And although some employees are exempt from taxation if their earnings are below a threshold, self-employed and small

business owners are legally liable for income tax on all their earnings.¹⁷ (See Figures 15 and 16).

Figure 15 Percent of informal businesses in Kenya reporting that they are required to have a business license

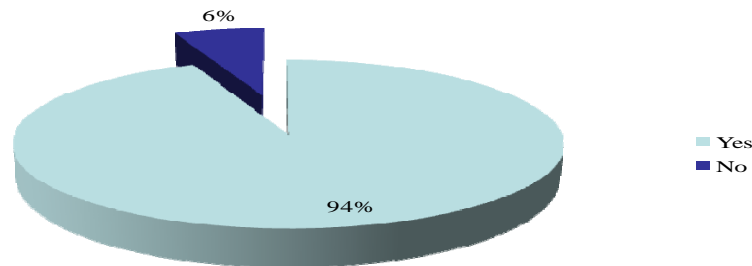
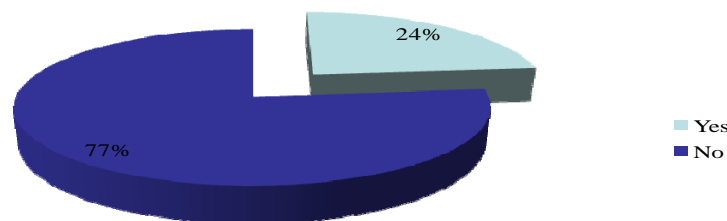


Figure 16 Percent of informal businesses in Kenya reporting that they are required to pay taxes



Source: IFC 2011 [Kenya]

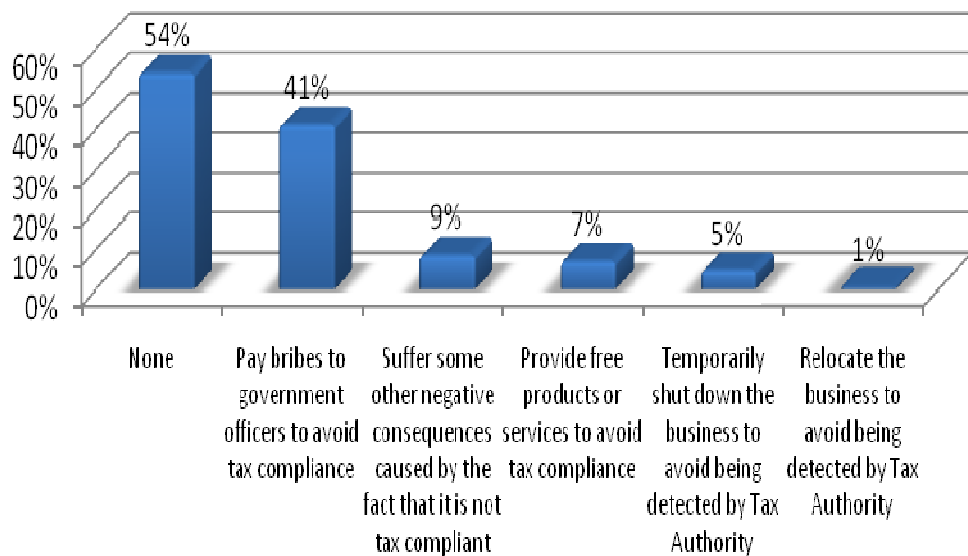
Asked their reasons for not registering for tax, most informal businesses in Kenya (similar to earlier WBG surveys of informal businesses in Liberia, Sierra Leone, Rwanda and Madagascar) said “my business is too small”. This was usually the most common answer, followed by a concern that tax compliance is too difficult, fear of “administrative problems” with inspections, competition from other informal businesses and the fact of weak enforcement.

¹⁷ The World Bank Group sometimes advises client governments to establish a comparable threshold for micro-enterprises, so there is no distortion favoring wage employment over self-employment and to avoid onerous tax burdens on those who are truly too poor to afford them.

However, businesses also were concerned about the disadvantages and costs of staying informal. Many feared government “retribution” or legal sanctions, or the need to pay bribes to stay off the tax register. A certain proportion would also usually note that their lack of registration for tax reduced their business opportunities (e.g., ability to sell to formal enterprises or a wider customer base), their access to finance, or access to other public services.

In the case of Yemen, about half of informal businesses said they did not face any noticeable costs by staying in the informal sector, but over 40% said they had to pay bribes and others cited a range of negative consequences including the need to “temporarily shut down the business” to avoid detection. (See Figure 17).

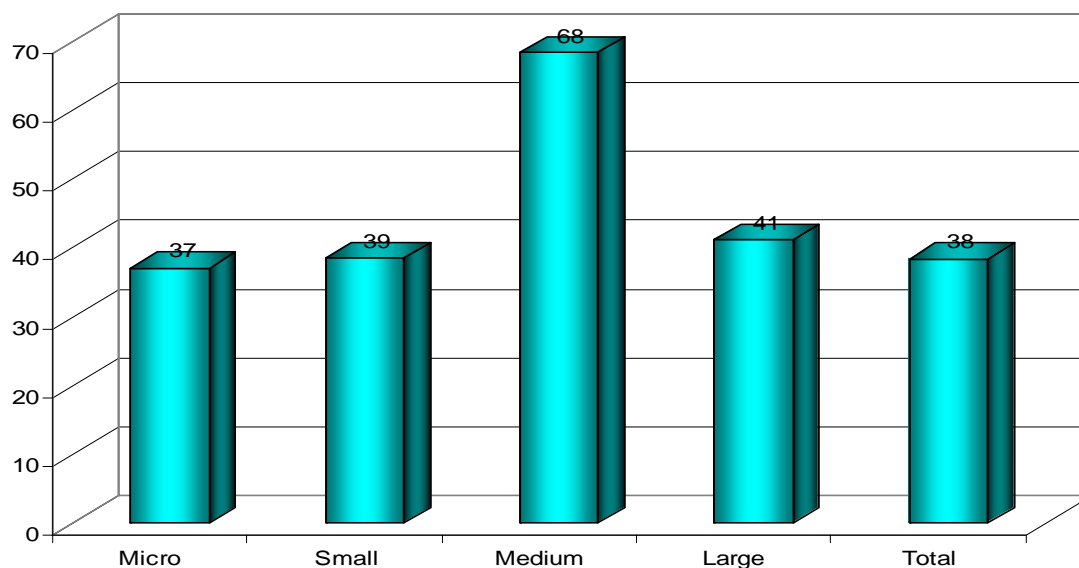
Figure 17 Percentage of informal Yemeni businesses facing costs to avoid tax payments or remain informal



Source: FIAS 2008 [Yemen]

What is particularly striking is that a similar proportion of formal businesses in Yemen (38%) reported paying bribes to tax officials (see Figure 18, below)

Figure 18 Reported incidence of bribes to tax officials by formal businesses in Yemen (% of respondents)



Source: FIAS 2008 [Yemen]

In South Africa in 2007, we carried out an in-depth analysis of the survey data from informal businesses about their key characteristics (size, sector, location, etc.), perceptions about tax compliance, capability for tax compliance (e.g., bookkeeping practices and skills) and their reported likelihood to register for tax in the near future. Overall, two thirds reported a positive likelihood that they would register for tax within the following two years.¹⁸ There were some noteworthy patterns in the answers:

Those in the service sector reported a lower likelihood to register for tax (62% of respondents in the service sector) than those in trade (66%) or agriculture, manufacturing and construction sectors (78%).

As expected, those with relatively more employees were more likely to express a likelihood to register (75% for those with six or more employees) than sole proprietors with no employees (61%). Those who kept complete financial records on paper or computer were more likely to report an intention to register for tax (75%) than those not keeping such records (63%).

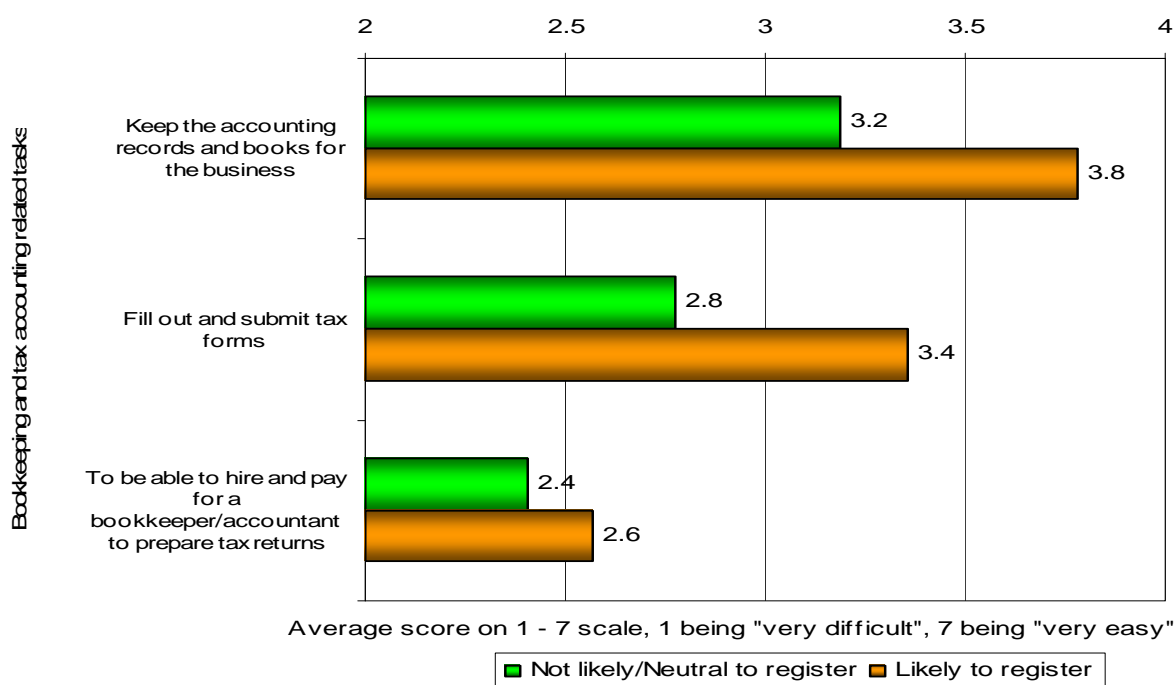
¹⁸ Coolidge and Ilic, 2009 "Tax Compliance Perceptions and formalization of small businesses in South Africa", World Bank Policy Research Working Paper no. 4992.

What was less expected was that those who rented separate premises for their business reported a much higher likelihood of registering for tax (74%) than others, perhaps because they were aware that their tax payments would probably be officially reported by their landlords. Those who were within 30 minutes of a SARS office reported a higher likelihood to register (75%) than those farther away (67%) and much higher than those who said they did not know where the nearest SARS office was located (57%).

Even larger disparities were associated with perceptions of public services. Those who agreed that Government “gives a good return on taxes paid” in the form of government services reported a much higher likelihood of registration (80%) than those who disagreed (57%). Meanwhile, the effect of the fear of “getting caught” was relatively less: among those who believed that more than 10% of non-registered businesses were “caught by SARS last year,” about 74% reported a likelihood of registering for tax.

Perhaps most interesting were the associations between bookkeeping (and perceived competence for tax compliance) and the likelihood to register. Those who believed that keeping books was relatively easy, or that tax compliance was relatively easy reported a higher likelihood of registering, although the question of the cost of hiring an accountant yielded a more muted response. (See Figure 19).

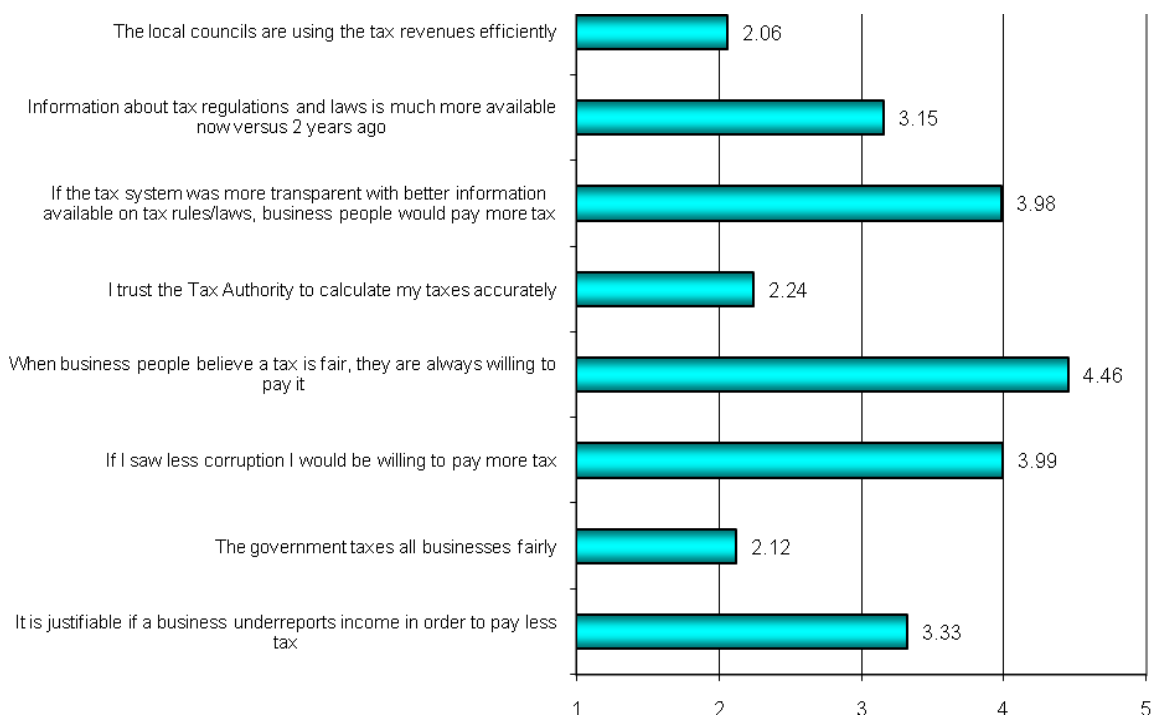
Figure 19 Perceived ease of bookkeeping and likelihood of registering for tax among informal businesses in South Africa



Source: Coolidge and Ilic (2009)

The TCCS in Yemen displayed evidence both of low tax morale and high levels of perceived tax evasion. Figure 20 below shows average responses (by turnover band) to standard questions of tax morale. Most respondents were strikingly negative about tax “fairness” and competence, with medium-sized businesses being the most scathing about their trust in the Tax Authority to “calculate my taxes accurately.”

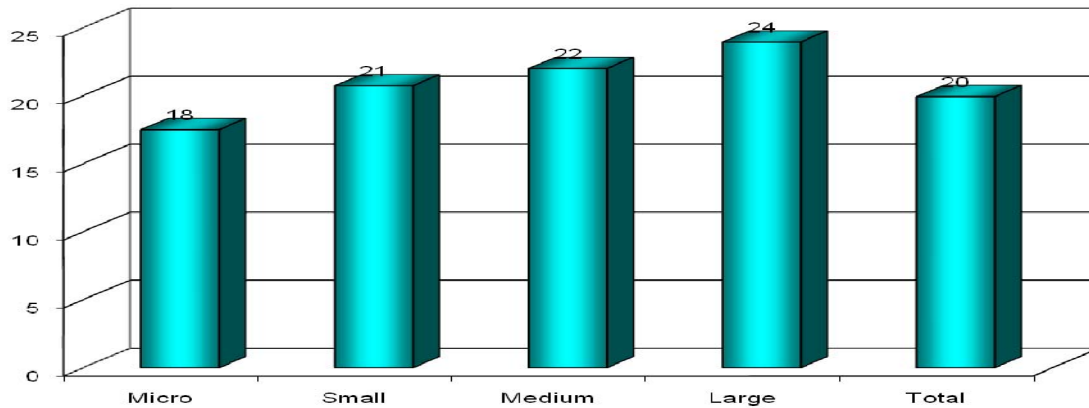
Figure 20 Tax Morale in Yemen: Agreement with statement, scale 1 – 5



Source: IFC 2008 [Yemen]

Asked to estimate the percent of the taxes businesses pay that they “get back” through government services, the overall average was less than 20%. As one might expect, micro-enterprises saw the lowest “return” (17.5%) and large businesses saw the highest (24%). (See Figure 21).

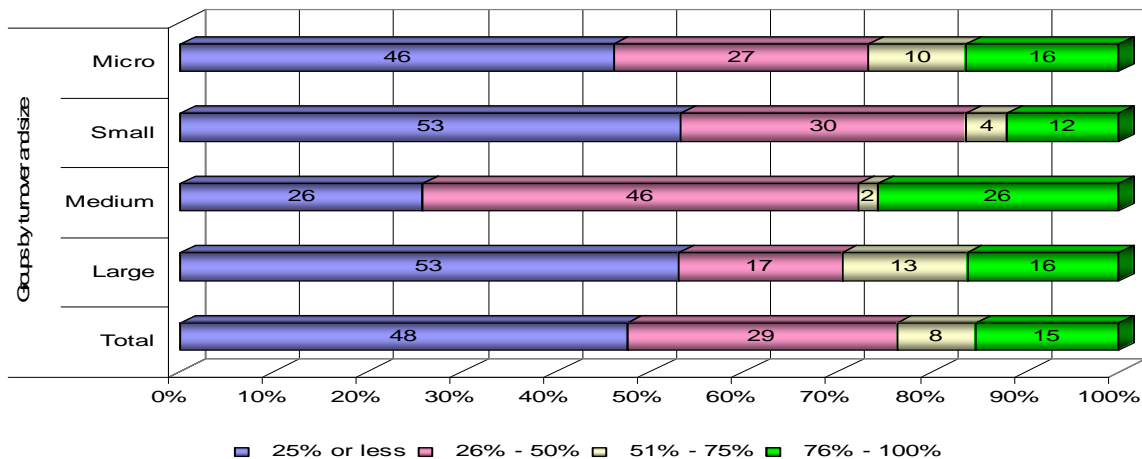
Figure 21 Percent of taxes businesses say they “get back” through government services in Yemen



Source: IFC 2008 [Yemen]

Yemen also provides further evidence of the link between low tax morale and low tax compliance. Survey respondents were asked “Having in mind businesses similar to yours (in the same line of this business, same size, same area), ... what percentage of the taxable profit would you estimate they usually report for tax purposes?” This is less confrontational than asking business owners about their own evasion, but we assume that the response will reflect their own habits. (See Figure 22).

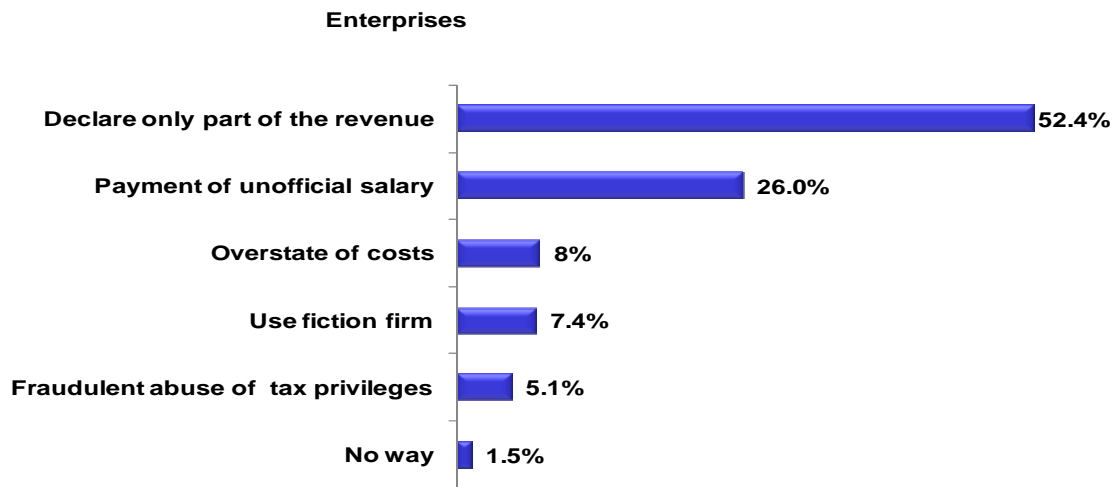
Figure 22 Estimated proportion of profit reported for tax purposes in Yemen



Source: IFC 2008 [Yemen]

In Armenia, we asked respondents about the most common methods of tax evasion. Of course, many did not answer the question, but among those who did, over half mentioned under-declaration of revenue or salaries, while less than 10% mentioned padding of expenses. (See Figure 23)

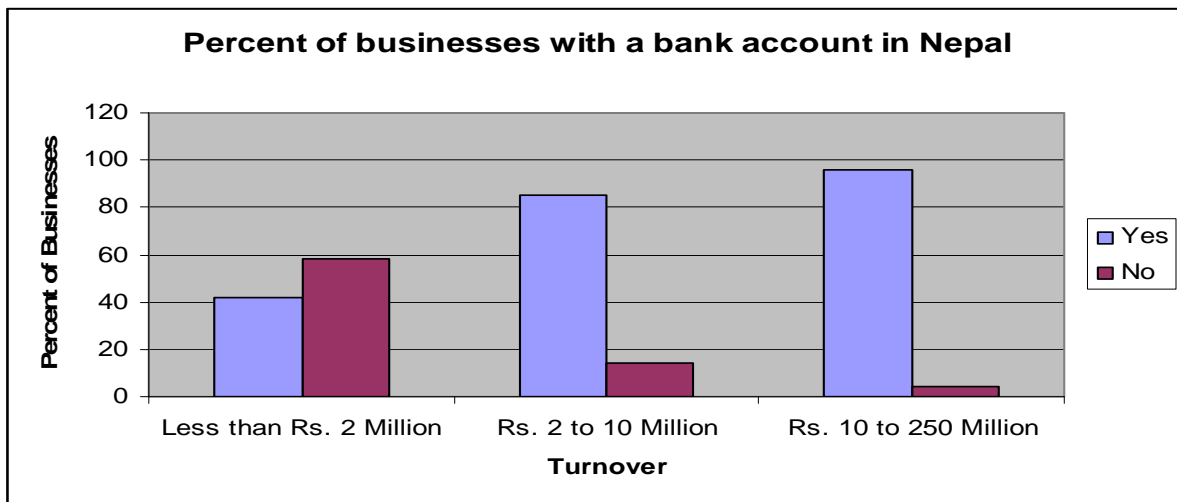
Figure 23 The most popular methods of tax evasion for enterprises in Armenia



Source: IFC 2011 [Armenia]

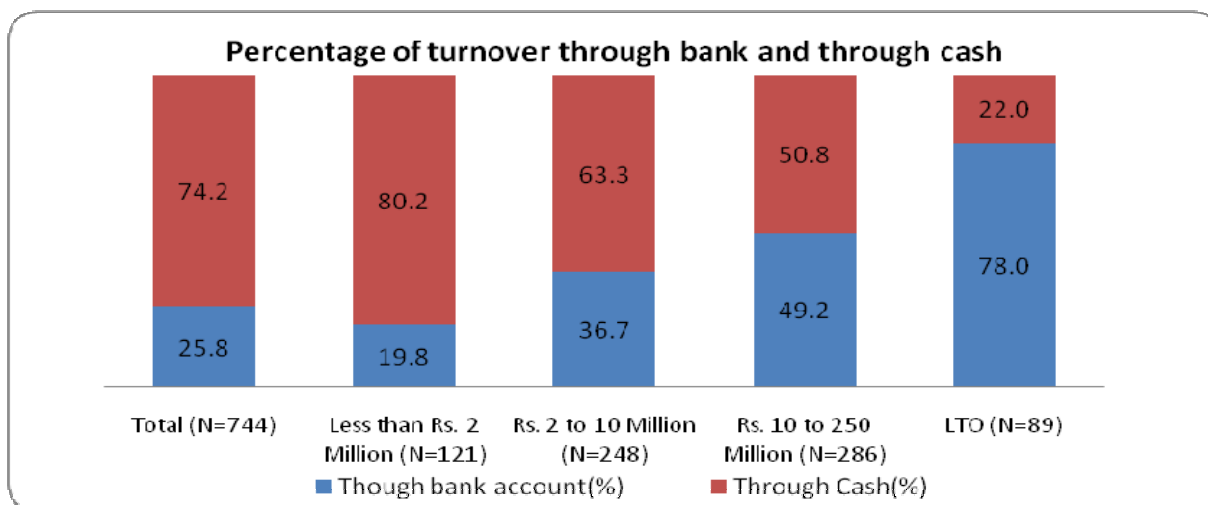
Declaring only part of the revenue is of course easiest when using cash, so increasing reliance on banks may help mitigate evasion. In Nepal, we asked a series of questions about whether a business had a bank account and if so, the degree to which they relied on it for payments. Less than half of the smallest businesses (those under \$25,000 turnover) had a bank account in Nepal, and even 4% of larger businesses lacked a bank account (See Figure 24).

Figure 24 Prevalence of bank accounts among businesses in Nepal



Even among those who did have a bank account, respondents reported that about three quarters of their transactions took place in cash. As expected, the reliance on bank transactions increases with size, but even for businesses in the LTO, 22% of transactions took place through cash (see Figure 25).

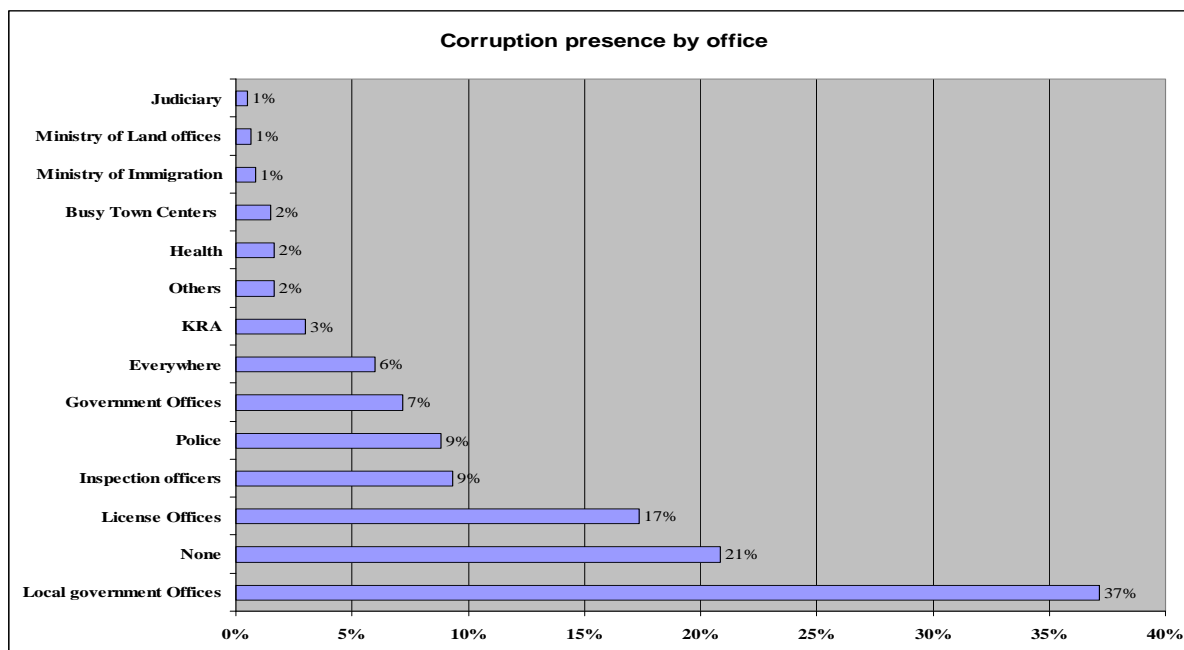
Figure 25 Reliance on bank transactions by turnover in Nepal



Source: IFC (2012) forthcoming

Businesses’ perceptions about tax officials can also provide useful information. In Kenya, while most government agencies are considered to be relatively corrupt, the KRA is among the more transparent agencies as reported by the business community (see Ranking in Figure 26).

Figure 26 Perception of ranking of agencies in Kenya by prevalence of corruption



Source: IFC 2011 [Kenya]

In addition, the KRA received relatively good marks from formal businesses for competence, fairness and helpfulness, while tax legislation was perceived mostly as clear and transparent (see Figures 27 – 30).

Figure 27 Perception of Kenya Revenue Authority – percent of formal sector businesses rating KRA on the competence of tax officers

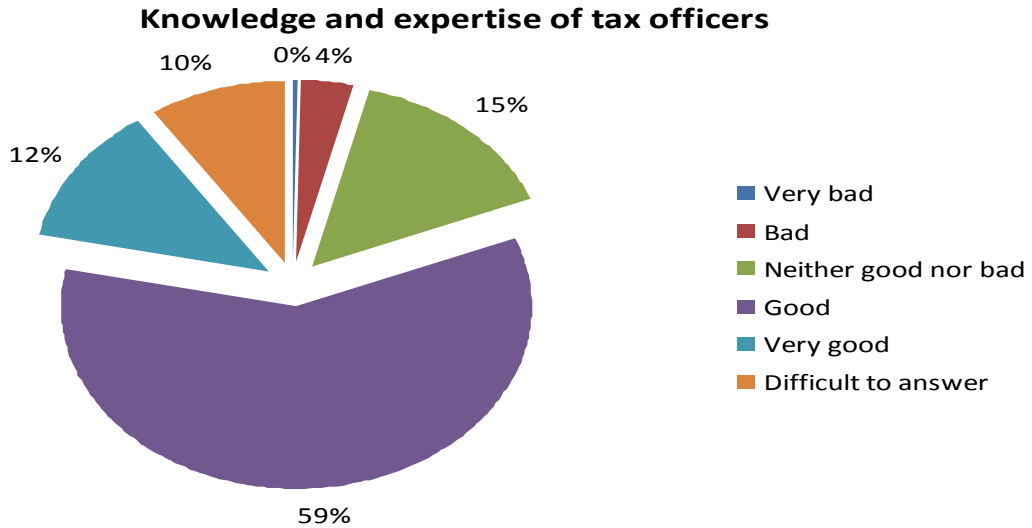


Figure 28 Perception of Kenya Revenue Authority – percent of formal sector businesses rating KRA on the helpfulness of tax officers

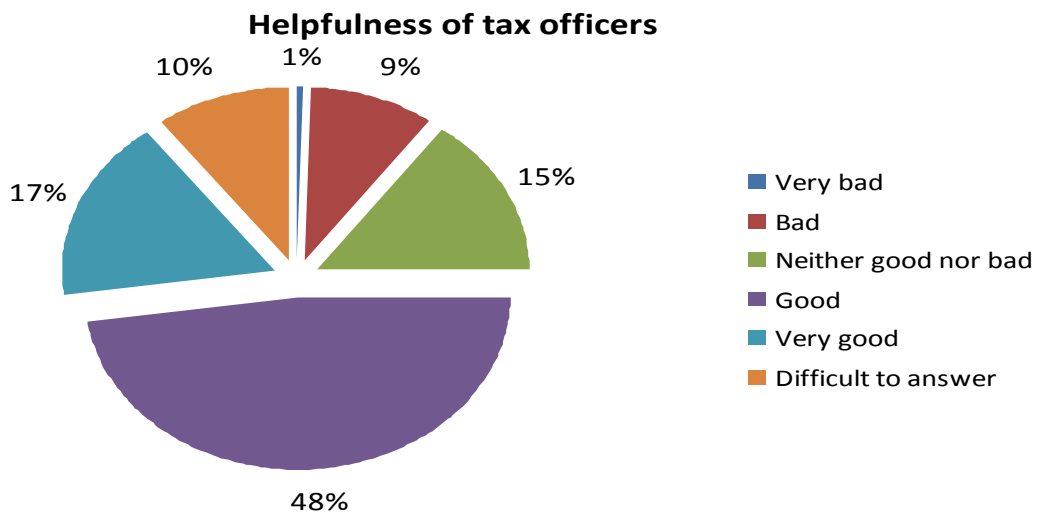


Figure 29 Perception of Kenya Revenue Authority – percent of formal sector businesses rating KRA on the fairness of tax officers

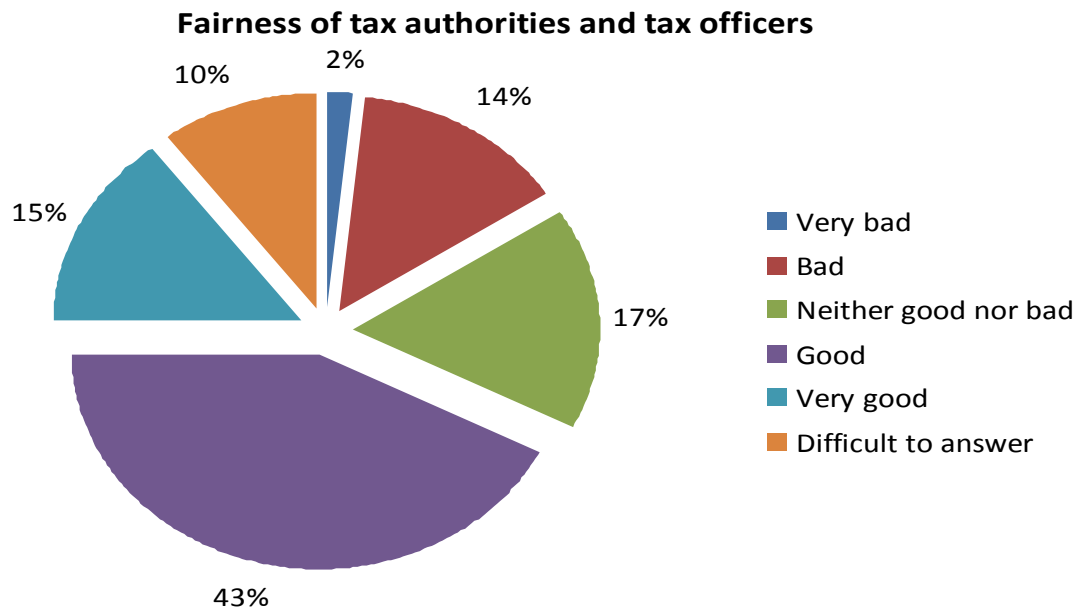
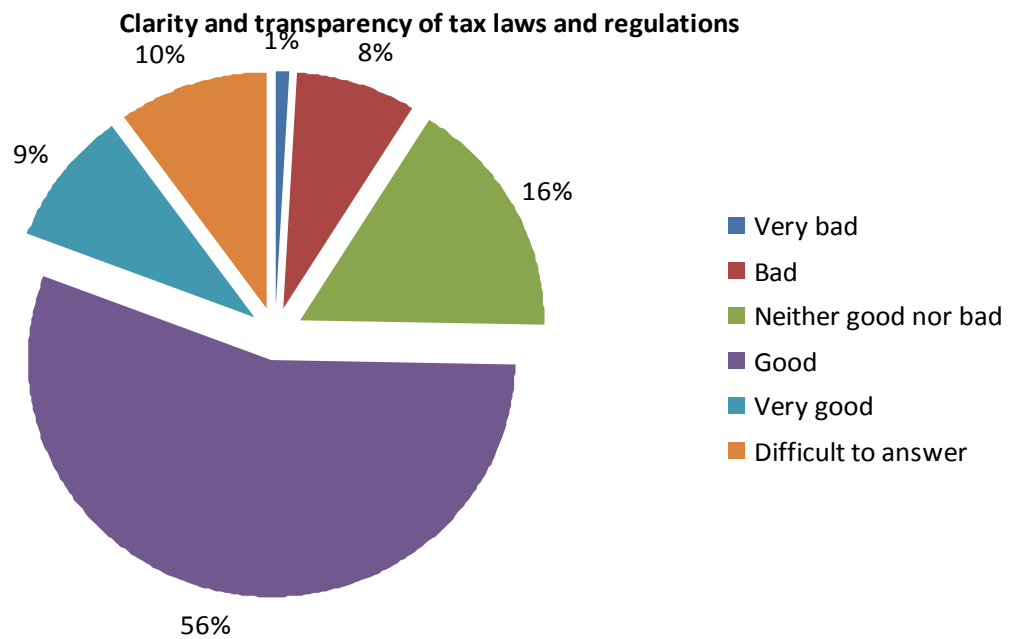


Figure 30 Perception of clarity of tax laws and regulations in Kenya



Source: IFC (2011) [Kenya]

5. FUTURE RESEARCH AGENDA

So far, there has been very little research or statistical analysis of the TCCS data beyond relatively superficial descriptive statistics, as presented in this paper. Two pieces of more in-depth research on the data from South Africa were undertaken: one analyzing the use of outsourcing by small businesses¹⁹ and the other examining the demographics and attitudes of informal businesses regarding tax registration.²⁰

Plans are currently in train to analyze the data from as many countries as possible to examine some of the key drivers of TCC that could be improved by reforms in developing countries: specifically, presumptive taxation for small businesses, use of accounting software (compared to manual accounting) and use of e-filing and e-payment.

Other ideas being considered include analyzing the effects of Risk Based Audit on tax compliance costs and perceptions, and others would focus more on the effect of tax morale and perceptions, as well as TCC, on decisions about tax formalization and compliance. More robust research will become possible as more countries enact reforms and repeat their TCCS.

Such research is expected to help inform tax reforms in developing countries that will not only reduce tax compliance costs, but also encourage more informal businesses to register for tax and encourage formal businesses to comply more fully, broadening the tax base and improving a level playing in business taxation.

APPENDIX A

TCCS METHODOLOGY²¹

Common methodological issues include the sample size and sampling methodology. One of the first questions in preparing the TCCS in each country has always been to figure out how many respondents are needed (sample size). And the answer is “It depends”. But a blanket answer “the more – the merrier” is generally misleading.

The mathematics of probability shows that the size of the population (e.g., for a country with a business community of several thousand versus many millions) is practically irrelevant to the decision. This means that to achieve a confidence interval of 3% and confidence level of 95%²² one would need a sample of 1,056 respondents

¹⁹ Coolidge, Ilic and Kisunko (2009).

²⁰ Coolidge and Ilic (2009).

²¹ Thanks to Gregory Kisunko.

²² The margin of error, a.k.a. confidence interval (the plus-or-minus figure usually reported in newspaper or television opinion poll results) of 3% tells you that if 55% percent of your sample picks “X” as an answer, you can be “sure” that if you had asked the question of the entire relevant population between 52% and 58% would have picked that answer. The confidence level tells you “how sure” you can be,

for a population of 100K and a sample of 1,067 for a population of 10 million ... and for a population of 100 million. The mechanics of proper sampling are more important.

Having a tight confidence interval is particularly desirable for purposes of assessing whether a change over time might be attributable to a particular reform (e.g., whether introduction of a new small business tax regime led to a significant reduction in time required for TCC).

The number of needed respondents can grow rapidly if one wants to have high levels of confidence for specific sub-populations. For example, if you want to have high confidence at a provincial level and you targeted country has 10 provinces; or if you would want to compare small, medium and large taxpayers and have the same confidence in the results for each group, etc.

It is important to know the availability and quality of data about taxpaying population of interest. The best data source - database from the tax authority (for example, covering business taxpayers that filed a tax return in the previous tax year), but in many cases this database is not readily available, either because of legal confidentiality of tax data or lack of a centralized, computerized database of business taxpayers (for more detail, please see IFC (2011)).

If the taxpayer database is not available, other sources of information and other databases should be explored (such as a statistical office database, commercial registry database, court registry database, or any other kind of appropriate, available database). These should be considered second-best options because they usually contain a lot of "dead" firms (whereas the database of taxpayers should include data on which firms filed in the most recent tax period and the tax regime used by each business taxpayer).

If no database of any kind is available, alternative survey approaches and sampling methods can be considered. Examples used for TCCS include:

- Area-based sampling (used in South Africa for a survey of informal firms and in the Republic of Yemen for most of the survey)
- Screening used in Ukraine (where a database on sole proprietors was collected in front of tax offices during tax filing by counting clients and doing screening interviews).
- As a last resort, a "snowball" technique may be used to facilitate fieldwork.

i.e. how often the true percentage of the population who would pick an answer lies within the margin of error. The most commonly used confidence level is 95%. Taken together with the margin of error, these mean that you can say that you are 95% sure that the true percentage of the population that picked X is between 52% and 58%.

However, such alternatives usually result in less representative data and fewer options for generalization.

Another important factor when choosing the sampling strategy and technique is the capacity of the survey company contracted to execute the survey. Planning a complex survey strategy and complicated survey techniques for a contractor with limited survey capacity and ability to execute such a sampling strategy may be a waste of resources.

After reviewing the population structure, some changes are usually made in sample structure relative to a purely representative picture. Most businesses in all countries are small, and a simple representative image of the population in the sample would leave only a handful of medium-size and large businesses. The same situation often exists with sectors, where the dominant sector is usually trade.

For this reason the approach taken in most WBG TCCS has been stratified random sampling, which means that the number of small and trade businesses is reduced relative to the simple representative image to give more room in the sample for businesses of different sizes and sectors. This technique then requires reweighting the survey data to reflect the actual proportions of the different strata within the actual population.

Surveys may also cover groups other than businesses registered for taxation. South Africa's TCCS was composed of three separate surveys that require somewhat different sampling approaches and techniques (see Figure A-1, below):

- Survey of micro, small, and medium-size enterprises registered for taxation (representative survey based on stratified random sample from SARS database, done "face to face")
- Survey of informal businesses—those not registered for taxation (area based sample in same geographic locations as formal businesses, using telephone)
- Survey of tax practitioners or intermediaries (invitation to all members of the main associations of accountants and bookkeepers with e-mail addresses, using a web-based survey)

Figure A-1 Advantages and Disadvantages of different survey methodologies

Feature	Face to face	Telephone	Online
Questionnaire duration	Long	Short	Long
Relative response rate	High	Medium	Low
Sensitive information likely to be provided by respondents?	Yes	No	Maybe
Possible to use assisting materials?	Yes	No	Yes
Possible to use accreditations and references?	Yes	No	Yes
Level of contractor capacity needed	Medium	High	High
Cost	High	Medium	Low
Fieldwork duration	High	Medium	Medium/ Low

Source: IFC (2011) pg. 30.

When surveying informal businesses, there is little hope that any kind of statistically reliable data will be available. For this reason area-based sampling is usually used, an approach that involves selecting a number of locations in which it is assumed an informal economy exists and then, using certain techniques, selecting businesses to interview. It is much harder to control the quality of sampling in such a survey, but it can be achieved using experienced supervisors who track the fieldwork process on the spot.

Sampling for surveying intermediaries usually presumes using list-assisted random sampling of available respondents and if using a web-survey, often contacting all available respondents. This is why support from professional associations is so important in these cases. It is advisable to attempt such surveys only in countries where associations of this nature are strong and most practitioners belong to them. In the Peru and South Africa TCCSs all members of the official accountant associations were contacted, but this was only possible due to the method used: web-based surveys.

One of the main drivers of the type and size of a survey is COST. Usually the first question on the mind of a project manager is: "How much would this cost?" The range of variation is very wide, with the most important variables usually the availability of skilled labor and competitiveness of the market for survey companies. Countries such as India can be relatively inexpensive for even a quite sophisticated survey. Unfortunately, for many small, low-capacity countries, the costs can be quite high.

Other variables include:

- Research agenda;
- Type of survey (e.g., face-to-face surveys are generally more expensive);
- Expected coverage (deeper coverage, e.g. provincial level, etc. = higher cost);
- Targeted population(s);
- Level of involvement of the WB staff and/or experienced international consultants.

For example, in South Africa, where the cost of skilled labor is extremely high, the survey of 1,000 formal and 1,000 informal businesses cost about \$450,000, while a web-survey that yielded a sample of over 2,500 tax practitioners cost less than \$50,000.

The Research agenda usually manifests itself in two ways – in the length/detail of the questionnaire and depth of analysis. Both affect the cost, the former by making the fieldwork longer and more expensive, the latter by the need either to find the most sophisticated contractor or (more often) higher level of involvement of the WB staff and experienced consultants. The latter, while expensive are usually the main “tool” of quality assurance and source of more sophisticated data analysis (see Figure A-2).

Figure A-2 Roles of Team Members in a TCCS

Project Leader: Is the immediate client of the TCCS (who is working closely with the project client – the government). You can compare this to someone who is commissioning a large new building construction. This person may be relatively more or less experienced in this role.

Survey expert: Is like the “supervising engineer” for the large building. He/she is responsible for the design and supervision of the construction, according to the needs of the consumer and ensuring both good building standards and appropriate cost control.

Survey company: Is like the contractor who actually builds the building. The company should be well qualified and experienced, but they still need supervision to ensure they don’t cut corners or over-charge the customer.

In other words, good quality and poor quality surveys can be compared to buildings: if there are flaws (e.g., too much sand mixed into the concrete) it won’t be obvious to the customer until it’s too late. For example in the earthquake in Szechuan province, some buildings fell down and others withstood the earthquake. A lay-person couldn’t tell which ones would stand and which would fall, but it was certainly not a random phenomenon.

In the case of surveys, a good quality survey yields robust and reliable survey data and a poor quality survey yields data that do not stand up to scrutiny. For example, if questions in the questionnaire were somewhat ambiguous (e.g., “what is the average wage for your bookkeepers”), some respondents may interpret and answer the question one way (wages per month) and others may interpret and answer the question another way (wages per week) and you might not know which ones answered which way. Such data have to be discarded.

Lack of clear definitions, poor translation, and/or poor training of interviewers may also lead to inconsistent answers and thus data that can’t be used. Poor supervision of (or collusion with) interviewers may lead to “curb sitting” (interviewers who sit on a curb and fill out interview reports without bothering with a real interview). Sloppy input of data can introduce more errors.

Another problem might be lack of detail or specificity (e.g., expenditure categories of “material inputs”, “payroll” and “rent” and “other” which does not ensure that a respondent remembers to include the cost of equipment purchased in years past and is still being depreciated on the company books).

Samples that are too small may yield data with such large statistical errors that the “signal” can’t be distinguished from the “noise.” Samples that are not representative may yield data that are biased.

“Data cleaning” is usually needed to eliminate erroneous responses, but it’s hard to distinguish between an error and an “outlier” (a true but extremely unusual response, such as a delay in a procedure of several years). How one defines, identifies and treats “outlier” data can make a substantial difference.

Finally, every survey has some data that, upon examination, may have to be discarded. A poor quality survey may have so little usable data left that the whole exercise lacks credibility, in which case the entire cost and effort of the survey has been wasted.

Source: IFC (2011) pg 17.

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