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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

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 a 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.

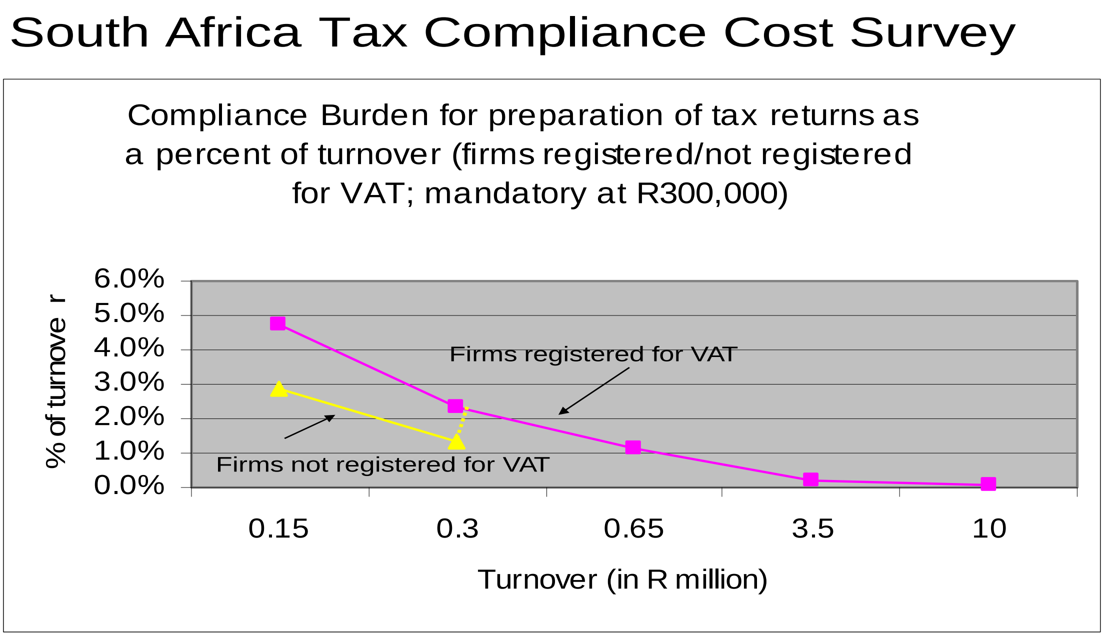
designed to simplify the tax regime, require time for taxpayers to learn about them. In the case of Armenia, which enacted several major tax reforms in the year before the survey took place, taxpayers reported spending an average of over 80 hours (above and beyond the amounts reported above) just on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

Of course, there are several caveats and limits 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.h

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



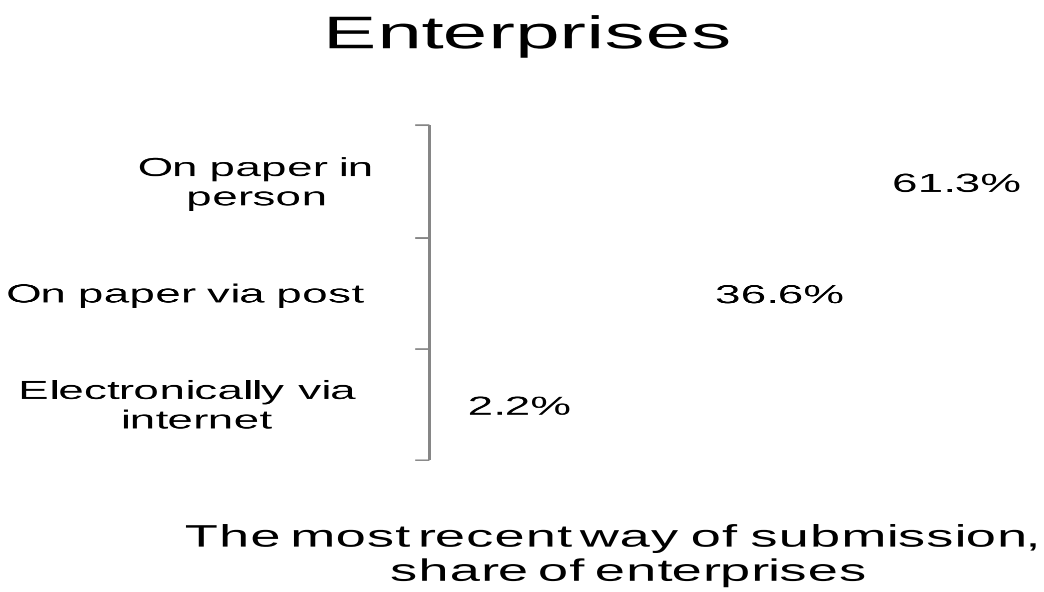
Source: FIAS 2007

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

Figure 6: Ways of submitting tax reports in Armenia



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.

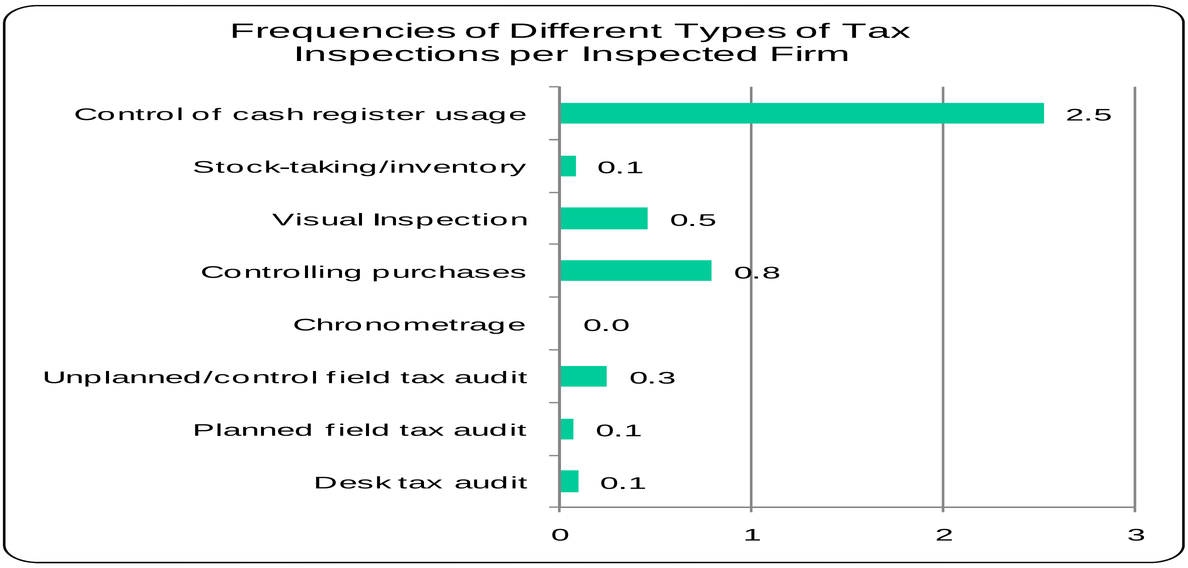
[14] In other countries, use of computers and software does not appear to be associated with such a large reduction in time. Some observers have speculated that the availability of tax software facilitates and encourages more "tax planning".

Figure 7: Staff time required for financial reporting and tax compliance in Uzbekistan (staff-

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.

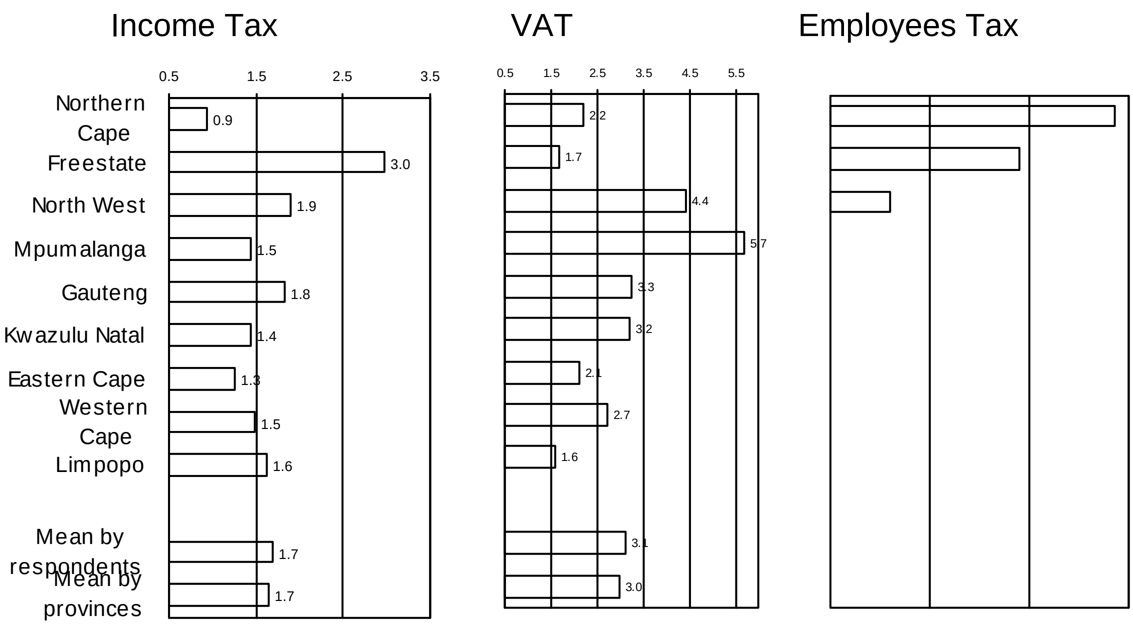
visual inspection: A visual inspection of premises without checking accounting documents, stock, etc.

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)

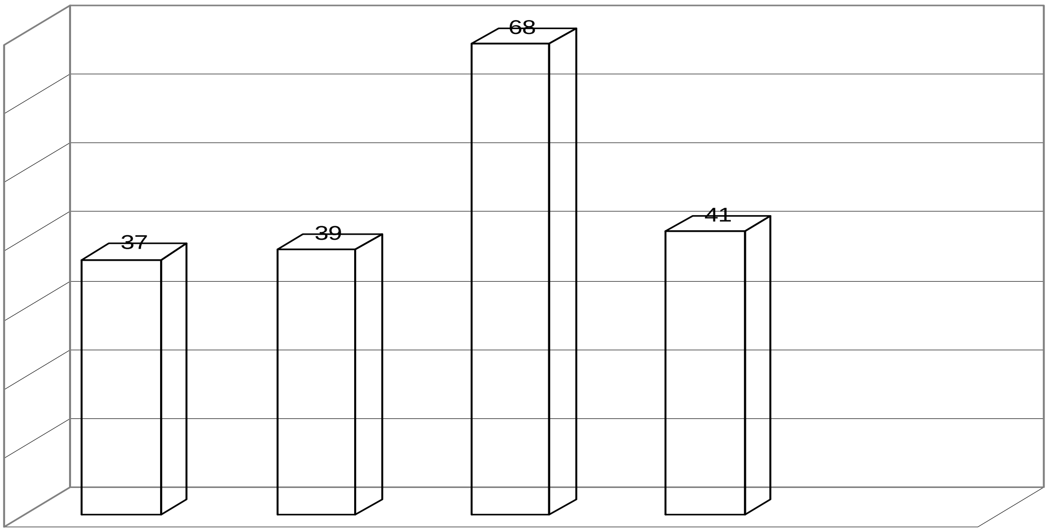
From the point of view of business taxpayers, any visit from a tax official, no matter the duration or purpose, is a disruption to their work schedule and a cause for anxiety. From the point of view of those of us interested in improved governance and transparency, such visits are potential opportunities 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 business owners are legally liable for income tax on all their earnings.[17]

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

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



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

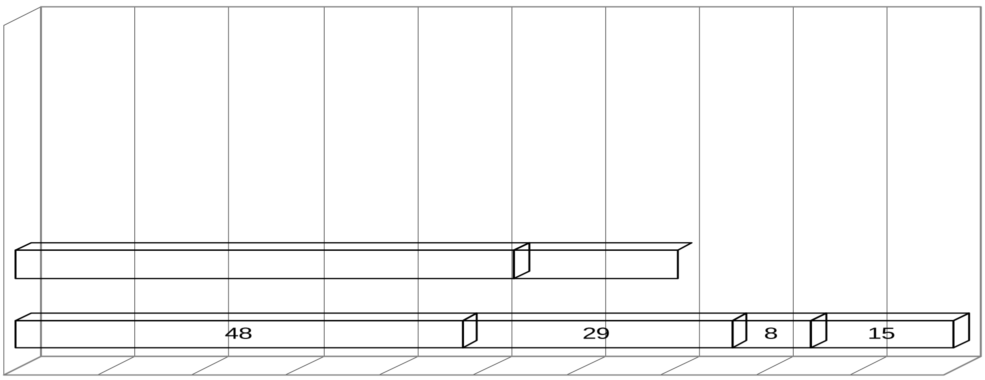
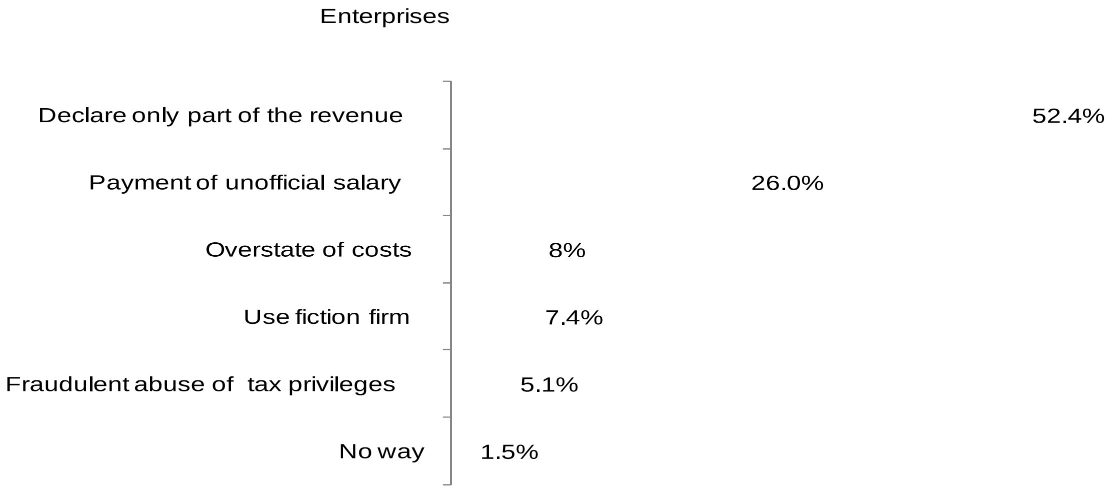


Figure 23 The most popular methods of tax evasion for enterprises in Armenia



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

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

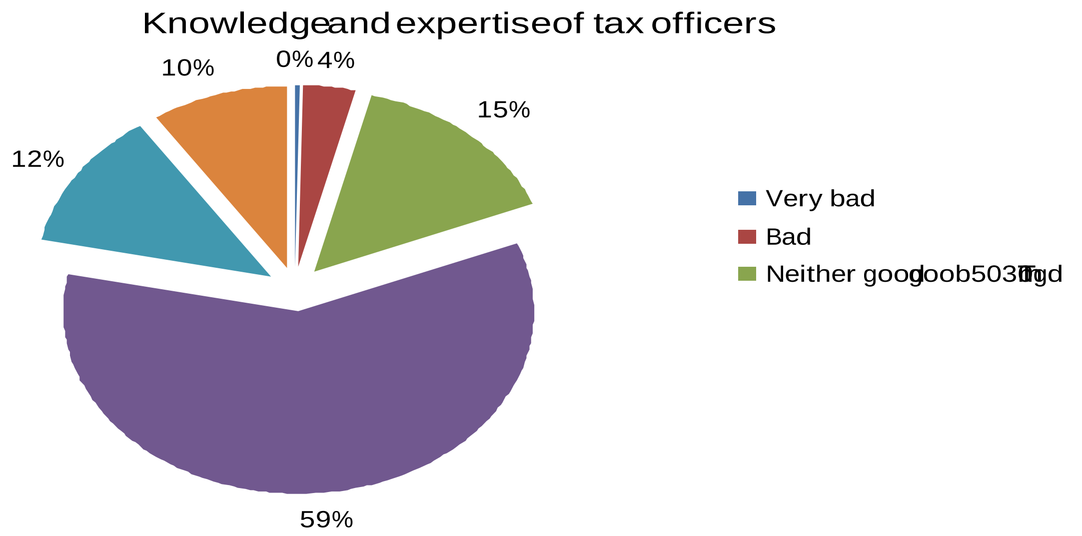


Figure 28 Perception of Kenya Revenue Authority – percent of formal sector businesses rating KRA on the helpfulness of tax officers

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

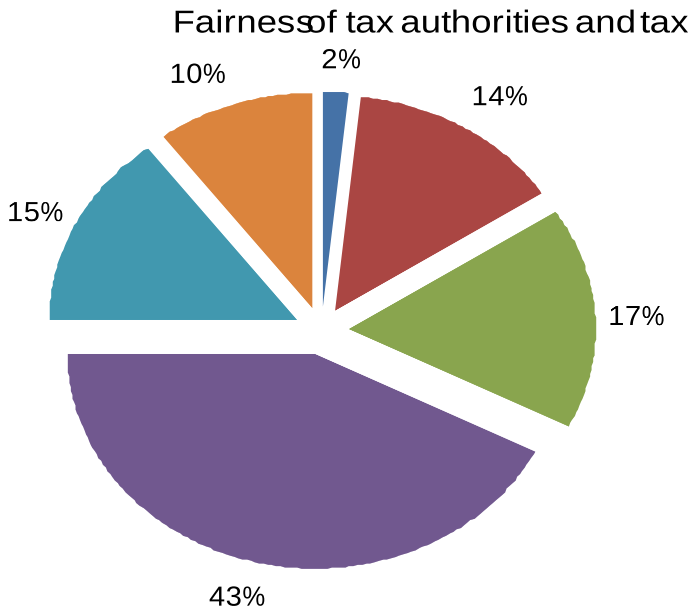


Figure 30 Perception of clarity of tax laws and regulations in Kenya

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 businesses[19] 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 METHODOLOGY[21]

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

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[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.

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

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

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 sw [[[[[si.6(63u1.7(er. 4)]TJ8g.ite clien)6 b: Is then 2s(ys[si.618 Tcs.7(el73(n)4.6)n98 70.90-4.3(il
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