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**PERFORMANCE MEASUREMENT IN AFRICAN  
SEMI-AUTONOMOUS REVENUE AUTHORITIES:  
THE CASE OF KENYA, SOUTH AFRICA AND  
TANZANIA**

How can Performance Measures in African  
Semi-Autonomous Revenue Authorities (ARAs) be  
Strategic, Efficient and Effective?

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Elizabeth Judy Nyawira KARIUKI

## **Abstract**

Semi-autonomous revenue authorities (ARAs) have been established all over the world as a distinctive institutional model outside the traditional public service aimed at enhancing tax administration, and thereby raising tax revenues. In order to boost the robustness of their operations, substantial expenditures have gone towards modernising ARAs. Expenditures have been guided by medium-term corporate-wide plans, and the results monitored, assessed and reported using performance measures.

Performance measurement has proved challenging for ARAs to implement and sustain in practice. Some of the challenges evolve around weak capacity, implementation costs, issues to do with quantification, competing demands from a wide range of constituents, the inappropriate selection of measures and a bias towards performance measures that focus on finances. As a means for enhancing performance measurement, there are practices, lessons and theoretical perspectives that can be discerned from the broad-spectrum of literature on performance measurement in the public sector and ARAs from around the world.

This thesis explores how performance measurement in African ARAs can be more strategic, efficient and effective by ascertaining which key factors shape its adoption. The research focuses on the in depth study of three ARAs in Sub Saharan Africa, involving a combination of structured interviews with internal and external stakeholders, the administration of a survey instrument and review of ARA documents. The final chapters of the thesis deploy fuzzy set logic techniques to identify and test the significance of various causal conditions in the adoption of performance measurement in ARAs, as a plausible answer to the research question.

### **Keywords**

Key performance indicators, revenue authorities, efficiency, effectiveness, strategic, case study.

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## **Dedications**

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## List of publications

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Kariuki, E. and Kiragu, K. (2011) Public Sector Domestic Resource Mobilization. In: L. Adamolekun (Ed.) *Public Administration in Africa*. 2nd ed. Ibadan: Evans Brothers, pp. 94-112.

## List of abbreviations

$H_p$	Hypothesis
A	Pragmatism condition
ABS	Association of Business Schools
AEO	Accredited Economic Operator
AGSA	Auditor General of South Africa
AIR	Annual Implementation Report
ANC	African National Congress
ARA	Semi-Autonomous Revenue Authority
ATAF	African Tax Administrators Forum
ATO	Australian Tax Office
B	Use of good practices in setting outcome KPIs condition
BoD	Board of Directors
BSC	Balanced Scorecard
C	Target setting condition
CAG	Controller and Auditor General
CATA	Commonwealth Association of Tax Administrators
CFA	Clearing and Forwarding Agent
CITPROD	Corporate Income Tax Productivity
CRA	Canadian Revenue Agency
D	Policy and legislative requirements condition
DEA	Data Envelopment Analysis
E	Structure of the revenue base condition
EC	European Commission
eFiling	Electronic Filing
EPMF	Enterprise Performance Management Framework
ERS	Economic Recovery Strategy for Wealth and Employment Creation
F	Performance culture condition
FDH	Free Disposal Hull
fsQCA	fuzzy set Qualitative Comparative Analysis
G	Priority information demanded by external stakeholders - condition
GDP	Gross Domestic Product
H	Data cost and quality condition
HMRC	Her Majesty's Revenue and Customs
ICT	Information and Communication Technology
IMF	International Monetary Fund
IRAS	Inland Revenue Authority of Singapore
IRD	Inland Revenue Department of New Zealand
IRS	Internal Revenue Service
ISO	International Organization for Standardization
ITD	International Tax Dialogue
KPI	Key Performance Indicator
KRA	Kenya Revenue Authority

MAU	Method and Multi Attribute Utility
MKUKUTA	National Strategy for Growth and Reduction of Poverty
MRA	Mauritius Revenue Authority
MTEF	Medium Term Expenditure Framework
NAO	National Audit Office
NE	Not Explicit
NHS	National Health Service
NPM	New Public Management
O	Outcome
OECD	Organization for Economic Cooperation and
Development	
P	Proposition
PCD	Performance Contracting Department
PE	Physical Education
PEFAR	Public Expenditure and Financial Accountability Review
PFM	Public Financial Management
PFMR	Public Financial Management Reform Programme
PITPROD	Personal Income Tax Productivity
PMBO	Programme Management and Business Analysis Office
PSM	Public Service Motivation
PSO	Public Sector Organisation
PSV	Public Service Value
QCA	Qualitative Comparative Analysis
RARMP	Revenue Administration Reform and Modernization Programme
RP	Research Paradigm
SARS	South African Revenue Service
SSA	Sub Saharan Africa
TAP	Tax Administration Project
TAS	Taxpayer Advocate Service
TI	Transparency International
TMP	Tax Modernisation Project
TRA	Tanzania Revenue Authority
TRAMED	TRA Monitoring and Evaluation Database
UK	United Kingdom of Great Britain and Northern Ireland
UNDP	United Nations Development Programme
USA	United States of America
USAID	United States Agency for International Development
VAT	Value Added Tax
VATGCR	Value Added Tax Gross Compliance Ratio

# 1 Background and context

## 1.1 The rationale for establishing specific agencies to administer tax revenues

Enhancing the efficiency and effectiveness of operations as well as broadening the tax base as a means for financing high priority public spending, remains one of the key goals in many countries in Sub-Saharan Africa (SSA) (Devas et al., 2001). Increased tax revenues also enable such countries to: “mitigate the adverse impact of volatility and uncertainty in aid flows” (Gupta and Tareq, 2008:2); and meet their debt obligations (Fjeldstad and Moore, 2008). To these ends, on the one hand, tax policies need to be promulgated which raise revenues and at the same time stimulate economic growth, encourage formalisation in the economy, and are simple, efficient equitable, and politically acceptable ((Bird, 2008); (Fjeldstad and Moore, 2008)). On the other hand, a sound system for administering tax policies is needed which does not vary from policy objectives as variations “may distort the intended economic and trade policies and revenue yields” (Jenkins, 1994: 75). Yet, according to Jenkins et al. (2000), tax administrations in most-low income developing countries have been plagued by corruption, inefficiency and a lack of transparency. It is claimed that “fiscal corruption solely from the revenue/tax side of the public budget generates a tax gap and reduced tax system neutrality and progressivity” (Mann, 2004: 43).

In response to the problems above, since the 1990s, responsibility for the administration of tax laws and the collection of taxes in many Anglophone African countries has been assigned to semi-autonomous revenue authorities (ARAs) established by statute. An ARA is typically headed by a

Chief Executive Officer, who reports to a management Board consisting of up to 15 members from the public and private sectors (Kidd and Crandall, 2006). The introduction of ARAs has been influenced by donor agencies and institutions such as the International Monetary Fund (IMF) which plays a prominent role in “ensuring the fiscal health of governments in poor countries” (Fjeldstad, 2009: 11). According to the IMF, the experience of many countries is that such change, “is easier when the organization is relatively autonomous” (Silvani and Baer, 1997: 29). Moreover, the IMF’s take on ARAs is that they:

*“Can lead to better performance by removing impediments to effective and efficient management while maintaining appropriate accountability and transparency” (Crandall, 2010b: 1).*

Following their formation, substantial expenditure outlays have been made to transform ARAs. Investments are informed by a series of medium-term plans/programmes for each organisation covering periods of three to five years. It is noteworthy that reforms in ARAs cover a range of areas including: segmenting service provision to various groups of taxpayers (small, medium and large); simplifying tax procedures; introducing self-assessment; and reengineering and automating business processes ((Silvani and Baer, 1997); (Fjeldstad and Moore, 2008); (IMF, 2011)). For example, ARAs have taken advantage of technology to reengineer and automate their internal and external processes and systems with a view to enhancing efficiency of operations and voluntary compliance. Areas amenable to automation include: “(1) taxpayer records and tax collection; (2) internal management

and control over resources; (3) legal structure and procedures; and (4) systems to lower taxpayer compliance costs” (Bird and Zolt, 2008 : 15). The adoption of quality standards such as the International Organization for Standardization (ISO) 9001:2008, are also commonplace – in this regard the work of Demuzere et al (2008) finds that high levels of organisational autonomy promote the use of quality management tools. So are techniques such as risk profiling, which aim to target high risk taxpayers (e.g. evaders or delinquent individuals and firms) for audits and investigations.

The widespread establishment of ARAs is often associated with the new public management (NPM) doctrine. A common feature of NPM is ‘corporatisation’ through for example the establishment of executive agencies ((Polidano, 2001); (Devas et al., 2001)). Executive agencies were originally set up in developed countries to undertake public service executive functions in terms of more efficiently managing costs and delivering services, within a policy and resources framework determined by their respective parent ministries (Talbot, 2004). ARAs in SSA countries constitute the product of corporatisation of customs and excise and income tax departments, which previously fell under each country’s Ministry of Finance. According to Chand and Moene (1999), ARAs have greater freedom to “raise salaries [and minimise corrupt practices], shed poor performers, hire better-qualified staff, offer bonuses linked to revenue targets, and operate on a self-financing basis” (Polidano, 2001: 48). They are also less encumbered by political interference ((Devas et al., 2001); (Fjeldstad, 2003)). For instance, the establishment of an ARA extricates “enforcement policy from the political

arena and [allows it to] operate according to its own professional standards” (Taliercio, 2004a: 217).

ARAs in a number of SSA countries have to varying degrees adopted another feature of the NPM, performance management, to gauge progress in achieving the goals articulated in their strategic plans. The NPM approach “asserts that performance is more likely to be ensured when public agencies make a shift to meet objectives rather than follow rules” (McCourt, 2001: 109). Under such a regime performance measurement is a key feature. The Organization for Economic Cooperation and Development (OECD) has been a strong advocate for measuring performance in the public sector as a means for: (1) enhancing operations by monitoring results; (2); improving accountability to stakeholders; and (3) promoting fiscal restraint through the realisation of efficiencies (OECD, 1997). A recent study of ‘Tax Administration in OECD and Selected Non-OECD Countries’ identified the increased use of performance measures to quantify levels of compliance, satisfaction with levels of services and taxpayers’ compliance burden. In addition, revenue administration bodies are progressively “setting targets that focus on the outcomes to be achieved and which are made public, and against which progress is reported in annual performance reports” (OECD, 2009: 68). The IMF has drawn on the practices in revenue administration bodies in OECD countries to elaborate on how ARAs in developing countries can implement performance management systems at a strategic, operational and individual level (Crandall, 2010c).



## 1.2 Some trials and tribulations around performance measurement in ARAs

Greiner (1996) suggests that public sector organisations (PSOs) face four obstacles in performance measurement. First, many PSOs lack 'institutional readiness' as: there has been no history of using performance measures in the public sector; some governments are not open and/or confident enough to report poor performance; and the right institutional incentives are not in place. Second, PSOs tend to be pragmatic in that they imitate each others' practices. However, when they perceive that an initiative such as performance measurement is not used effectively, a PSO will avoid adopting it. Third, there are technical obstacles. For instance, in a public sector setting there is a multitude of data needed to cater for a wide-range of constituents. It is also difficult to make information available on a timely basis. Fourth, implementing performance measurement systems can be expensive.

The same author suggests that some of the challenges described so far, are expected to be ameliorated as a result of research aimed at improving the performance measurement process and from technological developments. Furthermore, resource constraints and demands for value for money by citizens and civil society are likely to promote the use of performance measures by PSOs.

In the context of ARAs, additional challenges persist. The literature on the performance of ARAs, particularly those in developing countries, indicates that they struggle with the issue of quantification. "Most administrations do not collect or analyse data that could permit specific conclusions to be drawn" (Kidd and Crandall, 2006: 42). This gap partly arises because

operational research capacity in ARAs is weak. Such capacity is needed to collect, organise, store, monitor, analyse and report on indicators of efficiency and effectiveness of various strategic initiatives (IMF, 2011).

Even when an ARA does maintain performance data, they can be rather simplistic and/or are not always comprehensive and/or are overwhelming in terms of the available types of indicators that can be collected. With respect to simplicity, Serra (2005: 123) suggests that “lack of quantitative data (or knowledge) may tempt policy makers to employ” simple measures of performance – which in turn can encourage ARA staff to maximise scores at the expense of attaining institutional goals (James et al., 2006). What is more, assessing the effect of reforms in an ARA “on revenue itself...can be especially difficult, since they take time, are complex, and rarely lend themselves to experiment-type evaluation” (IMF, 2011: 19). It is also noteworthy that several ARAs in SSA are at various stages of implementation of balanced score card (BSC) measures which can be problematic. The BSC in a public sector setting may be an impediment as: there are multiple stakeholders with “differing agendas and requirements” (Mc Adam et al., 2005: 270); there is no single ‘bottom line’ (Cole and Parston, 2006: 44); and goals are often ambiguous (Johnsen, 2001).

On the issue of comprehensiveness of performance measures, James et al. (2006: 9) consider that “tax performance, particularly, in developing countries, is ordinarily evaluated by the taxable capacity and tax effort”. In this regard, for instance, ARAs are held accountable to politicians and Ministries of Finance primarily on the basis of achieving revenue collection

targets (i.e. tax as a percentage of Gross Domestic Product (GDP)). Yet an indicator such as tax as a percentage of GDP depends on factors which are outside an ARA's control (e.g. the health and structure of the economy). Besides "a sole focus on this indicator is insufficient for adequately reflecting administrative performance" (Von Soest, 2007: 356) – this is especially so where a medium-strategy is in place with clear objectives and goals. This narrow scope might be explained by difficulties in identifying appropriate indicators which measure the extent of achievement of goals/objectives. According to the OECD (2009: 67):

*"Even countries that have been using this approach for over fifteen years continue to struggle with issues of measurement; this is especially the case for 'outcomes'. A key challenge for all countries is obtaining good quality information which is valid, reliable, and timely".*

Guidance on which performance indicators can be used by ARAs specifies an overwhelmingly large list of potential measures. Mann (2004) provides almost 200 possible input, process and output indicators. Furthermore, several of the indicators listed appear to be subjective (e.g. changes in tax laws that shift administrative costs from tax agency to taxpayers and/or vice-versa) and/or difficult to measure (e.g. coordination of information flows with other external entities, especially the Ministry of Finance, the Central Bank, and the planning ministry). Besides, the same author does not appear to define the hierarchy or identify the linkages between the menu of indicators and outcomes.

It is also significant that ARAs in both developing and developed countries do not use a common set of definitions and measures. For instance: one measure of an ARA's effectiveness is the degree of voluntary compliance; another is the extent to which an ARA meets its objectives; and yet another is its ability to fully apply fiscal policies (Klun, 2004). Whilst such disparities may reflect differences in initial conditions, they make benchmarking across ARAs problematic. Still according to a recent publication by the IMF (2011: 19), some common measures that can be used to assess performance of an ARA include: "tax gaps, audit recovery rates and the level and pattern of arrears". It is however noteworthy that all four measures have a financial orientation. Besides, there is a view that robust empirical studies do not form the basis for computing tax gaps (Therkildsen, 2004).

Strategies and associated key performance indicators of an ARA are not necessarily congruent. For instance, as a means of achieving what is commonly gauged as the ultimate performance measure, increased revenue as a percentage of GDP, an ARA may choose to focus on extracting more taxes from registered taxpayers using coercive methods which can contribute to "public perceptions of unfair treatment in tax administration...[and reduced] taxpayer compliance" (Therkildsen, 2004: 73). Also, such an intervention may adversely affect economic growth, and is often implemented at the expense of broadening the tax base by "identifying, locating and registering new taxpayers [which] can be difficult"(Fjeldstad and Moore, 2008: 257).

### 1.3 Purpose of the research and its intended contribution

Given the situation described above, this researcher considered that there was merit in further exploring the issue of performance measurement in ARAs. This thesis therefore explores how best to address the following question: ‘How can performance measures in African ARAs be strategic, efficient and effective?’ The strategic dimension investigates how ARAs identify, measure and manage “what matters in order to improve the effectiveness, efficiency and overall performance” of their organisations (Marr, 2009: 3). The efficiency dimension seeks to explore how ARA data for select indicators can be collected, maintained, analysed and reported at an affordable cost and in a timely manner. The effectiveness dimension aims to ascertain what issues ARAs take into account to ensure that measures as best as possible reflect the results being sought.

The underlying theme of the research is to ascertain which key factors (or causal conditions) shape the adoption of performance measurement. It should be noted that adoption (particularly in this researcher’s analysis) is understood to mean the take up or pursuit of particular performance measures, tools and methods (Oxford Corpus, 2009). This definition includes how they are put into effect, implemented or used. On the basis of these definitions, the researcher investigated themes such as: (1) performance measurement practices; (2) reliability of performance measures; (3) processes/routines in place; (4) commonly used performance measures in ARAs; (5) priority performance measures from the point of view of internal and external stakeholders; (6) the effect that political, strategic, policy and

legislative, cultural, cost and other factors have on the adoption of performance measurement systems; and (7) steps that can be taken to enhance the performance measurement framework.

The literature on ARAs suggests that they are similar to central banks in that “they generously borrow ideas and institutional technologies from one another” (Fjeldstad and Moore, 2008: 235). According to the same authors, many developed and developing countries have implemented comparable reforms in the area of taxation. Therefore, this research has been enriched by drawing on international practices in performance measurement in ARAs. The research also identifies performance measures developed for universal application by both bilateral and unilateral institutions, and assess their utility among ARA staff.

This author anticipates that this research will contribute to knowledge and management in several ways. First, the research will provide further insights as to the reasons why performance measurement has not received as much attention. Second, the thesis intends to promote greater levels of objectivity and reliability of performance measures by developing a comprehensive menu of metrics which can be used to assess an ARA’s accomplishments – as a result any existing performance measurement frameworks will be enhanced. Third, this researcher intends to propose processes for continuous data collection and analysis for management decision-making and evaluation purposes. Fourth, it is expected that the outputs from the research will contribute to operational research knowledge and practice in ARAs. Fifth, the adoption of the recommended performance measurement

framework by several ARAs in SSA will facilitate comparison of performance across various authorities. Sixth, this author's research is expected to enable improved focus by ARAs by assisting them to set and monitor the right measures and achieve planned results cost effectively.

#### **1.4 Outline of the remainder of this thesis**

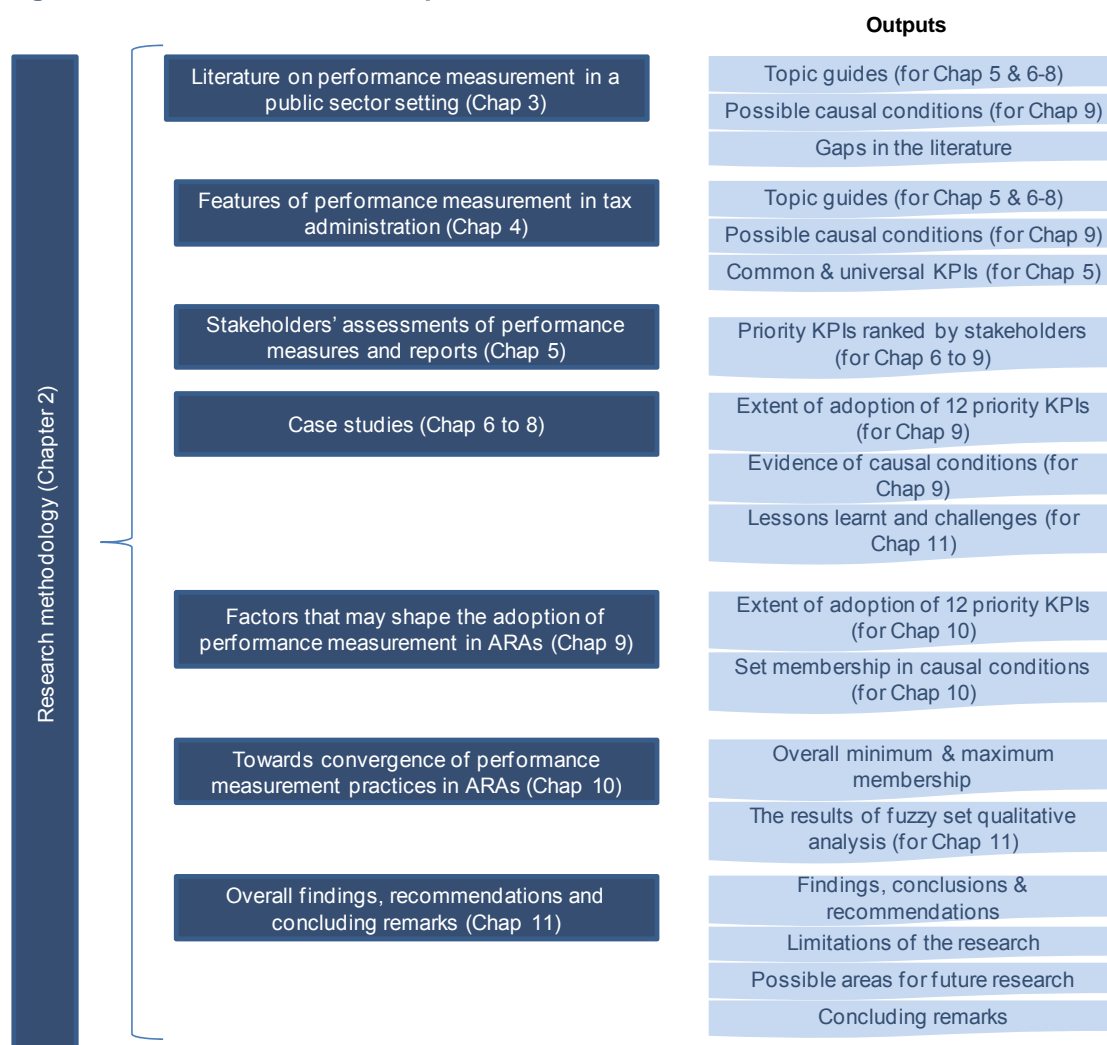
The remainder of this thesis is presented in ten chapters. Figure 1.1 sketches the flow between chapters, including what analysis feeds into which research step.

Chapter 2 outlines the research methodology, including the case for adopting a realist paradigm, and data collection and analysis methods used. Chapter 3 presents the results of the review of the literature on performance measurement in a public sector environment and: informed the design of topic guides; assisted this researcher to identify possible causal conditions for the adoption of performance measures; and pinpoints gaps in the literature.

Chapter 4 analyses the characteristics of performance measurement in tax administration in 9 Commonwealth countries and the United States of America (USA) which is English speaking and has strong ties with the United Kingdom (UK). The research drew on this chapter to: fill in some of the gaps detected during the broader literature review; further develop topic guides; identify additional causal conditions for the adoption of performance measures; and pinpoint commonly used and universal key performance indicators (KPIs) used in a survey questionnaire.

Chapter 5 presents internal and external stakeholders' perspectives on performance measures and reports. It sets out the results of a quantitative survey and interviews, and in particular two sets of 12 priority KPIs selected by ARA internal and external stakeholders.

**Figure 1.1: The flow between chapters**



Source: This researcher

Chapters 6, 7 and 8 set out the results of the research in three revenue authorities covering the following areas: a history of performance measurement; current strategic goals and KPIs; service request KPIs in charter; performance measurement processes and routines; lessons learnt, challenges and areas for further consideration. Chapter 9 uses the evidence



from the research as well as theory to assess the factors that shape the adoption of performance measurement in the three ARAs.

Chapter 10 seeks to identify dominant causal conditions that influence the adoption of performance measurement. Chapter 11 summarises the findings from the research, provides perspectives on this research's possible contribution to knowledge and practice and offers some recommendations on areas for further research as well as measures that ARAs could take to enhance their performance measurement arrangements.

## 2 Research methodology

### 2.1 The case for a 'realist' research paradigm

Considering this author's research question, and the themes she intends to explore, a critical realism paradigm (RP) appears amenable to her proposed work for several reasons. Her research topic involves the study of a complex social system involving 'reflective people' (Healy and Perry, 2000: 121). In this respect, critical realism recognises that social systems are open and evolving. Such systems are unlikely to achieve equilibrium in the same way that phenomena do in natural sciences (Sayer, 2000). Therefore, a critical realism paradigm not only explores what can be observed, "but also the world that lies behind appearances" (Chalmers, 1999: 226). This RP also supports the views that: (1) a wide range of research methods can be used; and (2) social science research can make theoretical generalisations based on a small sample using inferential techniques such as abduction and retrodution (Jakobsen, 2002). In addition, according to Robson (2002: 30) critical realism is "particularly appropriate for research in practice [including management and organisational analysis]".

In contrast, a positivist RP appears inappropriate for this author's research, as it is restricted to phenomena that the researcher is able to observe, and measure and make deductions using mathematical and statistical models. Positivism also does not recognise values as a source of knowledge, focussing only on "regularities or constant conjunctions between events" with a view to formulating laws (Blaikie, 2007: 111). It is noteworthy that an interpretive RP totally rejects positivism's quantitative orientation, advocating

that researchers should concentrate on the subjective meaning of behaviours observed. Interpretivism “calls for [research] methods [which are] radically different from, and foreign to those of natural science” (Lee, 1991: 347). Whilst critical realism recognises this feature of an interpretive approach, its proponents suggest that this RP offers room for “causal explanation” (Sayer, 2000).

In summary, in adopting a critical realism RP, given that the phenomenon to be studied is ‘real’ and can only be partially understood, this researcher expects her findings may probably be true as opposed to absolutely true in a positivist RP. In this regard, Pawson and Tilley (1997: 115) intimate that realistic driven evaluations at best deliver “a family of answers related by principles that emerge only over the course of much research”.

## **2.2 Research methods selected**

The literature suggests that a case study methodology is ‘instrumental’ for garnering a broad understanding and insights around this author’s research topic (Stake, 1995). A case study methodology is also suitable where: (1) the research topic poses a how or why question (Yin, 2003); (2) underlying in-depth questions seek to explore why certain issues or features are the way they are (Healy and Perry, 2000); (3) the question being addressed is in a ‘natural’ context (Hancock, 2006); (4) the issue at hand has a social context with many ‘realities’; (5) the phenomenon (performance measurement) is process and relationship driven (Denscombe, 2007); and (6) the anticipated outputs are theoretical as opposed to statistical generalisations (De Vaus, 2001).

In addition to the above, it is this author's intention to use multiple case studies by developing intensive knowledge of three ARAs. According to Herriott and Firestone (1983) multiple-case designs enable evidence to be garnered which is generally assessed to be "more compelling, and the overall study is therefore regarded as being more robust" (Yin, 2009: 53). This is especially the case when the researcher intends to draw theoretical generalisations (Denscombe, 2007).

The three ARA cases were shortlisted based on the following criteria – it is: a member of the Commonwealth; the best in class in the adoption of a performance measurement framework (South Africa); the best revenue performer in East Africa<sup>1</sup>, but not a rigorous user of performance measures (Kenya); a pioneer in the use of a performance measurement system in East Africa (Tanzania); a member of the Africa Tax Administrators Forum (ATAF), which aims to "promote efficient, effective and economic tax administration" through various reforms including modernisation.<sup>2</sup> Summary features of the modernisation initiatives in the three ARAs are presented in Table 2.1. In terms of the average level of revenues over the decade to 2008, South Africa not only led in terms of tax collections as a percentage of GDP, but also, recorded a growth in revenue collections of 3.4 percentage points. It is also noteworthy, that the South African Revenue Service (SARS) has over a period of years developed a far more comprehensive list of performance measures to monitor progress in implementing various reforms. However, the performance measures SARS uses to report performance have not

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<sup>1</sup> It collects the highest revenue as a percentage of GDP.

<sup>2</sup> See [www.ataftax.net/](http://www.ataftax.net/)

remained consistent. In comparison, it would appear that Kenya Revenue Authority (KRA) is a newcomer in the performance measurement arena. KRA specifies a number of performance measures in its most recent strategic plan that tend to comprise a mixture of input and output indicators.

**Table 2.1: Modernisation measures – recent and ongoing**

Reform measure	Kenya	South Africa	Tanzania
Tax policy reform	✓	✓	✓
Corporate planning and performance measurement	✓	✓	✓
Business process reengineering/redesign	✓	✓	✓
Automation through ICT	✓	✓	✓
Strengthening enforcement	✓	✓	✓
Enhancing risk management	✓	✓	✓
Staff capacity building	✓	✓	✓
Anti-corruption initiatives	✓	✓	✓
Improving client services	✓	✓	✓
Implementing quality management standards	✓	✓	✓

Source: PwC, 2010

The literature on case study design suggests that there are a variety of methodological options that can be employed. Yin (2003) prescribes a design comprising five parts: (1) framing the study question; (2) developing the question's propositions; (3) specifying units of analysis; (4) logic linking of data to the propositions; and (5) developing and applying criteria to interpret findings. Dul and Hak (2008) specify: (1) theory-building research; and (2) practice-oriented research. The first methodology is similar to Yin's (2003) approach. However, at the outset, although this researcher considered that independent variables such as culture, values, administrative structure and management tools could be significant, she could not discern the specifics of how they drive performance measurement. Yet, in theory-building research, some knowledge of the dependent and independent variables and their relationships are needed before a specific research objective can be coined.

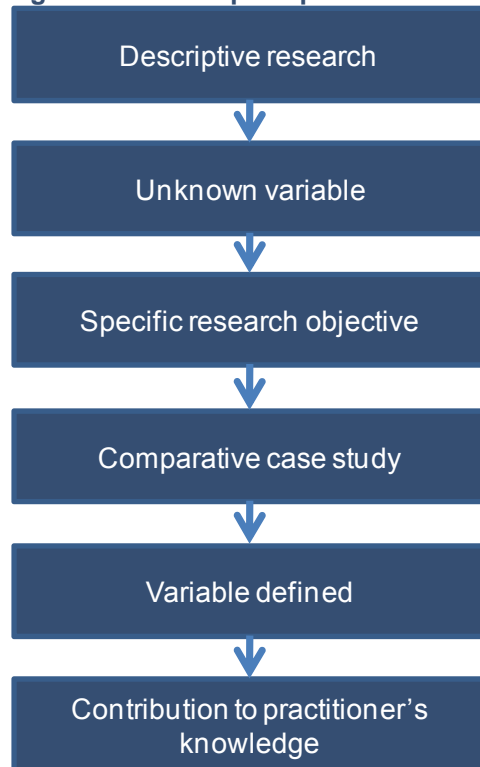
Therefore, this author's research is exploratory in that it seeks to investigate what factors influence the adoption of performance measures. Whilst the research anticipated that the literature review would offer a menu of causal factors, her objective was to draw on specific evidence from the three cases to discover the relevance of the factors offered in theory using "cross-case confirmatory analysis", as a basis for drawing some generalisations and offering "signposts for future research" particularly in a wider group of ARAs (Gerring, 2007).

For the reasons above, in this researcher's view, practice-oriented research, with a descriptive orientation, seems the most viable option. The fact that the critical realism RP that this researcher identifies with is associated more with being descriptive as opposed to prescriptive, further strengthens the case for this type of practice-oriented research (Perry, 1998). Under this option (see [Figure 2.1](#)), the researcher has the opportunity to compare and contrast within the multiple cases performance measurement designs, implementation strategies and other findings from the research. The research methodology is therefore 'comparative' in its orientation and seeks to contribute to knowledge and management (Dul and Hak, 2008).

It is, however, worth bearing in mind some of the criticisms of practice-oriented research. In particular, there is a view that it does not sit comfortably in scientific research as it does not contribute to theory. There is also the argument that practice-oriented research is easier to carry out than a theoretically driven study. Still, authors such as Verschuren (2009: 61) postulate that practice-orientation offers the researcher the opportunity to

contribute to 'context-bound' knowledge as well as "better opportunities to theorize on new phenomena, as well as on all kinds of processes".

**Figure 2.1: Descriptive practice-oriented research**



Source: Dul and Hak, 2008

### **2.3 Theoretical framework to guide the study of performance measurement**

Whilst one of the salient features of a critical realism RP, are the inductive methods it offers, deduction is also considered to be a complementary technique in case study research (Jakobsen, 2002). To this end there is a school of thought that recommends that less experienced researchers should have some form of conceptual framework to guide them prior to embarking on their research. In this regard, for example, Miles and Hubberman (1994) advocate for tighter research designs which facilitate greater focus whereas when looser designs are applied all results may seem important. The same authors also acknowledge that researchers embark on their areas of study with insights which they should draw upon.

In the context of the above, this author reviewed several performance measurement frameworks, with a view to singling out a preferred model to guide the initial stages of her research. These frameworks are expounded on in ascending order of preference as follows. First, techniques such as data envelopment analysis (DEA), the free disposal hull (FDH) method and multi-attribute utility (MAU)<sup>3</sup> theory are increasingly used in the interpretation of multiple performance measures ((Greiner, 1996); (IMF, 1997); (Johnson et al., 2007)). Such techniques are influenced by the economics and/or engineering, and/or psychology doctrines.

On further exploration, this author found that the application of DEA in Chile's tax administration by Serra (2005) was limited to correlating a few productivity measures to the maximum feasible levels of tax revenue collection. A study by Moesen and Persoon (2002) of 289 tax offices in Belgium, uses DEA and FDH methods to establish the relationship between inputs (personnel) and outputs (audited returns). These studies do not seek to explain the underlying reasons for the selection of particular indicators and not others. They also appear to be biased towards efficiency as opposed to effectiveness aspects of performance measurement.

Second, from a management doctrine perspective, Neely (2007) reviews six performance measurement frameworks that have evolved from the 1980s and 1990s: (1) performance measurement matrix; (2) strategic measurement

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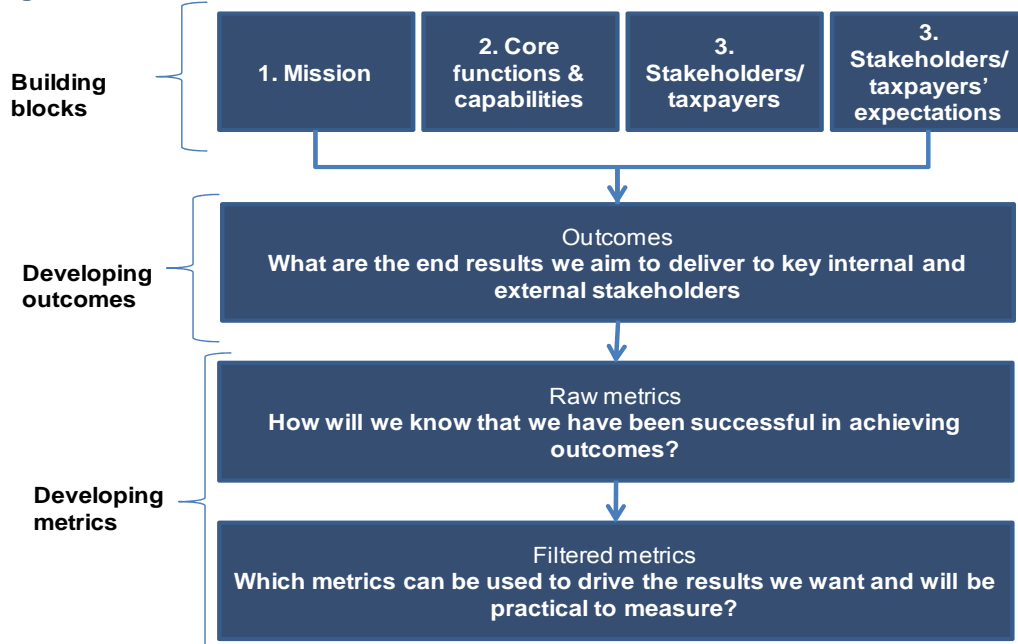
<sup>3</sup> DEA is a non-parametric tool used to gauge productivity in an organisation when there are several criteria to be considered. FDH which is parametric, measures productivity by comparing efficiency under different scenarios (e.g. best against current practice). MAU has been used to develop performance measures – once a menu of possible performance measures is drawn up, each measure is evaluated against weighted criteria and a priority list of KPIs generated.



and reporting technique; (3) results-determinants; (4) cause and effect; (5) the balanced scorecard; and (6) the European Foundation for Quality Management's 'Excellence Model'. The author criticises all six techniques on the basis that they are not: hierarchical and integrated across functions; balanced in their perspective of the business; able to provide an overview of organisational performance; are generally not multi-dimensional; are not comprehensive; and are not able to link results to their determinants. Neely (2007) suggests a framework which he coins as the 'performance prism' that establishes that strategies, processes and capabilities are needed as well as their corresponding measures. The performance prism has been adopted in the UK's National Health Service. However, in this researcher's view, this methodology seems somewhat mechanical, in that it does not capture the softer aspects of performance measurement that she seeks to explore.

Third, from a combination of strategy and management doctrines, this author is able to identify with the 'public service value' (PSV) approach created by Cole and Parston (2006). The methodology was especially created for public service organisations and essentially equates PSV as the sum of outcomes and cost effectiveness. This author considers that as each ARA has already identified specific building blocks the model illustrated in [Figure 2.2](#), provides a useful conceptual framework for her research. However, she only plans to use this framework to an extent. There are tasks around establishing the cost-effectiveness of 'filtered-metrics' that go beyond her research question. The next chapter contains some proposals on which this framework might serve as a guide during the research.

Figure 2.2: The PSV model



Source: Cole and Parston, 2006

## 2.4 A staged approach to data collection

Data collection took place in stages. To begin with, this researcher took time to appreciate the general literature on performance measurement as reflected in the next chapter. To inform this literature review, this author relied on journal rankings in the Academic Journal Quality Guide, issued by the Association of Business Schools (ABS) in 2010. For a start, she reviewed relevant articles from two top journals, Public Administration Review and Journal of Public Administration Research and Theory, that are rated as a 4 – meaning that: (1) “they publish the most original and best evaluated research”; and (2) they have the “highest citation impact factors within their field”. Initial articles reviewed, provided some useful references to other articles, reports and books, which this author mined into. She also explored the publications of both eminent and emerging academics and practitioners in the field. In addition, to reviewing working papers, reports and books, she examined other peer reviewed articles, the vast majority of which, are

published in journals that the ABS (2010) ranks as 3 or 2 – implying that they are “original and well executed” or “original and of an acceptable standard” respectively.

The literature review offered a foundation for establishing the extent to which secondary data from 10 ARAs by way of documented plans, media releases, other statements of intent and accountability reports could be linked back to the broader literature and at the same time provide a basis for further enquiry. In addition to KRA, SARS and TRA, seven other ARAs were selected for this exercise on the basis that they are English speaking with strong ties with the UK (USA), and/or that their countries belong to the Commonwealth (Australia, Canada, Mauritius, New Zealand, Singapore, United Kingdom) “a voluntary association” that works towards the achievement of common goals.<sup>4</sup> Furthermore, 9 out of the 10 ARAs are members of the Commonwealth Association of Tax Administrators (CATA), which “helps member countries through training programmes, technical conferences and knowledge sharing to develop effective tax administrations that promote sustainable development and good governance over the long-term”.<sup>5</sup> This researcher therefore considered there would be merit in exploring the similarities and differences in performance measurement practices in these countries. She purposively selected ARAs to represent various continents, and countries taking on the basis of their levels of economic development.

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<sup>4</sup> See [www.thecommonwealth.org](http://www.thecommonwealth.org)

<sup>5</sup> See [www.catatax.org](http://www.catatax.org)

The initial stages of work above enabled this researcher to refine her primary data collection instruments – a survey questionnaire, interview questions for internal stakeholders and a topic guide for external stakeholders (see Annex A). The questionnaire comprises close-ended questions, in which respondents were asked to rank the importance of performance measures using ordinal five-point Likert scales. On the contrary, the interview questions for both internal and external stakeholders were mostly open-ended questions.

For each ARA, this researcher had the opportunity to interview a combination of the following stakeholders in Dar Es Salaam, Nairobi and Pretoria: (1) its executives (internal stakeholders) comprising senior management (at Chief Executive, Commissioner/Director level or their immediate reports); and (2) its external stakeholders (represented by academics, taxpayer associations, professional bodies, think tanks and tax professionals). Both sets of respondents were selected using two ‘non-probability sampling techniques’, namely purposive and snowballing sampling to select internal and external stakeholders respectively (Denscombe, 2007). In the case of ARA executives, as all the organisations’ departments are in principle, responsible for coining strategic plans (including its performance measures), she requested each institution to ensure that they were represented. With respect to external stakeholders, the researcher identified through internet sources and her past experience, a few institutions in each country for interview, and thereafter relied upon “a process of reference from one person to the next” (Denscombe, 2007: 17).

This researcher's target number of respondents to be surveyed was a minimum of 45, made up of 15 executives from each ARA. A total of 51 ARA executives completed the survey questionnaire by requesting them to rank 39 key performance indicators using five options on a likert scale (with 1=very important (or strongly agree) and 5=not important at all (strongly disagree)). The survey instrument is at Annex A and draws on the KPIs identified in Chapter 4: Tables 4.3, 4.4 and 4.6. Thereafter ARA executives met with the researcher to justify their responses. These face-to-face interviews also provided a basis for validating the answers given. The researcher also met key ARA staff involved in corporate planning and the management of performance management systems to discuss areas such as: performance measurement practices; the reliability of performance measures; the demand for performance information; processes/routines; and enhancing the performance measurement framework.

In addition to the above, the researcher also interviewed 17 external stakeholders in the three countries using a topic guide (at Annex A). The topic guide contains nine questions around: annual performance reporting by the ARA; preferred mediums for disseminating reports; priority performance information expected by external stakeholders; most valuable information reported by the ARA; effectiveness of annual reports' presentation, structure, readability; the ways in which performance reports can be improved; accessibility of the ARA to follow up questions; and awareness of performance reporting arrangements in other ARAs.

## 2.5 Approach to data analysis

The reader of this thesis document should take note that data analysis begins in the next chapter with a synthesis of the extensive literature on the conventional views around the foundations, limitations and gaps with respect to performance measurement. A subsequent chapter analyses the same issues with specific reference to ARAs. Chapters 5 to 8 of this thesis are based on the qualitative and quantitative analysis of primary data collected from interviews and surveys of ARA representatives and their stakeholders as well as ARA documents.

Chapter 5 analyses questionnaire responses from ARA executives in SPSS, and external stakeholders' answers to questions in the topic guide, to establish priority performance measures. The chapter presents a mixture of frequencies and narratives. Chapters 6, 7 and 8 adopt a descriptive framework to develop country cases for South Africa, Tanzania and Kenya as a basis enabling the researcher to identify 'causal links' (Yin, 2009: 131). To enable comparisons to be made, each country case is documented using the same themes. The cases are built on the review of various ARA and government documents, media releases, outputs of research and interviews with ARA executives. Table 2.2 illustrates how the literature review influenced data collection and thereafter the development of each case study.

Chapter 9 draws on the work of Ragin (2000: 7) to aid a "dialogue between ideas and evidence" using fuzzy-sets. A fuzzy-set is defined as "a 'class' (or set) with a continuum of grades of membership" (Zadeh, 1965: 339).

According to Zadeh, fuzzy sets provide a method by which to assign class membership where precisely defined criteria are absent. A lack of clear definitions is common in the study of socially constructed phenomena where most theory is verbal (descriptive) as opposed to mathematical, linkages tend to be causal and on the whole ‘asymmetric’ (one way), and memberships do not fall tidily into crisp sets (Ragin, 2008: 29, 97, 102).

**Table 2.2: The literature review and its bearing on the case studies**

Case study structure	Covers	Informed by
History	<ul style="list-style-type: none"> <li>✓ Rationale for establishment</li> <li>✓ Enabling legislation</li> <li>✓ How has performance measurement changed over time</li> </ul>	<ul style="list-style-type: none"> <li>✓ Section 1.1, with ARA specific details in reports and documents</li> <li>✓ Enabling legislation</li> <li>✓ Literature on strategic planning (Sections 4.2 and 4.3)</li> <li>✓ An analysis of the extent to which the 12 priority KPIs in Chapter 5 were utilised over various strategic planning periods</li> </ul>
Current goals and KPIs	<ul style="list-style-type: none"> <li>✓ Latest strategic planning period</li> <li>✓ Any lessons drawn from best in class organisations</li> </ul>	<ul style="list-style-type: none"> <li>✓ An analysis of the extent to which the 12 priority KPIs in Chapter 5 have been adopted</li> <li>✓ The rationale for any new goals and KPIs</li> <li>✓ Topic guide and Sections 4.4, 4.5, 4.6 and 4.7</li> </ul>
Service request KPIs in charter	<ul style="list-style-type: none"> <li>✓ The use of service charters, mechanisms in place for reporting performance and any unintended consequences (e.g gaming)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Section 4.3 (literature on charters)</li> <li>✓ Section 3.6 (gaming as an inadvertent effect of performance measurement)</li> </ul>
Processes and routines	<ul style="list-style-type: none"> <li>✓ Framework in place and how it operates from strategic planning to performance reporting</li> </ul>	<ul style="list-style-type: none"> <li>✓ Topic guide which draws on Sections 3.3 (goal, KPI and target setting) , 3.4 (involvement of various stakeholders, capacity, resource availability) and 3.7 (any measures in place to avoid negative effects such as independent verification)</li> </ul>
Lessons learnt, challenges and areas for further consideration	<ul style="list-style-type: none"> <li>✓ Explores any problems and/or unintended consequences resulting from performance measurement in terms of aspects such understanding validity and reliability</li> <li>✓ Identifies gaps in performance measures</li> </ul>	<ul style="list-style-type: none"> <li>✓ Topic guide which draws on Sections 3.5 (challenges around measuring performance) and 3.6 (gaming as an inadvertent effect of performance measurement)</li> <li>✓ Highlights any missing priority KPIs listed in Chapter 5</li> </ul>

Source: This researcher’s analysis

On the basis of the literature review, and data collected in Chapter 9 this researcher analysed eight factors that appear to influence the adoption of performance measurement to establish possible connections based on theory and the evidence provided from the research (Chapters 5 to 8). This type of analysis enabled the development of ‘set-theoretic connections’ using qualitative comparative analysis where there are “several different combinations of causal conditions” instead of ‘correlational connections’ (Ragin, 2008: 23). The benefit of a fuzzy set method is that it enables:

*“More systematic comparison and interpretation of rich qualitative case data. On the one hand the approach respects the distinctive value and insights achieved (only) from the in-depth study of a relatively small number of instances. But on the other hand it seeks to provide well-founded and well-codified rules for considering how cases may be sorted into sets, and how these sets may be combined and characterized”* (Dunleavy et al., 2006: 66).

Chapter 9 assesses the impact of eight causal conditions (independent variables  $X_1$  to  $X_8$ ) on the outcome (dependent variable  $Y$ ) which is the adoption of performance measurement. The eight causal conditions are: (1) pragmatism is a dominant political economy driver in setting performance measures; (2) good practices influence the choice of outcome KPIs ; (3) target setting is a chief feature of performance measurement; (4) policy and legislative requirements make a significant difference to the performance measurement regime; (5) the structure of the revenue base influences the choice of KPIs; (6) a performance culture has a bearing on the selection of



KPIs; (7) priority information demanded by external stakeholders impacts the choice of performance measures; and (8) data collection cost and quality are taken into account in selecting KPIs. Table 2.3 illustrates how these factors were determined during the research.

**Table 2.3: The eight causal conditions tied to findings**

Factor	Findings	Reference
(1) Pragmatism is a dominant political economy driver in setting performance measures;	✓ Political economy influences are worthy further consideration, particularly how they affect the adoption of performance measures	Section 3.8
(2) Good practices influence the choice of outcome KPIs	✓ It is important to identify key performance indicators (KPIs) and associated targets to be achieved	Section 3.3
(3) Target setting is a chief feature of performance measurement	✓ Targets lead to public service improvement” and are therefore vital (Boyne and Chen, 2007: 14)	Section 3.3
(4) Policy and legislative requirements make a significant difference to the performance measurement regime	<ul style="list-style-type: none"> <li>✓ In 1998/99 following the promulgation of the Public Finance Act, and in line with the requirements set out in Section 40, SARS began to produce an annual report</li> <li>✓ Section 26 (3) of the TRA Act requires the authority to submit a copy to the Minister of Finance within six months after each financial year end</li> <li>✓ A GoK policy directive of 2004, instituted performance contracting in all public sector organisations (Kariuki and Kiragu, 2011a)</li> </ul>	Sections 6.2, 7.5 and 8.2
(5) The structure of the revenue base influences the choice of KPIs	<ul style="list-style-type: none"> <li>✓ There is need for variety in KPIs as a means for taking into account different goals/services (De Bruijn, 2002)</li> <li>✓ The legislative frameworks of ARAs in select countries indicates that their functions and associated capabilities are specified in the laws establishing them</li> <li>✓ Service standards</li> </ul>	Sections 3.7 and 4.3  Tables 6.2, 7.3 and 8.3
(6) A performance culture has a bearing on the selection of KPIs	✓ Performance information is utilised if the organisation embeds a risk taking culture that rewards innovation	Section 3.4
(7) Priority information demanded by external stakeholders impacts the choice of performance measures	<ul style="list-style-type: none"> <li>✓ Measures seeking to ‘promote’ a PSO’s performance are likely to be of greatest interest to external stakeholders</li> <li>✓ It is good practice to craft KPIs in collaboration with stakeholders</li> <li>✓ Measures should be politically acceptable in that they can be trusted by stakeholders</li> <li>✓ Priority KPIs in Table 5.5</li> </ul>	Sections 3.2, 3.3 and 5.7
(8) Data collection cost and quality are taken into account in selecting KPIs	✓ Measures should be: “valid, reliable... sensitive to data collection costs,...focus on important” (Ammons, 2007: 5)	Section 3.3

Source: This researcher’s analysis

The same chapter uses a mathematical framework developed by Zadeh (1965) to 'calibrate' set membership in each causal condition using values on a continuum between 0 and 1. This researcher therefore applied five value codes to define a fuzzy set for each factor (or concept) that shapes performance measurement. The five codes which define the extent to which each ARA fits within a set are: (1) fully in= 1; (2) more in than out= 0.75; (3) neither in nor out= 0.5; (4) more out than in= 0.25; and (5) fully out= 0 (Ragin, 2000: 156). In assigning case membership to each set, the researcher developed and applied criteria on the basis of research findings and the relevant literature.

Chapter 10 uses fuzzy algebra to analyse the sets identified in the Chapter 9. The analysis covers minimum and maximum membership scores. The chapter also analyses relationships between sets, and aims to establish the extent to which some causal conditions are subsets of others. The chapter also assesses various solutions, that is configurations of sets and combinations of configurations, to establish:

*'Solution consistency' – "the degree to which membership in each solution term is a subset of the outcome"; 'solution coverage' – "the proportion of memberships in the outcome that is explained by the complete solution"; 'necessity' – the condition(s) "must be present for an outcome to occur"; and 'sufficiency' – the condition "can produce a certain outcome" (Ragin et al., 2008: 42, 86).*

The analysis in Chapter 10 is informed by theories developed by Goertz (2006) and refined by Ragin (2008) on 'necessary or sufficient conditions in

social science', which quantitative techniques are not able to appraise. In particular, using mathematical concepts the following are analysed – whether there is: (1) fuzzy-set theoretic consistency of the causal condition (X) – expressed by the equation  $(X_i \leq Y_i) = \sum[\min(X_i, Y_i)]/\sum(X_i)$ ; (2) causal necessity – expressed by the equation  $(Y_i \leq X_i) = \sum[\min(X_i, Y_i)]/\sum(Y_i)$ ; (3) set-theoretic coverage of the outcome (Y) by the causal condition (X) – expressed by the equation  $(X_i \leq Y_i) = \sum[\min(X_i, Y_i)]/\sum(Y_i)$ ; (4) set-theoretical coverage of the causal condition (X) by the outcome (Y) - expressed by the equation  $(Y_i \leq X_i) = \sum[\min(X_i, Y_i)]/\sum(X_i)$ ; (5) partitioning coverage (Ragin, 2008: 52, 53, 57, 61); and (6) truth tables which test all possible combinations of causal conditions (k) expressed as  $2^k$ .

In undertaking the analysis above, this researcher used fuzzy set Qualitative Comparative Analysis (fsQCA) software which is freely available at the University of Arizona's website.<sup>6</sup> This researcher also benefited from a user guide on fsQCA to analyse the data generated in Chapter 9 to establish: necessity; sufficiency; consistency; and coverage (Ragin et al., 2008).

It could be argued that fsQCA was an inappropriate tool considering the small number of cases used. Then again, the literature reviewed suggests that the solutions generated by fsQCA are plausible. What is more a larger number of cases may not necessarily have led to different results as “naturally occurring data are profoundly limited in their diversity...especially when the number of conditions is more than a few” (Ragin, 2008: 207). Nonetheless this researcher anticipates that these arguments can be tested

<sup>6</sup> <http://www.u.arizona.edu/~cragin/fsQCA/software.shtml> [Accessed 11 April 2012].

by extending this research to cover at least another 10 ARAs. The fuzzy-set membership sets developed as part of this research, together with fsQCA provide a sound basis for taking such research forward.

# **3 A select review of the literature on performance measurement in a public sector environment**

## **3.1 Introduction**

This chapter documents this author's understanding and reflections on particular aspects of the existing literature on performance measurement. Given that the management of performance has prevailed for at least three centuries, efforts have been necessarily focused on the dimensions of performance measurement, and associated issues that are relevant to her research. In particular, this author sought to widen her knowledge base by: establishing the ideas that others have worked on; ensuring that she has the breadth and depth of intellectual insights in readiness for data collection; and determining the performance measurement issues that arise in the public sector. The chapter offers perspectives on: why performance measurement matters; the mechanics of performance measurement, monitoring and reporting; and which factors influence the use of performance information. The chapter then presents an analysis of the challenges and inadvertent effects of performance measurement. The concluding sections of this chapter highlight recommended actions for strengthening performance measurement, and the gaps in the literature, which seem amenable to this research.

## **3.2 Why performance measurement matters**

The history of performance measurement, dates back to the eighteenth century when according to Scott (1998: 15), statistics on state forestry production were collected in Germany with a view to estimating "inventory,

growth and yield". In the early 1900s, performance measurement was influenced by: the social survey methodology developed by the British philanthropist, Charles Booth; the practice of collecting statistics; the revamping of accounting methods in the United States; developments in scientific management; and so forth (Williams, 2003). In addition, Taylor's scientific management methods, particularly the setting of output quotas, were adopted by the former Soviet Union. "Quantitative target systems were also used in Britain for the management of munitions and other war production in the 20th-century world wars" (Hood, 2007: 98).

The subsequent use of performance measurement in the twentieth century is estimated to have spanned until the 1940s. The next epoch straddling from the 1950s to the 1970s, was motivated by high levels of debt and government employment in the United States of America (USA) (Van Dooren et al., 2010). A Commission on the Organization of the Executive Branch (Hoover Commission) was appointed to establish ways in which government could be rationalised. One of the Commission's recommendations was that "attention should shift away from government inputs...[to] outputs – its accomplishments, activities and other related costs" (GAO, 1997: 30). It is on the basis of this recommendation that the governments in the USA and later elsewhere, attempted to implement performance measurement through initiatives such as management by objectives, programme budgeting and zero based budgeting.

The current era of performance measurement can be traced back to the 1980s when there was a global economic recession. Again, governments in

countries such as Australia, New Zealand and United Kingdom (UK) were faced with high and unsustainable expenditures which needed to be reduced. As a result, the new public management (NPM) doctrine emerged. One of NPM's components was "explicit standards and measures of performance" – in other words clear goals, targets and indicators "preferably expressed in quantitative terms" (Hood, 1991: 4). Since then, performance measurement systems have been adopted by many governments around the world, as they are perceived to facilitate in the delivery of the 'right promises' including attaining value for money, and enabling "citizens to see and understand the results of government" programmes (Ingraham, 2005: 391). The growth of performance measurement systems has also been aided by advances in information and communication technology ((Hood et al., 2009); (Pollitt and Bouckaert, 2004)).

In contemporary times, performance measurement in the public sector is amenable to many uses. Van Dooren et al. (2010) list 44 uses of performance information – for example, such information can facilitate accountability to legislators and citizens, and guide a public sector organisation (PSO) in setting programme priorities, the allocation of resources, enhancing its responsiveness to clients, in reporting and monitoring activities etc. In addition, a survey of representatives of local governments in North America reports that performance measures are used to support six key managerial processes: (1) planning and management; (2) operations management; (3) budgeting; (4) procurement; (5) personnel evaluation; and (6) monitoring and evaluation (Kinney and Ruggini, 2008). Moreover, in the UK, performance measures have been applied "to foster or

generate pseudo-competition, for example, where purchasers in health care buy care from providers” (Propper and Wilson, 2003: 4).

Similarly, Behn (2003) identifies eight purposes that public managers have for performance measures (see Table 3.1), but at the same time, pinpoints the need to improve performance as the single most important use. In contrast, according to the same author, measures seeking to ‘promote’ a PSO’s performance are likely to be of greatest interest to external stakeholders. To enable external stakeholders to judge a PSO’s performance, the same measures from similar organisations are useful comparators. Benchmarking/comparing measures with similar organisations also offers an opportunity for a PSO to learn about its strengths and weaknesses.

**Table 3.1: Eight purposes that public managers have for measuring performance**

<b>The purpose</b>	<b>The public manager’s question that the performance measure can help to answer</b>	<b>Characteristics of performance measures</b>
Evaluate	How well is my public agency performing?	Outcomes, combined with inputs and with the effects of exogenous factors
Control	How can I ensure that my subordinates are doing the right thing?	Inputs that can be regulated
Budget	On what programs, people or projects should my agency spend the public’s money?	Efficiency measures (specifically outcomes or outputs divided by inputs)
Motivate	How can I motivate line staff, middle managers, non-profit and for-profit collaborators, stakeholders, and citizens to do the things necessary to improve performance?	Almost-real time outputs compared with product targets
Promote	How can I convince political superiors, legislators, stakeholders, journalists, and citizens that my agency is doing a good job?	Easily understood aspects of performance about which citizens really care
Celebrate	What accomplishments are worthy of the important organizational ritual of celebrating success?	Periodic and significant performance targets that, when achieved provide people with a real sense of personal and collective accomplishment
Learn	Why is what working or not working?	Disaggregated data that can reveal deviances from the expected
Improve	What exactly should who do differently to improve performance?	Inside-the-black box relationships that connect changes in operations to changes in outputs and outcomes

Source: Behn, 2003: 588 and 593



It would seem that in sum, performance measures serve three key goals. First, they are utilised to ensure accountability by a PSO, particularly when it is granted autonomy (De Bruijn, 2002). Second, they play an important role in ensuring equity (Smith, 1995). Third, performance measures are applied to manage, assess and improve services (Behn, 2003). However, there can be complexities around adopting measures which meet all goals. A single focus on measures of productivity (or output expressed as a ratio of input), may be sufficient in meeting accountability requirements demanded by politicians and citizens, but are unlikely to offer limited or no “managerial or policy value” (Ammons and Rivenbark, 2008: 308). It is therefore preferable to use measures of efficiency and effectiveness (or outcomes) which respond to both goals ((Ammons and Rivenbark, 2008); (Bromberg, 2009); (De Bruijn, 2002)).

### **3.3 Ways in which performance is measured, monitored and reported**

In deciding what aspects of performance to measure, an organisation needs to set a context for the type of data to be collected and information to be generated (Theurer, 1998). In this regard, PSOs are guided by various techniques including: management models (e.g. the European Foundation for Quality Management’s Excellence Model); trees of objectives (e.g. developed through a strategic planning process); an analysis of stakeholders to identify their concerns; programme logic; programme theory; and so forth (Van Dooren et al., 2010). However, irrespective of which technique is used, Johnston and Pongatichat (2008: 943) draw on the literature to offer the perspective that measures developed “need to be derived from, and support,

an organisation's strategic intent". Moreover, performance measures should ideally be realigned to take into account any changes in strategy.

As part of the process of mapping a strategy, conventional knowledge suggests that a PSO should clearly articulate its mission or what it seeks to accomplish. Thereafter, the organisation "needs to determine what key failure is keeping it from achieving its mission: What is our most consequential performance deficit?" (Behn, 2006: 9). According to Behn, this question is best addressed by identifying gaps in service delivery (and associated inputs, processes and outputs), that need to be closed in order to contribute to the achievement of outcomes/goals/objectives. For example, gaps may evolve around one or more of the following: insufficient inputs (e.g. staff or equipment); inefficiencies such as a low level of outputs produced relative to resources consumed or cumbersome processes; and ineffectiveness (in terms of minimal impact, poor quality, client dissatisfaction etc).

Once an organisation's leadership has identified a set of gaps to be eliminated, it should also identify how it will realise improvements in the long-term. This intent is typically articulated in vision and outcome statements, which inform that particular strategies and interventions to be implemented (Marr, 2009). Thereafter, it is important to identify key performance indicators (KPIs) and associated targets to be achieved (Behn, 2006). Kendrick (2011: 63) suggests that KPIs are needed at outcome, output, process and input levels to ensure that there is 'vertical balance'. Furthermore, KPIs should be horizontally balanced to enable them to be "viewed in a set" that tells a story.

It is also good practice to craft KPIs in collaboration with stakeholders (UNDP, 2002). In addition, such measures should be: “valid, reliable, understandable, timely, resistant to undesired behaviour, sensitive to data collection costs,...focus on important facets of performance” (Ammons, 2007: 5); tend towards being objective rather than subjective – as objective measures are “impartial, independent, and detached from the unit of analysis” (Andrews et al., 2006: 16); and politically acceptable in that they can be trusted by stakeholders (Lu, 2008).

Empirical evidence points to the fact that “targets lead to public service improvement” and are therefore vital (Boyne and Chen, 2007: 14). To assess whether targets have been met, baseline and trend data for each measure are collected through a variety of methods such as mining existing data repositories, surveys, expert panels, key informant interviews, and extraction from other data sources. “The essential points are that data should be collected and used close to the source and that data collection be cost-effective and reliable” (World Bank, 1996: 24). Moreover, to ensure that data collected are reliable, PSOs should have: (1) a collection plan in place, which facilitates replication by others; and (2) procedures guiding the maintenance of records which are regularly validated to ensure compliance (Kendrick, 2011).

To ensure accountability, PSOs should as a matter of course, report actual performance against targets through various media. An annual report is one medium of dissemination. The publication of league tables with composite scores, which rank performance across countries and between similar PSOs,

is commonly used by institutions and in countries such as the World Bank and UK respectively. In the UK's education system, for instance, league tables serve to incentivise "schools to improve their students' educational attainment and to provide information on individual school performance to inform parental choice" (Propper and Wilson, 2003: 10). Another mode for broadcasting results is a PSO's website. In North America Washington state provides "an extensive real-time performance measurement dashboard on the internet", whereas other institutions use "similar if less extensive, Web-based approaches" (Kinney and Ruggini, 2008: 17).

Published performance results offer a rational basis for giving accolades to or shaming PSOs, awarding bonuses, renewing public managers' contracts, apportioning more financial resources to high performing institutions and "granting of 'earned autonomy' (from detailed inspection and oversight) to high performers" (Bevan and Hood, 2005: 6). Furthermore, for a performance measurement system to be effective, it is also vital that a PSO's leadership regularly monitors results in order "to verify that people are pursuing their targets in ways that do, indeed, further the mission", and reallocate resources, and/or make modifications to the mission, measures, processes and targets as necessary (Behn, 2006: 18). Smith (1995: 279-280) describes this cycle as "managerial cybernetics" – "the notion of feedback as serviced by the system of" KPIs.

### **3.4 Factors that influence the uptake of performance management systems**

Whilst the previous sections provide the case for measuring performance, and offer a flavor of the range of potential uses and benefits of performance

measurement information, organisations do not automatically embrace the tools and techniques available. Theories on this subject suggest that various factors influence the design and operationalisation of performance measurement systems. On the one hand, political scientists breakdown the utilisation of performance information into two stages: (1) adoption (developing measures – coined as ‘symbiotic action’); and (2) implementation (using measures) (De Lancer Julnes and Holzer, 2001). According to the same authors, these two stages are biased by a rational/technocratic and/or political/cultural perspective. The former position is underpinned by one or more of the following: managers need to be rational; resource availability; organisational capacity/know how; and any legal or other requirements. The latter standpoint is reinforced by one or more features such as: whether internal interest groups perceive any benefit from using performance information or have been involved in developing the same; the influence of external interest groups and unions; and/or if the organisation embeds a risk taking culture that rewards innovation. An empirical study by De Lancer Julnes and Holzer (2001) found that from a rational/technocratic angle, internal leadership and a goal orientation, only promote the adoption of KPIs; whereas, implementation requires resource availability as well as the requisite capacity. Furthermore, from a political/cultural outlook although upfront ‘internal political activities’ led by an organisation’s management, promote the adoption of KPIs, to facilitate implementation, this effort must be reinforced by external interest groups and unions.

On the other hand, management scholars suggest issues around people, the organisational context and the external environment, have a bearing on the application of performance information. If one examines the specifics around these factors, there are similarities with the political science view. Ammons and Rivenbark (2008) assert that top management support, interest by politicians, participation by citizens in the development and collection of performance measures and their integration into key management systems (e.g. strategic plans, work plans and budgets) as key factors. A study by Moynihan and Pandey (2010), that seeks to explain the factors which influence management's use of performance information, identifies the four key dynamics and underlying hypothesis as shown in Table 3.2. The same authors test these hypotheses using data from a survey of senior managers in local governments in the USA. Their findings are that the use of performance information is high: (1) when there are high levels of altruism in public service ( $H_p1$ ); (2) among specialised managers vis-à-vis generalist ones ( $H_p4$ ); (3) when such information is available and tied to management systems ( $H_p5$ ); (4) if the organisational culture is 'open, innovative, and risk-taking' ( $H_p6$ ); and (5) when managers have flexibility to make decisions ( $H_p7$ ).

**Table 3.2: Factors influencing the adoption of performance management systems: Key dynamics and associated hypothesis**

Dynamic	Hypothesis ( $H_p$ )
Public service motivation (PSM)	$H_p1$ : Managers with higher levels of Public Service Motivation (PSM) are more likely to use performance information
Job attributes	$H_p2$ : Managers who perceive a link between extrinsic rewards and performance are more likely to use performance information
	$H_p3$ : Task-specific leaders are more likely to use performance information than generalist leaders
	$H_p4$ : Managers with greater task-specific experience are more likely to use performance information.

Dynamic	Hypothesis ( $H_p$ )
Organizational factors	$H_p$ 5: Managers who perceive performance information is available and tied to management systems are more likely to use it
	$H_p$ 6: A developmental organizational culture fosters performance information use
	$H_p$ 7: Managers who perceive decision flexibility are more likely to use performance information
	$H_p$ 8: The willingness of budget staff to adopt an adversarial stance affects performance information use
External factors	$H_p$ 9: Perceptions of citizen participation affects performance information use
	$H_p$ 10: Managers influenced by professional organizations are more likely to use performance information

Source: Moynihan and Pandey, 2010: 5-9

### 3.5 The challenges around measuring performance

There are at least seven key challenges around measuring performance. First, it appears that in many PSOs, performance measures do not line-up with strategy. Specifically, when strategy is revamped to accommodate changes in the internal and external environments, performance measures remain the same as their “alignment requires management attention, time, effort and commitment” which may not be readily at hand (Johnston and Pongatichat, 2008: 946). Furthermore, following case study research in Thailand, the same authors found that this disconnect can also be explained by: (1) the fact that some of the activities as well as objectives contained in operational plans had no link with strategy; (2) various performance measures contained in strategy documents were specified to demonstrate that agencies were trying to meet stakeholder expectations around modernising government; (3) a view that long-term objectives were more difficult to measure and less easy to control than milestones and intermediate outcomes planned for the short term. Smith (1993), De Bruijn (2002) and Boyne (2010b) concur with the latter perspective.

Second, PSOs sometimes introduce performance measurement systems to serve 'minimalist' purposes such as a public relations instrument and/or to report on outputs. Such a system has limited utility in enabling an organisation to monitor and manage "service efficiency, quality and effectiveness or outcomes" (Ammons, 2010: 64). Third, there are various levels of outcomes – in particular: (1) intermediate outcomes, which a PSO has some control over; and (2) ultimate or societal outcomes, which demand active participation by communities. According to Kloby and Callahan (2009: 20) societal outcome measures around "economic vitality, a healthy and clean environment,..safe communities" and so on can inform public managers about any service enhancements required. However, the same authors are of the view that frequently "performance measures are designed to capture agency or program performance with an emphasis on determining outputs and efficiencies" (Kloby and Callahan, 2009: 20).

Fourth, even when a PSO directs its efforts around monitoring outputs and realising efficiencies, the methodologies used to set associated targets can be flawed. For example, it is difficult to set a target for a new performance measure until its characteristics (e.g. baseline value at a particular point in time) are appreciated. Furthermore, setting an 'extreme value target' (e.g. no client will wait for more than 1 hour to be served), implies that when just a single client spends more than an hour "the target is foregone, and thereafter irrelevant" (Bird et al., 2005: 9).

Fifth, once a PSO aptly sets appropriate target measures for inputs, processes and outputs, it still has to contend with the issue of outcome



attribution. It is argued that such performance measures cannot unequivocally explain a desired performance improvement. There is also the unanswered question that persists around the counterfactual – it is not clear “what would have happened without many public interventions” (Talbot, 2005: 503).

Sixth, question marks lurk around the validity and reliability of some performance measures used by PSOs. In the case of composite measures, Hood (2007) identifies four potential factors that contribute to performance measurement errors as follows: (1) simple mistakes (‘clerical error’); (2) sampling errors; (3) incorrect categorisation; and (4) gaming (see next section). It is noteworthy that all these errors are typical examples of human error or manipulation – “a major source of performance data error” (Talbot, 2010: 41).

Seventh is the issue of whether there is sufficient demand for performance information, particularly, by both PSO staff and external stakeholders. One of four Ps coined by Moynihan (2009) to classify information use, is a scenario where a PSO’s staff are ‘passive’ in that they publish and disseminate results, but make no use of them: due to the necessary incentives being absent; or because no sanctions are enforced for non-compliance. Also, a lack of interest in, and/or, capability to interpret performance information by members of the public was observed in local governments in the UK. When the public is invited to formally meet and discuss performance, “there is a risk that such meetings are dominated by unrepresentative pressure groups” (Pidd, 2005: 487). Besides, according to Smith (1993: 138), an individual

elector would need to be able to grasp the varying dynamics of PSOs (e.g. objectives, their environments, accounting practices and levels of efficiency), which is a “formidable task if he or she is to develop a good understanding of performance”.

### **3.6 The inadvertent effects of performance measurement**

Besides the challenges presented above, performance measurement is associated with a number of adverse impacts. Smith (1995: 283) depicts eight ‘unintended behavioural consequences’ that can arise from the dissemination and use of performance information namely: “(1) tunnel vision; (2) sub optimization; (3) myopia; (4) measure fixation; (5) misrepresentation; (6) misinterpretation; (7) gaming; and (8) ossification”. The author indicates that tunnel vision occurs when a PSO focuses on a limited number quantifiable performance measures and ignores qualitative dimensions. Sub optimization occurs when a government’s high level objectives are out of synch with those of a PSO with devolved responsibilities. Myopia is associated with the quest for “short-term targets at the expense of legitimate long term objectives” (Smith, 1995: 288). Measure fixation involves devising ways to enhance a reported performance measure so that a PSO appears to be meeting targets. Misrepresentation arises when data are intentionally altered either through ‘creative reporting’ or ‘fraud’. Misinterpretation takes place when a public organisation rationalises performance results and makes the wrong policy choices or analyses them to their benefit. Gaming entails public managers ensuring that the possibility of enhanced productivity in future years is minimised. Ossification results when public managers fail to

alter the performance measurement system to accommodate changes in the environment.

Studies on performance measurement in the public sector confirm that almost all of the eight unintended consequences above are common. For example, myopia has a political economy angle associated with it. In a quest to demonstrate the results of service improvement initiatives, political leadership often embraces performance measurement as a means to show case successes and value for money. Yet, political parties in modern times do not serve for long enough to associate themselves with outcomes and impacts ((Propper and Wilson, 2003); (Talbot, 2005)). And neither do public servants. This might explain the preference for short-term results by both groups.

In addition to the above, the possible causes for the occurrence of two other phenomena have been observed in practice. Ranking PSOs using league tables and composite measures is intended to “organize and simplify data” to enable users to interpret, track and compare results (Talbot, 2010: 43). However, league tables and composite measures seem to promote tunnel vision and measure fixation. For instance, Propper and Wilson (2003) refer to the analysis of the consequences of school ranking systems in the UK and USA, by Wiggins and Tymms (2002), Deere and Strayer (2001) and Jacob (2002), which led service providers to change aspects of processes (e.g. narrowing the curriculum or a focus on particular tests), as a means for enhancing scores. In the case of England, the amount of time allocated to “subjects such as music, [Physical Education] PE and technology [had] been

reduced, and this may have long-term negative consequences, for example in respect of health and employability” (Wiggins and Tymms, 2002: 45).

Although it is argued that by having many targets, a PSO minimises the unintended effects of performance measurement, such as tunnel vision and myopia, the chances are that a range of measures widen the scope for information overload. Information overload can contribute to misinterpretation as “users of the information can no longer see the wood for the trees” (Van Dooren et al., 2010: 160). The same authors deem that the generation of large volumes of performance information can be a deliberate ploy on the part of a PSO as it easily enables a PSO to increase its prospects of achieving some targeted results. However, many measures contribute to difficulties in ranking and weighing such achievements (Boyne and Chen, 2007). It is also the case that a single KPI is also open to different and inconsistent interpretations. Furthermore, to ensure that reported performance is positive, public servants may be tempted to “interpret definitions in a way that is most favourable to the agency” (Franceschini et al., 2007: 196).

Smith (1993) is of the opinion that misrepresentation can occur in specialised fields such as medicine in which doctors have significant freedom to take certain decisions. The author refers to the work of Bardsley et al. (1987), who suggest that doctors may allocate patients to specific ‘diagnosis-related groups’ with a view to amplifying workload. De Bruijn (2007: 18) offers a more perverse example from the Dutch Prosecution Service, which was tasked to reduce the number of cases prosecuted leading to one of its

officers deleting “a large number of offences from the computer at the police station”. In return for this ‘decrease’, the service received a financial award from the responsible Minister.

There are three types of distortions associated with gaming: (1) the ratchet effect which takes place when public managers try to keep performance targets from being raised; (2) the threshold effect where an institution has no incentive for surpassing targets; and (3) output distortions which arise when an institution only focuses on the initiatives which offer incentives (Bevan and Hood, 2005). According to the same authors, gaming is most likely to be practiced by a small percentage of ‘reactive gamers’ and ‘rational maniacs’. Reactive gamers somewhat buy-into the targets set, but will manipulate results when they have an opportunity or a cause to do so; whereas rational maniacs are not committed to targets, and direct efforts to covering up their activities.

The practice of gaming can be traced back to the former Soviet Union where the key indicator used to gauge success and subsequently award bonuses, was fully executing plans which were largely quantitative. This arrangement promoted the ratchet effect. Managers avoided surpassing planned targets by “too wide a margin, for fear of... [an] upward adjustment in the year following”, and therefore penalising honesty and rewarding deception (Nove, 1958: 4).

In more recent times, Propper and Wilson (2003) identify a number of ‘creaming strategies’ used by schools to eliminate weak students, such as preventing them from sitting examinations or complicating their admissions

processes – in other words gaming by output distortions. Another real life example of gaming by way of output distortions was observed in National Health Service (NHS) Trusts in the UK. The motivation for gaming may have been driven by the quest to obtain favourable rankings on the star rating system which categorised trusts using a scale of 0 (poor performer in meeting targets) to 3 (high performer) on the basis of their ability to meet targets in a number of performance areas. So for example, patient focussed performance measures included “waiting times for inpatient treatment, outpatient appointments, casualty and cancer treatment, delayed discharge, cancelled operations and patient experience of care” (Mannion et al., 2005: 19).

Following a directive that inpatients would not wait for more than six months to be treated, the National Audit Office (NAO) (2001: 1) reported that “nine NHS trusts inappropriately adjusted their waiting lists, ...affecting nearly 6,000 patient records” by for instance deleting and/or deliberately taking more time to add names to lists. Bevan and Hood (2005) argue that this sort of gaming arises as a result of an invalid assumption that a priority set of good measures and targets, as well as imperfect measures, are sufficiently representative of the whole (‘synecdoche’). However, this assumption ignores measures and targets which are considered less important, or those that do not have any useable data available. These latter measures can offer vital indicators which are not taken into consideration when assessing overall performance. In the case of the star rating system in the UK, for example, “there was a general view... [that targets] did not represent a ‘rounded’ or

'balanced scorecard' of their own organisation's performance" (Mannion et al., 2005: 20).

De Bruijn (2007) offers a practical example of ossification, whereby researchers in a university who are specialised in public finance, and particularly, the area of levies, churn out many publications on the subject without much effort, in return for rich rewards from the performance measurement system. Smith (1993: 147) uses the focus on waiting times in the UK's health sector by politicians, members of the public and public managers at the expense of including other performance measures (e.g. post-operative care), to illustrate ossification – in particular, "there may be no incentive for managers to respond outside the purview of the" performance measurement system, unless it is revamped.

In addition to the above, adverse reports on performance often result in the attribution of blame to politicians or a PSO's management and staff, particularly since service recipients, citizens and other external stakeholders are cognitively 'wired' to focus on "negative than to positive information" – this wiring is referred to as a 'negativity bias' (Hood, 2011: 9). For these groups of officeholders, blame could result in: them not being re-elected; or the loss of a bonus; or being bypassed for promotion; or damaging their reputations. As a result, there are three strategies that the public sector uses to avoid blame which evolve around: presentation through "spin, stage management, and argument"; agency – by delineating lines of responsibility across various government institutions; and policy which focuses on

decision-making arrangements and the work done by particular officers (Hood, 2011: 18).

An example of spin occurred during the first five years of the New Labour regime in the UK. When faced with slumping popularity due to protests over fuel prices, the government “played the National Health Service card”. Government’s spin doctor at the time writes that: “we got some excellent NHS people to visit some of the picket lines and directly accuse protestors of doing damage to essential services” (Campbell, 2008: 472). Alistair Campbell also illustrates the consequences of not adopting an agency strategy as follows:

*“Clark won’t delegate so he risks being swamped by events. And he is not good at explaining strategy when there is one. Why those targets? What are we trying to achieve? You always need answers to those questions” (2008: 378).*

### **3.7 Options for ameliorating the negative effects of performance measurement**

Slightly over fifty five years ago, Ridgway (1956: 247), observed that “the motivational and behavioural consequences of performance measures are inadequately understood”, and proposed that more research was required on this subject. Subsequent lessons of experience and, studies have identified a range of options for ameliorating the adverse effects of performance measurement. Van Dooren et al. (2010) are of the view that with the hindsight of experience, a PSO is better able to rationalise the number of performance measures to an optimal level. Franceschini et al. (2007)



recommend fostering a common interpretation of KPIs by clearly defining them, and through training.

On the basis of an empirical study of the school system in the USA, Bohte and Meier (2000: 175 and 181) consider that cheating by way of “cutting corners [gaming], lying [misrepresentation] and biasing samples [measure fixation]” could be reduced by instituting organisational norms which take into consideration “the full set of goals” rather than a “narrow incentive system”, the complexity of tasks assigned to jobholders, a broad range of criteria for determining rewards and multiple KPIs instead of composite scores. The authors also recommend that norms should be backed up by complementary procedures and structures.

De Bruijn (2002) emphasises the need for: (1) ‘interaction’ as a means for engendering trust by making trade-offs and fostering ownership; (2) ‘variety’ in the way performance is measured and reported as a means for accommodating different goals/services and multiple stakeholders; and (3) a ‘dynamic framework’ for performance measurement, which caters for changes in the environment. In practice, the same author proffers that these three principles imply the need to offer a PSO’s management latitude to get away from a system’s outputs by limiting the number of initiatives that are subject to appraisal using performance measures; and through the assessment of performance using a variety of sources.

Bevan and Hood (2005) propose four steps that can be taken to avoid gaming, as follows: (1) where KPIs and targets are set centrally, PSOs responsible for achieving the results should not have access to detailed

specifications on the measurement methodology; (2) the timetable for independent monitoring and evaluation of performance in PSOs should not be predictable; (3) face-to-face interactions between PSOs and institutions reviewing their results should be encouraged; and (4) performance data should be independently audited. With respect to the last measure, it is noteworthy that several supreme audit institutions have widened their scope of “work beyond questions of regularity and legality,...to embrace more sophisticated concepts of efficiency, effectiveness and service quality” (Pollitt and Bouckaert, 2004: 92). In order to ensure data quality, Bird et al. (2005: 11) suggest that: sample audits are necessary for confirming that measurement data represent an accurate gauge and are not corrupted; and it is important to pinpoint those “individual values that are incorrectly...[posted to records] or which are subject to misunderstanding and which may seriously distort final conclusions”.

Hood (2011) suggests that there are certain blame avoidance strategies that have positive effects, which at a glance seem somewhat unusual. A presentational strategy which seeks to engage various stakeholders can foster policy debate – in other words what the author coins as a ‘winning argument’. In this regard, it is noteworthy that in 2006, when confronted with debts of over UK£600m in the NHS and possible job losses, the Minister of Health (Patricia Hewitt) used a winning argument by retorting that the service had “its best year ever”. Her statement led to widespread discussions and diverse views expressed among nurses, think tanks and the media (Jones, 2006). Also, an agency strategy which clearly allocates responsibility (through ‘hard delegation’) is helpful in isolating which person or institution is

accountable. Furthermore, Hood (2011: 176) suggests that “the forms of policy strategy that are most likely to have a transparency-increasing effect are abstinence or protocolization approaches”. According to the same author, agencies can either simply abstain from offering information and other forms of service provision or play “by the book”.

### 3.8 A perspective on the gaps in the literature

It would appear that the vast majority of the literature on performance management (including measurement) is focused on developed countries (particularly in North America and Western Europe). Furthermore, the available empirical study results seem to evolve around state and local governments, service delivery in education (school systems) and health (hospitals). Pollitt and Bouckaert (2004: 91) suggest this focus on service delivery units has been deliberate as “the powerful have been better able to postpone or deflect the tide of measurement than other groups”. In addition, a review of empirical studies by Boyne (2010b: 224) reports that whilst “available evidence is consistent with the view that performance management works” only 2 out of the 14 propositions listed in Table 3.3 have been tested.

**Table 3.3: Direct testing of propositions on performance management**

Proposition (P)	Tested? (Yes/No)
1. Performance indicators are more likely to lead to better service results if they focus on outcomes rather than outputs or activities	No
2. The positive relationship between indicators that focus on outcomes and service results will be weaker when such outcomes are viewed by managers as ‘uncontrollable’	No
3. The relationship between the number of indicators and service performance resembles an ‘inverted u’	No
4. Performance indicators are adjusted for ‘degree of difficulty’ will have stronger positive effects than raw performance indicators	No
5. The positive effect of performance indicators that are adjusted for ‘degree of difficulty’ will be stronger if they can be easily interpreted by internal and	No

Proposition (P)	Tested? (Yes/No)
external stakeholders	
6. A target boosts performance on the indicator that is targeted	Yes
7. A target cuts performance on indicators that are not targeted	No
8. The relationship between the number of targets and service performance resembles an 'inverted u'	No
9. The relationship between targets and performance is moderated by gaming	No
10. Consultation with staff responsible for achieving a target is likely to moderate the link between target setting and performance; in particular, the relationship between the extent of consultation and service performance will resemble an inverted – U.	No
11. The positive effect of a target is strengthened by budgetary incentives for organizations	No
12. The impact of a target is moderated by perceptions of the fairness of distribution of pecuniary rewards	No
13. The impact of monetary rewards is moderated by service motivation	No
14. The provision of incentives for meeting targets is negatively related to the performance on the criterion of equity	Yes

Source: Boyne, 2010c

Several of the propositions listed constitute important aspects of this author's enquiry into ARAs. The most relevant propositions (P) are probably P2, P3 and P6. However, her line of enquiry is exploratory, and as much if not more driven by qualitative aspects of performance measurement than empirical quantitative data. Besides, some of the propositions that remain untested probably demand a longitudinal study (P1) or a detailed appreciation of outputs and inputs of a PSO. From this author's perspective, a detailed study of output and input KPIs represents a hefty and unjustifiable investment – especially in the context of ARAs, which seem to be largely driven by at best some intermediate outcomes to support the attainment of the ultimate targets – percentage point increases in national tax revenue collections as a percentage of GDP.

Practices at different levels of government and in various sectors, industries and institutions are likely to vary. In this regard, Boyne and Walker (2010) highlight the fact that national contexts make a difference. For example, a

cross-country study of performance measurement practices in executive agencies found that on the one hand British respondents were driven by “specific targets and indicators”, whereas the focus by Swedish Managers was on “maintaining interstakeholder relationships”(Pollitt, 2006: 31) . It can therefore not be assumed that all the findings from this literature review necessarily apply to an African ARA environment. Still, the findings provide a useful basis for testing some of the ideas.

It is also noteworthy from the literature review (see Section 3.3) that the process by which KPIs are selected appears to be a management driven process. In this regard, Bovaird (1996) puts forward an argument that the choice of KPIs is influenced by disciplines such as engineering, statistics, the systems approach, management accounting, quality management and consumer marketing. However, these disciplines are largely divorced from political economy paradigms. Yet, according the same author, models of political economy “influence not only the definition of public sector performance but also conclusions about...the level of performance exhibited” (Bovaird, 1996). Political economy influences are therefore worthy further consideration, particularly how they affect the adoption of performance measures.

Besides efforts by institutions such as the OECD, United Nations and World Bank that benchmark aspects of development and governance using sets of common KPIs, cross-country comparisons of performance measurement in similar PSOs is generally lacking the literature. As a result in the case of ARAs, there does not seem to be a consensus on a set of suitable measures

of efficiency and effectiveness or even whether such a menu of KPIs is practical. A study of performance measurement in tax administration in Chile by Serra (2005) has limitations in that it uses data envelopment analysis (DEA) to correlate a few productivity measures to the maximum feasible tax revenue that can be collected. Another study by Moesen and Persoon (2002) of 289 tax offices in Belgium, uses DEA and free disposal hull techniques to establish the relationship between inputs (personnel) and outputs (audited returns). However, the authors do not seek to justify the rationale for the use of particular indicators and not others. Therefore, the next chapter presents this researcher's initial quest into identifying similarities and differences in the performance measurement frameworks used by 10 ARAs.

# **4 An overview of the features of performance measurement in tax administration**

## **4.1 The case for delving further into theory and practice of performance measurement**

The previous chapter sought to discern the history, characteristics, theory, perspectives, issues and gaps around performance measurement in a public sector environment. This chapter aims to delve into the specifics of performance measurement frameworks adopted by ARAs by drawing on: some of the findings from the previous chapter; direction provided by institutions such as the IMF and OECD; relevant peer reviewed journal articles; books; and documents (such as strategic plans, taxpayer charters and annual reports) produced by 9 select ARAs from the Commonwealth (Australia, Canada, Kenya, Mauritius, New Zealand, Singapore, South Africa, Tanzania, and UK) and 1 English speaking country USA with strong ties to the UK. The chapter identifies: the benefits and limitations of processes such as strategic planning; the extent to which the building blocks used to inform the selection of outcomes and KPIs in ARAs are common or different; any missing links; and unanswered questions. The outputs from this chapter informed the design of data collection instruments used for primary data collection in the three ARAs covered by this author's research.

## **4.2 Strategic planning – a dominant feature in ARAs' management processes**

Strategic planning was adopted in government from the nineteen seventies largely as a result of pressures to address macro-economic imbalances

(Bryson and Roering, 1988 ). However, it was not until the late nineteen nineties, that the IMF's Fiscal Affairs Department began to advocate for tax administrations to develop and implement reform strategies over the long-term. Specifically, its advice was that "tax administrators need to diagnose the tax administration's principal problems, design a strategy for actions to be taken, and agree on...scope and timing" (Silvani and Baer, 1997: 12). Further to assess advances made, the IMF also promotes the use of arrangements for monitoring, evaluation and control. It is therefore the norm for ARAs in both developed and developing countries to have in place medium-term strategies running for periods of three to five years. In this regard, it is noteworthy that in the case of developed countries, an OECD (2001: 3) practice note states that "good revenue authorities are strategically focussed and responsive to changes in their environment and that of their taxpayers".

Despite the benefits articulated thus far, there is a view by some authors that strategic planning is too rational or resource intensive or is a politically sensitive process (Boyne, 2010a). Mintzberg (1994: 111) argues developing strategy "is an immensely complex process, which involves the most sophisticated, subtle, and at time, subconscious elements of human thinking". Lindblom (1959: 80) suggests that in depth environmental scanning and analysis to inform goal setting is futile as practitioners "expect to achieve their goals only partially". An empirical study by Bryson and Roering (1988 ) on strategic planning in city governments supports Lindom's views. In addition, the authors draw parallels between making a quilt and effective strategic planning – in that all the pieces must be identified before a PSO



“can stitch together an interesting pattern” (Bryson and Roering, 1988 : 1002). It can again be argued that such an undertaking smacks of rationality and knowing all the facts in contexts that are fluid.

Against the backdrop above, there is view that strategic planning works best when an incremental approach is adopted constituting step changes ((Lindblom, 1959); (Quinn, 1978); (Behn, 1988); (Poister, 2010)). For instance, Behn (1988: 652) is of the view that managers are more effective at testing as opposed to planning ideas – in other words “establish a goal and some intermediate targets. Then get some ideas and try them out”. In addition, Poister (2010: s249) defines ‘logical incrementalism’ as coined by Quinn as the process of “shaping, implementing, and managing an agency’s strategic agenda on an ongoing rather than episodic basis”. This perspective might explain why some ARAs review and revamp their strategic plans as often as every year.

A further review of the literature on strategic planning suggests that only a limited number of empirical studies have been undertaken to establish its utility in a public sector setting. In this regard, for example, Boyne and Gould-Williams (2003: 130) confirm that “planning leads to service improvement” in Welsh local governments. Also, a study of practices in federal agencies in the USA by Chun and Rainey (2005: 549) concludes that “high-quality strategic planning provides one path toward goal clarification”. In addition, Boyne (2010a) on the basis of his review of eight empirical studies surmises that there is some indication that strategic planning has stronger positive than negative effects on a PSO’s performance.

### 4.3 Strategic plans and other building blocks underpinning public service value

The mission statement which is often part and parcel of an ARA's strategic plan constitutes a key building block in deriving its outcomes and associated KPIs. So do its legislative framework and the service standards that are commonly incorporated in a charter. A mission statement "explains why the organization exists and what would be lost to society if the organization suddenly disappeared" (Cole and Parston, 2006: 68). A mission statement can provide a strong foundation for stepping up performance, if it is clear, has an "activist tone" and is focussed (Weiss and Piderit, 1999: 197).

On the whole, the mission statements of the 10 ARAs covered as part of the review of secondary data sources are fairly similar (see Table 4.1). In this regard, for instance, four ARAs' mission statements are explicit about: (1) promoting/ensuring compliance; and (2) providing quality services/ meeting standards. Staff competency and motivation is also specified as important, so are values such as fairness and integrity which according to Weiss and Piderit (1999: 196) enable "employees to make the connection between their values and the collective values of the agency".

**Table 4.1: Mission statements of 10 ARAs**

ARA	Mission statement
Australian Tax Office (ATO)	To optimise <b>voluntary compliance</b> and make payments under the law in a way that builds community confidence.
Canadian Revenue Agency (CRA)	To administer tax, benefits, and related programs, and to ensure <b>compliance</b> on behalf of governments across Canada, thereby contributing to the ongoing economic and social well-being of Canadians.
Her Majesty's Revenue and Customs (HMRC)	To make sure that the money is available to fund the UK's public services and help families and individuals with targeted financial support.
Inland Revenue Authority of Singapore (IRAS)	Act as an agent of the Government and provide service in administering, assessing, collecting and enforcing payment of taxes.  Advise the Government and represent Singapore internationally on

ARA	Mission statement
	matters relating to taxation.
Inland Revenue Department of New Zealand (IRD)	To collect 85% of the Crown's revenue as well as collecting and disbursing social support programme payments and providing the government with policy advice.
Internal Revenue Service (IRS) USA	Provide America's taxpayers <b>top quality service</b> by helping them understand and meet their tax responsibilities and enforce the law with integrity and fairness to all
Kenya Revenue Authority (KRA)	To promote <b>compliance</b> with Kenya's tax, trade, and border legislation and regulations by promoting standards set out in the Taxpayers Charter and responsible enforcement by highly motivated and professional staff thereby maximizing revenue collection at the least possible cost for the social- economic well-being of all Kenyans.
Mauritius Revenue Authority (MRA)	To continually reform and modernise revenue administration in order to manage and operate an effective and efficient revenue organisation comprising of highly motivated and skilled staff.
South African Revenue Service (SARS)	To optimise revenue yield, to facilitate trade and enlist new tax contributors by promoting awareness of the obligation to <b>comply</b> with tax and customs laws, and to provide a <b>quality, responsive service</b> to the public .
Tanzania Revenue Authority (TRA)	To be an effective and efficient tax administration which promotes <b>voluntary compliance</b> by providing high <b>quality customer service</b> with fairness and integrity through competent and motivated staff.

Sources: ATO, 2010a, CRA, 2010b; HMRC; <http://www.ird.govt.nz/aboutir/who-we-are/> [Accessed 9 April 2011]; IRAS, no date; IRS, 2009; KRA, 2009b ; MRA, 2011 ; <http://www.sars.gov.za/home.asp?pid=201> [Accessed 9 April 2011]; TRA, 2008b.

A review of the legislative frameworks of ARAs in select countries indicates that their functions and associated capabilities are specified in the laws establishing them ((Government of Canada, 1999); (Government of Kenya, 1995); (Government of Mauritius, 2004); (New Zealand Government, 1994)). Core functions typically entail: administrative aspects such as assessment, collection, enforcement, accounting and reporting on tax and non-tax revenues; provision of advice on tax matters; and border protection. It is worth mentioning that ARAs countries such as Australia, Canada, New Zealand and the UK have the mandates to administer various social security programmes. This function is not prominent in African ARAs. However, SARS is expected to support the implementation of government's social security and wage subsidy initiative. Also the ARAs in the USA, Canada and Australia do not have a mandate to protect borders.

In addition to their strategic plans, most ARAs typically articulate what standards of service and treatment their stakeholders can expect as well as their rights and obligations in charters. The use of charters was spearheaded by HMRC in the UK, which developed its first taxpayer charter in 1986 (James et al., 2005). Thereafter, the OECD (1990) issued a practice note on the subject of taxpayers' rights and obligations, and a model charter. It is noteworthy that ARAs, such as the Australian Tax Office (ATO), have periodically revised their charters to reflect stakeholder feedback. In its most recent charter, the ATO (2010b) informs its stakeholders that they should count on: receiving fair and reasonable treatment; being assumed to be honest unless they act otherwise; professional service and assistance; privacy and confidentiality; ease of compliance; and their rights to make complaints. The same principles underpin the charters of other ARAs, including but not limited to Kenya Revenue Authority (KRA) (2007), Mauritius Revenue Authority (MRA)<sup>7</sup>, South African Revenue Service (SARS)<sup>8</sup> and Tanzania Revenue Authority (TRA)<sup>9</sup>.

#### **4.4 Performance measurement at an outcome level**

It is apparent that the building blocks above influenced the determination of the outcomes in the 10 ARAs reviewed. It is also significant that if one excludes social security contributions, which fall outside the scope of this research, the 11 broad outcomes sought by the 10 ARAs, fall within 10 key result areas presented in Table 4.2. It is not clear what the positive and

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<sup>7</sup> <http://www.gov.mu/portal/sites/mra/download/taxpayercharter1.pdf> [Accessed 11 April 2011].

<sup>8</sup> <http://www.sars.gov.za/home.asp?pid=54195> [Accessed 12 June 2011].

<sup>9</sup> <http://www.tra.go.tz/documents/TRA%20TAXPAYERS%20CHARTER-ENG.pdf> [Accessed 4 April 2011].

negative linkages between outcomes are. However, through a simple process of induction, it would appear that outcomes around modernisation, improved taxpayer services, ease of paying taxes and enforcement are expected to contribute to increased revenue collection for development. In contrast investments in modernisation, strengthening ARA staff capacity and enhancing the work environment could lead to increased operational costs and an initial reduction in the levels of revenue available for development.

At least seven of the broad outcomes listed in Table 4.2 are sought by the vast majority of ARAs. For instance, it is not surprising that with the continuous innovations in information and communication technology, that modernisation through automation, is a broad outcome sought by 90% of the ARAs covered by this researcher's review of planning trends. On the other hand, as some ARAs have only been in existence since the 1990s and 2000s (e.g. KRA, MRA, SARS and TRA), they probably have a greater need to focus on aspects around institutional strengthening and not those targeted by the other long established authorities. It is also noteworthy that some ARAs have more than one outcome presented in composite mission statements. For example, Inland Revenue Department (IRD) of New Zealand's (2010: 19) intermediate outcome statement "revenue is available to fund government programmes through people meeting payment obligations of their own accord" could be broken down into broad outcomes 1 and 4 in Table 4.2.

**Table 4.2: Matrix of key result areas and broad outcomes sought by various ARAs**

Key result area	Broad outcomes sought	KRA	SARS	TRA	ATO	CRA	HMRC	IR (NZ)	IRS (USA)	IRAS	MRA
1. Revenue collections	• O1 – Increased revenue collections for development	✓	✓	✓	✓	✓	✓	✓	NE	✓	✓
2. Modernisation	• O2 – Operations modernised through automation	✓	✓	✓	✓	✓	✓	NE	✓	✓	✓
3. Taxpayer services	• O3 – Improved taxpayer services	✓	✓	✓	✓	✓	✓	NE	✓	✓	✓
4. Compliance	• O4 – Taxpayers find it easy to pay taxes and hence comply	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. Enforcement	• O5 – Deliberate non-compliance effectively addressed through enforcement	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6. ARA costs	• O6 – The ARA operates efficiently & effectively	✓	✓	✓	NE	✓	✓	✓	NE	✓	✓
7. Protection of borders & trade facilitation	• O7 – Size of the illicit economy minimised	NE	✓	NE	NE	NE	✓	NE	NE	NE	NE
	• O8 – Legitimate trade enhanced	NE	✓	✓	NE	NE	NE	NE	NE	✓	✓
8. ARA internal capacity	• O9 – Staff capacity &/or administrative systems strengthened	✓	✓	✓	✓	✓	NE	NE	✓	✓	✓
9. ARA work environment	• O10 – An enabling work environment in place	✓	✓	✓	NE	NE	NE	NE	✓	✓	✓
10. Good governance	• O11 – An ARA with a strong corporate image & which is well governed	✓	✓	✓	NE	NE	NE	NE	NE	NE	✓

Key – NE= Not Explicit; Sources: ATO, 2010a, CRA, 2010b; HMRC; <http://www.ird.govt.nz/aboutir/who-we-are/> [Accessed 9 April 2011]; IRD, 2010; IRAS, no date; IRS, 2009; KRA, 2009b ; MRA, 2011 ; <http://www.sars.gov.za/home.asp?pid=201> [Accessed 9 April 2011]; TRA, 2008b.

Yet, overall, there is significant variety in the types of KPIs employed (see Annex B for a full list). On the one extreme, Mauritius’s ARA specifies around 120 KPIs - several of which measure inputs (e.g. ‘number of Client Relationship Managers in the large taxpayers department’) and outputs (e.g. ‘number of business notes prepared’); and others which do not appear to measure specific aspects (e.g. ‘training of frontline officers’ and ‘self service options through ITAS’) (MRA, 2011). In contrast the IRD of New Zealand assigns only two KPIs for its revenue outcome (IRD, 2010). Tax revenue collected per annum expressed in currency terms or as a percentage of GDP, and the cost of tax administration as a percentage of revenue collected seem to be a universally applied. Tables 4.3 and 4.4 list the KPIs for the various broad outcomes sought that are: (1) commonly applied in a few ARAs; and (2) published globally by institutions such as the World Bank and the United States Agency for International Development (USAID), but not used by at all by ARAs in their strategic plans. It is noteworthy that there are no globally specified KPIs across the 10 ARAs reviewed for the last four broad outcomes.

**Table 4.3: KPIs that are applied in more than one ARA**

Outcome	KPI
O1 – Increased revenue collections for development	<ul style="list-style-type: none"> <li>Actual revenue compared to forecast revenue</li> </ul>
O2 – Operations modernised through automation	<ul style="list-style-type: none"> <li>Percentage (%) uptake in electronic filing (eFiling)</li> <li>% of ARA transactions which are processed using automated systems</li> </ul>
O3 – Improved taxpayer services	<ul style="list-style-type: none"> <li>% uptake in eFiling</li> <li>Average processing turnaround time for tax returns and refunds</li> <li>% taxpayer satisfaction with services/information &amp; tools provided by ARA</li> <li>% of calls/correspondence answered within a target timeframe</li> </ul>

Outcome	KPI
O4 – Taxpayers find it easy to pay taxes and hence comply	<ul style="list-style-type: none"> <li>• Reduction in taxpayer/trader compliance burden</li> <li>• Voluntary compliance rate or fiscal value of non-compliance</li> <li>• The level of collectable debt/ cash recovered from debt book</li> <li>• % of tax returns received by the filing due date</li> <li>• Returns as a % of registered taxpayers</li> </ul>
O5 – Deliberate non-compliance effectively addressed through enforcement	<ul style="list-style-type: none"> <li>• % of actual audits compared to plan/ registered taxpayers</li> <li>• No of non-compliant cases uncovered as a result of audits</li> <li>• No of cases recommended for prosecution/ successfully prosecuted</li> </ul>
O6 – The ARA operates efficiently & effectively	<ul style="list-style-type: none"> <li>• Amount spent for every dollar of tax collected or administrative costs as a % of revenue collected</li> <li>• % of digitised records with the ARA</li> <li>• % increase in timeliness / accuracy of processing</li> <li>• % reduction in escalated service queries</li> </ul>

Sources: ATO, 2009; CRA, 2010a; HRMC; IRAS, no date; IRD, 2010; IRS, 2009; KRA 2009b; MRA 2011; SARS 2011b; TRA 2008b

This researcher identified six universal indicators (excluding the cost of collection expressed as a percentage of revenue collected) (see Table 4.4). First, Corporate Income Tax Productivity (CITPROD) indicates how well CIT does in terms of producing revenue, given the prevailing tax rate. It is calculated by dividing total corporate income tax revenues by GDP and then dividing this by the general corporate income tax rate. Second, Personal Income Tax Productivity (PITPROD) attempts to provide an indication of how well the personal income tax in a country does in terms of producing revenue. It is calculated by taking the actual revenue collected as a percentage of GDP, divided by the weighted average PIT rate. Third, VAT Gross Compliance Ratio (VATGCR ) is a measure of how well the VAT produces revenue for the government. It is computed by dividing VAT revenues by total private consumption in the economy and then dividing this by the VAT rate. Fourth, is the ratio of tax staff in an ARA to a country's population. All indicators and associated data are maintained by the United



States Agency for International Development (USAID) on an online ‘Collecting Taxes’ website. A review of USAID’s database by Crandall (2010a: 7) reports that CITPROD, PITPROD and other KPI data maintained are useful for cross-country comparisons.

**Table 4.4: KPIs that are available almost universally, but not utilised by ARAs**

Outcome	KPI
O1 – Increased revenue collections for development	<ul style="list-style-type: none"> <li>Productivity of revenue indicators (e.g. PITPROD and CITPROD)</li> </ul>
O3 – Improved taxpayer services	<ul style="list-style-type: none"> <li>Global ease of paying taxes ranking</li> </ul>
O4 – Taxpayers find it easy to pay taxes and hence comply	<ul style="list-style-type: none"> <li>Time taken to prepare, file and pay various taxes (in hours)</li> <li>VAT Gross Compliance Ratio (VATGCR)</li> </ul>
O9 – Staff capacity &/or administrative systems strengthened	<ul style="list-style-type: none"> <li>Tax staff per population</li> </ul>

Sources: [www.doingbusiness.org](http://www.doingbusiness.org) and <http://www.fiscalreform.net> [Accessed 24 June 2011]

Fifth, the ease of paying taxes ranking is issued annually by the World Bank as part of its Doing Business Report, and covers 183 countries – it is a composite measure which takes into account factors such as the number of payments, time taken to comply and overall tax rate for a medium-sized company. So is the sixth indicator - time taken by a company to prepare, file and pay various taxes. Both these indicators are used in assessing a country’s overall ease of doing business ranking, which policymakers all over the world “pay attention to...[and] design policies aimed at doing better on” their overall country ranking (Høyland et al., 2008: 1).

#### 4.5 Reporting performance and disseminating results

Table 4.5 confirms that the majority of ARAs account for progress in achieving outcomes and outputs in annual reports, which are on the whole available for download by members of the public, businesses and other arms of civil society at their respective websites. Annual reports are available for

several years. However, there are some exceptions – Kenya’s ARA publishes quarterly performance reports online, which primarily focus on financial metrics, but with some KPI data (e.g. number of taxpayers that used e-Filing) and narratives on progress with respect to implementation of reforms (KRA, 2011a). Tanzania publishes an annual report in hard copy, with some data on KPIs. A search on its website suggests that the IRS in the USA does not make its financial statements accessible to the public through this medium.

Annual reports, which can run into several hundreds of pages (e.g. ATO), also frequently contain audited financial statements. A review by this researcher of some of these reports identified four unique features. First, Canada’s ARA rates whether performance targets for each KPI were met, mostly met or not met (CRA, 2010a). In addition, it reports various volumetrics in the narrative parts of its annual report such as the number of enquiries handled during the year, the volume of tax-related visits to its website, number of returns processed, the total dollar value of tax liabilities in dispute and so on. Second, the UK also compares actual performance against baseline and target data for each KPI (HMRC, 2009). South Africa adopts a similar style as the UK, and also provides a commentary to explain any significant variances between actual and targeted results (SARS, 2010a).

**Table 4.5: Annual reporting of performance in the 10 ARAs**

ARA	Produces annual report?	Annual report available at its website?	Reports data for KPIs
ATO	✓	✓	✓
CRA	✓	✓	✓
HMRC	✓	✓	✓

ARA	Produces annual report?	Annual report available at its website?	Reports data for KPIs
IRAS	✓	✓	✓
IRD	✓	✓	✓
IRS – USA	✓	✓	✓
KRA	✓	✓	✓
MRA	✓	✓	✓
SARS	✓	✓	✓
TRA	✓	x	✓

Sources: ARA websites and reports

Third, in the USA, an independent office within the IRS, The Taxpayer Advocate Service (TAS), reports to Congress on an annual basis on key issues faced by taxpayers, including concerns around their rights, and those to do with tax administration. Its feedback appears to be largely qualitative. TAS also advocates for policy and administrative changes. In a report reviewed at the time of writing this document, TAS commented on the adequacy of the IRS’s KPIs. It expressed concerns around the unintended consequences of performance measurement – in particular that:

*“Measures place disproportionate emphasis on cycle time...[creating] incentives for IRS employees to take actions quickly, even where doing so produces inaccurate results or delays the final resolution of problems” (TAS, 2010: 5).*

Fourth, Australia identifies areas where actual results have stagnated or dipped and specifies what measures it has taken in the past year, or will take the following year to improve performance (ATO, 2010a). It also reports the results of any ameliorating measures taken in the past year – so for example, in its 2010 annual report, the ATO indicates that measures taken to address the timeliness of private tax rulings resulted in “a number of improvements, but [we] were still below par in relevant service standards” (ATO, 2010a: vi).

In addition, the ATO provides a schedule of comparative information to enable certain KPI data to be used for benchmarking purposes by the OECD. KPI data cover six dimensions: revenue collection; tax debt collection; return filing; taxpayer service delivery; administration cost; and staff. The ATO's report flags some additional KPIs and associated targets that appear amenable for universal application (see Table 4.6).

**Table 4.6: KPIs that are amenable to universal application**

Outcome	KPI
O3 – Improved taxpayer services	<ul style="list-style-type: none"> <li>• % of electronic tax returns processed within 14 days of receipt</li> <li>• % of paper returns for individuals and non-individuals processed within 42 and 56 days of receipt respectively</li> <li>• % of correspondence sent to the automated reply email reply service addressed within 3 working days</li> <li>• % of correspondence sent through normal channels addressed within 3 working days</li> <li>• % of electronic and paper amendment requests addressed within 28 days and 56 days of receiving all the necessary information respectively</li> <li>• % of taxpayers notified of the outcome of audits within 7 days of the ATO making a decision</li> <li>• % of clerical or administrative errors fixed within 21 days</li> <li>• % of complaints resolved within 21 days</li> </ul>
O4 – Taxpayers find it easy to pay taxes and hence comply	<ul style="list-style-type: none"> <li>• % of taxpayers who agree that the ATO has made it easier to complete an income tax return</li> <li>• % of taxpayers who think it is easier now than in the past to deal with the tax system</li> </ul>

Sources: ATO, 2010a and [http://www.ato.gov.au/corporate/content.aspx?menuid=0&doc=/content/25940.htm&page=2#P21\\_949](http://www.ato.gov.au/corporate/content.aspx?menuid=0&doc=/content/25940.htm&page=2#P21_949) [Accessed 26 June 2011]

## 4.6 Prospects for benchmarking performance

If all ARAs used the same KPIs, then there would be a basis on which to benchmark many aspects of their performance. Benchmarking is “a systematic process for identifying and measuring ‘performance gaps’ between one’s own outputs and processes, and those of others” (Vázquez-Caro and Bird, 2011: 2). In this regard, there have been several initiatives to

benchmark performance in ARAs both quantitatively and qualitatively. The World Bank's paying taxes indicators and USAID's measures of productivity illustrated in Table 4.4 above are two such examples. USAID's measures are informed by the work of Gallagher (2005: 142) who argues that benchmarking provides counsel to ARAs "on what needs to be done to improve their tax administrations and international" comparisons are useful. In addition, an initiative by the International Tax Dialogue (ITD) benchmarks aspects such as institutional arrangements, tax and non-tax assignments, staff numbers, management practices, funding arrangements and revenue performance in 13 ARAs in Sub-Saharan Africa (ITD, 2010). Indicators used for comparative purposes are largely qualitative, with a focus on inputs, processes and outputs as opposed to outcomes.

There has also been an initiative financed by the development institutions including the World Bank and European Commission and Governments of the United Kingdom, France, Norway and Switzerland to improve public financial management (PFM) particularly in developing countries through a Public Expenditure and Financial Accountability Review (PEFAR). The PEFAR "framework specifies 28 indicators to be used to evaluate each country's PFM system" (Kariuki and Kiragu, 2011b: 137). The following four indicators relate to tax administration: (1) aggregate revenue out-turn compared to original approved budget; (2) transparency of taxpayer obligations and liabilities; (3) effectiveness of measures for taxpayer registration and tax assessment; and (4) effectiveness in collection of tax payments (PEFA Secretariat, 2011: 9). A recent review of the PEFAR framework which sought to establish the feasibility of designing a drill-down

tool for tax administration assessed the current indicators to be incomplete. The reviewer suggested that there is scope to expand the review to cover aspects such as:

*“Taxpayer services and education; returns, filing and payment; information technology and integrated tax administration systems; compliance strategies including segmentation of taxpayers by size and other characteristics; self assessment, voluntary compliance, and functional organization structures; audit and enforced collection results; autonomy, governance, human resources management and ethics; rights and obligations of taxpayers and the tax authority; strategic and operational planning; and performance reporting”* (Crandall, 2010a: 9).

The European Commission (EC) has also developed a ‘blueprint’ to be used to rank an ARA using qualitative criteria set along dimensions such as an ARA’s: framework, structure and basis; human behavioural issues; systems and functioning; taxpayer services; and support. So for example, one blueprint under framework, structure and basis is ‘overall framework of a tax administration’ which contains seven strategic objectives. Under strategic objective 2 (‘the obligations of the tax administration are clearly translated into its mission, vision and objectives’), one of the key performance indicators is “are the tasks of the tax administration in line with its mission and vision?” (EC, 2007: 13).

Vázquez-Caro and Bird (2011) are critical of both quantitative and qualitative benchmarking techniques for three main reasons. First, the authors are of the view that benchmark measures are often drawn up by external parties

(e.g. donors), and rarely have the buy-in of ARA managements, and could therefore lead to some of the perverse behaviours described in Chapter 3 of this document. Second, benchmarks do not flag contextual issues – so for example the cost of collection as a percentage of revenue collected does not enable one to appreciate whether revenue collection potential in a particular country is significantly higher. Third, although benchmarks can be helpful in pinpointing problem areas “they cannot and do not tell us exactly what happened, why it happened, or how it can be fixed” (Vázquez-Caro and Bird, 2011: 3).

Instead a systematic benchmarking is preferred (Vázquez-Caro and Bird, 2011). This latter approach entails identifying good strategic and operational practices together with their associated KPIs, and thereafter modifying them to suit an ARA’s legal framework, modus operandi, resource constraints, capacity and so forth. Furthermore, the same authors suggest that to achieve a more effective tax administration, successful ARAs have shifted towards ‘cooperative’ as opposed to ‘adversarial’ relationships with taxpayers, implying the need to address the strategic success factors shown in Table 4.7. The third column in the table represents an attempt by this researcher to link each success factor with the broad outcomes listed in Table 4.2. The authors suggest a combination of qualitative and quantitative result indicators for the various benchmarks presented in Table 4.7. In addition, benchmarks are underpinned by the need to have adequate capacity in place by ensuring that the ARA adequately develops its staff.

**Table 4.7: Towards a cooperative approach**

Success factor	Main features	Covered by broad outcome (see Table 4.2)	Benchmarks	Result indicators
Structured risk management	ARA takes advantage of technology and data collection to analyse and appreciate the risks associated with non-compliance by various taxpayer segments.	O2 – Operations modernised through automation O5 – Deliberate non-compliance effectively addressed through enforcement O6 – The ARA operates efficiently & effectively	<ul style="list-style-type: none"> <li>- Deepening of risk analysis</li> <li>- Tax form information strategy</li> <li>- Formalization and standardization of corporative compliance</li> <li>- Basic internal control systems of tax administration</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction of non-compliance due to deterrence</li> <li>• Higher effectiveness of tax audit targeting</li> <li>• The possibility of deep computerized audits</li> <li>• Dissuasive effects generated by the contents of forms</li> <li>• Establish protocols of intervention</li> <li>• Manuals</li> <li>• Definitions of operational practices</li> <li>• Efficient and accurate operation of these systems</li> <li>• Deterrence of fraud and corruption</li> </ul>
Viewing the taxpayer as a customer	ARA offers one-stop services through dedicated offices (e.g. for large taxpayers). ARA sets service standards	O3 – Improved taxpayer services O4 – Taxpayers find it easy to pay taxes and hence comply	<ul style="list-style-type: none"> <li>- Client focus</li> <li>- Higher concern for equity than maximisation of collection</li> </ul>	<ul style="list-style-type: none"> <li>• Improved services</li> <li>• Enforceable service standards</li> <li>• Focussed audit interventions by segments</li> <li>• Higher horizontal equity</li> <li>• Higher compliance</li> <li>• Proper collection levels</li> </ul>
The quality of the tax laws	The country's tax laws are simplified to enable easy interpretation and ensure fairness	O4 – Taxpayers find it easy to pay taxes and hence comply	<ul style="list-style-type: none"> <li>- Participation in shaping of legal framework</li> </ul>	<ul style="list-style-type: none"> <li>• No of legal initiatives drafted by tax administration</li> <li>• Number of interventions of tax administration experts in Parliament</li> </ul>
Appropriate international	ARAs collaborate and share information on transactions	O1 – Increased revenue collections for development	<ul style="list-style-type: none"> <li>- Internationalization of tax administration</li> </ul>	<ul style="list-style-type: none"> <li>• Higher horizontal equity</li> <li>• Better compliance (collection)</li> </ul>



Success factor	Main features	Covered by broad outcome (see Table 4.2)	Benchmarks	Result indicators
networking		O8 – Staff capacity &/or administrative systems strengthened O11 – An ARA with a strong corporate image & which is well governed		levels from international payers
A wide range of consultative arrangements	ARA consults taxpayers and other tax administrations on the tax system	O1 – Increased revenue collections for development O11 – An ARA with a strong corporate image & which is well governed	- Knowledge networking in society: consultative arrangements	<ul style="list-style-type: none"> <li>No of private-public institutions dealing with taxation</li> <li>No of administrative general rulings conceived collectively with civil society</li> <li>No of meetings with knowledge-based and civil/society groups</li> </ul>
Generalized used of internet-based technology	ARA introduces web-based technologies to keep transaction costs low and improve services. It also actively collects information of taxpayers	O2 – Operations modernised through automation O3 – Improved taxpayer services O4 – Taxpayers find it easy to pay taxes and hence comply O8 – Staff capacity &/or administrative systems strengthened	- Migration to web-based interactive processes	<ul style="list-style-type: none"> <li>No of totally automated interactive transactions</li> <li>No of transactions with internet access</li> </ul>
ARA develops into a knowledge-based organisation	Knowledge and staff development are given priority	O9 – Staff capacity and/or administrative systems strengthened O10 – An enabling work environment	- Development of knowledge organization (across departments)	<ul style="list-style-type: none"> <li>Training impact on tax administration performance</li> </ul>

Source: Vázquez-Caro and Bird, 2011:18-26 and this author

#### **4.7 The missing links and answered questions**

The review of the literature on theory and practices in ARAs was beneficial in facilitating this author to identify what is in place as well as several missing links and unanswered questions. The universal KPIs used by the World Bank and USAID appear to be reasonable proxies for some of the broad outcomes sought, while associated data is readily available, and hence cost effective to collect. Still, it is not clear why ARAs do not use them, especially since the World Bank's KPIs form a key dimension in assessing a country's overall business environment. Are such measures ignored because they have been devised by external parties?

There are also underlying processes which are not easily discernible without verbal exchanges with the actors involved. For instance, it is not obvious how KPIs are identified, or their associated targets set. With respect to targets, there is one exception – Canada, where the ARA explicitly states that it sets “targets by analyzing affordability constraints, historical performance, the complexity of the work involved, and the expectations of Canadians” (CRA, 2010a: 9). Moreover, the costs and routines associated with collecting KPI data are not articulated in the publically available documents that this author has reviewed.

The work by Vázquez-Caro and Bird (2011), provides food for thought around strategies and performance measures that could be used by an ARA that decides to adopt a cooperative approach. In fact, almost all the broad outcomes sought by the ten ARAs reviewed by this author can be matched to elements of the cooperative approach – the exception being O7 – Size of

the illicit economy minimised. However, some unanswered questions linger as follows: What are the implications if any of a systematic benchmarking approach? Does benchmarking performance measures against the best in class limit African ARAs scope for innovation?

# 5 Stakeholders' assessments of performance measures and reports

## 5.1 Introduction

This chapter analyses stakeholder assessments of performance measures and the way in which they are reported. The chapter first analyses rankings from executives (internal stakeholders) in the three ARAs (KRA, SARS and TRA) with respect to commonly and uncommonly used KPIs, obtained through the administration of the questionnaire presented in Annex B. The focus of the analysis of internal stakeholders' views is on: (1) three tiers of 12 measures that are most frequently rated as very important (2) good practice indicators listed in Chapter 4 Table 4.6; and (3) the key measures for which stakeholders hold no strong opinion. Detailed frequency tables are presented in Annex D.

A penultimate section of this chapter analyses external stakeholder views and preferences with respect to ARA annual reports and performance measures incorporated in them. This latter section also compares internal and external stakeholder priority KPIs. The final section delves into two critical areas of revenue administration, debt management and audits, whose KPIs did not feature as high priority.

## 5.2 First tier of four most highly ranked KPIs

Overall across the three ARAs, the indicators that are ranked by internal stakeholders as most (very) important in order of frequency are: (1) actual revenue compared to forecast revenue (84.3%); (2) voluntary compliance rate (74.5%); (3) percentage of taxpayers satisfied with services/information

and tools provided by the ARA (72.5%); and (4) percentage uptake in electronic filing (70.6%). Table 5.1 maps these four KPIs to the broad outcomes identified in the previous chapter (see Table 4.2).

**Table 5.1: First tier KPIs categorised by broad outcome sought**

KPI	Outcome
Actual revenue compared to forecast revenue	O1 – Increased revenue collections for development
Voluntary compliance rate	O4 – Taxpayers find it easy to pay taxes and hence comply
Percentage of taxpayers satisfied with services/information and tools provided by the ARA	O3 – Improved taxpayer services
Percentage uptake in electronic filing	O2 – Operations modernised through automation

Sources: Internal stakeholder questionnaire and Table 4.2

The weight accorded to actual revenue compared to forecast revenue is attributable to a number of factors such as: (1) it is a measure of economic independence; (2) for ministries of finance in developing countries, revenue is key for development - the national budget depends on how much revenue is collected; (3) it measures the extent to which the ARA is contributing to meeting its mandate – one respondent indicated that “it is the language discussed here every day”; and (4) it is a proxy for gauging compliance.

It is noteworthy that some respondents pointed out that the rate of voluntary compliance is of utmost importance, but there is no way of fully measuring it at the moment. This might explain why it is rated as the second most important KPI. Engendering a culture of compliance is a key agenda across the ARAs surveyed as it can be used to determine taxpayer engagement, and implies that there is less need to chase them up to pay taxes that are due. As a result, voluntary compliance removes negative views about the

ARA's enforcement/policing activities. Furthermore, if voluntary compliance is high, resources can be freed to widen the tax base (e.g. in the informal sector). Still a few respondents pointed out that access to third party information is critical to gauging voluntary compliance.

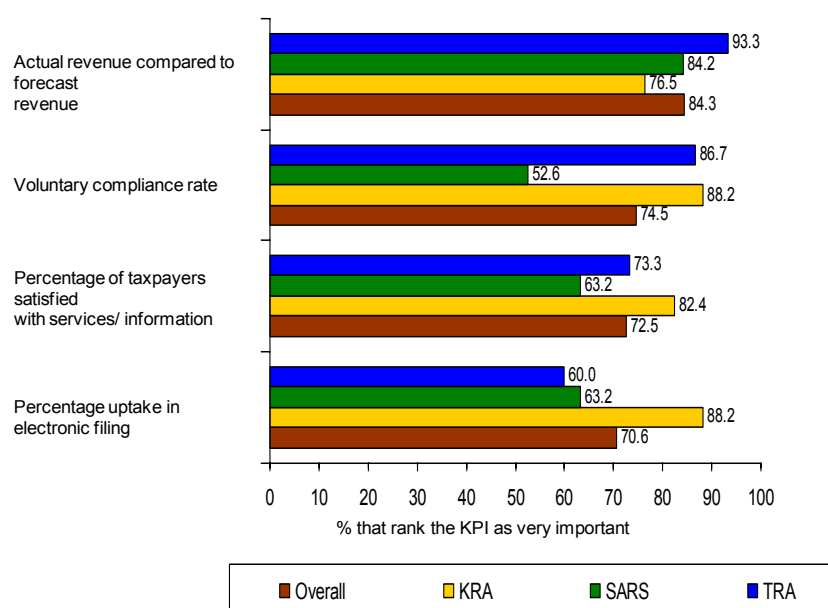
Taxpayer satisfaction is rated relatively high, but surprisingly ranks more than 10 percentage points lower than 'actual revenue compared to forecast revenue' given that in discussions with several respondents, they underscored its worth. Some respondents reiterated that it is the most important measure. Other respondents suggested that this KPI can provide a number of messages such as: (1) if an ARA's tools are user friendly, uptake will be quite high resulting in increased levels of compliance; and (2) an ARA can use this measure to gauge whether services/tools have been accepted, and to continually improve taxpayer services.

Modernisation through electronic filing (eFiling) was ranked as very important by a large percentage of respondents. Respondents that rated eFiling as a priority KPI were of the view that it underpins the future, especially as it reduces the taxpayer burden and ARA processing times, and it is therefore a good proxy for compliance and administrative efficiency (in terms of reducing human input and processing errors, enhancing transparency and strengthening controls) respectively. Moreover, according to some respondents, high levels of eFiling enable an ARA to minimise corruption through limited interactions with taxpayers, and focus on: those falling outside the tax net or who are not aware of their obligations; and on enforcement. Still, it is noteworthy that at the time internal stakeholders were

surveyed, eFiling was only limited to a number of tax heads (e.g. income tax and VAT), and taxpayers (e.g. who pay presumptive taxes or in rural areas) are excluded. The success of eFiling is also dependent on a solid infrastructure. In this latter regard, some respondents, particularly from KRA and TRA, highlighted limitations created by power interruptions and a narrow broadband infrastructure both of which limit access.

However, as Figure 5.1 illustrates, there are variations in the frequency of very important ratings across the three ARAs. For instance, 93.3% of the respondents from TRA consider that 'actual revenue compared to forecast revenue' is very important where as only 76.5% and 84.2% of KRA and SARS executives surveyed respectively, rate the same measure as very important. Some respondents from KRA shared their concern about the credibility of forecasts which are set by the Treasury. In particular, forecasts do not seem to take into account KRA's capacity and other exogenous variables (such as data on the informal sector are not available). On the other hand some SARS executives suggest that revenue forecasting is more of an economic exercise outside the control of the ARA.

**Figure 5.1: The frequency with which internal stakeholders rank the first tier KPI s as very important**



Source: Internal stakeholder questionnaire responses

Another stark variation is in the magnitude attached to voluntary compliance. Only 52.6% of respondents at SARS rank voluntary compliance as very important in comparison to 88.2% and 86.7% executives surveyed at TRA and KRA respectively. Two respondents from SARS suggested that the absolute value of this indicator is influenced by the national culture. In particular, in the case of South Africa there is need to keep an eye on revenue, as tax morality is low (compared to say Sweden). What is more, this absolute value will only increase with better segmentation, education, service and enforcement. An alternative perspective is that this KPI can only be properly gauged when an ARA has access to third party information on taxpayers.

In the case of the third and fourth most highly ranked KPIs, it is worth mentioning that almost all the respondents that did not rank them as ‘very



important', rated these measures as 'quite important'. For example, 11.8%, 36.8% and 20% of internal stakeholders from KRA, SARS and TRA consider that the percentage of taxpayers satisfied with services/information and tools provided by the ARA is quite an important KPI. The exceptions are KRA and TRA where 5.9% and 6.7% of respondents hold no strong opinion.

### 5.3 Second tier of four priority KPIs

68.6% of respondents rate the following four KPIs as very important: (1) average processing turnaround time for tax returns and refunds; (2) reduction in taxpayer/trader compliance burden; (3) amount spent for every dollar collected; and (4) percentage increase in accuracy of processing. Table 5.2 plots these four KPIs to the broad outcomes identified in the previous chapter (see Table 4.2).

**Table 5.2: Second tier KPIs categorised by broad outcome sought**

KPI	Outcome
Average processing turnaround time for tax returns and refunds	O3 – Improved taxpayer services
Reduction in taxpayer/trader compliance burden	O4 – Taxpayers find it easy to pay taxes and hence comply
Amount spent for every dollar collected	O6 – The ARA operates efficiently and effectively
Percentage increase in accuracy of processing	O6 – The ARA operates efficiently and effectively

Sources: Internal stakeholder questionnaire and Table 4.2

Internal stakeholders interviewed pointed out that the average processing turnaround time for tax returns and reforms, enables an ARA to undertake swift follow-up or analysis. It is also a useful measure of fairness as well as taxpayer costs and service experience. Taxpayers should be willing and happy to pay taxes, if, their interactions with the ARA, are fruitful (e.g. they obtain timely feedback). Some respondents expressed the view that if

processing times are long, taxpayers may be tempted to bribe or evade taxes. It is noteworthy that respondents from both KRA and TRA indicated that this KPI is particularly significant for processing VAT refunds. Prompt processing of VAT refunds can incentivise compliance as it boosts taxpayers' cash flows, thus enabling them to meet other financial obligations. However, the two ARAs receive a fixed allocation for refunds from their ministries of finance, which tends to be less than the actual amounts to be paid out to taxpayers. As a result, there can be long delays in effecting VAT refunds.

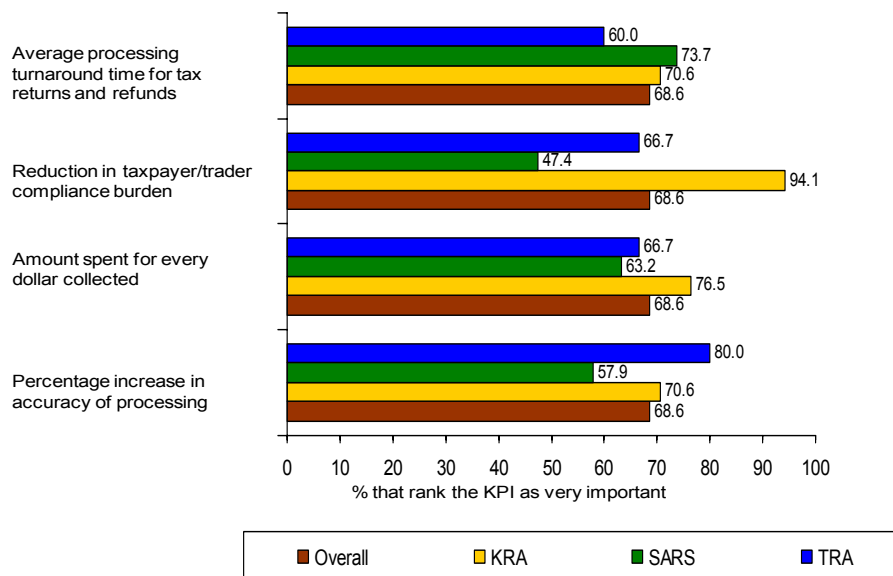
A reduction in the taxpayer/trader compliance burden is considered by ARA staff to be an important KPI for a service oriented organisation as it signals simplicity, effort in terms of time and cost minimisation for both the ARA and taxpayers. Tax is a 'grudge payment'. Therefore, getting the process right, especially in a self-assessment regime, is at the heart of a positive value for this KPI. In other words, a low compliance burden promotes voluntary compliance and therefore reduces the need for enforcement.

The amount spent for every dollar collected is considered to be a measure of thriftiness/ fair use of resources. More specifically, respondents indicated that ARAs are under pressure to contain the cost of collecting taxes other than when there are capital outlays (particularly following their establishment). It is also a useful KPI for benchmarking. However, several respondents from KRA consider that a very low cost of collection ratio implies that an ARA has insufficient resources to administer and collect taxes. In contrast, in line with a government policy to create employment, SARS's cost of collection is higher than it needs to be as it carries excess staff.

Accurate processing is at the core of an ARA's endeavour to seek continuous improvement by saving costs and reducing incentive not to comply. Accuracy in processing also stops repeated interactions with taxpayers which are time consuming, frustrating and encourages graft. In the case of SARS, accurate processing is monitored especially with respect to audits and services provided at the call centre, encouraged through the use of tools such as intelligent and pre-populated forms.

Figure 5.2 presents the aggregated and disaggregated frequencies for the second tier KPIs. Again there are variances in the extent to which the three ARAs rate the importance of the four measures.

**Figure 5.2: The frequency with which internal stakeholders rank the second tier KPI s as very important**



Source: Internal stakeholder questionnaire responses

94.1% of respondents from KRA consider a reduction in the taxpayer/trader compliance burden to be very important, where as only 66.7% and 47.7% of executives at TRA and SARS respectively are of the same view. Still, the

remainder of the executives surveyed at TRA (33.3%) and SARS (52.6%) consider this KPI to be quite important. Similar trends can be observed for the other three measures.

## 5.4 Third tier KPIs

Respondents rated the following four KPIs, which have been categorised as third tier KPIs: (1) time taken to prepare, file and pay various taxes (64.7%); (2) global ease of paying taxes ranking (60.8%); and (3) percentage uptake in electronic filing (56.9%), and number of cases successfully prosecuted (56.9%). The first two KPIs are universal measures developed and used by the World Bank. Table 5.3 links these four KPIs to the broad outcomes identified in the previous chapter (see Table 4.2).

**Table 5.3: Third tier KPIs categorised by broad outcome sought**

KPI	Outcome
Time taken to prepare, file and pay various taxes	O4 – Taxpayers find it easy to pay taxes and hence comply
Global ease of paying taxes ranking	O3 – Improved taxpayer services
Percentage uptake in electronic filing	O3 – Improved taxpayer services
Number of cases successfully prosecuted	O5 – Deliberate non-compliance effectively addressed through enforcement

Sources: Internal stakeholder questionnaire and Table 4.2

Internal stakeholders consider that the first two KPIs are useful for benchmarking tax administrations, in that they pinpoint countries where an ARA can draw on good practices. In addition, some respondents expressed the view that the ‘time taken to prepare, file and pay for various taxes’ is gaining prominence in ARAs as it is a handy measure of the simplicity of the tax system and efficiency of services. In other words, there is a need to keep this particular KPI low to promote taxpayer compliance. To this end, a few respondents identified: the simplification of forms (e.g. VAT returns in Kenya)

and automation, as critical contributors to reducing the absolute value of this measure.

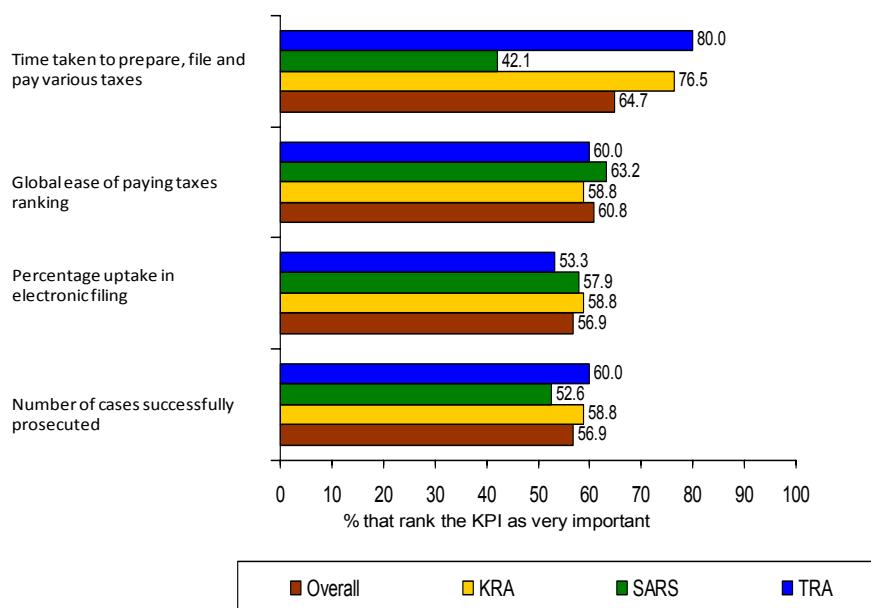
Respondents also associated the global ease of paying taxes ranking with a country's reputation and attractiveness for foreign investment. Also, in the case of Kenya and Tanzania, for example, the ARA's vision is to be the leading authority. Therefore two respondents suggested that the global ease of paying taxes ranking is a good measure of whether its vision is likely to be attained. However, some respondents cautioned that the global ease of paying taxes ranking could be misleading. In particular, an ARA could move up the rankings but taxpayers may still be dissatisfied. A few respondents also expressed ignorance about the methodology used to arrive at rankings. One respondent was of the opinion that rankings may not be realistic as they are based on consultants' perceptions as opposed to surveys of taxpayers. Furthermore, ARAs are not consulted during the evaluation process.

It is noteworthy that respondents ranked the importance of the percentage uptake in eFiling in the context of achieving improved taxpayer services (56.9%) much lower than the same KPI used as a means for gauging the success of modernising operations (70.6%). Whilst there was acknowledgement that eFiling offers a convenience to taxpayers who do not have to queue, a consistent reservation articulated by respondents (particularly from KRA and TRA), revolved around the narrow national infrastructure and access. System downtimes and low levels of ICT capacity by taxpayers were some of the recurring examples of the obstacles faced in each of countries.

Respondents identified the number of cases prosecuted to be the most important KPI under the broad outcome 'deliberate non-compliance effectively addressed through enforcement' as it deters tax evasion. According to one informant, a major weakness in Africa is that tax evaders do not get prosecuted. Yet, irrespective of efficiency and good services, there will still be taxpayers who deliberately do not comply. It is therefore important that an ARA is seen to take action. However, it was suggested by a few respondents that an indicator such as 'no of cases successfully prosecuted as a percentage of total cases prosecuted', may be a more informative measure. Moreover, the cases selected for prosecution should be well thought out, as losses send the wrong signals. Also, successful prosecution is dependent on a strong and efficient judiciary – this is a major impediment in all three countries. Besides, penalties and fines levied by the courts, need to be sufficiently punitive.

Figure 5.3 presents the frequency with which respondents rated each third tier attribute as very important. On the whole, the range of opinions across the three ARAs is fairly consistent for three KPIs. In this regard, the variances in frequencies for the 'global ease of paying taxes ranking' and 'percentage uptake in electronic filing' are small. The widest differences in opinion centre on 'the 'time taken to prepare, file and pay for various taxes'. Only 42.1% of respondents from SARS rate this KPI as very important as compared to 80% and 76.5% of executives from TRA and KRA respectively.

**Figure 5.3: The frequency with which internal stakeholders rank the second tier KPI s as very important**



Source: Internal stakeholder questionnaire responses

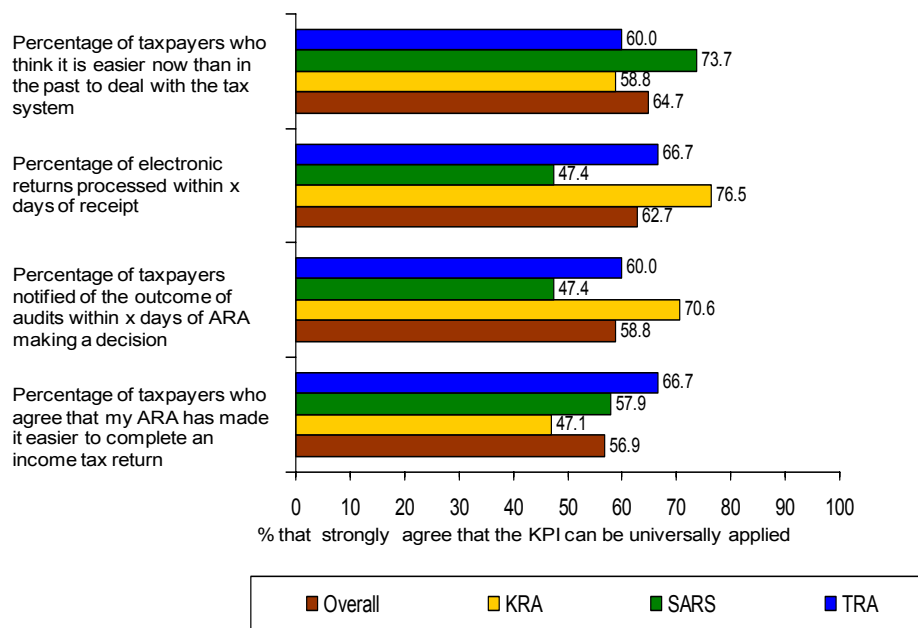
Informants from SARS were generally not familiar with this World Bank indicator, where as, there were signs from the other two ARAs which receive project financing from the same institution, that this measure is increasingly the focus of attention. Still it is worth pointing out that 47.4% of respondents from SARS rated this measure as quite important.

## 5.5 Views on good practice KPIs

Respondents from the three ARAs were also asked to provide their opinions on the ten good practice measures listed in Table 4.6 in Chapter 4. Figure 5.4 presents the four most highly ranked measures that the majority of internal stakeholders strongly agree can be applied on a universal basis by ARAs. The measure of the ‘percentage of taxpayers who think it is easier now than in the past to deal with the tax system’ has the highest frequency with 64.7% respondents who strongly agree that it can be universally applied

to assess outcome 4 (taxpayers find it easy to pay taxes and hence comply). It is worth noting that the vast majority of respondents from SARS (73.7%) strongly associate with this measure as it seeks direct views from taxpayers. In particular, this KPI is associated by several respondents with a treasured attribute, SARS's reputation/image. It also measures the success of modernisation in terms of fulfilling taxpayer needs. High levels of taxpayer satisfaction are expected to lead to increased compliance.

**Figure 5.4: The frequency with which internal stakeholders strongly agree that KPIs can be applied on a universal basis**



Source: Internal stakeholder questionnaire responses

In comparison to SARS, only 58.8% and 60% of respondents from KRA and TRA respectively strongly agree that the ‘percentage of taxpayers who think it is easier now than in the past to deal with the tax system’ can be universally applied in ARAs. Some of the respondents who strongly endorse this measure, consider that good client service is fundamental to promoting compliance. However, other respondents expressed scepticism about this



type of client feedback. For instance, recurring views are that: taxpayers refuse to acknowledge positive changes; or when taxpayers say something is good, there could be a loophole; or most taxpayers have a negative opinion about paying taxes – so feedback may not be objective

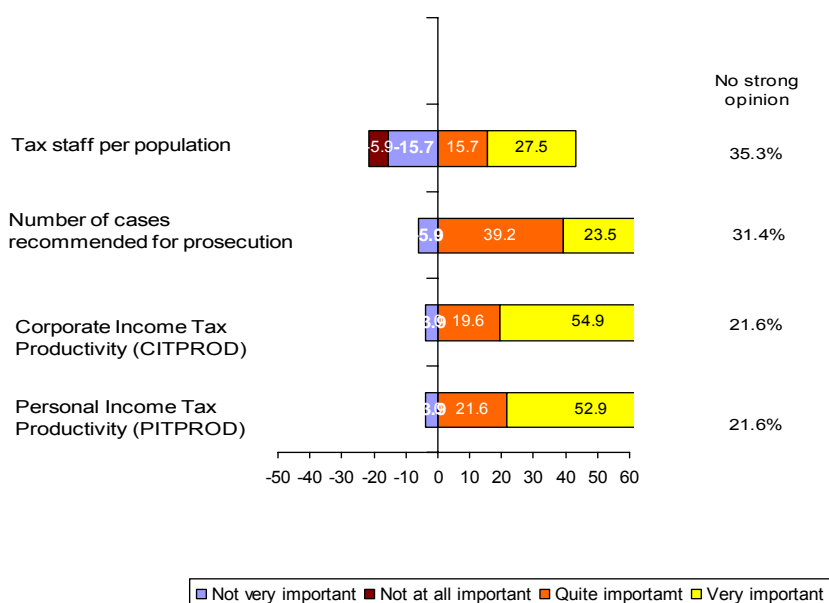
A few respondents remarked that the KPIs under outcome 3 (improved taxpayer services) are not particularly novel. Several of them are already contained in ARAs' client service charters as service standards. Nevertheless, several respondents remarked that service requests are always important. Specifically, KPIs that focus on automation such as the 'percentage of electronic tax returns processed within x days of receipt' are accorded higher priority than those that address manual processes as "paper management is tedious". Still, a view was expressed by more than one respondent that this and other measures such as the 'percentage of taxpayers notified of the outcome of audits within x days of your ARA making a decision', are lacking in that they do not gauge quality. For example, one respondent remarked that SARS's call centre has caused a lot of frustration by its lack of capacity to resolve queries. Thus, it is important to measure whether issues/queries get resolved.

## **5.6 Main KPIs for which stakeholders hold no strong opinion**

Internal stakeholders indicated their indifference to a number of KPIs. At the top of the list are: (1) tax staff per population (35.3%); (2) number of cases recommended for prosecution (31.4%); (3) percentage of paper returns for individuals and non-individuals processed within x and y days of receipt respectively (23.5%); (4) CITPROD (21.6%) and PITPROD (21.6%).

Figure 5.5 presents the entire respondent population’s views on the KPIs listed above. Tax staff per population, seeks to establish the extent to which broad outcome 9 (staff capacity and/or administrative system strengthened) is achieved. Although some internal stakeholders perceive that this measure has some utility (e.g. for activity based costing purposes), a significant proportion of respondents were nonchalant about it for a number of reasons. First, ‘tax staff per population’ does not measure skills, knowledge, roles or the quality of tax administration staff or their productivity. Second, as all ARAs are currently undergoing modernisation, tax staff requirements should be reviewed in tandem with the level of automation, and not in isolation. Third, other more appropriate measures could be used. In this regard, for example, some respondents argue that tax staff as a proportion of registered (or active) taxpayers are better measures, as taxpayers in many African countries are much fewer than the total population.

**Figure 5.5: KPIs with relatively sizeable ‘no strong opinion’ ratings<sup>10</sup>**



Source: Internal stakeholder questionnaire responses

<sup>10</sup> Excludes ‘percentage of paper returns for individuals and non-individuals processed within x and y days of receipt respectively’ which has a different likert scale.

Whilst the majority of respondents (62.7%) consider that the 'number of cases recommended for prosecution' is a quite and very important KPI for assessing the achievement of broad outcome 5 (deliberate non-compliance effectively addressed through enforcement), some internal stakeholders suggest it is a rather process oriented measure. In other words greater efforts should go towards monitoring throughput. So for instance, an ARA could hand over many cases for prosecution to the judiciary with no action taken, or taxpayers who have the money can litigate forever. This explanation might explain why the measure 'number of cases successfully prosecuted' takes higher priority. There is also the option of alternative dispute resolution through a tax tribunal.

Similarly the vast majority of respondents consider 'CITPROD' (74.5%) and 'PITPROD' (74.5%) to be quite and very important as they are indirect measures of compliance, and can also be used for in-country time series analysis and cross-country benchmarking purposes. However, a few respondents question the accuracy of GDP figures, which is the denominator used to calculate the ratio. Others are of the view that both measures relate more to tax policy, and therefore the Treasury has greater ownership of these KPIs. Besides at an individual country level, year-on-year changes are likely to be minimal.

## **5.7 External stakeholder views and preferences on performance reporting**

The primary channel used by ARAs to communicate its results to the public, is through annual reporting. Therefore, this researcher solicited external stakeholder views around aspects such as the merits of such reports, best

media of communication, priority performance information preferences and the effectiveness of reports. Table 5.4 summarises external stakeholders' perspectives on the merits of the three ARAs' annual performance reports. Accountability (5), awareness creation (3), promoting taxpayer confidence (2) and transparency (2), were the most commonly cited merits expressed by external stakeholders.

**Table 5.4: External stakeholder views on the merits of annual performance reports**

<b>What if any are the merits of your tax office/authority reporting its annual performance?</b>
Performance reporting keeps an ARA <b>accountable</b> , creates <i>public confidence</i> and promotes cooperation
Annual performance reports promote <i>awareness</i> creation
They provide useful information on my ARA's activities and major concerns. Reports are also good for <b>accountability</b>
The key merit of annual reporting is <b>accountability</b> , and its sub-set <i>transparency</i> (or disclosure). Reporting engenders <i>confidence</i> in my ARA
Reports are an important mechanism for communicating my ARA's activities – in other words they promote <i>transparency</i>
To increase compliance it is important to increase taxpayer <i>awareness</i> and know what has been completed
It is good to be <i>aware</i> of developments at my ARA in terms of modernisation, taxpayer services, compliance, capacity and good governance
Reports offer important feedback on: the my ARA's ability to collect tax effectively; measures taken to improve services and compliance; and trends in taxpayer behaviour
Reports enable taxpayers to make government <b>accountable</b> to them. For example whether government has the capacity to fund services through own sources
Reports inform civil society about domestic financing sources and my ARA's modernisation initiatives
Civil society wants to know what my ARA is doing and how. Is it making progress?
Tax revenue belongs to taxpayers. An annual report is a cumulative <b>account</b> of developments
Annual performance reports are useful for the purpose of analysis

Source: External stakeholder interviews

The majority of 13 out of 18<sup>11</sup> (or 72%) respondents indicated that they read reports as a matter of interest and for research purposes. Seven out of the 12 that read ARA reports, rank them as very effective and effective for research and reference purposes. Another two respondents expressed no strong opinion, and two stakeholders rated reports as ineffective on account that they did not find the information they were looking for or information was poorly presented. In addition, a few respondents indicated that they go

<sup>11</sup> One respondent gave feedback on two ARAs.

through them in a cursory manner – as reports in their view, are public relations documents. The remaining external stakeholders interviewed admitted that they have never read annual performance reports.

Then again, it is noteworthy that despite the variety of advantages listed above, a few external stakeholders remarked that public access and/or interest in the reports is limited. Table 4.5 indicates one ARA (TRA) only distributes its annual performance reports in hard copy. The majority of 12 out of 17 (or 71%) respondents were of the view that the ARA's website would be the best medium for disseminating reports, especially for urban populations and for research purposes. In addition, popular versions in local languages and with simple messages that make information more digestible should also be distributed to ordinary taxpayers through the mass media.

Table 5.5 compares the priority performance measures from the point of view of external and internal stakeholders. The performance measures specified by external stakeholders are not in any order of priority. However, the numbers shown in brackets indicates the frequency with which external stakeholders listed each measure. The table also denotes that there are six common priority indicators demanded by both internal and external stakeholders. Actual revenue compared to forecast revenue' appears to be the most frequently cited KPI, followed by various proxies of the voluntary compliance rate. Still it is pertinent that in their pursuit of accountability, more than one external stakeholder mentioned the need for KPIs covering equity, ARA capacity, governance, and the tax gap and tax expenditure.

Some respondents interviewed indicated that there is a perception that the rich do not pay their fair share of taxes. It would therefore be beneficial for ARAs to report on the distribution of the tax burden (e.g. gender, by rural/urban split or different occupational groups or company sizes). However, it may be argued that the equity dimension does not easily fit within the broad outcomes sought by an ARA. According to Vázquez-Caro and Bird (2011), this dimension depends on the quality of a nation's tax laws. Although ARAs are expected to contribute to tax and legislative policy development, Ministries of Finance have the overriding responsibility for these functions.

With respect to capacity (broad outcomes 8 and 9), some KPIs proposed by external stakeholders evolve around staff turnover, personnel development and the extent to which parallel systems have been eliminated. On the issue of governance (broad outcome 10), stakeholders suggested KPIs around the volume of complaints and taxpayers' perceptions on corruption would add value.

**Table 5.5: Priority performance measures**

External stakeholders	Internal stakeholders
1. Actual revenue compared to forecast revenue (7)	1. Actual revenue compared to forecast revenue
2. Expansion/contraction of the tax base - no of registered taxpayers disaggregated by sector/industry and gender and compliance levels (6)	2. Voluntary compliance rate
3. Results of taxpayer surveys (2)	3. Percentage of taxpayers satisfied with services/information and tools provided by the ARA
4. Tax gap/ growth projections (3)	4. Percentage uptake in electronic filing
5. Average processing turnaround time for tax returns and refunds (during filing season) (3)	5. Average processing turnaround time for tax returns and refunds
6. Equity indicators which show the extent to which the tax system is progressive and pro-poor (5)	6. Reduction in taxpayer/trader compliance burden
7. Cost of collection (1)	7. Amount spent for every dollar collected
8. Percentage reduction in error rates (1)	8. Percentage increase in accuracy of processing

External stakeholders	Internal stakeholders
9. Tax expenditure/ exemptions (2)	9. Time taken to prepare, file and pay various taxes
10. Governance/corruption indicators (3)	10. Global ease of paying taxes ranking
11. Measures which indicate the extent to which the ARA has strengthened its capacity in terms of staffing and ICT (4)	11. Percentage uptake in electronic filing
12. Statistics on the handling of service queries (1)	12. Number of cases successfully prosecuted

Source: This author using data from key informants

The results of the survey and interviews with internal and external stakeholders respectively are consistent with recent findings by the OECD. Specifically, the OECD (2011:75) identifies the following comparable priority outcome KPIs: (1) the timeliness of service delivery; (2) the trend of measures of taxpayer satisfaction with the services; (3) rates of taxpayer compliance; and (4) reductions in compliance/administrative burden. Moreover, according to the same publication “it appears that much greater attention is being given to reducing administrative costs”. It is however evident that one measure identified in the OECD report, ‘perceptions of employee engagement/satisfaction’, which is a possible indicator broad outcome 10 (an enabling work environment in place), does not feature among the priority KPIs listed above.

External stakeholders also recommended measures that ARAs could take to improve their reporting of performance information. First, reports should be made more public. In the case of two ARAs (KRA and TRA), one needs to formally request for copies of annual reports. Second, ARAs should introduce/strengthen mechanisms for follow up questions on annual reports. Table 5.6 presents stakeholder comments on the latter proposal. Third, to ensure that readers of reports can access comprehensive data sets, ARAs should try as much as possible, to report on the same KPIs each year.

Fourth, the inclusion of benchmark data from other ARAs would be beneficial to stakeholders for comparative purposes especially since most respondents are unaware of developments in other jurisdictions. Fifth, there is need to link performance data to policy priorities such as a nation's broader national development goals.

**Table 5.6: Views on ARAs' accessibility to follow-up questions**

<b>How accessible is your ARA to follow up questions?</b>
If you know someone at my ARA, it is easy to access him/her with follow up questions, If not the process can take a while. Besides there is no contact person listed in the report
I have never tried calling my ARA. Generally other government departments in the country do not pick up phones. I assume this is the same practice in my ARA
It is very difficult to engage my ARA. One keeps getting referred. No one wants to take responsibility
The Large Tax Office has been helpful in relationship management. However, the call centre is unable to resolve issues
It is easier to try and fill data gaps through other channels
My ARA is increasingly accessible

Source: External stakeholder interviews

## 5.8 Debt and audits: problematic areas or shaky KPIs?

Many of the comments made by the internal stakeholders surveyed, suggested that these operational aspects in the three ARAs may be problematic and/or critical to ensuring that revenue targets are met. An analysis of the survey results indicates that the vast majority of respondents consider debt and audit KPIs to be very (and quite) important. Yet, none of the KPIs on collectable debt or audits are within the top 12 priority measures.

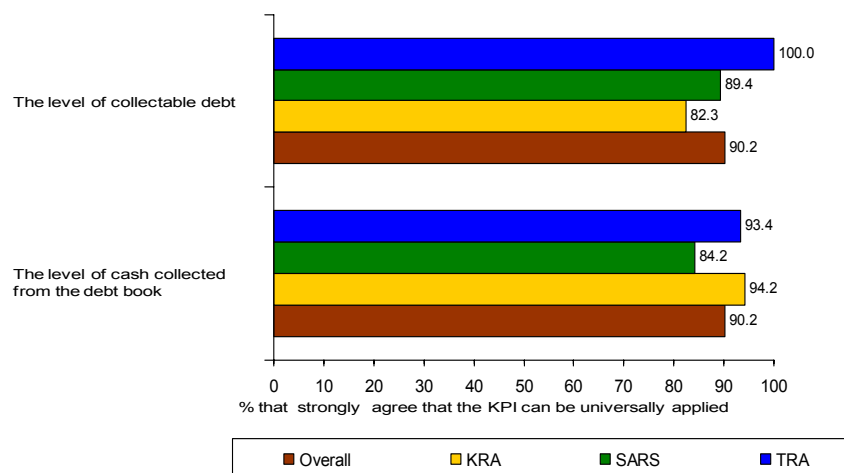
Internal respondents acknowledge that the three ARAs have sizeable debt books, and therefore 'the level of collectable debt' is not only an important measure of effective management of cash flow but could also signify a low/high rate of voluntary compliance (see Figure 5.6). In an ideal scenario, where there is a high level of tax morality, there should be no debt - to paraphrase one respondent "cash in hand is more important than what is



collectable”. In other words, according to another respondent, “the more debt an ARA carries, a lesser amount is deposited in the coffers” – this has adverse fiscal consequences.

Furthermore, the ‘level of cash recovered from the debt book’ is considered to be an important measure of the intensity of efficiency in collection. Nevertheless, a general perspective shared is that focus should be on debt prevention. In particular administrators need to dedicate their efforts on following up and monitoring: the cleaning up of the debt book; calls to taxpayers to inform them of imminent payments; returns submitted with payments vis-à-vis returns received; assessments and payments; rolling payments; and the levels of real debt by assessing what is collectable and not collectable. With respect to the last point, one ARA executive commented that “the level of collectable debt needs to be realistic not just based on the law”.

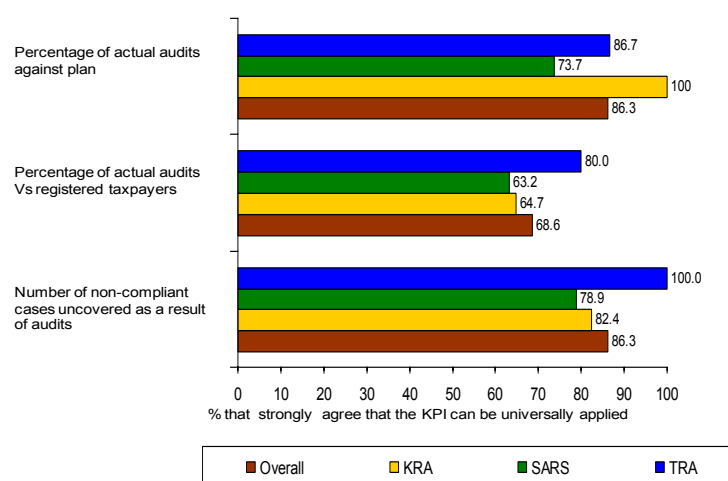
**Figure 5.6: The frequency with which internal stakeholders rank debt KPI s as very and quite important**



Source: Internal stakeholder questionnaire responses

Tax audits are a cause of trepidation amongst taxpayers. However, from the perspective of the tax administrators interviewed, aspects of enforcement encourage voluntary compliance in countries where levels of voluntary compliance are low. What is more, audits are a source of additional tax revenue (see Figure 5.7). So for example, a few respondents were of the view that the ‘number of non-compliant cases uncovered as a result of audits’ is a measure of declaration compliance. Still a more widely shared observation is that in an environment where human resources are constrained, a robust planning process tends to be absent and risk analysis processes are inadequate, audits tend to be flawed and subjective. For that reason, measures of hit rate and quality audits are more important.

**Figure 5.7: The frequency with which internal stakeholders rank audit KPI s as very and quite important**



Source: Internal stakeholder questionnaire responses

A more effective indicator of audit efficiency would be the percentage of risk engine<sup>12</sup> exceptions uncovered, as according to two respondents: (1) “if

<sup>12</sup> A risk engine is typically automated. It is designed to pick up anomalies in electronic returns/declarations. In the first instance, an ARA typically requests the taxpayer/trader to furnish additional documentation to resolve the issue. Unresolved issues require audits and may result in additional assessments.

nothing is found, an opportunity is lost to audit another taxpayer”; and (2) if a taxpayer is flagged as high risk, “then the chances of being audited are high and could therefore persuade taxpayers to be honest”. Thus the absolute number of actual audits could be less –putting the message another way, “risk assessments are more important than coverage”.

Two other respondents remarked that audits can be very expensive, so the outcomes of audits are more successful with large firms who are better organised than medium-sized firms which tend to be reluctant to furnish information. Therefore audits need to be well structured and sampling needs to be systematic.

One respondent was of the view that a more powerful KPI than ‘percentage of actual audits compared to registered taxpayers’ would be, ‘percentage of actual audits compared to taxpayers targeted for audit’. Other respondents commented that it would be difficult to compare the ‘number of non-compliant cases uncovered as a result of audits’ with other ARAs as: there is no standard definition of an audit (light vis-à-vis heavy); registered taxpayer thresholds vary from country to country; and this KPI encompasses a very small percentage which does not change significantly. However, according to one respondent, this measure is used widely for benchmarking purposes. Still, at an individual country level, this percentage is unlikely to fluctuate. Therefore nothing is gained from a time series analysis.

# 6 Case 1: South African Revenue Service

## 6.1 Introduction

This chapter delves deeper into the research of performance measurement in ARAs through the exploration of the first country case – SARS. It reflects back on the evolution of performance measurement, and how it has influenced the development of KPIs in SARS's most recent strategic plan. The chapter then draws on information from government documents, meetings with executives and various reports generated by SARS to describe the processes that reinforce performance measurement. The final section discerns some key lessons learnt, challenges and considerations going forward.

## 6.2 History of performance measurement

At the point that South Africa gained her independence, there was a stark difference between the sophisticated formal economy and the informal economy, which was largely cash based (SARS, 2009b). Furthermore, there was a widely shared view that “apartheid era tax collection was characterised by high levels of avoidance” (Smith, 2003: 17). Therefore, the African National Congress's (ANC's) immediate priority in this area was to close the gaps as a means of funding its development agenda. To this end, the Katz Commission was appointed from 1994 to 1999, to offer advice on reforms to the tax system. One of the Commission's early recommendations was to modernise the tax administration.

SARS was established in 1997 through an act of Parliament (Republic of South Africa, 1997). Shortly thereafter, SARS introduced the practice of strategic planning in 1997/98 by producing a brief three page document. The emphasis was initially on internal interventions (such as integrating administration, technology and offices), aimed at strengthening operational processes. But following a diagnostic study in 1999, focus soon shifted from an inside-out to an outside-in perspective. From 2000 onwards, SARS consistently focussed on outcomes such as 'optimise revenue collection/yields', 'improved tax compliance', 'efficient processes' and 'improved taxpayer/trader service/experience'.

In 1998/99 following the promulgation of the Public Finance Act, and in line with the requirements set out in Section 40, SARS began to produce an annual report (Republic of South Africa, 1999). The first annual report contains 23 basic performance measures that centre "on areas that produce income and enforce compliance" such as: actual against forecast revenue; cases eligible for registration; number of employees trained; number of pieces of legislation prepared (SARS, 1999). Subsequent annual reports provide more sophisticated performance measurements. For example, the 2005/6 annual report contains measures such as: a customer satisfaction index; percentage of complaints resolved; and percentage of senior management enrolled in leadership development programmes (SARS, 2006).

It is also noteworthy that SARS has monitored and reported on 10 out of the 12 priority KPIs identified by ARA executives in Chapter 4 (see Table 6.1). In

this regard, it is remarkable that ‘actual against forecast revenue’ has withstood the test of time. Moreover, between 2005/06 and 2010/11 SARS consistently measured and reported on: (1) percentage uptake in eFiling; (2) average processing times for tax returns and refunds; (3) amount spent for every dollar collected; and (4) percentage of cases successfully prosecuted. In one year, 2009/10, SARS reported on one KPI related to the reduction in the taxpayer/trader compliance burden:

*“Over one million salaried individuals with simple tax affairs and an annual income below R120 000 no longer have to complete and submit tax returns, hence releasing capacity for auditing and reducing the taxpayer compliance burden” (SARS, 2010a: 29).*

**Table 6.1: Regularity of reporting of the 12 KPIs in SARS’s annual reports (2005/6 to 2010/11)**

KPI	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
1. Actual revenue compared to forecast revenue	✓	✓	✓	✓	✓	✓
2. Voluntary compliance rate	✓	✓	✗	✗	✓	✓
3. Percentage of taxpayers satisfied with services/information and tools provided by the ARA	✓	✗	✗	✓	✓	✓
4. Percentage uptake in electronic filing	✓	✓	✓	✓	✓	✓
5. Average processing turnaround time for tax returns and refunds	✓		✓	✓	✓	✓
6. Reduction in taxpayer/trader compliance burden	✗	✗	✗	✗	✓	✗
7. Amount spent for every dollar collected	✓	✓	✓	✓	✓	✓
8. Percentage increase in accuracy of processing	✓	✓	✗	✗	✓	✗
9. Time taken to prepare, file and pay various taxes	✗	✗	✗	✗	✗	✗
10. Global ease of paying taxes ranking	✗	✗	✗	✗	✗	✗
11. Percentage uptake in electronic filing	✓	✓	✓	✓	✓	✓
12. Number of cases successfully prosecuted	✓	✓	✓	✓	✓	✓

Sources: SARS, 2006; SARS, 2007; SARS 2008; SARS, 2009a; SARS, 2010a; SARS 2011a

From 2008/9, SARS surveyed taxpayers during the filing season to gauge levels of satisfaction, for example, with the eFiling software “e@syFile for employers”. Also in 2009/10, SARS established proxy indicators for the voluntary compliance rate such as: ‘the percentage increase in number of individual tax returns received in the correct year of assessment’; and ‘the percentage of returns submitted on time’.

According to knowledgeable interviewees, until 2005/6, SARS was way ahead of other government entities in medium-range planning and performance reporting. From 2007, the Treasury Regulations made it mandatory for departments, trading entities, constitutional institutions and public entities to prepare three year strategic plans to cover the Medium Term Expenditure Framework, and to be approved by Parliament (Republic of South Africa, 2007). These regulations prescribe the need for each organisation to articulate outcomes, outputs, KPIs and targets. They also recommend a programme/project orientation with a view to achieving improvements in services delivery.

In addition to the above, in 2009 a policy on improving government performance was introduced. Thereafter, government organisations gradually shifted their orientation to outcomes based measurement. The overriding aim of government’s policy is to provide a basis for evaluating “institutional effectiveness and...the validity of policy”(Republic of South Africa, 2009a). In this latter regard, the policy document re-emphasises the Auditor-General’s power under the Public Audit Act No 25 of 2004 to audit performance information and give an opinion as to whether:

*“Reported performance against predetermined objectives is reliable, accurate and complete in all material respects, based on predetermined criteria” (Republic of South Africa, 2009b).*

### **6.3 Current strategic goals and KPIs**

In response to the government directive to accord precedence to an outcome measurement orientation, in 2011, SARS once again revamped its strategic plan for the period 2011/12 to 2013/14. For this period, SARS’s vision statement remained the same as that stated in the previous strategic plan – to be:

*“An innovative revenue and customs agency that enhances economic growth and social development, and that supports the country’s integration into the global economy in a way that benefits all South Africans” (SARS, 2011b: 10).*

The current plan consolidates the seven outcomes in SARS previous strategic plan into four core outcomes, which it considers will “stand the test of time”(SARS, 2011b:7). The four outcomes include: (1) increased customs compliance (O1, O5, O7 and O8); (2) increased tax compliance (O1, O5 and O4); (3) increased ease and fairness of doing business with SARS (O2, O3 and O4); and (4) increased cost effectiveness, internal efficiencies and institutional responsibility (O6, O9, O10 and O11). On the, whole, these four outcomes cover the spectrum of broad outcomes listed in Chapter 4.

The latest strategic plan specifies a total of 32 KPIs and associated targets (from 83 measures and targets in SARS’s previous strategic plan). It is



significant that the plan explicitly lists seven of the twelve priority KPIs identified by internal ARA stakeholders in Chapter 5 (refer to Table 5.5). In particular: (1) actual revenue compared to forecast revenue (ranked first); (2) voluntary compliance rate (ranked second); (3) percentage uptake in electronic filing (ranked fourth); (4) average processing turnaround time for tax returns and refunds (ranked fifth); (5) reduction in taxpayer/trader compliance burden (ranked sixth); (6) amount spent for every dollar collected (ranked seventh); and (7) percentage uptake in electronic filing (ranked eleventh). It is worth pointing out that the voluntary compliance rate is to be determined by computing the:

*“Number of CIT and VAT returns submitted in tax year due vs. Total number of CIT and VAT returns required in tax year” (SARS, 2011b:43).*

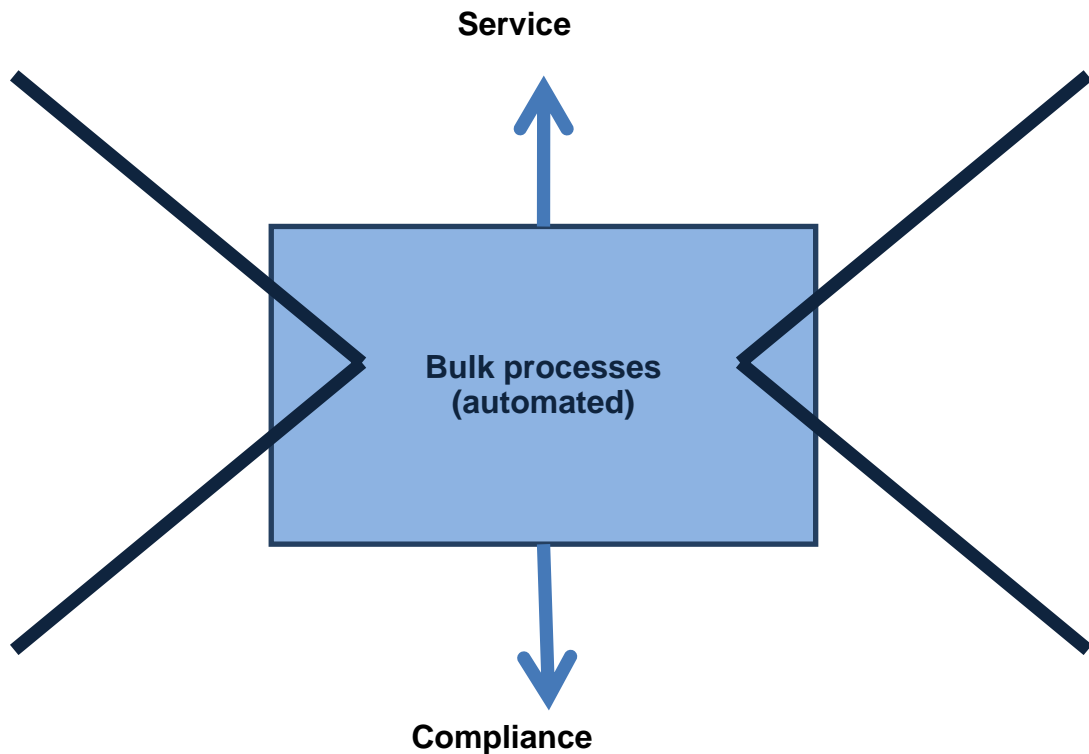
One key KPI listed in Chapter 5 that has been omitted from the current strategic plan, is ‘percentage of taxpayers satisfied with services/information and tools provided by the ARA’. Yet 63.2% and 36.8% of respondents from SARS rank this measure as very important and quite important respectively. Moreover, this KPI was included in SARS’s previous strategic plan as well as in several annual reports. An explanation given for the non-inclusion of this measure is that in the past, SARS surveyed taxpayers on specific services such as eFiling, the call centre and interactive voice response system with a view to identifying areas for improvement. Surveys were not annual, sample sizes small and no composite measure of taxpayer satisfaction was developed. Therefore, from 2012/13, SARS intends to use the results of

compliance surveys to identify appropriate indicators and targets for taxpayer satisfaction.

In line with an OECD (2011) observation in a few ARAs, SARS has devised a specific outcome and associated KPIs around customs which is a non-tax function. According to one respondent from SARS, the Accredited Economic Operator (AEO) and other compliance schemes are important mechanisms for reducing the burden on traders. This rationale probably explains why SARS has chosen to monitor the 'percentage of trade volume coverage by preferred traders'. One other ARA surveyed in Chapter 4 uses "reduce the administrative burden of audit and inspections on compliant business customers" as a measure of whether "customers' experiences of HMRC and the UK business environment [has] improved" (HMRC, 2009: 50).

Slightly over half of the KPIs (17 out of the 32 or 53%) in the strategic plan, were scheduled for development in 2011/12. Digitisation beyond eFiling is fundamental to SARS's strategy to ensure cost effectiveness and internal efficiency through the reduction in human intervention in processing particularly among "medium revenue generation taxpayers and traders", and with a view to increasing the "ease and fairness of doing business" with the ARA (SARS, 2011b: 24). To this end, SARS plans to explicitly define how to measure the percentage of files digitised within SARS. According to one SARS executive, measuring its impact (e.g. on service and compliance), in isolation can be an objective in itself (see Figure 6.1).

Figure 6.1: The desired impact of digitisation illustrated



Source: SARS

A second measure, percentage reduction in escalated service queries, assessed by the majority (96%) of ARA executives surveyed as very (and quite) important, was under development. According to SARS executives queries are to be addressed through four tiers: (1) automation (e.g. through interactive voice response or via the web); (2) human interaction at the agent/consultant level; (3) human interaction through subject matter specialists; and (4) the policy tier at which a ruling or interpretation is made or a policy is formulated. The percentage reduction in escalated service queries seeks to promote 'first time resolution' at the lowest tier possible, through service monitoring. What is more SARS intends to include an additional measure to gauge the 'percentage first contact resolution in contact centre and branches'.

At least another four KPIs contained in the strategic plan will be determined on the basis of benchmarks. In this regard, at the time that this research was undertaken, SARS was participating in a third international tax benchmarking study. The benchmarking exercise typically covers aspects such as cost, time, quality and effectiveness. It will provide a basis for developing measures and baselines in 2011/12.

In addition, one executive interviewed indicated that “SARS has bitten the bullet and undertaken to develop new outcome indicators”. In this regard, the current strategic plan identifies the following seven ‘ideal’ outcome indicators: (1) percentage increase in the customs compliance index (per tax product); (2) percentage decrease in the size of the illicit economy; (3) the tax compliance index; (4) reduction in taxpayer compliance burden; (5) reduction in trader compliance burden; (6) unit cost per process; and (7) productivity per employee (SARS, 2011b:42). According to executives at SARS, the compliance index, tax burden indicators and cost effectiveness indicators will be based on a model, surveys and activity based costing respectively. The compliance index is expected to cover four stages: identification; filing; declaration; and payment/performance. However there are challenges around setting assumptions and data collection. Therefore, in order to ensure adequate preparation, these KPIs will not be introduced until 2013/14.

#### **6.4 Service request KPIs in charter**

Over the years SARS has consistently reported its achievements against the standards of service it has committed to achieve in its service charter which was fully implemented in 2005/6. The first feedback SARS gave to readers of

its annual reports on implementation progress was in 2006/7, when it provided results for KPIs such as: (1) percentage of income tax returns and refunds processed within 90 and 30 days of receipt respectively; (2) percentage of calls answered within 20 seconds; (3) percentage of correspondence answered within 21 days; and (4) percentage of visitors walking into branches attended to within 15 minutes (SARS, 2006). The first and third KPIs are incorporated as good practice indicators in the Chapter 5. In 2007/8 and 2008/9, SARS's focus was on service request KPIs: at the call centre and branches such as first time call resolution; and turnaround times for processing Bills of Entry in Customs.

In 2010, SARS revised its charter to reflect “appropriate measures...[centred on] SARS's improved service standards” (SARS, 2010c: 39). The new charter specifies specific service targets for when taxpayers call SARS, visit walk-in centres, write to the organisation, submit tax returns either through eFiling or manually, are due a repayment, register and make a complaint (see Table 6.2).

**Table 6.2: SARS's revised service standards**

Select KPIs when a taxpayer...
<i>Telephones – we aim to</i> <ul style="list-style-type: none"> <li>• Answer 90% of the calls within 20 seconds (non-peak)</li> <li>• Answer 80% of the calls within 2 minutes (peak)</li> <li>• Provide resolution via interactive voice response for 90% of calls within 3 minutes</li> <li>• Provide resolution through our call centre agents to 90% of the calls within 10 minutes</li> </ul>
<i>Walks-in – we aim to:</i> <ul style="list-style-type: none"> <li>• Attend to 90% of taxpayers within 15 minutes of waiting time (non-peak)</li> <li>• Attend to 90% of taxpayers within 30 minutes of waiting time (peak)</li> <li>• Serve 90% of taxpayers within 10 minutes</li> <li>• Provide first time resolution to 90% of taxpayers</li> </ul>
<i>Writes – we aim to:</i> <ul style="list-style-type: none"> <li>• Respond to 80% of all correspondence received within 21 days of receipt</li> <li>• Inform you when and why resolution is not possible, and when you can expect a full reply</li> </ul>
<i>Submits a tax return – we aim to:</i> <ul style="list-style-type: none"> <li>• Process and assess 90% of correctly completed and signed paper based income tax returns within 30 days</li> </ul>

<p><b>Select KPIs when a taxpayer...</b></p> <ul style="list-style-type: none"> <li>• Process and assess 90% of correctly completed and signed electronic income tax returns (walk-in as well as electronic channel) within 3 days</li> <li>• Process all correctly completed and signed VAT/PAYE returns within 15 days of receipt</li> <li>• Process 90% of all electronically submitted export and import returns within 2 hours of receipt</li> <li>• Process all manually submitted export and import returns within 24 hours of receipt</li> </ul>
<p><i>Is waiting for a refund – we aim to:</i></p> <ul style="list-style-type: none"> <li>• Process VAT refunds within 21 days of receipt</li> <li>• Process income tax refunds (when no audit is required) within 7 days of receipt</li> <li>• Process income tax refunds (when audit required) within 30 working days from the assessment date</li> <li>• Notify you within 15 days when a refund is subject to review</li> </ul>
<p><i>Registers – we aim to:</i></p> <ul style="list-style-type: none"> <li>• Process correctly your completed and signed registration accurately within 10 days</li> </ul>
<p><i>Makes a payment – we aim to:</i></p> <ul style="list-style-type: none"> <li>• Process your payment within 5 working days of receipt</li> </ul>
<p><i>Makes a complaint – we aim to:</i></p> <ul style="list-style-type: none"> <li>• Register your complaint within 3 business days</li> <li>• Notify you if the complaint can not be resolved within 3 business days</li> </ul>
<p><i>Disagrees with an assessment and request an adjustment – we aim to:</i></p> <ul style="list-style-type: none"> <li>• Notify you of the outcome of your electronic request for an adjustment within 10 business days</li> <li>• Notify you of the outcome of your request for a reduced assessment (when you believe SARS has made an error) within 20 business days</li> </ul>

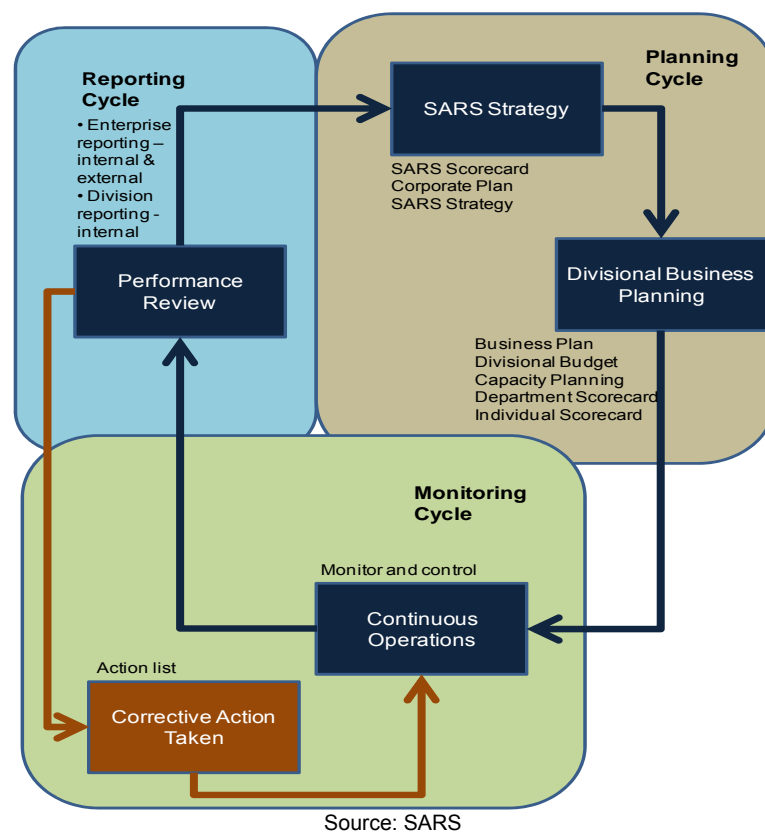
Source: SARS, 2010b

The spectrum of KPIs specified above is fairly comprehensive, based on SARS's experience, and are comparable with the good practice measures used in the survey of ARA executives (refer to 5.5). Still on the basis of the literature reviewed, some of the targets, for instance, those relating to telephone and walk-in service requests, remain unchanged. And therefore, inferences could be made that there is gaming through the 'ratchet effect' (See Chapter 3 Sub-section 3.6). A follow-up discussion with SARS on this observation established that the service charter is considered by its management to be out of date. In particular, the standards contained in the charter are not aspirational enough, and have not kept up with the pace of modernisation. Therefore, the charter needs to be revamped and key aspects included in SARS's strategic plan.

## 6.5 Performance measurement process and routines

According to SARS executives, in the past performance measurement was an annual event with very limited connection – in other words there was no golden thread. Currently, performance measurement is part of the organisation's day-to-day activities. In this regard, an Enterprise Performance Management Framework (EPMF) has been operational since 2008 (see Figure 6.2).

Figure 6.2: SARS's EPMF



SARS's strategic plan must be signed off by Parliament. The Commissioner's scorecard is based on the strategic plan prepared on a three year rolling basis through a participatory process facilitated by the Strategy

and Risk Division.<sup>13</sup> The strategic plan also specifies strategic priorities and their expected deliverables (outputs) which form the basis for preparing the MTEF. Strategic priorities inform the development of one-year divisional business plans which often include special initiatives. Any special initiatives contained in the business plan should support SARS's strategic priorities, and must be approved by the Strategic Council. Divisional performance metrics constitute the next level of management (Chief Officers') scorecards, which contain a maximum of 20 KPIs. Chief Officers cascade down targets to staff in their divisions. A Business Planning Section within SARS reviews a sample of scorecards for consistency. Individual scorecards guide the staff appraisal process. It is noteworthy that SARS limits targets for KPIs in individual scorecards to a maximum of 20, each with a weighting of no more than 5%.

Divisions own various KPIs in their business plans. Divisions are required to report implementation progress to the Strategy and Risk team on a monthly basis – reports must be supported by source documents. On the basis of a performance measurement/management protocol, the Enterprise Business Enablement Division within SARS assists other units in report design and generation, as well as information management. The unit is staffed with 10 people to support the backend processes and another 100 people in production. Report design is governed by four criteria: clarity; rules; assumptions and the data set.

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<sup>13</sup> In line with a government directive, from 2012/13 strategic plans will cover a five year period, to coincide with the Presidential term. An annual plan will be updated every year.



The Enterprise Business Enablement Division initially prepares reports in Excel using data from the data warehouse and automatic scripts. Care is taken to ensure data accuracy through triangulation. Thereafter spreadsheets are exported to dashboards which transmit key performance information via software such as SharePoint and Roambi (for Ipad and Blackberry). Staff can also access dashboards through SARS's internal portal. It has many types of dashboards in place which are refined as and when needed. For instance:

*“The management dashboard is an extremely powerful executive engine which collates over 1,000 performance measures across all levels of SARS. This creates the basis for consistent and continuous review of key indicators, especially lead indicators, making it possible to predict results and facilitates continuous proactive planning, measurement, and fine-tuning, thus reducing re-work, lost time, and missed opportunities”*(SARS, 2006: 29) .

The Strategy and Risk team: prepares reports on a monthly basis to the Minister of Finance; prepares a quarterly report (as required by statute) which is submitted to the Treasury; and prepares reports annually for presentation by SARS's Chief Executive (Commissioner) to Parliament. The report to the Minister of Finance, which also contains dashboards, presents: an overview of performance covering an account of total revenue collections against targets; progress in achieving the outcomes specified in the strategic plan; update on modernisation, SARS's finance and human resources; and an overview of any recent initiatives. The Minister of Finance uses

information contained in monthly reports in his engagements in Parliament and to prepare budget speeches. The Minister is known to occasionally ask for additional information and/or suggest changes to reporting formats. Over the years, SARS has modified reports to meet the Minister's needs.

Treasury is interested in returns on investments made in modernising SARS, and the progress made particularly with respect to the ease of doing business. SARS's Commissioner tables to the Parliamentary Committee on Finance, the same annual report that is made available to the public. The annual report provides details of: performance and organisational highlights; progress against SARS's three-year strategic priorities; performance information; aspects of governance; and financial statements (which include a report by the Auditor-General). SARS's annual reports promote marketing of the institution. They represent an opportunity for SARS to publish achievements.

AGSA audits the chapter in the annual report entitled performance information, which focuses on performance measures. The Auditor-General reports findings in a management letter, for which representations must be sought from SARS's management. SARS must thereafter clear adverse audit findings. In addition, the annual report incorporates the Auditor-General's findings on the performance information chapter. So for example, in SARS's 2010/11 annual report, the Auditor General reports that:

*"There were no material findings on the annual performance report concerning the presentation, usefulness and reliability of the information"*  
(SARS, 2011a: 69).

## 6.6 Lessons learnt, challenges and areas for further consideration

There are probably four core lessons that can be discerned from SARS. First, historically there have been some unintended consequences of target setting especially around under declarations on returns, where targets were set to, for instance, encourage SARS's auditors to undertake additional assessments, irrespective of a taxpayer's ability and willingness to pay. This measure resulted in a rise in debt book values and interest, of which, a substantial proportion was not collectable. There was also a tendency by auditors to cherry-pick easy cases instead of focussing on high risk/value cases – a form of 'gaming' the numbers. SARS has since abandoned a substantial number of such volumetric measures (more than 100).

Second, SARS is careful in its target setting – it endeavours to ensure that targets are realistic (neither too high nor low). According to SARS's executives, data accuracy has improved dramatically since 2006. For the measures that have been place for five or more years there are high levels of trust in the data. Whereas when data has only be collected for two or less years, there are issues around its reliability. In particular at the time this research was undertaken: 50% of indicators had complete data; 30% of KPIs were populated with some data but not all of it was accurate; and 20% of KPIs had no data at all. Automation has been a key facilitator in this process.

Third, before the EPMF was introduced, and the Enterprise Business Enablement Division established, reporting within SARS was not as methodical. Reporting was not consistent in that formats used, varied by division. There were "different interpretations and views of the same

performance measure” and measures “to correct...non-performance [were] not reported and reviewed regularly”<sup>14</sup>. The rationalisation of KPIs, development and implementation of a performance measurement/management protocol and improved coordination of the process has enabled SARS to promote understanding, accuracy and consistency, and drive action. In this regard, it is noteworthy that a ‘Reference Guide to Measures in the Strategic Plan’ was developed in 2011/12 in collaboration with SARS’s frontline staff and other ARAs. The guide defines each corporate level KPI and provides a baseline. SARS’s staff have been sensitised in the importance of performance measurements in highlighting operational glitches and enabling appropriate decisions to be taken.

Fourth, SARS is transparent in its reporting. Specifically, it is upfront about achievements and missed targets, which is not a usual practice even in the private sector. Annual reports trickle through to the press (see Box 6.1). As a result, SARS is regularly invited to present at conferences and share lessons of experience with other government departments.

**Box 6.1: Excerpts from the media on SARS’s annual report**

“It costs the SA Revenue Service (SARS) 1,1c to collect R1 of tax. Yes, 1,1c for each R1. Last year SARS collected R674 billion and spent R7,4 billion, which gives the institution a cost ratio of 1,1%. This is more efficient than the 1,2% to 1,5% seen in the UK and Canada, although the US is leading the pack with a cost base of 0,5%. The 1,1c was the standout number in the SARS annual report which Commissioner Oupa Magashula tabled in Parliament this week. It proves that there are pockets of excellence in government which are comparable to international best practice. It shows that SARS’s cost efficiencies adhere to international standards and is after the national budget only the second positive news story about government’s financial management to hit headlines this year...

The annual report is surely the best annual report coming out of a government agency this year. It was available on SARS’ website within minutes of Magashula’s speech in parliament. Just out of interest, the Department of Trade and Industry tabled its annual report the previous day, and it is not yet on its website. SARS’s annual report is extremely detailed with virtually all activities measured against targets and benchmarks. There are some areas where targets were not met, but this was justified with clear explanations”.

Source: Van Niekerk, 2011

<sup>14</sup> [www.nihilent.com/casestudies/SARS\(ILamat\).pdf](http://www.nihilent.com/casestudies/SARS(ILamat).pdf) [Accessed on 28 January 2011].

An area worthy further consideration revolves around incorporating a few more KPIs even if they are volumetrics. Specifically, there is almost certainly merit in accommodating external stakeholders' demand for performance measures to do with equity and corruption. SARS in collaboration with the National Treasury already produce a comprehensive set of tax statistics, which could be readily extrapolated to present a summary of the progressiveness of major taxes as part of the annual report's chapter on key performance and organisational highlights (Republic of South Africa, 2010).

With respect to corruption, there is evidence that “the level of corruption [in ARAs]... generally parallels that in the [public service] as a whole” and can play a substantial part in revenue leakage (Purohit, 2007: 288). SARS's latest strategic plan alludes to this same point. The plan also specifically states that as part of achieving its fourth outcome, ‘increased cost effectiveness, internal efficiencies and institutional responsibility’, there is need to “eliminate corruption”(SARS, 2011b: 25). Yet the document does not specify a corruption measure to be monitored over time. In the past, SARS presented volumetrics with respect to anti-corruption initiatives such as the number of dismissals and convictions in a particular year (SARS, 2008: 63). A follow-up discussion with SARS revealed that corruption is currently monitored internally at the highest levels. This practice will prevail until SARS is better able to explain corruption trends.

Another volumetric worthy further reflection evolves around debt (see Section 5.8). In early annual reports, SARS reported on its efforts to reduce tax arrears as a percentage of total tax revenue, including how it exercised

the conditions under Section 91A of the Income Tax Act to write-off or adjourn tax debts (SARS, 2007). In its most recent annual report (2010/11), SARS only reports “debt collected on assessments raised” in currency terms (SARS, 2009a: 23). Yet, there are indications that SARS has a fairly substantial debt book.

Finally, it would seem that the greatest challenge for SARS going forward has to do with the development and implementation of its seven outcome KPIs. Although SARS has made a gallant step in terms of developing these unique outcome indicators, it recognises that for the foreseeable future they will probably be “technically more difficult to measure, [due to their complexity and the fact that they] involve the interaction of many factors, planned and unplanned” (SARS, 2011b: 41). Therefore, in the medium-term, SARS output measures will continue to be a dominant source of accountability. In any case, as alluded to in Section 6.5, SARS has institutionalised mechanisms for collecting, validating, monitoring and reporting such measures.

In addition to using existing and new output measures, SARS could consider using the two priority universal measures presented in Table 5.5. The World Bank compiles and publishes data on ‘the time taken to prepare, file and pay various taxes’ (outcome KPI) and the ‘global ease of paying taxes ranking’ (outcome KPI) on an annual basis at no cost. As SARS further develops its new outcome measures to assess the attainment of the result ‘increased ease and fairness of doing business with SARS’, these two indicators could serve as useful KPIs.

# 7 Case 2: Tanzania Revenue Authority

## 7.1 Introduction

This case study covering TRA also starts with a review of the organisation's history of performance measurement, as a basis for exploring the context and trends. The subsequent sections analyse: the thrust of TRA's current corporate plan, and KPIs emphasised; whether the KPIs used in its service charter are monitored and reported; and performance measurement processes. The final section seeks to determine any lessons and challenges from Tanzania, and the way forward.

## 7.2 History of performance measurement

By the late 1980s there were clear indications that tax evasion was rampant in Tanzania. "Public participation in economic activity...[was also said to have] contributed to low tax collections" (Osoro, 1995: 6). To ameliorate these problems, a Presidential Commission on Taxation and Expenditure was established in 1989, and in 1991 made its recommendations with respect to tax policy as well as tax administration reform including the establishment of an authority (Morrissey, 1995). The authority which was established through 'The Tanzania Revenue Authority Act No 11 of 1995' commenced operations in 1996. At the time that TRA was formed:

*"A large proportion of staff from the former revenue departments who were considered inept or corrupt were retrenched...At the same time there was a strong drive to recruit and develop new professionals"* (African Development Bank Group, 2010c: 6).

At the outset TRA's key aims were: to establish "a sustained revenue base to enable Tanzania to finance its [public] expenditure needs without being excessively dependent on external aid"; and to develop a "transparent, effective and conducive" tax regime which promotes trade and investment (TRA, 1998: 3). To these ends, an action plan was drawn up for each of the three major departments of TRA" (IMF, 1999: 26). Box 7.1 illustrates some of the initial priority actions taken.

**Box 7.1: Some of the initial reforms at TRA**

"TRA was able to identify a range of administrative measures it could take to enhance tax collections, particularly through vigorous identification and collection of tax arrears, but also through steps to enforce future tax collections. Many of these steps focused on the petroleum sector, and included requiring all petroleum product imports to pass through limited entry points and be discharged into bonded warehouses, as well as stricter monitoring of transit trade..."

Supported by the World Bank and bilateral donors, the TRA is continuing its medium-term program of strengthening tax administration, in addition to the large number of specific steps being taken to address the current revenue shortfall. The TRA has already established a new unit for the centralization of the control of exemptions. Following IMF technical assistance, a new duty drawback system will be in place by March 2000. Preparations are under way to establish a unified tax appeals mechanism by August 2000".

Source: United Republic of Tanzania, 2000

In addition to government funding, the World Bank and other international agencies (e.g. from the European Union, Denmark, Finland, Germany, Sweden, and United Kingdom), financed TRA's first corporate plan (1998/99 to 2002/03) through a Tax Administration Project (TAP). TAP's planned outcomes were to "improve effectiveness and efficiency of [the] tax and customs administration" and "increase tax revenues". Originally eight intermediate outcome KPIs together with their baselines were specified for these goals (see Table 7.1). However, the KPIs were later revised "to be aligned with the objectives of the corporate plan" (World Bank, 2007: 8). As shown in the table, some of the revised KPIs mirror two of the priority measures identified in Chapter 5.



**Table 7.1: KPIs under TAP**

Area	Original KPIs	Revised KPIs
Nature and scope of operations	<ul style="list-style-type: none"> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>Number of registered taxpayers</li> </ul>
Effectiveness	<ul style="list-style-type: none"> <li>Number of declarations as a percentage of registered taxpayers</li> <li>On-time declarations as a percentage of total declarations</li> <li>Arrears recovered as a percentage of beginning of year arrears</li> </ul>	<ul style="list-style-type: none"> <li>Total revenue collected as a percentage of revenue target for the year (<i>ranked first in Chapter 5</i>)</li> </ul>
Efficiency	<ul style="list-style-type: none"> <li>Registered taxpayers per employee</li> <li>Collections per employee</li> <li>Tax arrears as a percentage of annual revenue</li> </ul>	<ul style="list-style-type: none"> <li>Average number of days to identify stop-filers</li> <li>Percentage of customs clearances made within 24 hours</li> <li>Percentage of VAT refunds made within one month (<i>ranked fifth in Chapter 5</i>)</li> <li>Percentage of income tax refunds made within 45 days (<i>ranked fifth in Chapter 5</i>)</li> <li>Percentage of duty drawbacks made within one month (<i>ranked fifth in Chapter 5</i>)</li> </ul>
Increased tax revenues	<ul style="list-style-type: none"> <li>Tax revenue as a percentage of GDP</li> </ul>	<ul style="list-style-type: none"> <li>Increase in tax revenue collected</li> </ul>

Sources: World Bank 1999: 10 and World Bank 2007: 8

In its second corporate plan (2003/04-2007/08), TRA's main focus was on modernisation through the attainment of five key results: (1) increased but cost effective revenue collection; (2) integrated operations; (3) high quality and responsive customer service; (4) increased tax compliance; and (5) improved staff competence, motivation, integrity and accountability (TRA, 2004). Rather than assign KPIs to specific outcomes, the second corporate plan initially used the same eight measures listed in Table 7.1 above, to track performance. In addition, TRA planned, monitored and reported on various initiatives under each outcome. Typically reports on initiatives indicate the implementation status, scope of coverage and their effects(s) on operations. So, for example, as a means of ensuring that TRA provides high quality and responsive customer service, it launched a stakeholders' forum in 2003/04.

One of the actions taken as a result of feedback received from stakeholders attending the forum's meetings was to:

*“Review the procedures relating to handling of VAT repayment claims. On the basis of this, all VAT repayment claims are classified into three categories of gold, silver and non-gold silver with effect from 1<sup>st</sup> October 2004” (TRA, 2005a: 9).*

It is worth mentioning that during the implementation of its second corporate plan, TRA continued to receive financial and technical support from international development agencies through a Tax Modernisation Project (TMP). TMP was “designed to reflect the five **(5)** strategic goals of the corporate plan” (World Bank, 2006: 4). In the same year that the TMP was launched, TRA restructured its performance measurement framework at a corporate level, resulting in an expansion in the number of KPIs from 8 to 16. Instead of clustering KPIs by the four areas shown in Table 7.1, it segmented them by the following departments: Domestic Revenue, Large Taxpayers, and Customs and Excise, which contribute 18%, 40% and 42% of total revenues collected respectively (TRA, 2011b). TRA also began to monitor an additional four KPIs as follows: (1) percentage of refunds made within the year; (2) average time taken to clear goods (days); (3) percentage of declarations subjected to yellow or red channel; and (4) number of active importers.

### **7.3 Current strategic goals and KPIs**

TRA is currently implementing its third corporate plan (2008/09 to 2012/13).

The plan is aligned to targets and strategies articulated in the National

Development Plan (MKUKUTA). MKUKUTA has goals that fall under three clusters: (1) growth and reduction of income poverty; (2) improvement of quality of life and social well-being; and (3) governance and accountability. The relevant strategies under cluster 1 include: continue to strengthen tax administration; reduce tax evasion and corruption; eliminate harassment of taxpayers; and reduce tax evasion and corruption (TRA, 2010c: i).

In its third corporate plan TRA expounds on its vision “to become a modern tax administration” by identifying four features of such an ARA: (1) consistently meeting revenue targets; (2) providing services that meet taxpayer expectations; (3) applying tax laws in a fair and consistent manner; and (4) employing skilled and qualified staff with “high levels of integrity” (TRA, 2008b: 8). What is more, the goals sought in TRA’s existing plan have been refined, and include: (1) increase revenue collection in a cost effective way (O1, O5 and O8); (2) modernise TRA operations (O2); (3) provide high quality and responsive customer services (O3); (4) promote voluntary tax compliance (O4); and (5) enhance staff performance management system (O9). Goals are broken down into strategic objectives (19) and strategies (about 230). Almost every strategy has a corresponding output measure. The third corporate plan also contains a list of KPIs to be used to monitor the achievement of TRA’s intermediate outcomes (goals). This list of KPIs which builds on the one used in the second corporate plan, contains a total of 22 measures.

The plan incorporates three new taxpayer perception KPIs to do with awareness, responsiveness by TRA and corruption. In addition, following a

time release study carried out in 2009, five new measures around processing times, checks and error rates have been introduced for the Customs and Excise Department, and one input KPI (number of active importers) dropped. For example, a new KPI introduced in the third corporate plan for transactions in customs is ‘percentage of declarations subject to errors committed by clearing and forwarding agents (CFAs)’ as a means of gauging how well TRA facilitates trade, and controls over revenue. The rationale for this measure is that the 2009 time release study identified that CFAs are prone to making errors and omissions on customs declaration forms, contributing to clearance delays. “Therefore more efforts are required to improve the performance standards of” CFAs (TRA, 2009b: 67).

Overall, TRA’s strategic plan incorporates 7 of the 12 priority measures identified by ARA executives in Chapter 5 (see Table 7.2). Actual revenue compared to forecast revenue, and turnaround times for processing tax refunds, have been prominent KPIs throughout the years. In contrast, the voluntary compliance rate is a new measure. TRA intends to collect baseline and trend data on the voluntary compliance rate by commissioning regular studies from fiscal year 2011/12 (TRA, 2010c: 38). Also, the plan does not feature an explicit measure of taxpayer satisfaction. However, there are plans to conduct taxpayer perception surveys, and institutionalise a mechanism for analysing such feedback.

**Table 7.2: Application of the 12 priority KPIs in TRA’s third corporate plan**

KPI	Included in plan?
1. Actual revenue compared to forecast revenue	✓
2. Voluntary compliance rate	✓
3. Percentage of taxpayers satisfied with services/information and tools provided by the ARA	×
4. Percentage uptake in electronic filing	✓

KPI	Included in plan?
5. Average processing turnaround time for tax returns and refunds	✓
6. Reduction in taxpayer/trader compliance burden	×
7. Amount spent for every dollar collected	✓
8. Percentage increase in accuracy of processing	✓
9. Time taken to prepare, file and pay various taxes	×
10. Global ease of paying taxes ranking	×
11. Percentage uptake in electronic filing	✓
12. Number of cases successfully prosecuted	×

Source: TRA, 2010c

Debt management and the revenue generated from audits remain key metrics at TRA (see Section 5.8). ‘The amount of previous year’s arrears collected as a percentage of total arrears at the beginning of the year’, is measured in both the Domestic Revenue and Large Taxpayers’ Departments. The targets set for each department vary, and are presumably lower in the Domestic Revenue Department, on account of the fact that debts are more difficult to collect among the small and medium taxpayer segments. On the other hand, ‘total revenue realised from audits as a percentage of revenue collected’, is only monitored at the corporate level for small and medium taxpayers. According to a TRA executive, the Large Taxpayers’ Department scrutinises the same measure at an operational level.

#### 7.4 Service request KPIs in charter

TRA launched its first Taxpayer’s Charter in 2005. The initial charter specified four service standards as follows: (1) response to written and email requests within 7 days; (2) objections determined within 6 months; (3) taxpayer attended to within 30 minutes of arrival at TRA’s office when no appointment has been made; and (4) taxpayer attended to within 15 minutes of arrival at TRA’s office when an appointment has been made (TRA, 2005b: 6). TRA assessed the extent to which these standards were met through stakeholder perception surveys. For instance, the feedback from a large

taxpayer survey conducted in 2006/7 was that TRA should “improve complaints procedures by providing more explicit information in the Taxpayer’s Charter” (TRA, 2007: 9).

The Taxpayer’s Charter has undergone several revisions. The latest version is a fourth edition, which contains many more service request KPIs (around 25) (see Table 7.3). It is noteworthy that a few of the good practice KPIs listed in Table 4.6 are incorporated in TRA’s revised service charter. Over and above standards to do with responding to written requests, TRA endeavours to notify taxpayers of the outcome of audits within 21 days of completing such an exercise.

**Table 7.3: TRA’s revised service standards**

<b>Service KPIs when a taxpayer...</b>
<i>Telephones – we will:</i>
<ul style="list-style-type: none"> <li>• Pick telephone calls from callers within 3 ringing tones</li> </ul>
<i>Walks-in – we will:</i>
<ul style="list-style-type: none"> <li>• Start to attend to enquiries and complaints of walk-in visitors and those with appointments within 30 and 15 minutes respectively from the time of arrival</li> </ul>
<i>Writes – we aim to:</i>
<ul style="list-style-type: none"> <li>• Provide replies to tax enquiries or attend complaints, which require technical expertise within 7 working days after receiving a complaint or enquiry</li> </ul>
<i>Objects – we aim to:</i>
<ul style="list-style-type: none"> <li>• Acknowledge receipt of an objection within 7 days from date of receipt</li> <li>• Resolve simple objections within 3 months, and for complex ones, within 6 months from the date of receipt</li> </ul>
<i>Is audited – we will:</i>
<ul style="list-style-type: none"> <li>• Audit business records and finalize the audit within two months for simple cases and six months for complex cases</li> <li>• Issue the audit findings /recommendations 21 days after audit</li> </ul>
<i>Or Informer provides information – we will:</i>
<ul style="list-style-type: none"> <li>• Pay a reward within 30 days from the date of receipt of notice of confirmation of payment of tax liability</li> </ul>
<i>Registers – we aim to:</i>
<ul style="list-style-type: none"> <li>• Provide a Taxpayer Identification Number (TIN) or VAT registration within 1 and 10 days after lodgement of TIN/VAT application where the system is computerised and manual respectively</li> <li>• Register tax consultants within 15 days after receiving application forms</li> <li>• Licence customs agents upon fulfilment of requirements set by the Customs Department within 30 days</li> <li>• Register motor vehicles after meeting the requirements within 2 and 10 days where the system is computerised and manual respectively</li> </ul>
<i>Requires a permit or license – we will:</i>
<ul style="list-style-type: none"> <li>• Issue a driving / motor vehicle license within one day after receiving the application</li> <li>• Process and issue all the permits (for import of goods and motor vehicles/ for the exportation of goods/ transportation of goods) subject to fulfilment of the stipulated conditions and procedures within 24 hours</li> <li>• Issue permits for the release of goods from customs control within 8 hours</li> </ul>

### Service KPIs when a taxpayer...

- Issue a license for transporters of transit goods/ a bonded warehouse within one month from the date of receipt of the application upon fulfilment of the required conditions

*Requires a customs valuation – TRA will:*

- Provide information through designated notice boards, Automated System for Customs Data++ (ASYCUDA++) system and through its customs office within 24 hours from the time the required customs documents are submitted
- Conduct an examination of goods within three hours from receipt
- Provide import clearance within 24 hours upon fulfilment of all required documentation
- Verify goods subject to trans-shipment within 21 days after arrival of a vessel/aircraft
- Conduct boarding and rummaging to a ship or an aircraft within one day on arrival and one day before departure

Source: TRA, 2008a

The 'percentage of written enquiries attended to within seven days', is monitored at a corporate level. A TRA executive also indicated that each department/region measures and reports service request KPIs in their operational reports. This researcher cited a consolidated report on 'Service Standards Performance Measurement', compiled by TRA's Taxpayer Services and Education Department for the quarter ended 30 June 2010. The report, which is presented in tabular format: compares the actual volumes of service requests against those handled within the target timeframes set out in the charter; and where appropriate provides reasons for any variances (e.g. network failure, requirements not fully met, there was need to make references) (TRA, 2010b). The report reviewed by this author suggests that overall TRA is close to meeting all the service standards. However, there is no evidence of data having been independently verified. Therefore, there is a risk that data reported is distorted through gaming through the threshold effect (see Section 3.6).

## 7.5 Performance measurement process and routines

Corporate planning at TRA takes place every five years. The Commissioner General leads in setting the agenda. Thereafter managers at all levels participate in brainstorming sessions, and a report incorporating the outputs

of this exercise is prepared. TRA then solicits taxpayers' views through the Stakeholders' Forum. The views of managers and taxpayers are deliberated upon by TRA's senior management and Board of Directors (BoD). Next the Planning and Modernisation Unit based at TRA's headquarters prepares a first draft of the corporate plan for review by senior executives and BoD. The corporate plan is subject to several revisions.

The corporate plan partly informs the performance management system for TRA staff. Performance is gauged on a combined weighting of competencies (40%), and performance perspectives (60%) based on the balanced scorecard.

The determination of KPIs is largely dependent on the ease of data availability. Once KPIs have been agreed upon, TRA either uses the previous year's actual data or the outputs from consultant's reports to set baselines. After that management sets targets for the five year period of the corporate plan. Performance data is collected quarterly. Whilst data collected is not audited, TRA's management assess whether data values are realistic.

Corporate performance data is maintained on TRA's Monitoring and Evaluation Database (TRAMED) launched in October 2008. "The TRAMED system allows key users in all departments to input data" on a quarterly basis (TRA, 2009a: 17). There are a variety of data sources such as the ASYCUDA++ and ITAX system used to support operations in customs and domestic revenue respectively, as well as manual records – however, work is underway to further develop TRA's data warehouse. TRAMED is accessible to all managers via TRA's local and wide area networks.



The Planning and Modernisation Unit draws on data stored in TRAMED to prepare quarterly reports within 15 days after the period-end, for presentation and discussion by TRA's top management. Quarterly reports are also distributed to the BoD, Ministry of Finance and international development institutions. Following each year end (30<sup>th</sup> June), the Planning and Modernisation Unit is required to prepare an 'Annual Implementation Report' (AIR) by 20<sup>th</sup> of July of the following month. The AIR documents significant achievements and challenges in implementing the various initiatives under each goal in the corporate plan, in a fair amount of detail. An annex to the report presents actual against target results for the main KPIs. The AIR is circulated to the same stakeholders that are privy to quarterly reports.

TRA's Finance Department relies on the AIR to prepare management highlights for inclusion in TRA's annual report. Although the annual report is available to the public, Section 26 (3) of the TRA Act requires the authority to submit a copy to the Minister of Finance within six months after each financial year end. Furthermore, the Act states that the:

*“Minister shall cause copies of the annual report of the Authority to be laid before the National Assembly within two months or at the next meeting of the National Assembly after he has received them”* (United Republic of Tanzania, 1995:13)

A review of a few annual reports suggests that some of the rich content provided in the AIR may be lost (see Table 7.4). Great emphasis is given to revenue metrics, with select information provided on TRA's progress in implementing its corporate plan. A review of TRA's annual report for 2009/10

indicates that it provides an account of only 23 out of 47 (or 49% of the) initiatives in the AIR. In addition, the report includes a table setting out actual against target results for the main KPIs (TRA, 2010a: 12-13). However, it could be argued that some of the initiatives (e.g. large taxpayers' perception survey and informal sector study) were at the early stages of implementation, and therefore TRA probably considered it premature to incorporate them in the annual report.

**Table 7.4: An analysis of differences between the AIR and Annual Report (2009/10)**

Goal and results of initiatives reported in AIR	In annual report?
<i>Goal 1: To increase revenue collection in a cost effective way</i>	-
1. Revenue collection against targets	x
2. Enhanced performance of the block management system	x
3. Improved property tax collections	x
4. Matching of pension scheme data to PAYE	x
5. Automation of TRA operations in regions and districts	✓
6. Conduct study to minimise waste in the utilisation of resources	x
<i>Goal 2: Modernise TRA Operations</i>	-
1. ITAX modules further developed	x
2. ITAX interfaced with other systems	✓
3. Electronic filing of returns	✓
4. Electronic requests for staff imprest and advances	x
5. Development of Electronic Revenue Collection and Accounting System	✓
6. Roll out of ASYCUDA++ web based functionality to stations	✓
7. Electronic record keeping and reporting for human resources and administration	x
8. Provision of ICT facilities to all TRA operational offices	✓
9. Interface of ASYCUDA ++ with Central Motor Vehicle Registration System (CMVRS)	✓
10. Introduction of Computerized Drivers Licence System	x
11. Phase 2 of TRA data warehouse implementation	x
12. Enhancement of TRA website	✓
<i>Goal 3: Provide high quality and responsive customer services</i>	-
1. TRA quality management system	✓
2. Implementation of Information Technology Infrastructure Library	x
3. Second large taxpayers' perception survey	x
4. Second time release study	✓
5. Customs modernization strategy and action plan	✓
6. Diagnostic Study to Determine System requirements for Automation of Customs Procedures	x
7. TRA Tax Service Centres	✓
8. Corporate Communication Policy	x
9. Revised taxpayer's charter	x
<i>Goal 4: Promote voluntary compliance</i>	-
1. Informal sector study	x
2. Establishment of computer forensic laboratory	x
3. Development of a cargo tracking system	x
4. Opening of a Centralized Data Processing Office	✓
5. Introduction of Electronic Fiscal Devices for all VAT traders	✓
6. Introduction of an Enterprise-Wide Risk Management System	✓
7. Enhanced risk management in customs	x
8. Development of a customs valuation database	
9. One Stop Border Post for Customs Operations	✓
10. Roll out Revenue Authority Digital Data Exchange	x

Goal and results of initiatives reported in AIR	In annual report?
11. Sectoral risk analysis in tourism and manufacturing	✓
12. Enhanced partnerships with tax practitioners	✓
13. Improve tax enforcement at Local Government	✓
<i>Goal 5: Enhance staff performance management system</i>	-
1. Introduction of Human Resource Management Information System	✓
2. Launch of Institute of Tax Administration's strategic plan	×
3. Review of TRA's third corporate plan	✓
4. Review of organizational manning and skills levels	✓
5. HIV/AIDS Situational Analysis for TRA	×
6. Implement staff charter and service level agreements	×
7. Implement annual training plan	✓

Source: TRA, 2009a and TRA 2010a

The remainder of the annual report contains financial statements as well as the auditor's report. TRA publishes around 3,000 hard copies of its Annual Report, none of which are sent directly to taxpayers. Rather TRA sends copies to: Parliamentarians; the Treasury; Regional Managers; and each Head of Department. The Annual Report is not posted on TRA's website. However, the public can access revenue reports at national and regional levels. Notwithstanding the limited circulation of the Annual Report, it is notable that TRA is acknowledged in professional circles for the quality of its financial reporting. In 2011 TRA received an award from the National Board for Accountants and Auditors for "the 'Best Presented Financial Statements Awards' under [the] Government Institutions Category" (East African Business Week, 2012).

## 7.6 Lessons learnt, challenges and areas for further consideration

The Tanzania case study illustrates how the development and use of performance measurement has been a gradual process. The adoption of various KPIs has been more informed in each subsequent corporate planning cycle, and in revised versions of the Taxpayer's Charter. The maturity of performance measurement has also been enabled by automation,

especially in terms of providing source data, maintaining and analysing metrics, as well as for reporting purposes.

TRA also measures more than half of the KPIs determined by ARA executives in Chapter 4 to be high priority. Given that TRA periodically undertakes taxpayer perception surveys and intends to assess the voluntary compliance rate, there is scope for including these measures for review at a corporate level. Moreover, TRA could readily make use of data available annually from the World Bank on the 'time taken to prepare, file and pay various taxes' and the 'global ease of paying taxes ranking'. During the research, the issue of whether TRA can also make use of universal KPIs on trading across borders (e.g. time taken to export and cost to import (World Bank, 2011)) was mooted. A view shared is that such measures involve other actors such as the ports and road transport authorities, and therefore would not be appropriate to employ exclusively at TRA.

It is also laudable that TRA has taken steps to monitor the level of corruption on the basis of stakeholder perceptions. Since its inception, TRA has implemented various measures to curb this practice including recruiting many of its top management from outside the public service, raising salary levels of its staff, strengthening systems and controls and so forth (Fjeldstad, 2002). Moreover, the authority has been implementing an anti-corruption programme since 2010 (Mwachang`a, 2011). Still according to Transparency International's (TI's) league table in the East Africa Bribery Index of 2011, TRA ranks 33 most corrupt institution in the region out of a total of 115 organisations (Transparency International et al., 2011). Therefore, it is

important that TRA keeps the corruption index KPI in check. In this latter regard, it is observed that no baseline or target data are specified in TRA's corporate plan and periodic reports.

In spite of the strides made in enhancing performance measurement, there may be a case for reviewing and/or rationalising the number of KPIs in use at TRA for a number of reasons. First, an attempt to match each of the 22 KPIs to the five goals in the third corporate plan, suggests that there may be a disproportionate concentration on the attainment of increased revenue collection. In particular, it appears that 11 (or half) of the KPIs (e.g. covering collections, arrears, stop-filers and audits) are proxies for this goal. Second, another seven KPIs (covering refunds, average processing times and stakeholder perceptions) probably aim to assess whether TRA is providing high quality and responsive customer services – but it is noteworthy that none of them capture the quality dimension.

Third, it may be argued that one KPI, number of registered taxpayer, is an indirect measure of voluntary compliance. Nevertheless, none of the KPIs seem to be suitable measures for gauging whether operations have been modernised, and that the staff performance management system has been enhanced. Yet in its periodic reports, TRA presents statistics, for example, on the number of returns filed through the eFiling system (TRA, 2011a: 6). Fourth, if one takes into account service KPIs, TRA may have too many measures. This latter issue is explored in more depth in Chapter 11.

Fifth, due to the structure of the economy and/or tax policy, there is probably a case for systematic and regular reporting of performance measures

evolving around tax exemptions, tax evasion and the informal sector. “The extent of tax exemptions can be seen as an indication of a government’s political will to fight fiscal corruption and tax evasion” (Fjeldstad and Heggstad, 2011: 70). In its three year review of implementation of TRA confirms that a study of tax exemptions found that they contribute to significant revenue losses in Tanzania (TRA, 2011a). In addition, as indicated above (see Section 7.5), TRA intends to gain a better understanding of the informal sector by estimating the actual size of the underground economy for taxation purposes, weighing up revenue potential and planning possible ways for its exploitation.

# 8 Case 3: Kenya Revenue Authority

## 8.1 Introduction

The case study covering KRA has the same structure as the other two ARAs. It reviews performance measurement practices at a corporate level from KRA's establishment to the current strategic plan period. The chapter then examines service KPIs and standards in the authority's charter, and thereafter processes and routines which support performance measurement. The case study concludes with lessons learnt, challenges and areas for further consideration.

## 8.2 History of performance measurement

By the early 1990s, on top of high levels of corruption, Kenya was experiencing negative economic growth and severe fiscal deficits as a result of "slow growth in tax revenue" (KRA, 2010b: 14). The Government of Kenya (GoK) therefore sought measures to enhance both tax policy and administration. With respect to administrative reform, the authority was formed following the enactment of the Kenya Revenue Authority Act of 1995. By consolidating the three departments within the Treasury (Customs and Excise, Income Tax and VAT), the Government of Kenya (GoK) anticipated that KRA would be able to operate more efficiently and effectively by closing "the widespread loopholes in the tax system..., [reducing] tax evasion, and [enlisting] as many eligible taxpayers into the tax net as possible" (Muriithi and Moyi, 2003: 10).

In the first decade following its establishment KRA, focussed on rationalising and stabilising "its organisational structure and general administrative

systems, and coping with changes in tax policies” (African Development Bank Group, 2010a: 16). So for example, during implementation of its first corporate plan (2000/01-2002/03), besides measures taken to boost revenue (e.g. recruiting taxpayers, improved debt management, security printing of accountable documents), KRA right-sized the organisation, retrained staff and standardised processes. However, the “monitoring and evaluation framework of the...plan was poor since it did not have clear verifiable” KPIs (KRA, 2010b: 37). Some of the performance measures subsequently reported included: actual against forecast revenue; total taxpayers recruited; percentage reduction in objections to tax assessments; percentage reduction in the workforce; and number of staff trained (KRA, 2003).

After a new government of the National Rainbow Coalition party, took over power in 2002, it specified priority areas for reforming KRA in the ‘Economic Recovery Strategy for Wealth and Employment Creation’ (ERS) blueprint. In particular, ERS called for interventions aimed at “reducing the tax burden particularly on businesses and [broadening] the tax base” such as modernising the “tax administration infrastructure of KRA” (Government of Kenya, 2003: 5). Using the balanced scorecard (BSC) approach, KRA identified the following seven outcomes in its second corporate plan which ran from 2003/04 to 2005/06: (1) enhanced revenue collection; (2) effective and efficient expenditure control measures; (3) quality services at least cost with maximum satisfaction to stakeholders; (4) revitalisation of human resources; (5) zero tolerance to corruption and fraud; (6) internal processes modernised; and (7) corporate social responsibility promoted (KRA, 2003).

Each outcome incorporated between one and six strategic objectives, with



associated initiatives and measures. Most performance measures were output oriented – for example, a document to be produced, a new unit/office established, or a system enhanced etc.

In 2004/05, KRA launched the Revenue Administration Reform and Modernization Programme (RARMP) aimed at facilitating ease of tracking “progress in the reform initiatives and enhance project ownership and acceptance to change from both internal and external stakeholders” (KRA, 2006a). From 2006 KRA has received funding for RARMP from GoK’s Public Financial Management Reform Programme (PFMR) to enhance customs and domestic tax administration and strengthen taxpayer education interventions (Government of Kenya, 2009). RARMP which is still ongoing consists of seven projects covering the authority’s core operations as well as human resource management and business automation. The programme specifies numerous quantitative KPIs including for instance: revenue collection; voluntary compliance rate; cost of collection; customer satisfaction rating; and local and wide area network coverage. RARMP is coordinated by the Programme Management and Business Analysis Office (PMBO).

A GoK policy directive of 2004, instituted performance contracting in all public sector organisations (Kariuki and Kiragu, 2011a). This arrangement was “introduced to revamp the public sector by ensuring performance was measurable and top managers could be held accountable for results” (Waweru, 2007: 3). From 2005/06, KRA’s Board of Directors signed annual performance contracts with the Treasury aimed at promoting continuous improvements to its operations. The performance targets specified in the

contract are anchored on Treasury guidelines and the authority's medium-term strategic objectives. Typically the plan specifies performance targets to be achieved under the following categories: finance and stewardship; service delivery; non-financial; operations; and qualitative dynamics. Each target is weighted. The total composite score is 100.

KRA's third strategic plan (2006/07-2008/09) which makes reference to the performance contracting regime, specifies four outcomes: (1) develop a dedicated and professional team; (2) reengineer business processes and modernise technology; (3) improve and expand taxpayer service; and (4) enhance revenue collection and strengthen enforcement. The four outcomes have a total of 68 KPIs, many of which have been devised by KRA's Research and Corporate Planning function, and a few of which are drawn from RARMP – such as: cost of collection; customer satisfaction rating; local and wide area network coverage; and revenue collection.

### **8.3 Current strategic goals and KPIs**

The development of the goals contained in KRA's current (fourth) corporate plan (2009/10 to 2011/12), have been influenced by two factors. First, the national long-term development blueprint, Vision 2030, anticipates that the plans to rapidly expand the country's infrastructure will be realised through GoK's ability to collect the necessary tax revenues. Vision 2030 also articulates the case for improving the business environment – including filing of tax returns and encouraging firms in the shadow economy to formalise their businesses (Government of Kenya, 2007). Second, an internal

assessment by KRA points to the need for: bolstering staff capacity; acquiring specialised working tools; and combating corruption (KRA, 2009b).

In the context of the above, the vision statement in KRA's current corporate plan remains the same as statements specified in earlier plans: "To be the leading Revenue Authority in the world respected for professionalism, integrity and fairness" (KRA, 2009b: xviii). The current plan specifies six outcomes as follows: (1) a professional team that is well remunerated (O9); (2) an enabling work environment (O10); (3) full automation and integration of operations (O2); (4) transition to a fully functional organisation (O9 and O11); (5) customer compliance costs minimised and customer service enhanced (O2, O3 and O4); and (6) revenue targets achieved (O1, O5 and O8). The plan specifies around: 20 strategies for achieving the six outcomes as well as a mixture of output and outcome KPIs (and associated targets). So for example, one of the strategies for enhancing revenue collections is to 'reinvigorate the management of debt' which is measured by analysing reductions in the debt to revenue ratio. Also as a means of minimising taxpayer compliance costs, KRA plans to streamline refund payment procedures, which are to be monitored by measuring the percentage of refunds outstanding for more than 60 days.

Table 8.1 shows that about half of the priority KPIs identified by ARA executives surveyed in Chapter 5, are incorporated in KRA's fourth corporate plan. Actual against forecast revenue is a key performance measure. However, there are two major KPIs that are absent in the plan. First, whilst there does not appear to be a direct measure of voluntary compliance, KRA

does keep tabs on the ‘number of new taxpayers recruited’ and the ‘number of electronic tax register compliant taxpayers as a ratio of active taxpayers’. Also, KRA measures the percentage increase in Authorised Economic Operators (AEOs), who generally constitute compliant importers and their agents. Second, there is reference to taxpayer satisfaction in the plan, but no specific KPI, yet since 2009, KRA has commissioned an independent market research firm to survey various categories of taxpayers. Still one of the outputs from the research is a customer satisfaction index. Furthermore, according to informants at KRA, the organisation uses the results of surveys to enhance taxpayer services.

**Table 8.1: Application of the 12 priority KPIs in KRA’s fourth corporate plan**

KPI	Included in plan?
1. Actual revenue compared to forecast revenue	✓
2. Voluntary compliance rate	✗
3. Percentage of taxpayers satisfied with services/information and tools provided by the ARA	✗
4. Percentage uptake in electronic filing	✓
5. Average processing turnaround time for tax returns and refunds	✓
6. Reduction in taxpayer/trader compliance burden	✓
7. Amount spent for every dollar collected	✓
8. Percentage increase in accuracy of processing	✗
9. Time taken to prepare, file and pay various taxes	✗
10. Global ease of paying taxes ranking	✗
11. Percentage uptake in electronic filing	✓
12. Number of cases successfully prosecuted <sup>15</sup>	✗

Source: KRA 2009b

It is noteworthy that in addition to a few of the measures listed in the table above, KRA’s performance contract of 2010/11, lists the following priority KPIs: voluntary compliance rate; percentage of customers satisfied; and tax evasion cases prosecuted. The contract specifically defines voluntary compliance as “declarations made as a ratio of total revenue” (Government of Kenya, 2011: 22). On the other hand, ‘tax evasion cases prosecuted’

<sup>15</sup> KRA’s corporate plan contains a KPI ‘number of offenders prosecuted’ but not ‘successfully prosecuted’.

cannot be used to enumerate the number of cases that were successfully prosecuted. The operations component of KRA's performance contract of 2010/11 also gives prominence to audits and debt management by setting targets for audit coverage and debt collections respectively.

#### **8.4 Service request KPIs in charter**

KRA introduced its first taxpayers' charter in 2000. The charter was hailed by external stakeholders as a useful tool for providing "true transparency and accountability in the public service...[and] a significant step in the quest for efficient and customer- friendly public service" (Daily Nation on the Web, 2000). In addition, "66% of taxpayers interviewed indicated that the Taxpayers Charter was useful in dealing with" the authority (KRA, 2003: 14) . One service standard, 'tax inspections and audits be completed within 10 days', was considered efficient and helpful in terms of minimising taxpayer harassment (Daily Nation on the Web, 2000). However, it appears that the first charter was never fully implemented (Taliercio, 2004b). KRA's explanations for implementation failure were: that too much time was spent revising the charter; and the charter was not mainstreamed into day-to-day operations (KRA, 2003).

In September 2006, the Customs Services Department issued its own charter with standards for functions such as: post clearance audits; objections; appeals; processing of returns, entries, exemptions and bonds; processing of refunds, duty drawbacks and cancellation of bonds etc. (KRA, 2006b). Several of the customs service standards were incorporated in KRA's second taxpayers' charter which was revised in 2006/07 to reflect

lessons of experience and changes to services. The revised charter contains around 40 service request KPIs which are focussed on KRA's core operations (see Table 8.2).

**Table 8.2: KRA's revised service standards**

<b>Service KPIs when a taxpayer...</b>
<p><i>Submits returns or entries – we will process:</i></p> <ul style="list-style-type: none"> <li>Income tax returns within 180 days after the due date if it is for the immediate past year of income</li> <li>Income tax within 30 days of receipt of the return if it is for the years of income other than the immediate past year of income</li> <li>VAT returns within 30 days</li> <li>Customs entries/ other customs returns within two days if correctly declared</li> <li>Exemption letters from Treasury in respect of Customs duty etc will be processed and dispatched to the respective regions within two days.</li> </ul>
<p><i>Objects – we aim to:</i></p> <ul style="list-style-type: none"> <li>Acknowledge the objection within 7 days and endeavour to resolve the objection within 30 days. Complex cases may take more than 30 days to resolve</li> <li>List your case for hearing by the Local Committee or Tribunal within a period of 2 calendar months from the date you lodge your Income Tax or VAT appeal, if you will have complied with the Income Tax and VAT appeal procedures</li> </ul>
<p><i>Is audited – we will endeavour to complete the audit within:</i></p> <ul style="list-style-type: none"> <li>10 days, 20 days, 20 days and 30 days from the date of commencement of single issue audits, post payment audits, post clearance audits and comprehensive audits respectively</li> <li>One day for a general inspection of an excise factory and 10 days for any other tax administered by the authority</li> <li>60 days from commencement of comprehensive audits for Large Taxpayers</li> <li>180 days from commencement of comprehensive audits for cases under investigation</li> </ul>
<p><i>Applies for a refund or bond cancellation – we will:</i></p> <ul style="list-style-type: none"> <li>Process income tax refunds within 120 days from the date of processing the return if it is for the immediate past year of income and the amount is less than KShs 30,000 or within 150 days for amounts greater than KShs 30,000</li> <li>Process income tax refunds within 60 days from the date of processing the return if the return is for a year of income other than the immediate past year of income provided your return is accompanied by relevant documents</li> <li>Process VAT/excise refunds within 60 days where the claim is accompanied by an audit certificate together with the relevant supporting documents</li> <li>Process VAT/excise refunds within 90 days for claims that will require verification</li> <li>Process customs refunds within 30 days of lodgement of the claim for duty overpaid or paid in error and which is received within 12 months from the date of payment provided the claim is valid and that all relevant supporting</li> </ul>
<p><i>Applies for security bonds/remissions – we will:</i></p> <ul style="list-style-type: none"> <li>Process applications for bonds for export/ remissions/ all types of security bonds within two days</li> </ul>
<p><i>Requests to register or licence a motor vehicle (MV) – we will:</i></p> <ul style="list-style-type: none"> <li>Register it within two days</li> <li>Process and despatch new and duplicate log books within five and seven days respectively</li> <li>Transfer ownership and despatch log books within three days</li> <li>Process replacement number plates within four days and provide copies of MV records on the spot</li> <li>Issue a certificate of ownership within one day</li> <li>Issue foreign vehicle permits on the spot</li> <li>Issue provisional/interim driving licence on the spot</li> <li>Process and despatch new and duplicate driving licences within seven and five days respectively</li> <li>Renew driving licences on the spot</li> <li>Endorse additional classes of driving licences in Nairobi and upcountry on the spot and within five days respectively</li> </ul>

### Service KPIs when a taxpayer...

- Process passenger service vehicle driving licences within one day
- Issue Kenya Garage driving licences within one day
- Issue a caveat on motor vehicles and driving licences within one day

Source: KRA, 2007

There are no standards around responses to telephone and written enquires, or walk-ins. Such standards would be useful for monitoring, for example, the effectiveness of KRA's call centre launched in 2009. What is more, some of the standards may be misleading, particularly those that offer to provide a service 'on the spot', as a client may have to queue for a period of time before being served. It is also striking that about 40% of the standards have to do with the motor vehicle and driver registration and licensing, yet in 2009/10 the roads transport function only contributed 0.5% of total revenues collected by the authority<sup>16</sup> (KRA, 2010a). Besides, a separate "Citizens Service Delivery Charter for road transport services was developed and launched in 2008" (KRA, 2009b: 16).

The fourth corporate plan does not specify quantifiable measures for monitoring implementation of the taxpayer charter. Rather the plan only goes as far as to state that there will be "strict adherence to taxpayers' charter timelines" (KRA, 2009b: 89). Furthermore, a review of a sample of the authority's quarterly and annual reports, suggests that progress in implementing the charter is not reported to the public. Interviews with key informants from KRA revealed that KRA is not effectively monitoring its service KPIs.

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<sup>16</sup> According to KRA executives over 60% of walk-in taxpayers at its headquarters seek motor vehicle related services. Therefore deliberate efforts are made to monitor the efficiency of those services.

## 8.5 Performance measurement process and routines

The preparation of KRA's corporate plan is informed by a self-assessment of achievements, challenges and lessons learned in the previous plan period, feedback solicited from stakeholders, annual taxpayer surveys, complaints received from the Complaints Office etc. KRA's Performance Management Committee coordinates this feedback. The outcomes, KPIs and targets in KRA's corporate plan are incorporated into its performance contract. KRA's Board negotiates and eventually signs each annual performance contract (running from 1 July to 30 June) with the Ministry of Finance. The Board's performance contract mirrors KRA's performance contract.

KPIs and targets in the corporate plan, RARMP and national budget are cascaded down into individual annual performance contracts. The Commissioner General negotiates his contract with KRA's Board. Staff in senior management cadres negotiate and have their contracts signed off by the Commissioner General. Targets in performance contracts are weighted. For staff in revenue departments, 50% of the weighting in performance contracts is allocated to meeting revenue collection targets where as people, internal processes and taxpayer perspective have weights of 15%, 20% and 15% respectively.

Each department collects performance measurement data and reports progress to "enable the management to determine whether or not departments are on course to achieve the annual performance targets" (Waweru, 2007: 11). The performance management system is not automated for corporate and individual level measures. Therefore, at the



moment, the Research and Corporate Planning function within the authority coordinates this process by summarising achievements against various strategies. However, KRA plans to install a data warehouse which will enable users to access and analyse data.

The PMBO maintains a database of performance indicators which it uses to report RARMP progress in presentations to external stakeholders and top management, and through an annual report. The PMBO annual report is in matrix format and contains the following fields: (1) project name and reform description; (2) planned activities for the year; (3) implementation status; (4) remarks; and (5) source of funding.

KRA's Board reports to the Ministry of Finance and Performance Contracting Department (PCD) in the Office of the Prime Minister and the Inspector General State Corporations on a quarterly and annual basis. Quarterly performance reports must be prepared using a format prescribed by PCD, which essentially requires KRA to provide an analysis of, and supporting narratives for, actual against target results for KPIs for the current and previous year. The Inspector General State Corporations is required to review the report and feedback comments to KRA within two weeks of receiving the quarterly report (Office of the Prime Minister, 2010a). The annual performance report has a similar format to the quarterly one, except it presents cumulative progress.

After each year end, an Ad-Hoc Evaluation Task Force consisting primarily of external experts evaluates corporate level performance contracts. The evaluation entails assessing whether targets have been met, and assigning

raw, weighted and composite scores. Every public sector organisation is then assigned a grade ranging from excellent to poor (see Table 8.3). In this regard, the latest performance evaluation report grades KRA as very good, and ranks it in 40<sup>th</sup> position out of 162 state corporations.

**Table 8.3: Scores used in ranking PSOs in Kenya**

Grade	Composite score (upper to lower ranges)
Excellent	1.00-1.49
Very good	1.50-2.49
Good	2.50-3.49
Fair	3.50-3.59
Poor	3.60-5.00

Source: Office of the Prime Minister, 2011: 5

In addition to the reports above, the Commissioner General issues a revenue performance report at a Press Conference within one month of the end of every quarter. The report typically covers an analysis of the operating environment (including the economy, inflation, interest and exchange rates), revenue performance for the quarter and any effects of the operating environment, progress in implementing administrative measures and cumulative revenue performance ((KRA, 2009c); (KRA, 2011b); (KRA, 2012)). Also, Section 18 (1) of the KRA Act of 1995, requires the Commissioner General to submit an annual report to the Minister of Finance within three months after the year end which contains: financial statements; “performance indicators and any other related information; a report on the operations of the Authority; and such other information as the Board may deem fit” (Government of Kenya, 1995: 6). Annual reports are audited by the Controller and Auditor General (CAG). The CAG does undertake performance audits.

KRA's annual reports do not contain extensive information on non-financial performance. Table 8.4 presents the quantitative performance measures reported in two KRA annual reports. One KRA executive suggested that this may be attributable to GoK's reporting culture which is minimalist – as a result of historically tense relations with international donors; and to avoid audit queries. This state of affairs is likely to change once the Freedom of Information legislation is enacted.

**Table 8.4: Quantitative performance measures reported in two KRA annual reports**

Annual report 2009	Annual report 2010
<ul style="list-style-type: none"> <li>• Actual against forecast revenue</li> <li>• Annual revenue growth in percentage terms</li> <li>• Total number of taxpayers using online services</li> <li>• Size of total staff force and their allocation by department</li> <li>• Number of staff trained as HIV/AIDS peer educators</li> <li>• Number of staff trained in as counselors</li> </ul>	<ul style="list-style-type: none"> <li>• Actual against forecast revenue</li> <li>• Annual revenue growth in percentage terms</li> <li>• Employee satisfaction rate</li> <li>• Size of total staff force and their allocation by department</li> <li>• Number of staff trained as HIV/AIDS peer educators</li> </ul>

Sources: KRA, 2009a; KRA, 2010a

KRA's produces about 1,000 copies of the annual report which the Minister of Finance presents to Parliament. KRA also distributes the report to the Central Bank of Kenya, National Bank of Kenya, National Archives, Staff, External Auditors, and the World Bank. KRA's financial must be published in the Kenya Gazette – two months after the audit. From 2011/12, KRA began to post its annual report at its website.

## **8.6 Lessons learnt, challenges and areas for further consideration**

There are two key lessons that can be garnered from Kenya. First, performance contracting has taken off relatively well, and is embraced by most institutions including KRA. In fact, in 2007 Kenya received the prestigious United Nations award for its performance contracting system as a

means for enhancing transparency, accountability and responsiveness in government. According to the UN:

*“The uniqueness of the Kenyan concept lies in the introduction of a methodology that allows all public agencies to be ranked on a scale of 1 – 5. The absence of such a measurable scale explains the failure of previous attempts”* (United Nations, 2007: 4).

The performance contracting process has been fine-tuned over the years. However, according to a recent review of the initiative there is need for: a clear linkage between performance contracting and Vision 2030 and the medium-term expenditure framework; to simplify the scoring system; building human resource capacity in performance improvement; greater citizen engagement; and a system of rewards and sanctions for good and poor performers (Office of the Prime Minister, 2011). There is an ongoing exercise to implement the review recommendations. In this regard, it is noteworthy that the PCD has developed sector performance standards that are linked to Vision 2030. So for example, in the context of KRA, by 2030, in addition to an increase in revenue as a percentage of GDP, Kenya should have improved its World Bank “global ranking on the ease and simplicity in the process of paying taxes” by moving from 158<sup>th</sup> position to the top 20 (Office of the Prime Minister, 2010b: 137). However, at the time of undertaking this research it was observed that KRA had not taken account of sector standards.

Second, KRA produces performance reports for public consumption on a more frequent basis than SARS and TRA, which is a good indicator of the

organisation's commitment to accountability and transparency. Its quarterly reports capture the attention of media houses which analyse and disseminate key points to their readership (see Box 8.1). Nevertheless, reports would be more comprehensive if they contained more quantitative non-financial performance data on the KPIs contained in the corporate plan. For example, the results of perception surveys as and when they are released. In this regard, the fourth corporate plan makes several references to the need to combat corruption, and lists 'exiting TI's East Africa Bribery Index' as a KPI to be achieved in 2011/12. Reporting the results of the survey when released would be a good indicator of whether progress is being made.

**Box 8.1: Excerpt from the media on KRA's second quarter report (2011/12)**

"Tax revenues for the second quarter of the financial year were off target by a massive Sh45 billion, setting the Treasury up for a season of belt-tightening that is expected to put a number of development projects on ice... Official statistics show that the government got only Sh345 billion in revenues from taxes, grants and domestic borrowing against a target of Sh390 billion for the period under review that began in July.

A fragile economy, the recent increase in excise duty and challenges in the administration of value added tax are expected to continue depressing revenue growth in the medium term... Last month, the Kenya Revenue Authority (KRA) said in a statement that the unfavourable macroeconomic environment was to blame for the less than expected outcome of revenue collections at the end of last year... 'The operating environment leading into and during the second quarter 2011/12 was not promising having been characterised by high inflation, rising interest rates, fluctuation of the exchange rate and high oil prices,' said Michael Waweru, the outgoing commissioner-general. Mr Waweru said the unfavourable economic conditions were "likely to continue in the third quarter of financial year that ends in March."

Source: Irungu, 2012

In terms of challenges, there are three apparent issues around performance measurement to do with: (1) capacity and coordination; (2) data quality; and (3) the utility of performance measures. There is no one dedicated to managing KRA's corporate BSC. According to a key informant, performance reports need more thorough checking than is currently the case, but there are not enough bodies available to discharge this responsibility. What is

more, although RARMP was designed to reinforce administrative reforms in KRA by forging linkages and enhancing coordination, it is not absolutely clear how the programme's components (projects) align with the outcomes in the authority's corporate plan. Moreover, there appear to be differences in the types of KPIs used. Going forward, there is probably need to identify and create stronger synergies in order to promote efficiency in the deployment of the already limited capacity.

With respect to data quality, financial metrics maintained on the RARMP KPI database are generally good. Still, there are concerns with respect to the data quality of non-financial performance metrics. Over 50% of KRA's performance data is extracted from manual records (e.g. registers and logs), making it cumbersome to ascertain accuracy and completeness, and therefore increasing the risk of data inaccuracies through human error and deliberate manipulation. For this reason data capture and analysis processes could benefit from automation.

Finally, the performance measurement system as it stands, is considered by a few KRA managers and stakeholders to be biased towards outputs. As a consequence, it drives managers to produce and report on quantities delivered. At the moment there are few measures to demonstrate value for money or quality. One senior executive suggested that in addition to incorporating more efficiency and effectiveness KPIs, KRA could also benefit from adopting measures which: (1) can be benchmarked with other countries; and (2) analyse equity and compliance by presenting the

distribution of taxpayers by bracket and/or those outside the tax loop who have begun to comply.

Furthermore the PMO requires KRA to incorporate indicators and targets for various Vision 2030 projects, and report to institutions such as the Gender Commission and the Discrimination Commission which is considered to be cumbersome. One executive remarked that these requirements fail to acknowledge that KRA's core function is to deliver revenue. However, as mentioned above, there is an ongoing exercise to streamline this process.

# 9 Factors that may shape the adoption of performance measurement in ARAs

## 9.1 Introduction

This chapter seeks to discern from both theory and the three country cases, the factors that may shape the adoption of performance measurement in ARAs. Specifically, the chapter draws on the literature (see Chapters 3 and 4, Sections 3.4, 3.8 (Table 3.8) and 4.2), to pinpoint the factors that have been considered and/or identified elsewhere, as a footing for advancing causal conditions (independent variables) for the efficient and effective use of performance measures – full adoption. The seven prominent factors are: (1) political economy; (2) strategic considerations; (3) policy and legislative requirements; (4) structure of the revenue base; (5) organisational culture; (6) utility of performance data to external stakeholders; and (7) data collection cost and quality considerations.

In addition, on the foundation of theory, the chapter coins conditions for the adoption of performance measurement. Each ARA is assessed and given a degree of membership to every condition. The method of assessment is guided by the work of Ragan (2000) on fuzzy sets. For each major causal condition identified, an ARA's membership is categorised as: (1) fully in= 1; (2) more in than out= 0.75; (3) neither in nor out= 0.5; (4) more out than in= 0.25; and (5) fully out= 0 (Ragin, 2000: 156).

At this juncture, given the available evidence, membership of the outcome (the dependent variable - Y) “the degree of adoption of performance



measurement in ARAs”, is defined on the basis of the extent to which, over the years, the 12 priority KPIs evaluated by ARA executives as, important and very important, have been used in practice. The assessment criteria for gauging the extent of adoption are as follows: (1) nine or more KPIs adopted = 1 - full membership of the set; (2) more than six but less than nine KPIs adopted = 0.75 - more in than out of the set; (3) three up to six KPIs adopted = 0.5 - in between; (4) one or more but less than three KPIs adopted = 0.25 - less out than in of the set; and (5) no KPIs adopted = 0 - not a member of the set.

The information presented in chapters 6, 7 and 8 (see Sections 6.2, 7.3 and 8.3 – Tables 6.1, 7.2 and 8.1) indicates that in practice SARS, TRA and KRA apply/have applied 10, 7 and 6 of the priority KPIs respectively. It is against this rationale that the fuzzy-set membership of the outcome shown in Table 9.1 has been derived. It is of note that even though they were all established at around the same time, the three case studies covering the ARAs in Kenya, South Africa and Tanzania confirm that performance measurement in the three organisations has taken off in varying shapes and forms. This matter is explored in more detail in Chapter 10.

**Table 9.1: Membership of the set “adoption of performance measurement in ARAs”**

ARA	Set Y – The degree of adoption of performance measurement in ARAs
SARS	1
TRA	0.75
KRA	0.5

Key: 1= nine or more KPIs adopted; 0.75 = more than six but less than nine KPIs adopted; 0.5 = six KPIs adopted; 0.25 = three but less than six KPIs adopted; 0 = no KPIs adopted

Source: This researcher’s assessment

## 9.2 Political economy environment

Bovaird (2008: 186-187) suggests that the choice of KPIs can be drawn from a variety of disciplines including engineering, statistics, management/systems approach, management accounting and consumer marketing. The same author also contends that performance measurement is influenced by the school of political economy prevailing in a particular public sector environment. In this regard, he defines six such political economy schools: (1) welfare economics; (2) public choice theory; (3) principal-agent theory; (4) Austrian economics; (5) new institutional economics; and (6) classical and neo-Marxism (see Table 9.2).

**Table 9.2: Different schools of political economy**

School	Key features
Welfare economics	Government pursuit of “economic efficiency and equity”. Seeks to correct market failures
Public choice theory	Measures: the elimination of government failures (e.g. inefficiency, budget maximisation, rent seeking); cost differences between publically and privately provided services; and the constitutional and pressure group constraints on budget-maximising bureaucrats
Principal-agent theory	The principal is the regulatory authority (e.g. ministry) and agent the regulated organisation (in this case ARA). Performance agreements may be in place. Agents may be subject to monitoring by the principal
Austrian economics	There is “no rationale for the public provision of goods and services through planned economies and no need for performance assessment”. Advocate policies such as deregulation, privatization, reduced taxation etc.
New institutional economics	Requires certain rules with respect to regulation. Adopts the use of pragmatic KPIs (e.g. reduced transaction costs)
Classical and neo-Marxism	KPIs “should heavily emphasize the leverage of public monies into public projects and the achievement of commercial or quasi-commercial rates of return of investment”. Neo-Marxism concerned with the impact of regulation on the business environment

Source: Bovaird, 1996

As discussed in Chapter 4 (see Sections 4.2 and 4.3) and confirmed by the three case studies, ARAs deploy the “systems approach which sets objectives” as well as KPIs for their attainment (Bovaird, 2008: 186). However, the KPIs applied at a corporate level are also incorporated from other disciplines. So for instance, expansion/contraction of the tax base,

processing turnaround times, taxpayer satisfaction and cost of collection measures are likely to be associated with statistical, engineering, consumer marketing and management accounting approaches respectively.

One can not discern with certainty from the case studies presented in Chapters 6 to 8 of this thesis, which schools of political economy prevail in the three ARAs. On the one hand, in all three cases features of the principal-agent theory appear to be in place, in that ARAs (the agents) are accountable to their Ministers of Finance (principals) largely for delivering revenue targets. In the case of South Africa, the Commissioner is required to present the ARA's strategic plan and annual reports to Parliament. Furthermore, KRA is subject to annual performance contracts. However, KPIs contained in KRA's performance contracts draw heavily on those contained in its strategic plan.

On the other hand, all three ARAs have dabbled with the consumer marketing approach through attempts to measure taxpayer satisfaction and set service standards. According to the literature, the consumer marketing approach is the only discipline with links to specific schools of political economy – in particular its “obvious parallels to welfare economics and public choice theory” (Bovaird, 1996: 149). The theory also suggests a partiality towards welfare economics in that a “tax administration may play a powerful role in influencing the efficiency of the economy and equity of the tax system” (Mansfield, 1987: 1). In this regard, ARAs are expected to implement tax policies and laws to the letter. This requirement might be used to explain why both internal and external stakeholders in the three ARA

cases place great emphasis on the KPI - actual against forecast revenue. Still, it is significant that a focus on this particular KPI may be driven by an ARA's *raison d'être*. Moreover, equity indicators demanded by external stakeholders that analyse progressivity and the degree to which the tax system is pro-poor are not defined in the three case study corporate plans, nor are they reported in ARA annual reports.

On the basis of the points discussed above, only a few of the KPIs covered in this thesis can be connected to any of the political economy paradigms. Therefore, it may be the case that "actors are motivated more by pragmatic than philosophical considerations" (Bovaird, 1996: 163). This tendency towards a pragmatic orientation is supported by the work of: Denhardt and White (1986: 316) who assert that beyond technique, sound public administration demands "judgement and a good sense of future possibilities"; Hummel (1991: 35) who contends that seasoned and well educated public managers "explicitly rely on sources of knowledge other than mere scientific"; and Shields (1996) who posits that public administrators learn by solving problems in turbulent political environments. What is more, the key features of a pragmatic approach to performance measurement are the prominence it gives to quantification, with limited accent to theory (Talbot, 2010).

Table 9.3 presents this researcher's characterisation of the extent to which each organisation displays pragmatism in setting performance measures in its most recent strategic plan. It is noteworthy that in all three case studies, measures tend to be quantified. In addition, the ARAs have refined KPIs over time to reflect changed objectives and lessons learned. What is more data

availability is a major factor in the choice of KPIs. In addition, TRA's focus is on KPIs identified for its main functional areas (see Chapter 7, Section 7.3). It also relies upon the feedback from real life experiences (e.g. the time release study) to fine-tune its KPIs. Yet there are points of departure. At KRA, given its principal-agent arrangements (see Chapter 8, Section 8.2), some KPIs are determined externally (at the centre) on the basis of national and sector priorities; the remaining indicators are developed internally using the balanced scorecard approach. In the case of SARS the choice of KPIs appears to be dependent on criteria such as accuracy; consistency; and the ability to explain trends. Also, due to other factors elaborated in this chapter such as culture, SARS seems to be shifting towards adopting a more positivist approach in the development of performance measures and predicting results. In any case, given the strong influence exercised by its Minister of Finance and Treasury (see Chapter 6, Section 6.5), SARS can only practice pragmatism within limits.

**Table 9.3: Membership of the set A**

ARA	Set A – Pragmatism is a dominant political economy driver in setting performance measures
SARS	0.5
TRA	1
KRA	0.75
Key: 1= Plainly pragmatic; 0.75=More or less pragmatic; 0.5=In between; 0.25=More or less not pragmatic; and 0=Plainly not pragmatic	
Criteria: Plainly pragmatic = KPIs refined over time based on experience with no involvement by the principal in setting them; More or less pragmatic = KPIs refined over time based on experience with some involvement by the principal in setting them; In between = KPIs refined over time based on experience with significant involvement by the principal in setting them; More or less not pragmatic = KPIs refined over time based on experience with extensive involvement by the principal in setting them; Plainly not pragmatic = KPIs set by the principal with no consideration given to practice	

Source: This researcher's assessment

### 9.3 Strategic considerations

There is extensive discourse in the literature about the strategic considerations that an organisation needs to reflect on in the selection and

use of performance measures. The literature review in Chapters 3 and 4 (see Sections 3.2, 4.2, 4.3 and 4.4) suggests that managing for results is a key driver. In this regard, there is an argument that at the organisation level performance measures should be linked to strategic plans. Where this linkage is absent:

*“The potential for goal conflict, confusion and inaccurate measurement arises...[Furthermore] performance measurement without broader strategic guidance fosters measurement without a sense of overall purpose; a technical exercise undertaken out of habit or administrative compliance, with little practical relevance for decision makers”*  
(Moynihan, 2008: 7-8).

Chapter 3 (see Section 3.3) specifies some general good practices for selecting KPIs at the outcome, output, process and input levels. Five additional criteria that should guide the development of outcome KPIs are: (1) relevance to the intended result; (2) “importance to the outcome”; (3) ‘uniqueness’, thereby avoiding overlaps and duplications; (4) scope for manipulation; and (5) comprehensiveness (Hatry, 2006: 62). It is also the case that some outcomes are difficult to measure, so there may be need to identify appropriate proxy measures. Still, when an outcome consists of more than one dimension, organisations tend to measure a sub-set which should not be construed to “capture the entire truth in an objective and comprehensive way” (Marr, 2009: 140).

The three ARAs covered in the case studies have accommodated the good practices around the choice of KPIs to varying degrees (see Table 9.4). To

begin with SARS's current strategic plan contains at least one unique KPI that clearly relates to a corresponding outcome. Indices are being developed to measure levels of compliance in tax and customs. In addition, the current strategic plan draws on tried and tested KPIs such as, percentage uptake in electronic filing and average processing turnaround times, as additional proxy measures for outcomes. At the outcome level, the strategic plan minimises the use of output KPIs.

**Table 9.4: Membership of the set B**

ARA	Set B – Good practices influence the choice of outcome KPIs
SARS (meets all criteria)	1
TRA (meets criteria 1 and 2)	0.25
KRA (meets criteria 1 and 2)	0.25
Key: 1= Good practices clearly influence the choice of outcome KPIs (5 or more criteria met); 0.75= Good practices more or less influence the choice of outcome KPIs (at least 4 criteria met); 0.5= In between (at least 3 criteria met) ; 0.25= Good practices have limited influence on the choice of outcome KPIs (at least 2 criteria met) ; and 0= The choice of outcome KPIs is clearly not influenced by good practices (no criteria met)	
Criteria: 1- KPIs are linked to the strategic plan; 2 – KPIs are tried and tested; 3 – KPIs are comprehensive; 4 – KPIs are valid, reliable and understandable; 5 – The ARA makes minimal use of output KPIs to measure the achievement of outcomes; and 6 – There is a unique KPI for every outcome	

Source: This researcher's assessment

TRA's third corporate plan contains many output KPIs. It does not assign KPIs to specific outcomes. Hence there is room to develop a comprehensive set of KPIs at the outcome level. However, three KPIs allocated to departments seem relevant and important to outcomes: (1) 'revenue collection performance as a percentage' (outcome – increase revenue collection in a cost effective way); (2) 'percentage of VAT refunds made within a month' (outcome – provide high quality and responsive customer services); and (3) 'corruption perception index' (outcome – provide high quality and responsive customer services). It is also noteworthy that one KPI, 'total revenue realised from audits as a percentage of revenue collected' is not only susceptible to manipulation by focussing on easy targets, but could also encourage taxpayer harassment.

In the case of KRA: (1) the relevance of some of the outcome KPIs is questionable, for instance, the ‘number of visitors to KRA’s website’ and ‘number and portfolio of publications available on website’, are not robust indicators of ‘improved voluntary compliance’; (2) most KPIs have an output orientation (e.g. ‘integrated audit function’, ‘refurbished and equipped offices’) and therefore are unlikely to give a feel for attributes such as improved timeliness, quality, effectiveness; (3) the menu of KPIs is not comprehensive – obvious gaps are around unique indicators for the level of voluntary compliance and taxpayer satisfaction.

Other strategic considerations include, for example, the optimal number of KPIs and targets, whether there is a bias towards easy to measure KPIs, what impact performance measurement has on equity, and whether target setting adversely or favourably affects organisational performance. However, according to Boyne (2010c) debates on these issues tend to be conceptual, and are generally not supported by rigorous study. Still, according to the same author, a consistent finding from empirical studies is that “targets have a positive effect” on the performance of earmarked KPIs (Boyne, 2010c: 222). Marr (2009: 188) concurs with this view, and recommends that targets set need to be: “(1) specific and time bound, (2) stretching and aspirational but achievable and (3) based on good information”. Nevertheless, as elaborated in Chapter 3 (see Section 3.7), there is need to have mechanisms in place to avoid the negative consequences of performance measurement design and target setting such as measure fixation and gaming.



Table 9.5 rates how each case covered by the research meets the criteria for the fuzzy set ‘target setting is a chief feature of performance measurement’. The three ARAs covered in Chapters 6 to 8 of this thesis all practice target setting. In general targets are stretched. In its current strategic plan, KRA has set three year targets primarily for output KPIs (KRA, 2009b: 68-71) – with a baseline year of 2008/09. TRA’s target setting centres on the 34 KPIs assigned to departments in its current corporate plan, which are mostly output focussed (TRA, 2010c: 44-45). TRA’s third corporate plan presents targets for five years (2008/9 – 2012/13). The baseline year is 2007/08. 17 (or half) of the KPIs have baseline data. SARS sets targets for both outputs and outcomes based on baseline data (where available) at the strategic planning stage. In its current strategic plan, SARS has specified three-year targets (for the period 2011/12 to 2013/14) for 15 outcome KPIs against baseline data for 2010/11 (SARS, 2011b: 44-45).

**Table 9.5: Membership of set C**

ARA	Set C – Target setting is a chief feature of performance measurement
SARS (meets all criteria)	1
TRA (meets all criteria)	1
KRA (meets all criteria)	1
Key: 1= Target setting is a chief feature of performance measurement (4 criteria met); 0.75= Target setting is more or less a feature of performance measurement (3 criteria met); 0.5= In between (2 criteria met) ; 0.25= Target setting is a rare feature of performance measurement (1 criterion met) ; and 0= Target setting is not a feature of performance measurement (no criteria met)	
Criteria: 1- Targets are set; 2 – Targets are specific and time bound; 3 – Targets are stretched; 4 – Targets have baselines	

Source: This researcher’s assessment

## 9.4 Policy and legislative requirements

Some ARAs are also bound by national laws and policies to maintain and report on non-financial performance information. For example, the USA’s Government Performance and Results Act (GPRA) of 1993 seeks to improve the efficiency and effectiveness of agency programmes at the Federal level

by requiring the preparation of strategic and annual plans, and making it mandatory to monitor and report on performance measurement (Government of the United States of America, 1993). The GPRA gives Congressional Committees the power to approve performance reports and plans.

KRA, SARS and TRA have to comply with government wide legislative/policy instruments for performance measurement. In particular: Kenya's Performance Contracting Policy; South Africa's Treasury Regulations of 2007 and 2009 Policy on Improving Government Performance; and Tanzania's MKUKUTA. Lessons of experience suggest that such frameworks can be problematic. Specifically, they can create conflicting perspectives between the legislature and executive. In the USA, differing views are said to have contributed to cynicism, with some executives commenting that "they were 'doing GPRA' simply because it is required by congress" (Brown, 2006: 126). Moreover, there is the argument that one size does not fit all agencies (Wilson, 2006). This latter predicament was identified during the research at KRA – where some performance measures are determined at a ministerial level (see Chapter 8 – Section 8.6).

In addition, ARAs' enabling legislation typically specifies accountability arrangements with respect to performance. Typically, an ARA's management and/or Board are required to report to the Minister of Finance on the organisation's activities and financial statements. The KRA and TRA Acts stipulate that both authorities should include "performance indicators and any other related information" in their annual reports ((Government of Kenya, 1995: 6) ;(United Republic of Tanzania, 1995: 13)). However, in the case of

South Africa, the SARS Act is not explicit about reporting on non-financial performance measures.

On the basis of the above, it would appear that policy and legislative requirements influence performance measurement regimes to varying extents (see Table 9.6). From its establishment, in spite of the absence of explicit legislative and policy requirements on performance measurement, SARS appears to be the most rigorous of the three country cases in monitoring and reporting KPIs. Subsequent policies and regulations issued by the government have provided a basis for fine-tuning the existing performance measurement regime. In the case of Tanzania, the requirements of the TRA Act have ensured that the authority incorporates some KPI data in its annual reports, as legislation does not prescribe specific measures to be reported. KRA seems to be more driven by the demand to report KPI data in line with the national performance contracting policy than its enabling Act.

**Table 9.6: Membership of set D**

ARA	Set D – Policy and legislative requirements make a significant difference to the performance measurement regime
SARS (meets criteria 1, 2 and 5)	0.5
TRA (meets criteria 1, 2, 3 and 4)	0.75
KRA (meets criteria 1, 2, 3, 4 and 6)	1
Key: 1= Requirements make a significant difference (5 or more criteria met); 0.75= Requirements more or less influence the performance measurement regime (4 criteria met) ; 0.5= In between (3 criteria met) ; 0.25= Requirements rarely make a difference (2 criteria met) ; and 0= Requirements do not make any difference (1 or less met)	
Criteria: 1 – There is a government-wide legislative/policy instrument on performance measurement; 2 – The ARA’s Act specifies lines of accountability; 3 – The ARA’s Act contains explicit requirements on performance measurement; 4 – Performance measurement is driven by criterion 1 or 2; 5 – There is evidence of the use of performance measures in spite of legislation; 6 – There are additional reporting requirements resulting from criterion 1	

Source: This researcher’s assessment

## 9.5 Structure of the revenue base

All three country cases administer four main types of taxes: income taxes; VAT; excise taxes; and trade taxes. Following trade liberalisation and the

formation of regional trading blocks (such as the South African Development Cooperation and East African Community), the potential to raise revenues from international trade taxes is limited. Therefore the focus of ARAs is on improving trade facilitation and protecting borders which provides context to KPIs such as: reduction in trader compliance burden (see Table 4.3); percentage of declarations subject to errors committed by CFAs (see Section 7.3); and percentage decrease in the size of the illicit economy (see Section 6.3).

In contrast, both income taxes and VAT offer revenue raising potential. According to the IMF (2011: 18) the key areas of reform that an ARA should address as a means of widening the tax base in the medium-term include: improving compliance especially with respect to VAT; “removing opportunities for avoidance and strengthening detection and enforcement”; and regularly compute and analyse revenues lost through tax exemptions. These key reform areas might explain why stakeholders covered by this research ranked certain KPIs as important – for instance the: voluntary compliance rate; expansion/contraction of the tax base; time taken to prepare, file and pay various taxes; and tax expenditure (see Table 5.5).

The shadow economy, defined as “all market-based legal production of goods and services that are deliberately concealed from public authorities”, is another potential source of tax revenue (Schneider et al., 2010: 4). Specifically, in the longer-term, ARAs can raise revenues from those outside the tax net (and largely in the informal sector) by “establishing streamlined tax regimes for small businesses, and extending to them the methods of

taxpayer segmentation” (IMF, 2011: 18). Such measures are relevant to all three case countries which have fairly substantial shadow economies as a percentage of GDP – Kenya (39.4%), South Africa (31.7%) and Tanzania (63%) (Schneider et al., 2010).

A review of the case studies and KPIs in each country’s public service building blocks (see Annex C), suggest that one or more aspects of the revenue structure influences the choice of each ARAs KPIs (see Table 9.7). SARS appears to fully meet the requirements of this fuzzy set. Its current strategic plan measures: compliance by type of taxes; reduction in the compliance burden; detection through audits; the effectiveness of border controls; and the success of its efforts to reduce the size of its shadow economy. Specifically, the measurement framework also recognises the need to keep tabs on SARS’s small business segment by measuring the ‘percentage increase in the small business register’.

**Table 9.7: Membership of set E**

ARA	Set E – The structure of the revenue base influences the choice of KPIs
SARS (meets criteria 1, 2, 3, 5 and 6)	1
TRA (meets criteria 1, 3, 4, 5 and 6)	1
KRA (meets criteria 1, 2 and 6)	0.50
Key: 1= Structure influences choice of KPIs (5 or more criteria met); 0.75= Structure more or less influences the choice of KPIs (4 criteria met); 0.5= In between (3 criteria met) ; 0.25= Structure rarely makes a difference (2 criteria met); and 0= Structure does not make any difference (1 or less met)	
Criteria: 1 – KPIs cover the various types of taxes; 2 – The ARA measures the compliance burden; 3 – KPIs cover trade facilitation and/or the protection of borders; 4 - The ARA measures tax expenditure; 5 – KPIs cover small businesses; and 6 – KPIs cover issues to do with detection and/or risk	

Source: This researcher’s assessment

TRA’s KPIs are disaggregated by type of tax, and centre on detection (e.g. time taken to identify stop-filers), enforcement (e.g. amounts realised from audits) and trade facilitation in customs (e.g. average time taken to accomplish customs clearance). Furthermore, the authority keeps tabs on

tax expenditure and the number of new small taxpayers registered through the presumptive tax system (TRA, 2011a). Therefore it can be induced that the structure of the revenue base influences the choice of KPIs.

The KPIs in KRA's current corporate plan intimate that the choice of performance measures is not especially influenced by the structure of the revenue base. In this regard, the plan only specifies four relevant outcome measures: (1) increase in level of compliance among taxpayers; (2) reduced time taken to file tax returns; (3) integrated risk function in place; and (4) integrated audit function in place (KRA, 2009b). Still in determining membership in the set, this researcher recognised that KRA's service standards in Table 8.2 are disaggregated by major types of revenue.

## **9.6 Organisation culture – does it matter?**

According to Marr (2009: 8), a 'command-and-control' model of management undermines performance measurement. Such a model is characterised by an environment in which a focus on attaining targets is prevalent, and where an organisation's staff are concerned that if the targets are missed "they will be blamed or even sacked", and as a result they may be tempted to "game the process, lie about results or cheat by misreporting output" (Radnor, 2011: 104). Instead a 'performance-driven culture' which promotes "learning and improvement" is preferred (see Box 9.1) (Marr, 2009: 8). In this regard, an empirical study by Moynihan and Pandey (2010: 13) found that organisational culture attributes such as openness, innovation and risk taking contribute to "higher reported information use".

### Box 9.1: Key characteristics of a performance driven culture

“At the center of a performance-driven culture is organizational learning and improvement...[In] an enabled learning environment...all employees are actively seeking new strategic insights, which are based on their understanding of strategy, key performance questions and the performance indicators collected, to allow them to challenge strategic assumptions, to refine strategic thinking, to learn and to make better decisions to improve future performance”. In understanding the improvement process, one can draw parallels with formative assessment used in education. In particular, feedback systems enable an organisation’s staff to “learn and fine-tune or modify what they have been doing”. In other words, reflect and improve. Planned performance review meetings also assist teams to “focus on problem solving, decision making and formulating actions”.

Source: Marr, 2009

However, “achieving a supportive culture...is one of the most difficult and most important institutional challenges to be met” (Thomas, 2008: 180). Research by Micheli and Pavlov (2008), which the authors opine is applicable to PSOs in general, pinpoints four facets that need to be in place to promote what they term as a ‘performance culture’. First, there should be a shared appreciation across the organisation of a performance management framework’s objectives and methods. Second, frontline staff need to understand how performance data collected is interpreted and used. Third, effective structures and systems to support performance management need to be in place. Fourth, there should be linkages between objectives and associated KPIs at corporate, departmental and individual levels using cascading processes and/or through reward systems.

Table 9.8 sets-out the degree to which each ARA qualifies for membership of the set ‘a performance culture has a bearing on the selection of KPIs’. The case studies suggest that the selection of KPIs is an iterative process. Furthermore, the country cases offer evidence that objectives and KPIs are cascaded down to individuals in the organisation – at least to management level.

**Table 9.8: Membership of set F**

ARA	Set F - A performance culture has a bearing on the selection of KPIs
SARS (meets all criteria)	1
TRA (meets criteria 1, 3, 4 and 5)	0.75
KRA (meets criteria 1, 4, and 5)	0.5
Key: 1= A performance culture has a bearing on the selection of KPIs (5 criteria met); 0.75= A performance culture more or less has a bearing on the selection of KPIs (4 criteria met); 0.5= In between (3 criteria met ; 0.25= A performance culture rarely has a bearing on the selection of KPIs ( 2 criteria met); and 0= A performance culture has no bearing on the selection of KPIs (1 or less met)	
Criteria: 1 – There is a shared appreciation across the organization of the performance management framework; 2 – Staff understand how performance data collected is interpreted and used; 3 – There are structures and systems in place to support performance management; 4 – KPIs are cascaded from corporate to individual level; 5 – There is evidence of year-on-year improvements	

Source: This researcher's assessment

The degree to which systems and structure have been developed to support a performance culture varies. SARS has invested substantial resources in implementing its Enterprise Performance Management Framework, by way of its leadership involvement, knowledge base, skills and systems (see Section 6.5). TRA's Monitoring and Evaluation Database is accessible to its managers (see Section 7.5). In comparison, KRA's structures and systems seem less well developed (see Section 8.5).

The initiative at SARS to promote a common understanding of KPIs and performance data through the collaborative development of the 'Reference Guide to Measures in the Strategic Plan' implies that it is eligible for full membership of the set F. Whilst the TRA case does not offer any evidence of a similar initiative, it meets the remaining criteria offered by Micheli and Pavlov (2008). In sum, TRA's performance culture more or less has a bearing on the selection of KPIs. Finally, it can be inferred from the case in Chapter 8 that systems and structures are not as effective as they could be, and more learning and understanding of the KPIs used is needed. Therefore, KRA's performance culture is neither a strong nor a weak factor in the selection of KPIs.



## 9.7 Utility of performance data to external stakeholders

The literature review in Chapters 3 and 4 dedicate Sections 3.4 and 4.5 to performance information use including reporting. The former section indicates that the use of performance information not only requires resources and a performance culture, but there also needs to be demand for it. The latter section confirms that performance reporting to ARAs' external stakeholders is the norm.

Whilst external stakeholders have limited options around terminating their dealings with ARAs ('exit'), performance reporting is an important vehicle by which they can put pressure on them to enhance services delivery and meet their mandates through 'voice' ((Hirschman, 1970); (Van de Walle and Roberts, 2011)). Yet there is a school of thought that "when it comes to the actual use of performance reports, less enthusiasm is observed" (Van Dooren et al., 2010: 124). This lack of enthusiasm is attributed to "information overload" and external stakeholders "not knowing what credibility to attach to 'official' documents" as there is a perception that PSOs are partial to offering "flattering interpretations of their" performance (Thomas, 2008: 170). Moreover, performance reporting is sometimes perceived to be just a "public relations gimmick" (Ho, 2011: 200).

To counter the challenges above, PSOs have sought to engage stakeholders through mechanisms such as the 'co-production' model in which they are involved in aspects of performance management (Van Dooren et al., 2010). Ho (2011) illustrates the practical use of this model in setting performance

measures and reviewing related reports in Iowa. One of the lessons distilled from this initiative is that external stakeholders:

*“Often have a different perspective on performance measurement than managers do. Generally, they are less interested in input and output measures, and more interested in outcomes and in citizen perception of service quality, responsiveness, customer services, intra-jurisdictional equity, transparency and effectiveness in public communication”* (Ho, 2011: 212).

External stakeholders interviewed during this research pinpointed 12 priority KPIs that should feature in ARA reports (see Table 5.5 in Chapter 5, Section 5.7). It is striking that many of the KPIs fall within the broad categories identified by Ho (2011). KPIs and targets to do with responsiveness are generally incorporated in service charters (see Chapters, 6, 7 and 8, Sections 6.4, 7.4 and 8.4). In addition, a review of the annual reports of the three ARAs found that SARS, TRA and KRA provide performance data on 9, 7 and 3 of the 12 priority KPIs preferred by external stakeholders respectively. Data for three KPIs that are absent in the three ARAs' annual reports evolve around the tax gap and equity and corruption. However, it is noteworthy that SARS does report on other governance measures, and that the government only grants tax exemptions “on an extremely exceptional basis” (African Development Bank Group, 2010b: 35). On the basis of the available evidence, Table 9.9 presents membership of the fuzzy-set ‘priority information demanded by external stakeholders impacts the choice of performance measures’.

**Table 9.9: Membership of set G**

ARA	Set G – Priority information demanded by external stakeholders impacts the choice of performance measures
SARS	1
TRA	0.75
KRA	0.25
Key: Key: 1= nine or more KPIs adopted; 0.75 = more than six but less than nine KPIs adopted; 0.5 = six KPIs adopted; 0.25 = up to three but less than six KPIs adopted; 0 = no KPIs adopted	
Criteria: These are the number of KPIs demanded by external stakeholders which have been adopted (see Table 5.5)	

Source: This researcher's assessment

## 9.8 Data collection cost and quality considerations

The cost of collecting data for selected KPIs is often an important consideration. The least expensive data are typically mined from an organisation's administration systems and records. However, an organisation's own sources have drawbacks in that they tend not to maintain outcome and service quality data ((Hatry, 2006); (Van Dooren et al., 2010)). Therefore the next best option may be to survey clients which: is an expensive undertaking in that it often demands external expertise; is time consuming; and may result in low response rates. Moreover, "respondent's perceptions and memory may be less convincing than data obtained from agency records" (Hatry, 2006: 86).

Van Dooren et al. (2010) offer additional data sources, one of which is self assessment whose greatest drawback has to do with the risks it presents in terms of gaming and cheating. Another source relevant to ARAs is data generated by 'international statistical institutions' such as the World Bank. Section 4.6 of Chapter 4 covers universal KPIs for ARAs. It is noteworthy that there are reservations about the use of global indicators and associated data. Whilst such indicators offer unique and comprehensive data sets, they may have limitations around context, assumptions made and data quality ((Høyland et al., 2008); (Van de Walle, 2006)).

In addition to cost considerations, there is also the issue of data quality. In this regard it is important to ensure accuracy and reliability. The UK's National Audit Office (NAO) recommends the institutionalisation of a control framework encompassing the following components: "clear definitions, good documentation and management review of data reliability"; as well as disclosure in reports where there are limitations in data quality (Comptroller and Auditor General, 2005: 13). In addition, the risks are mitigated as systems mature and human capacity is built. The NAO also offers feedback in its reports to Parliament and the Public on the quality of performance measurement data and systems. It rates each system using one of the following categories: "fit for purpose; broadly appropriate but in need of strengthening; and not fit for purpose" (Comptroller and Auditor General, 2009: 1).

Table 9.10 indicates the extent to which 'data collection cost and quality are taken into account in selecting KPIs' in the three ARAs. The three ARAs all use administrative systems and records as well as stakeholder surveys as data sources. None of the three cases make use of universally available performance measures and data – especially the 'time taken to prepare, file and pay various taxes' and 'global ease of paying taxes ranking', which ARA executives identified as important indicators. At the time of undertaking this research, SARS was in the process of assessing the viability of these measures. KRA expressed some reservations around the methodology used to collect data – especially since executives were of the view that they do not participate in the process. TRA executives did not indicate the reasons behind the non-use of these indicators.

**Table 9.10: Membership of set H**

ARA	Set H – Data collection cost and quality are taken into account in selecting KPIs
SARS (meets criteria 2 to 6)	1
TRA (meets criteria 2, 3, 5 and 6)	0.75
KRA (meets criteria 2, 3 and 5)	0.5
Key: 1= Data collection cost and quality are taken into account in selecting KPIs (5 or more criteria met); 0.75= Data collection cost and quality are more or less taken into account in selecting KPIs (4 criteria met); 0.5= In between (3 criteria met); 0.25= Data collection cost and quality are rarely taken into account in selecting KPIs (2 criteria met); and 0= Data collection cost and quality are not taken into account in selecting KPIs (1 or less met)	
Criteria: 1 – The ARA uses data generated by international statistical institutions; 2 – Data quality is an area of concern; 3 – Management assesses the reasonableness of the data; 4 – Data quality is independently verified; 5 – The ARA uses a combination of data sources (i.e. from routine systems and surveys); 6 – The ARA is automated with the aim of enhancing data integrity	

Source: This researcher's assessment

Executives in the three ARAs identified data quality to be an area of concern.

In the case of SARS considerable effort has gone and continues to go into improving data quality – in this regard automation has been an enabler and so are reviews to establish whether the performance data generated is fit for purpose (see Chapter 6, Section 6.6). Furthermore, KPI data are subject to audit by the AGSA (see Chapter 6, Section 6.5). TRA has benefited from an automated data collection system. Its management undertakes reviews to ascertain the reasonableness of data quality. However, non-financial data is not subject to external audit (see Chapter 7, Section 7.5). Finally, KRA extracts most of its non-financial data from manual records – there is concern about its accuracy, especially since it is not subject to audit (see Chapter 8, Section 8.6).

# 10 Towards convergence of performance measurement practices in ARAs

## 10.1 Introduction

On the basis of the assessment in Chapter 9, this chapter seeks to make generalisations about the conditions needed by an ARA to adopt robust performance measurement practices. The analysis applies the Qualitative Comparative (QCA) technique and fsQCA software developed by Ragin (2008) and Ragin et al. (2008).

## 10.2 Overall minimum and maximum membership

The fuzzy-set memberships presented in Table 10.1, suggest that each ARA's performance measurement regime is influenced by different configurations of the conditions or 'recipes' reviewed in Chapter 9. The tenth column in the table indicates the minimum degree of membership of the three cases in the recipe that combines all eight conditions. In this regard, the cases which least conform with the eight conditions (measured as:  $R_i = \min (A_i, B_i, C_i, D_i, E_i, F_i, G_i, H_i)$ ) are: (1) TRA and KRA for factor B; (2) and KRA for factor G. In contrast, the eleventh column in the table sets out the maximum degree of membership for each case using the same eight causal conditions. Cases with full membership (measured as:  $R_i = \max (A_i, B_i, C_i, D_i, E_i, F_i, G_i, H_i)$ ) are: (1) TRA for condition A; (2) SARS for condition B; (3) All three ARAs for condition C; (4) KRA for condition D; (5) SARS and TRA for condition E; and (6) SARS for condition F and H. In sum, SARS, TRA and KRA are full members in 5, 3 and 2 fuzzy-sets respectively.

**Table 10.1: The eight conditions shaping performance measurement in ARAs**

ARA	A	B	C	D	E	F	G	H	Cralln	Crallu	Y
SARS	0.5	1	1	0.5	1	1	1	1	0.5	1	1
TRA	1	0.25	1	0.75	1	0.75	0.75	0.75	0.25	1	0.75
KRA	0.75	0.25	1	1	0.5	0.5	0.25	0.5	0.25	1	0.5

**Key:** A= Pragmatism is a dominant political economy driver in setting performance measures; B= Good practices influence the choice of outcome KPIs ; C=Target setting is a chief feature of performance measurement; D= Policy and legislative requirements make a significant difference to the performance measurement regime; E= The structure of the revenue base influences the choice of KPIs; F= A performance culture has a bearing on the selection of KPIs; G=Priority information demanded by external stakeholders impacts the choice of performance measures; H= Data collection cost and quality are taken into account in selecting KPIs; Cralln = Minimum score ( $A \cap B \cap C \cap D \cap E \cap F \cap G \cap H$ ); Crallu = Maximum score ( $A \cup B \cup C \cup D \cup E \cup F \cup G \cup H$ ); Y= Degree of adoption of performance measures

Source: This researcher's assessment (see Tables 9.1-9.9)

### 10.3 Select review of linkages between conditions

Factor C (target setting) appears to be the most dominant condition in that all three cases have full membership. The analysis of C's theoretic-set consistency vis-à-vis the other factors ( $X = A, B,$  and  $D$  to  $H$ ) expressed as  $(X_i \leq C_i) = \sum[\min(X_i, C_i)]/\sum(X_i)$  and coverage  $((X_i \leq C_i) = \sum[\min(X_i, C_i)]/\sum(C_i)$  are set out in Table 10.2. The data shown confirms that all seven conditions are a perfect subset of C. For that reason C demonstrates theoretic consistency as an outcome. In other words all other conditions have an impact on the target setting condition C and must be met first – being pragmatic (A) but at the same time applying good practices in developing KPIs (B), meeting policy and legislative requirements (D), taking the structure of the revenue base into account (E), nurturing a performance culture (F), catering for external stakeholder demands (G) and keeping a check on data quality and collection costs (H). In practice, the criteria required for C to be attained make sense.

The analysis of coverage of C shows that condition E has the highest raw coverage, or empirical importance, as it accounts for the largest chunk of instance of C. Given a benchmark score for coverage of 0.75, factors A, D, F

and H take second place. Factor B is the least important. This finding makes sense in the day to day functioning of an organisation where targets are set for outputs, activities and inputs.

**Table 10.2: Set membership in outcome C (target setting)**

	A	B	D	E	F	G	H
Consistency	1	1	1	1	1	1	1
Raw coverage	0.75	0.5	0.75	0.83	0.75	0.67	0.75

**Key:** A= Pragmatism is a dominant political economy driver in setting performance measures; B= Good practices influence the choice of outcome KPIs ; C=Target setting is a chief feature of performance measurement; D= Policy and legislative requirements make a significant difference to the performance measurement regime; E= The structure of the revenue base influences the choice of KPIs; F= A performance culture has a bearing on the selection of KPIs; G=Priority information demanded by external stakeholders impacts the choice of performance measures; H= Data collection cost and quality are taken into account in selecting KPIs

Source: Computed using fsQCA software

In terms of causal necessity, Table 10.3 shows the extent to which several combinations of conditions must be present for outcome C to occur (expressed as causal necessity by the equation  $(C_i \leq X_i) = \sum[\min(X_i, C_i)] / \sum(C_i)$ ). Again the results suggest that the subset relationship for a necessary condition to a large extent holds true. It is striking that the combination of conditions 'A, B, D and E' and 'H, A, B and D' are absolutely necessary for a C outcome. This necessity holds true in spite of the fact the B has the lowest coverage from a theoretical consistency perspective in Table 10.2.

**Table 10.3: Consistency and coverage in outcome C (target setting)**

Condition	Consistency	Coverage
A +B + D + E	1	1
E + F + G + H	0.83	1
F + G + H + A	0.92	1
G + H + A + B	0.92	1
H + A + B + D	1	1

Source: Computed using fsQCA software

Condition E (taking the structure of the revenue base into account) is less dominant as an outcome than C. Specifically only four conditions B (use of good practices in setting outcome KPIs), F (performance culture), G (priority information demanded by external stakeholders) and H (data cost and



quality) are perfect subsets of E. It is also worth observing that in practice it is entirely feasible that they could be subsets of E (see Table 10.4). In addition, the raw coverage for conditions C, F, G and H is significant, but low for B. Moreover, analysis to establish whether C, F, G and H are necessary conditions produces 1 and 0.83 for consistency and coverage respectively, and they are therefore empirically important.

**Table 10.4: Set membership in outcome E (taking the structure of the revenue base into account)**

	A	B	C	D	F	G	H
Consistency	0.89	1	0.83	0.78	1	1	1
Raw coverage	0.8	0.6	1	0.7	0.9	0.8	0.9

**Key:** A= Pragmatism is a dominant political economy driver in setting performance measures; B= Good practices influence the choice of outcome KPIs ; C=Target setting is a chief feature of performance measurement; D= Policy and legislative requirements make a significant difference to the performance measurement regime; E= The structure of the revenue base influences the choice of KPIs; F= A performance culture has a bearing on the selection of KPIs; G=Priority information demanded by external stakeholders impacts the choice of performance measures; H= Data collection cost and quality are taken into account in selecting KPIs

Source: Computed using fsQCA software

Conditions A, D, F and H display similar combinations of membership scores but not in the same order. There is therefore merit in at least further analysing them. In particular, a more in depth review of condition H (see Table 10.5), shows that conditions B, F and G are perfect subsets in terms of theoretic set consistency. But condition B's consistency coverage is somewhat low when compared to E. From a necessity perspective conditions E (taking the structure of the revenue base into account), F (performance culture) and G (priority information demanded by external stakeholders) generate consistency and coverage scores of 1 and 0.9 respectively. The coverage result suggests that these three conditions are almost sufficient to achieve outcome H (data quality and cost).

**Table 10.5: Set membership in outcome H (data collection costs and quality considerations)**

	A	B	C	D	E	F	G
Consistency	0.78	1	0.75	0.78	0.9	1	1
Raw coverage	0.78	0.67	1	0.78	1	1	0.89

**Key:** A= Pragmatism is a dominant political economy driver in setting performance measures; B= Good practices influence the choice of outcome KPIs ; C=Target setting is a chief feature of performance measurement; D= Policy and legislative requirements make a significant difference to the performance measurement regime; E= The structure of the revenue base influences the choice of KPIs; F= A performance culture has a bearing on the selection of KPIs; G=Priority information demanded by external stakeholders impacts the choice of performance measures; H= Data collection cost and quality are taken into account in selecting KPIs

Source: Computed using fsQCA software

Conditions B, G and H are perfect subsets of F in terms of theoretic set consistency, with coverage of 0.67, 0.89 and 1 respectively. Condition E has a consistency and coverage of 0.9 and 1. As condition B's coverage is below the benchmark, it has not been used to assess sufficiency. Instead a check to establish necessity of conditions E, G and H generates consistency and coverage scores of 1 and 0.9 respectively – indicating that these three conditions are necessary for the outcome F.

From a theoretic set consistency perspective, condition G only has one perfect sub-set B, with a coverage of 0.75. Whilst conditions C, E, F and H are not perfect subsets, their theoretic set coverage is 1. It is also worth pointing out that conditions D (meeting policy and legislative requirements), A (being pragmatic) and B (use of good practices in setting outcome KPIs) do not have any perfect subsets.

Condition B (use of good practices in setting outcome KPIs), features as a perfect subset of conditions C, E, F, G and H. As condition B does not possess a single perfect subset, and condition G has the highest theoretic set consistency of 0.75 (albeit with a coverage of 1), on the basis of Ragin's rules there is no case for testing its necessity as an outcome (see Table 10.6). However, on the basis of the literature on ARAs and the three case

studies, it is worth noting that the use of outcome KPIs is at an infancy stage. Furthermore as G (priority information demanded by external stakeholders) is an outcome of B, it can be understood why it does not feature more prominently as a causal condition.

**Table 10.6: Set membership in outcome B (use of good practices in setting outcome KPIs)**

	A	C	D	E	F	G	H
Consistency	0.44	0.5	0.44	0.6	0.67	0.75	0.67
Raw coverage	0.67	1	0.67	1	1	1	1

**Key:** A= Pragmatism is a dominant political economy driver in setting performance measures; B= Good practices influence the choice of outcome KPIs ; C=Target setting is a chief feature of performance measurement; D= Policy and legislative requirements make a significant difference to the performance measurement regime; E= The structure of the revenue base influences the choice of KPIs; F= A performance culture has a bearing on the selection of KPIs; G=Priority information demanded by external stakeholders impacts the choice of performance measures; H= Data collection cost and quality are taken into account in selecting KPIs

Source: Computed using fsQCA software

## 10.4 Effects of different causal configurations

The scrutiny in the previous section provided some useful insights. However, more complex configurations are needed to be able to make generalisations about which combinations of conditions or recipes that have the greatest influence on the outcome - adoption of performance measurement in ARAs (Y). To this end, Table 10.7 presents each ARA's minimum membership when the causal conditions are combined into six configurations. The configurations are drawn from the original recipe as well as the five sets in Table 10.1 with the highest degrees of membership, and computed using fsQCA. The results show that a logical AND ( $\cap$ ) of the top two sets C and E generates 'Crtop2', the highest level of membership among the five configurations. 'Kratop2', 'Comb3' and 'Crtop4' have the next highest levels of membership.

**Table 10.7: Set membership in the top five configurations, plus one recipe with eight conditions**

ARA	Top five configurations					Cralln
	Crtop2	Kratop2	Tratop3	Comb3	Crtop4	
SARS	1	0.5	0.5	1	1	0.5
TRA	1	0.75	1	0.75	0.75	0.25
KRA	0.5	1	0.5	0.5	0.5	0.25

Key: Crtop2=Minimum score (C ∩ E); Kratop2= Minimum score (C ∩ D); Tratop3= Minimum score (A ∩ C ∩ E); Comb3= Minimum score (E ∩ F ∩ H); Crtop4= Minimum score (C ∩ E ∩ F ∩ H); Cralln = Minimum score (A ∩ B ∩ C ∩ D ∩ E ∩ F ∩ G ∩ H)

Source: Computed using fsQCA software

Table 10.8 sets out the theoretic set consistency and coverage of the six recipes for the outcome Y. The results show that four configurations ‘Crtop2’, ‘Comb3’, ‘Crtop4’ and ‘Cralln’ each with two, three, four and eight conditions respectively have the highest consistency. The last three configurations are perfect subsets of the outcome Y. In addition, ‘Crtop2’, ‘Comb3’ and ‘Crtop4’ all have a coverage of 1 indicating that these configurations account for the entire “sum of memberships” in Y (Ragin, 2008: 117). In contrast Cralln accounts for less than half of the sum of memberships in Y.

**Table 10.8: Consistency and coverage of the six recipes for the outcome Y**

ARA	Top five configurations					Cralln
	Crtop2	Kratop2	Tratop3	Comb3	Crtop4	
Consistency	0.9	0.78	0.88	1	1	1
Coverage	1	0.78	0.78	1	1	0.44

Key: Crtop2=Minimum score (C ∩ E); Kratop2= Minimum score (C ∩ D); Tratop3= Minimum score (A ∩ C ∩ E); Comb3= Minimum score (E ∩ F ∩ H); Crtop4= Minimum score (C ∩ E ∩ F ∩ H); Cralln = Minimum score (A ∩ B ∩ C ∩ D ∩ E ∩ F ∩ G ∩ H)

Source: Computed using fsQCA software

Furthermore, a test to establish the necessity of the configurations in Table 10.8 (i.e. ‘Crtop2’, ‘Kratop2’, ‘Tratop3’, ‘Comb3’ and ‘Crtop4’), which have a consistency and coverage of at least 0.75 indicates that they are all sufficient in terms of consistency. In addition, ‘Comb3’ has the highest coverage of 0.9. The other configurations have the same coverage of 0.75 indicating that 0.25 of the coverage necessary to achieve sufficiency is attributable to other configurations.

**Table 10.9: Results of test to establish necessity**

ARA	Crtop2	Kratop2	Tratop3	Comb3	Crtop4
Consistency	1	1	1	1	1
Coverage	0.75	0.75	0.75	0.9	0.75

Key: Crtop2=Minimum score (C ∩ E); Kratop2= Minimum score (C ∩ D); Tratop3= Minimum score (A ∩ C ∩ E); Comb3= Minimum score (E ∩ F ∩ H); Crtop4= Minimum score (C ∩ E ∩ F ∩ H)

Source: Computed using fsQCA software

The configurations in Table 10.9 if combined provide “direct evidence of their relative empirical importance” as one can establish partitioning coverage – that is the elements of coverage that are common (raw) and unique (Ragin, 2008: 63). Given that various configurations can deliver the same outcome, partitioning coverage helps in identifying the combinations with the greatest coverage. In this regard, on the basis that ‘Comb3’ appears to be the superior configuration, it is compared with each of the other four combinations. A two step process has been followed. First, the maximum membership scores are computed using the Boolean algebra function ‘or’ (∪). The results are presented in Table 10.10.

**Table 10.10: Membership in the combined configurations**

ARA	Join 1	Join 2	Join 3	Join 4
SARS	1	1	1	1
TRA	1	0.75	1	0.75
KRA	0.5	1	0.5	0.5

Key: Join 1= Maximum score (Comb3 ∪ Crtop2); Join 2= Maximum score (Comb3 ∪ Kratop2); Join 3= Maximum score (Comb3 ∪ Tratop3); Join 4= Maximum score (Comb3 ∪ Crtop4)

Source: Computed using fsQCA software

Table 10.11 presents the partition coverage for the four combined configurations. The solution coverage (SC) is computed using the formula  $(\sum C_{Coni+Conj} / \sum Y)$ , where: ‘Coni’ and ‘Conj’ are the two configurations that are combined to create a solution (C); and ‘Y’ is the outcome. The raw coverage (RC) for each solution is set out in Table 10.9  $(\sum C_{Coni} / \sum Y)$ . The unique coverage (UC) is calculated by subtracting the overlap that arising by

combining configurations – as an equation the UC for Coni is expressed as

$$UC_{coni} = SC - RC_{conj} .$$

The results indicate 100% solution coverage for all combined configurations. However, most (65%) of the solution coverage in each solution set is overlapping. ‘Comb3’ has the highest unique coverage in all four solution sets. In particular, ‘Comb3’, made of conditions to do with the revenue base (E), performance culture (F) and data cost and quality (H), ‘embraces’ 25% of the instances of Y. In contrast the other four configurations (‘Crtop2’, ‘Kratop2’, ‘Tratop3’ and ‘Crtop4’) only embrace 10% of the instances of Y.

**Table 10.11: Partitioning of combined configurations (first four solutions)**

ARA	Join 1		Join 2		Join 3		Join 4	
Solution coverage	1		1		1		1	
	<i>Comb3</i>	<i>Crtop2</i>	<i>Comb3</i>	<i>Kratop2</i>	<i>Comb3</i>	<i>Tratop3</i>	<i>Comb3</i>	<i>Crtop4</i>
Raw coverage	0.9	0.75	0.9	0.75	0.9	0.75	0.9	0.75
Unique coverage	0.25	0.1	0.25	0.1	0.25	0.1	0.25	0.1
Solution consistency	0.9		0.82		0.9		1	
	<i>Comb3</i>	<i>Crtop2</i>	<i>Comb3</i>	<i>Kratop2</i>	<i>Comb3</i>	<i>Tratop3</i>	<i>Comb3</i>	<i>Crtop4</i>
Consistency	1	1	1	1	1	1	1	1
Key: Join 1= Maximum score (Comb3 U Crtop2); Join 2= Maximum score (Comb3 U Kratop2); Join 3= Maximum score (Comb3 U Tratop3); Join 4= Maximum score (Comb3 U Crtop4)								

Source: Computed using fsQCA software

A review of four alternative solution sets (see Table 10.12) indicates that ‘Join8’ has both the lowest membership and coverage in outcome Y. Furthermore, the configurations that make up ‘Join8’, namely ‘Kratop2’ and ‘Tratop3’, each account for only 3% of the instances of Y. Also ‘Join 6’ and ‘Join7’ throw up similar results, in particular: solution consistency and coverage of 0.9 and 1 respectively; and 25% unique coverage by the sets ‘Crtop2’ (target setting (C) and revenue base (E)), ‘Tratop3’ (pragmatism (A), target setting (C) and revenue base (E)) and ‘Crtop4’ (target setting (C), revenue base (E), performance culture (F) and data cost and quality (H)). It

is noteworthy that the condition centring on the revenue base (E) is present in all three sets.

**Table 10.12: Partitioning of combined configurations (next four solutions)**

ARA	Join 5		Join 6		Join 7		Join 8	
Solution coverage	1		1		1		0.78	
	<i>Crtop2</i>	<i>Kratop2</i>	<i>Crtop2</i>	<i>Tratop3</i>	<i>Crtop2</i>	<i>Crtop4</i>	<i>Kratop2</i>	<i>Tratop3</i>
Raw coverage	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Unique coverage	0.25	0.25	0.25	0.25	0.25	0.25	0.03	0.03
Solution consistency	0.75		0.90		0.90		0.70	
	<i>Crtop2</i>	<i>Kratop2</i>	<i>Crtop2</i>	<i>Tratop3</i>	<i>Crtop2</i>	<i>Crtop4</i>	<i>Kratop2</i>	<i>Tratop3</i>
Consistency	1	1	1	1	1	1	1	1
Key: Join 5= Maximum score ( <i>Crtop2</i> U <i>Kratop2</i> ); Join 6= Maximum score ( <i>Crtop2</i> U <i>Tratop3</i> ); Join 7= Maximum score ( <i>Crtop2</i> U <i>Crtop4</i> ); Join 8= Maximum score ( <i>Kratop2</i> U <i>Tratop3</i> )								

Source: Computed using fsQCA software

## 10.5 Paths charted by truth tables

According to Ragin (2008) truth tables which also use Boolean logic offer a much more scrupulous approach to understanding causal links than the techniques above. Essentially a truth table generates logical configurations of causal conditions exponentially. The total number of configurations depends on the number of conditions ( $k$ ), and is expressed as  $2^k$ . A truth table takes into account both the inclusion and exclusion of a condition in recognition of its relevance or irrelevance. Put succinctly, “the goal of truth table construction is to identify explicit connections between combinations of causal conditions and outcomes” (Ragin, 2008: 125).

This piece of research assessed the effects of eight causal conditions, which meant that a truth table produced  $2^8$  (or 256) configurations. However, given that the number of cases are very small ( $N=3$ ), there is limited diversity and as a result most rows in the truth table did not have cases (referred to as remainders). Specifically, for the eight causal conditions, the truth table only

generates one complex solution (without any remainders which are labelled as false), excludes causal condition B or in Boolean algebra  $\sim B$ , and has very low raw, unique and solution coverage (see Table 10.13). The truth table for some of the configurations in Section 10.4 again only generate one complex solution, however, their raw coverage is higher, and there are two empirical instances where this solution holds true.

**Table 10.13: Results from truth tables**

Solution	Raw coverage	Unique coverage	Consistency
$A \cap \sim B \cap C \cap D \cap E \cap F \cap G \cap H$	0.44	0.44	1
$C \cap E \cap F \cap H$	1	1	1
$E \cap F \cap H$	1	1	1
$Cr_{top2} \cap Tr_{atop3} \cap Kr_{atop2} \cap Comb3 \cap Cr_{top4}$	0.78	0.78	1
Join 1 ( $Comb3 \cup Cr_{top2}$ )	1	1	0.9

Source: Computed using fsQCA software

According to Ragin and Sonnett (2004: 11) “limited diversity (i.e., an abundance of remainders) is the rule, not the exception, in the study of naturally occurring social phenomena”. Therefore, even when there are many cases (large N), a researcher will not necessarily obtain sufficient levels of diversity. It is therefore recommended that researchers should attempt ‘thought experiments’ to establish the counterfactual, based both on their knowledge and the available theory (Ragin et al., 2008). The counterfactual can be either: easy or difficult when a parsimonious solution is identified; or easy when an intermediate solution is found. The software fsQCA enables users to establish both solutions by including remainders.

A test to establish the counterfactuals for the solutions in Table 10.13 was not particularly fruitful. The only alternative solution that could be discerned is a parsimonious and intermediate solution for  $C \cap E \cap F \cap H$ , which excludes



C. Apparently, QCA has limited utility when N is less than 12 (Fiss and Ragin, No date).

# 11 Overall findings, recommendations and concluding remarks

## 11.1 Overview

This final chapter recapitulates the research findings in the context of the objectives specified in the introductory chapter of this thesis. In addition, the chapter delineates which findings constitute a contribution to knowledge and/or practice, and offers recommendations on the way forward. The chapter also: points out the limitations of the research; suggests areas worthy further investigation; and ends with some concluding remarks.

## 11.2 Research findings, contribution and recommendations

The key research findings, contributions and recommendations presented in this section respond to: the question '*How can performance measures in African ARAs be strategic, efficient and effective?*'; and in particular the six areas where this researcher anticipated that she could make a contribution (see Section 1.3). The section is set out under the following sub-headings: (1) level of attention accorded to performance measurement; (2) a possible menu of performance metrics; (3) the role of performance measurement processes; and (4) conditions associated with the adoption of performance measurement.

### 11.2.1 Level of attention accorded to performance measurement

Before undertaking this research, this author's was of the view that performance measurement has not received as much attention in ARAs. However, the review of the features of performance measurement in tax administration in Chapter 4 revealed that at a planning level, the broad

outcomes sought are fairly consistent in ten ARAs from around the globe, and to some extent there are commonly associated KPIs. Furthermore, the three case studies in Chapters 6, 7 and 8 demonstrate that the level of sophistication in the use of KPIs has been incremental.

However, one finding is that, to varying extents, in two of the cases, reporting of non-financial metrics to the public is limited, and could give the impression that performance measurement is not a priority. Another finding from the research is that revenue related KPIs receive more attention than non-financial metrics such as value for money, quality and responsiveness. It is also noteworthy that in the three cases, service charters are either just a paper exercise or the standards of service specified in them have been surpassed and are therefore no longer aspirational. There is also the issue around whether ARAs have too many measures contained in their corporate plans and service charters. In this regard, one school of thought suggests that “well-developed, usable Balanced Scorecards seem to have 12 to 24 metrics, with the number being more on the lower side” (Person, 2009: 74).

### **11.2.2 A possible menu of performance metrics**

Prior to the outset of this exercise, it was anticipated that that the research would identify a menu of reliable and objective KPIs for ARAs to adopt to assess their accomplishments, and benchmark performance against other tax administrations. To these ends: (1) this researcher reviewed the literature to identify appropriated benchmark KPIs; (2) ARA executives in the three country cases were asked to rank a combination of around 40 commonly used, universal and good practice KPIs; and (3) external stakeholders were

given the opportunity to provide their views on their priority performance information preferences.

A possible menu of about 40 performance metrics is presented in Table 11.1 for 12 broad outcomes based on four main sources. First, Chapter 5 presents the 12 (out of 39) of the most highly ranked KPIs by ARA executives. Second, the same chapter also sets out another six priority performance measures demanded by external stakeholders. Third, during the research, additional KPIs were identified during interviews and when reviewing country case documentation. Fourth, Vázquez-Caro and Bird (2011) suggest a number of useful KPIs that can be used for internal monitoring and benchmarking purposes (see Table 4.7).

One broad outcome that is not explicit in the 10 ARAs appraised in Chapter 4, and in the three case studies (Chapters 6 to 8) evolves around fairness and equity of the tax system in terms of policy formulation and its administration. Yet, it was apparent from external stakeholders interviewed that there is need for ARAs to report on the progressivity of the tax system. Therefore, as a contribution to practice, this researcher recommends the inclusion of an additional broad outcome, 'O12 – The tax system is equitable and fair'. Table 11.1 proposes a number of KPIs for this broad outcome.

It is probably worth distinguishing between two equity and fairness KPIs presented in the table. The level of horizontal equity is “a principle used to judge the fairness of taxes, which holds that taxpayers who have the same income should pay the same amount in taxes” (Cordes, 1999: 195). On the other hand, vertical equity focuses more on the tax burden of various income

groups. Vertical equity has more of an appeal with civil society organisations concerned about progressivity in the tax system, and its impact on the poor.

In addition, it is worth drawing attention to the finding that ARA executives consider that the two universal indicators appearing in Table 11.1 which have utility to a tax administration are the ‘time taken to prepare, file and pay various taxes’ and ‘global ease of paying taxes ranking’. The same group are of the view that measures such as CITPROD, PITPROD and VATCGR might be better suited to management by fiscal policy departments in their ministries of finance. The one universal KPI that most ARA executives suggest has limited utility is the ‘tax staff per population’. As a result, three alternative measures are included under O9.

**Table 11.1: Possible menu of KPIs**

Broad outcome	KPI
O1 – Increased revenue collections for development	<ul style="list-style-type: none"> <li>Actual revenue compared to forecast revenue (in aggregate and by tax type)<sup>^</sup></li> <li>Tax gap<sup>^</sup></li> <li>Revenue growth projections<sup>^</sup></li> <li>Tax expenditure/ exemptions<sup>^</sup></li> </ul>
O2 – Operations modernised through automation	<ul style="list-style-type: none"> <li>% uptake in eFiling<sup>^</sup></li> <li>Time taken to prepare, file and pay various taxes<sup>^</sup></li> <li>No (%) of transactions with internet access&gt;</li> <li>No (%) of totally automated interactive transactions&gt;</li> </ul>
O3 – Improved taxpayer services	<ul style="list-style-type: none"> <li>% uptake in eFiling<sup>^</sup></li> <li>Average processing turnaround time for tax returns and refunds<sup>^</sup></li> <li>% taxpayer satisfaction with services/information &amp; tools provided by ARA<sup>^</sup></li> <li>Time taken to prepare, file and pay various taxes<sup>^</sup></li> <li>Global ease of paying taxes ranking<sup>^</sup></li> </ul>
O4 – Taxpayers find it easy to pay taxes and hence comply	<ul style="list-style-type: none"> <li>Reduction in taxpayer compliance burden<sup>^</sup></li> <li>Voluntary compliance rate<sup>^</sup> or compliance index<sup>*</sup></li> <li>Time taken to prepare, file and pay various taxes<sup>^</sup></li> <li>% of taxpayers who think it is easier now than in the past to deal with the tax system<sup>^</sup></li> <li>% increase in small business register<sup>*</sup></li> <li>Number of (VAT/TIN) registered taxpayers per annum<sup>*</sup></li> </ul>
O5 – Deliberate non-compliance effectively addressed through enforcement	<ul style="list-style-type: none"> <li>No of (or %) cases recommended for prosecution/ successfully prosecuted<sup>^</sup></li> <li>% of exceptions uncovered from the risk engine+</li> <li>No (or %) of non-compliant cases uncovered as a result of audits<sup>^</sup></li> </ul>

Broad outcome	KPI
	<ul style="list-style-type: none"> <li>Average number of days taken to identify stop-filers*</li> </ul>
O6 – The ARA operates efficiently & effectively	<ul style="list-style-type: none"> <li>Amount spent for every dollar of tax collected or administrative costs as a % of revenue collected ^</li> <li>Percentage increase in accuracy of processing^</li> <li>% reduction in escalated service queries^+</li> </ul>
O7 – Size of the illicit economy minimised	<ul style="list-style-type: none"> <li>% decrease in the size of the illicit economy*</li> <li>Customs compliance index*</li> </ul>
O8 – Legitimate trade enhanced	<ul style="list-style-type: none"> <li>Reduction in trader compliance burden^</li> <li>% trade volume coverage by preferential traders*</li> <li>Percentage increase in the number of AEOs*</li> </ul>
O9 – Staff capacity &/or administrative systems strengthened	<ul style="list-style-type: none"> <li>Tax staff as a proportion of registered (or active) taxpayers+</li> <li>Productivity per employee*</li> <li>Proportion of staff in key managerial, technical and professional positions+</li> <li>Training impact on tax administration performance&gt;</li> </ul>
O10 – An enabling work environment in place	<ul style="list-style-type: none"> <li>Employee satisfaction rate or index*</li> <li>Training impact on tax administration performance&gt;</li> </ul>
O11 – An ARA with a strong corporate image & which is well governed	<ul style="list-style-type: none"> <li>Governance/ corruption indicators (e.g. East Africa Bribery Index* and corruption perception index*)</li> <li>Unqualified audit report*</li> </ul>
O12 – The tax system is equitable and fair	<ul style="list-style-type: none"> <li>Level of horizontal equity&gt;</li> <li>Level of vertical equity^</li> <li>Number (%) of administrative general rulings conceived collectively with civil society&gt;</li> </ul>
Source: ^=KPI a priority of external/internal stakeholders; *= KPI identified from country cases; += KPI suggested during interviews with ARA executives; >=KPI recommended by Vázquez-Caro and Bird (2011)	

Source: Findings from this research

### 11.2.3 The role of performance measurement processes

The research also explored what role processes play in ensuring that performance measurement is efficient and effective. Three lessons can be discerned as follows. First, to ensure that there is a common understanding within the organisation it is helpful to document and disseminate protocols which for example define: the performance management cycle; KPIs, their baselines and data collection sources; and reporting routines. Second, cascading corporate level KPIs to individuals and gauging their performance against targets promotes accountability for results, and enables an ARA to operationalise strategic plans. Third, it is important to have the requisite

capacity in place, in terms of dedicated human resources and systems to monitor and report performance, and thereby make performance measurement part and parcel of daily operations.

The SARS case study exemplifies how the issues above have been dealt with on a comprehensive basis. A unique practice at SARS, worthy consideration in other ARAs, is its use of information displays (dashboards), to enable management to easily analyse, absorb and act on results. Typically dashboards are displayed graphically, with specific information given to the appropriate audiences within the organisation (Harbour, 1997). Such a process therefore needs to be carefully designed in collaboration with internal stakeholders. In this regard, Eckerson (2006) presents guidelines on managing the design process which in brief suggest it is vital to: (1) segment users and their requirements; (2) maintain simplicity; (3) optimise each of the three main purposes of dashboards (i.e. analyse, absorb and act) by being selective, providing actual results, using traffic light colours (i.e. green, amber and red) to pinpoint areas of good performance and exceptions, and providing information on a timely basis etc. It is worth drawing attention to the fact that it may not necessary for an ARA to invest in new software to design dashboards. They can even be designed using office automation tools such as Microsoft Excel. However, it is imperative to bear in mind that 'bling' has far much less significance than "informed design" to aid communication (Few, 2006: 4).

#### **11.2.4 Conditions associated with the adoption of performance measurement**

The literature on performance measurement in PSOs and ARAs suggests that the following eight causal conditions (sets) contribute to the adoption of performance measurement: (1) pragmatism is a dominant political economy driver in setting performance measures (A); (2) good practices influence the choice of outcome KPIs (B) ; (3) target setting is a chief feature of performance measurement (C); (4) policy and legislative requirements make a significant difference to the performance measurement regime (D); (5) the structure of the revenue base influences the choice of KPIs (E); (6) a performance culture has a bearing on the selection of KPIs (F); (7) priority information demanded by external stakeholders impacts the choice of performance measures (G); and (8) data collection cost and quality are taken into account in selecting KPIs (H).

The case studies confirm that the three ARAs are members of all eight sets, albeit to varying extents. A further investigation of the relationship between the eight conditions found that seven of them are a subset of C – in other words target setting depends on the presence of the other causal conditions. In contrast, the use of good practices in the choice of outcome KPIs (B) has no dominance over the other seven causal conditions, and appears to have less weight. This finding is not only plausible in the three ARAs, but at the time of writing this thesis it is a shared experience across ARAs (OECD, 2011: 80).

In addition, when the conditions are combined to form causal configurations, this researcher found that the configuration ‘Comb3’ (constituting the



minimum score of  $(E \cap F \cap H)$ , has the highest consistency and coverage. What is more all combinations of configurations with high coverage and consistency consist of the condition E. A final test using the truth table algorithm again produces the solutions ' $C \cap E \cap F \cap H$ ' and ' $E \cap F \cap H$ ' as the complex and parsimonious solutions respectively. These findings offer a contribution to theory (knowledge).

The fuzzy set analysis above is consistent with other empirical research which has found that target setting is important. The analysis also suggests that in the three case countries the structure of the revenue base, a performance culture and data collection cost and quality are the three other important factors that influence the adoption of performance measurement. This implies that in choosing KPIs the following issues need to be taken into account: (1) strategic initiatives by type of tax and/or taxpayer (to cover the revenue base angle); (2) the need to promote organisation learning and improvement as a means of engendering a performance culture (e.g. staff sensitisation, supporting processes and systems, complementarity between KPIs at corporate and individual levels); and (3) the use of readily available KPI data such as universal indicators to keep data collection costs down, and mechanisms such as performance audits to independently verify data quality.

In addition, on the basis of the pattern of results presented in Chapter 10, Table 10.1, this researcher makes the following analytical generalisations. First, an ARA with a fully developed performance measurement system (such as SARS): (1) draws on good practices to select KPIs which take into account the structure of the revenue base, external stakeholders' needs and

issues to do with data collection costs and quality; (2) sets associated targets; and (3) engenders a performance culture. Second, when an ARA has not fully developed its performance measurement systems, the selection of KPIs is more driven by pragmatic needs as opposed to good practices. The extent to which the structure of the revenue base, external stakeholder preferences and data cost and quality factors influence the choice of KPIs varies – they appear to be less important when the performance measurement system is least developed. Still such ARAs find it important to set targets.

### **11.3 Limitations of the research**

The research focussed on the review of performance measures at an institutional level, particularly on outcomes and outputs and their associated measures. In other words, the research did not drill down in much detail to institutional activities, inputs or individual contributions. However, the author did endeavour to gain an appreciation of the processes in place for performance measurement at all levels. Also, the research did not assess the robustness of strategic planning processes in ARAs – for instance, whether each ARA's strategic goals and objectives address the issues in the internal and external environment.

In addition, although the case studies were purposively selected, the sample size was relatively small, mainly to facilitate in depth study. However, given that eight causal conditions were identified as having a bearing on the adoption of performance measurement (Y), potentially there could be 256 ( $2^8$ ) configurations generated by the truth table that are associated with

outcome Y. Ragin and Sonnett (2004) are of the view that a larger N will not necessarily offer more diversity. In any case there are only around 180 national tax administrations around the world<sup>17</sup>. Still a larger number of cases may have provided further insights.

Also, the use of QCA is not without its critics. First, concerns have been expressed around ‘thought experiments’ using logical remainders to generate truth tables in that they can not be verified. De Meur et al. (2009) defend the application of logical remainders by arguing that they do not compromise or contradict the empirical evidence – they just facilitate the researcher in finding parsimony through a reduced configuration. In this regard, they contend that “to be qualified as ‘scientific’, research must go beyond the mere description of observed phenomena” and make inferences (De Meur et al., 2009: 153). On the contrary, Cooper and Glaesser (2011) consider that when fsQCA software is used to generate parsimonious and intermediate solutions, the process tends to be mechanical. In their opinion any decision over which logical remainders to use is contestable, and should therefore be supported by theory. As a result, the same authors state that “it might be safer to privilege complex solutions” as they “assume that any remainder rows do not obtain an outcome” (Cooper and Glaesser, 2011: 11).

Second, is the challenge around the selection of independent variables (causal conditions). Specifically, there is a view (Amenta and Pulson, 1994) that fsQCA limits the number of conditions that can be analysed especially with small N (De Meur et al., 2009). A large number of independent variables

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<sup>17</sup> See <http://www.doingbusiness.org/rankings>

reduces the level of coverage, but when omitted can throw misinformed results. De Meur et al. (2009) counter this argument by stating that this problem is not unique to QCA. It is prevalent in most types of empirical research. Nevertheless, one benefit of QCA is that it generates any contradictory results, which should prompt the researcher to review the causal conditions selected.

Finally, other than the analysis of the political economy environment and policy and legislative requirements in Sections 9.2 and 9.4 respectively, the research did not explore other aspects of managerial autonomy as causal conditions. The OECD (2009:9) lists these other features of autonomy in ARAs as: (1) the power to design internal structures; (2) budget expenditure discretion; (3) freedom to set staffing levels within predetermined ceilings; and (4) leeway to set staff remuneration levels. However, based on their enabling legislation, it is probably fair to state that the extent of autonomy in KRA, SARS and TRA with respect to these latter features does not vary substantially. Still they could be important considerations in other ARAs.

#### **11.4 Possible areas for future research**

In terms of possible areas for further research, this researcher's immediate recommendation would be to extend this piece of work to cover at least another 10 ARAs in both emerging and developed economies. The aims would be to more rigorously test the eight causal conditions, with a view to identifying other configurations that influence the adoption of performance measurement in ARAs, and to understand why certain conditions are more prominent than others. From the documents and internet sources reviewed

during this research, potential ARAs include: (1) IRD New Zealand and ATO which focus on a handful of outcome KPIs; (2) MRA with very many output KPIs, but a world class reputation as one of the easiest places to pay taxes in the world (ranks 11<sup>th</sup>); (3) CRA which uses both outcome and output KPIs, ranks 5<sup>th</sup> in terms of ease of paying taxes, and has been fairly transparent about issues to do with data quality; (4) a Francophone African country (e.g. Cape Verde or Cameroon); (5) a West African economy (e.g. Nigeria – a natural resource rich economy with a low tax threshold; or Ghana – which was the first country in SSA to set-up an ARA); (6) a country from the horn of Africa such as Ethiopia which has a similar history to Anglophone African countries in setting up an ARA; and (7) another Southern and East African country – possibly Botswana and Rwanda ranked 22<sup>nd</sup> and 19<sup>th</sup> in terms of ease of paying taxes respectively.

In the medium term, many other aspects of performance measurement in ARAs would benefit from research. For example, with respect to the proposed menu of KPIs recommended in Table 11.1, some of Vázquez-Caro and Bird's (2011) benchmark KPIs require further definition. In particular, although it is a useful outcome KPI, how does an ARA definitively measure 'training impact on tax administrative performance'. Besides the level of horizontal equity needs to be circumscribed for specific types of taxes. In this regard as Cordes (1999: 196) points out:

*“The standard of horizontal equity will have limited applicability when taxes are levied to account for the presence of external costs. For*

*example, smokers and non-smokers will face sharply different tobacco tax burdens, even when their incomes are the same.”*

In addition areas cited by Boyne (2010c) (see Table 3.3), that appear amenable for future research in ARAs include: the usefulness of outcome KPIs as opposed to measures that focus on outputs and activities; the relationship between the number of targets and service performance; and the relationship between targets and incentives. In addition, there is scope to look into rationalising the various benchmarking tools in place with a view to ensuring they have utility to ARA managements and their diverse stakeholders (see Section 4.6). Furthermore, it would be beneficial to build specific theories around the eight causal conditions for tax administrations. Such an undertaking would demand more in-depth case studies, and could be informed by the research proposed in the paragraph above.

## **11.5 Concluding remarks**

This research has contributed to the practice of performance measurement through the critical review of global practices in tax administrations in general, and assessing their relevance in three specific countries. As a result of this exercise, this researcher has contributed to practice by suggesting a possible menu of KPIs: clustered around 11 broad outcomes discerned from the literature; and a 12<sup>th</sup> outcome identified from interviews with external stakeholders. On the basis of this recommendation, any ARA that decides to overhaul its performance measures should plan to do so within its existing performance management framework. This means that an ARA may need to wait to initiate changes during its next strategic planning cycle.

The research also offers insights and recommendations on important process issues. Over and above these two contributions, the researcher has endeavoured to make sense of the factors that influence the adoption of performance measurement – in other words a contribution to knowledge. Whilst this researcher does not claim to have devised an exclusive recipe, she has identified relationships and configurations that provide a foundation for further research.

There is wide scope for more research in the area of performance measurement in ARAs, particularly since public revenues are likely to remain a principal source for financing critical development initiatives in developing, emerging and developed countries. In this regard, with time, this researcher anticipates that ARAs will gradually be able to focus on the aspects of their operations that make the greatest difference.

# Bibliography and references

ABS (2010) *Academic Journal Quality Guide*. Association of Business Schools.

African Development Bank Group (2010a) *Domestic Resource Mobilization for Poverty Reduction in East Africa: Kenya Case Study*. Tunis: African Development Bank Group, Regional Department East A (OREA).

African Development Bank Group (2010b) *Domestic Resource Mobilization for Poverty Reduction in East Africa: South Africa Case Study*. Tunis: African Development Bank Group, Regional Department East A (OREA).

African Development Bank Group (2010c) *Domestic Resource Mobilization for Poverty Reduction in East Africa: Tanzania Case Study*. Tunis: African Development Bank Group, Regional Department East A (OREA).

Ammons, D.N. (2007) Performance Measurement: A Tool for Accountability and Performance Improvement *County and Municipal Government in North Carolina* 1-12.

Ammons, D.N. (2010) Determining the Purpose of the Performance Measurement System. *Government Finance Review*, **26** (5), 63-65.

Ammons, D.N. and Rivenbark, W.C. (2008) Factors Influencing the Use of Performance Data to Improve Municipal Services: Evidence from the North Carolina Benchmarking Project. *Public Administration Review*, **68** (2), 304-318.



- Andrews, R., Boyne, G.A. and Walker, R.M. (2006) Subjective and Objective Measures of Organizational Performance: An Empirical Exploration. In: G.A. Boyne, K.J. Meier, L.J. O'Toole Jr. and R. M. Walker (Eds.) *Public Service Performance: Perspectives on Measurement and Management*. 1st ed. Cambridge: Cambridge University Press, pp. 14-34.
- ATO (2009) *Corporate Plan 2009-10*. Australian Tax Office. NAT15929-06.2009 [JS 13476].
- ATO (2010a) *Commissioner of Taxation Annual Report*. Australian Tax Office. NAT 0995-10.2010 [JS 16512].
- ATO (2010b) *Taxpayers' Charter: What You need to Know*. Australian Tax Office. NAT 2548-06.2010 JS 15729.
- Behn, R.D. (1988) Management by Groping Along. *Journal of Policy Analysis and Management*, **7** (4), 643-663.
- Behn, R.D. (2003) Why Measure Performance? Different Purposes Require Different Measures. *Public Administration Review*, **63** (5), 586-606.
- Behn, R.D. (2006) *Performance Leadership: 11 Better Practices That Can Ratchet Up Performance*. Washington: IBM Center for the Business of Government.
- Bevan, G. and Hood, C. (2005) *What's Measured is What Matters: Targets and Gaming in the English Public Health Care System*. Economic and Social Research Council. Discussion Paper Series: No. 0501.
- Bird, R.M. (2008) *Tax Challenges Facing Developing Countries*. Rotman Institute for International Business. IIB Paper No. 12.

- Bird, R.M. and Zolt, E.M. (2008 ) *Technology and Taxation in Developing Countries: From Hand to Mouse*. New York: Colombia Law School Tax Policy Colloquium. Research Paper No. 08-07
- Bird, S.M., Cox, D., Farewell, V.T., , Goldstein, H., Holt, T. et al. Smith, P.C. (2005) Performance indicators: good, bad, and ugly. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, **168** (1), 1-27.
- Blaikie, N. (2007) *Approaches to Social Enquiry* Cambridge and Malden: Polity Press.
- Bohte, J. and Meier, K.J. (2000) Goal Displacement: Assessing the Motivation for Organizational Cheating *Public Administration Review* **60** (2), 173-182.
- Bovaird, T. (1996) The Political Economy of Performance Measurement. In: A. Halachmi and G. Bouckaert (Eds.) *Organizational Performance Measurement in the Public Sector: Toward Service, Effort and Accomplishment Reporting*. 1st ed. Westport: Quorum Books, pp. 145-166.
- Bovaird, T. (2008) Political Economy Perspectives on Performance Measurement. In: R. Thorpe and J. Holloway (Eds.) *Performance Management: Multidisciplinary Perspectives*. 1st ed. Basingstoke: Palgrave MacMillan, pp. 184-199.
- Boyne, G. (2010a) Strategic Planning. In: R. Ashworth, G. Boynes and T. Entwistle (Eds.) *Public Service Improvement: Theories and Evidence* Oxford: Oxford University Press, pp. 60 -77.

- Boyne, G. and Gould-Williams, J. (2003) Planning and Performance in Public Organizations An Empirical Analysis. *Public Management Review*, **5** (1), 115-132.
- Boyne, G.A. (2010b) Performance Management: Does it Work? In: G. A. B. a. G. A. B. R.M. Walker (Ed.) *Public Management and Performance* Cambridge: Cambridge University Press, pp. 207-226.
- Boyne, G.A. (2010c) Performance Management: Does it Work? . In: R.M. Walker, G.A. Boyne and G. A. Brewer (Eds.) *Public Management and Performance: Research Directions*. Cambridge: Cambridge University Press, pp. 207-226.
- Boyne, G.A. and Chen, A.A. (2007) Performance Targets and Public Service Improvement. *Journal of Public Administration Research and Theory*, **17** (3), 455-477.
- Boyne, G.A. and Walker, R.M. (2010) Strategic Management and Public Service Performance: The Way Ahead. *Public Administration Review*, **70** (s1), s185–s192.
- Bromberg, D. (2009) Performance Measurement: A System with a Purpose or a Purposeless System? . *Public Performance & Management Review* **33** (2), 214-221.
- Brown, E. (2006) The Reality of Fragmentation of Power and Authority in the U.S. Political System In: B. A. Radin (Ed.) *Challenging the Performance Movement: Accountability, Complexity and Democratic Values*. (Public Management and Change) Washington D.C.: Georgetown University Press, pp. 115-152.

- Bryson, J.M. and Roering, W.D. (1988 ) Initiation of Strategic Planning by Governments *Public Administrative Review* **48** (6), 995-1004.
- Campbell, A. (2008) *The Blair Years* London.: Random House.
- Chalmers, A.F. (1999) *What is this thing called Science?* . Maidenhead: Open University Press.
- Chand, S.K. and Moene, K.O. (1999) Controlling Fiscal Corruption. *World Development*, **27** (7), 1129-1140.
- Chun, Y.H. and Rainey, H.G. (2005) Goal Ambiguity and Organizational Performance in U.S. Federal Agencies. *Journal of Public Administration Research and Theory*, **15** (4), 529-557.
- Cole, M. and Parston, G. (2006) *Unlocking Public Value : A New Model for Achieving High Performance in Public Service Organizations* New Jersey: John Wiley and Sons.
- Comptroller and Auditor General (2005) *Public Service Agreements: Managing Data Quality - Compendium Report*. London: National Audit Office.
- Comptroller and Auditor General (2009) *Measuring Up: How Good are the Government's Data Systems for Monitoring Performance against Public Service Agreements? Fifth Validation Compendium Report: A Review of the Data Systems Underpinning 2008-11 Public Service Agreements*. London: National Audit Office.
- Cooper, B. and Glaesser, J. (2011) Paradoxes and Pitfalls in Using Fuzzy Set QCA: Illustrations from a Critical Review of a Study of Educational Inequality. *Sociological Research Online*, **16** (3), 1-14.

- Cordes, J.J. (1999) Horizontal Equity. In: J.J. Cordes, R.D. Ebel and J. G. Gravell (Eds.) *The Encyclopedia of Taxation & Tax Policy*. Baltimore: Urban Institute Press, pp. 195-196.
- CRA (2010a) *Performance Report for the Period Ending March 31, 2010*. Canada Revenue Agency. BT31-4/10-2010.
- CRA (2010b) *Summary of the Corporate Business Plan 2010-2011 to 2012-2013*. Canada Revenue Agency. RC4422-10 (E).
- Crandall, W. (2010a) *Feasibility Study: Developing a Tool to Assess Tax Administration Performance*. Ottawa:
- Crandall, W. (2010b) *Revenue Administration: Autonomy in Tax Administration and the Revenue Authority Model*. Washington: International Monetary Fund. TNM/10/12.
- Crandall, W. (2010c) *Revenue Administration: Performance Measurement in Tax Administration*. Washington: International Monetary Fund. TNM/10/11.
- Daily Nation on the Web (2000) Kenya: More Needed After Taxpayers Charter. *Daily Nation*. Nairobi, The Nation.
- De Bruijn, H. (2002) Performance measurement in the public sector: strategies to cope with the risks of performance measurement. *International Journal of Public Sector Management*, **15** (7), 578 - 594.
- De Bruijn, H. (2007) *Managing Performance in the Public Sector* Oxon Routledge.
- De Lancer Julnes, P. and Holzer, M. (2001) Promoting the Utilization of Performance Measures in Public Organizations: An Empirical Study of

- Factors Affecting Adoption and Implementation. *Public Administration Review*, **61** (6), 693-708.
- De Meur, G., Rihoux, B. and Yamasaki, S. (2009) Addressing the Critiques of QCA. In: B. Rihoux and C. Ragin (Eds.) *Configurational Comparative Methods: Qualitative Comparative Analysis (QCA) and Related Techniques*. (Applied Social Research Methods) Thousand Oaks: Sage Publications, pp. 147-166.
- De Vaus, D. (2001) *Research Design in Social Research* London: Sage.
- Demuzere, S., Verhoest, K. and Bouckaert, G. (2008) Quality Management in Public Sector Organizations: Which Factors Do Make A Difference? *EGPA Annual Conference*. Erasmus University, Rotterdam.
- Denhardt, R.B. and White, J.D. (1986) Integrating Theory and Practice in Public Administration. In: D. J. Calista (Ed.) *Bureaucratic and Governmental Reform*. (Public Policy Studies) Greenwich: JAI Press, pp. 311-320.
- Denscombe, M. (2007) *The Good Research Guide: for Small-scale Social Research Projects* Maidenhead: Open University Press.
- Devas, N., Delay, S. and Hubbard, M. (2001) Revenue authorities: are they the right vehicle for improved tax administration? *Public Administration and Development*, **21** (3), 211-222.
- Dul, J. and Hak, T. (2008) *Case Study Methodology in Business Research* Oxford: Elsevier Ltd.
- Dunleavy, P., Margetts, H., Bastow, S. et al. Tinkler, J. (2006) *Digital Era Governance: IT Corporations, the State and E-government* Oxford: Oxford University Press.

- East African Business Week (2012) Tanzania: Revenue Authority Scoops Award. *East African Business Week*,. Kampala, AllAfrica Global Media
- EC (2007) *Fiscal Blueprints: A Path to A Robust, Modern and Efficient Tax Administration*. European Commission. KP-77-07-221-EN-C.
- Eckerson, W.W. (2006) *Performance Dashboards: Measuring, Monitoring, and Managing Your Business* New Jersey: John Wiley & Sons.
- Few, S. (2006) *Information Dashboard Design: The Effective Visual Communication of Data*. North Sebastopol: O'Reilly.
- Fiss, P. and Ragin, C.C. (No date) *Using Qualitative Comparative Analysis(QCA)and Fuzzy Sets*. Available from [http://professor-murmann.info/index.php?ACT=24&fid=11&aid=56\\_oPhPCLjduXz7KtWCEJbr&board\\_id=1](http://professor-murmann.info/index.php?ACT=24&fid=11&aid=56_oPhPCLjduXz7KtWCEJbr&board_id=1).
- Fjeldstad, O.-H. (2002) *Fighting fiscal corruption: The case of the Tanzania Revenue Authority*. Bergen: Chr. Michelsen Institute,.
- Fjeldstad, O.-H. (2003) Fighting fiscal corruption: lessons from the Tanzania Revenue Authority. *Public Administration and Development*, **23** (2), 165-175.
- Fjeldstad, O.-H. (2009) Revenue Authorities and Public Authority in Sub-Saharan Africa *Journal of Modern African Studies* **47** (1), 1-18.
- Fjeldstad, O.-H. and Heggstad, K.K. (2011) *The Tax Systems in Mozambique, Tanzania and Zambia: Capacity and Constraints*. Bergen: Chr. Michelsen Institute.
- Fjeldstad, O.-H. and Moore, M. (2008) Tax Reform and State-Building in a Globalised World. In: D.A Brautigam., O-H. Fjeldstad andM. Moore

- (Eds.) *Taxation and State Building in Developing Countries*  
Cambridge: Cambridge University Press, pp. 235-260.
- Franceschini, F., Galetto, M. and Maisano, D. (2007) *Management by Measurement: Designing Key Indicators and Performance Measurement Systems* Berlin Springer.
- Gallagher, M. (2005) Benchmarking Tax Systems. *Public Administration and Development*, **25** (2), 125-144.
- GAO (1997) *Performance Budgeting: Past Initiatives Offer Insights for GPRA Implementation*. Washington, D.C.: United States General Accounting Office. GAO/AIMD-97-46.
- Gerring, J. (2007) *Case Study Research: Principles and Practices*. New York: Cambridge University Press.
- Goertz, G. (2006) Assessing the Trivialness, Relevance, and Relative Importance of Necessary or Sufficient Conditions in Social Science. *Studies in Comparative International Development*, **41** (2), 88-109.
- Canada Revenue Agency Act 1999
- Kenya Revenue Authority Act, 1995 1995
- Government of Kenya (2003) *Economic Recovery Strategy for Wealth and Employment Creation: 2003-2007*. Nairobi: Ministry of Planning and National Development.
- Government of Kenya (2007) *Kenya Vision 2020: A Globally Competitive and Prosperous Kenya*. Nairobi:
- Government of Kenya (2009) *Public Financial Management Reform Programme: Annual Report 2008/09*. Nairobi: Ministry of Finance.



Government of Kenya (2011) *Performance Contract between the Government of Kenya through Office of the Deputy Prime Minister and the Minister for Finance and the Kenya Revenue Authority through the Board of Directors*. Nairobi: Ministry of Finance.

The Mauritius Revenue Authority Act 2004

Government Performance and Results Act of 1993 1993

Greiner, J.M. (1996) Positioning Performance Measurement for the Twenty-First Century. In: A. Halachmi and G. Bouckaert (Eds.) *Organizational Performance and Measurement in the Public Sector: Towards Service, Effort and Accomplishment Reporting* Westport: Quorum Books, pp. 11-50.

Gupta, S. and Tareq, S. (2008) Mobilising Revenue. *Finance & Development*

Hancock, D.R.a.A., B. (2006) *Doing Case Study Research: A Practical Guide for Beginning Researchers* New York: Teachers College Press.

Harbour, J.L. (1997) *The Basics of Performance Measurement*. Portland: Productivity Press.

Hatry, H.P. (2006) *Performance Measurement: Getting Results*. Washington: The Urban Institute Press.

Healy, M. and Perry, C. (2000) Comprehensive Criteria to Judge Validity and Reliability of Qualitative Research within the Realism Paradigm *Qualitative Market Research: An International Journal* 3(3), 118-126.

Hirschman, A.O. (1970) *Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations and States*. Cambridge, M.A.: Harvard University Press.

- HMRC (2009) *Departmental Report 2009 HM Revenue & Customs Presented to Parliament by the Financial Secretary to the Treasury by Command of Her Majesty*. London: Her Majesty's Revenue and Customs. Cm 7591.
- Ho, A.T. (2011) Reporting Public Performance Information: The Promise and Challenges of Citizen Involvement. In: W. Van Dooren and S. V. d. Walle (Eds.) *Performance Information in the Public Sector: How it is Used*. (Governance and Public Management) New York: Palgrave MacMillan, pp. 196-214.
- Hood, C. (1991) A Public Management for All Seasons? *Public Administration*, **69** (1), 3-19.
- Hood, C. (2007) Public Service Management by Numbers: Why Does it Vary? Where Has it Come From? What Are the Gaps and the Puzzles? *Public Money & Management*, **27** (2), 95-102.
- Hood, C. (2011) *The Blame Game: Spin, Bureaucracy, and Self Preservation in Government* New Jersey: Princeton University Press.
- Hood, C., Dixon, R. and Wilson, D. 2009 *'Managing by Numbers': the Way to Make Public Services Better?* . Economic and Social Research Council, (ISBN: 978-0-9562858-2-9).
- Høyland, B., Moene, K. and Willumsen, F. (2008) *Be Careful When Doing Business*. Oslo: Ministry of Foreign Affairs, Norway.
- Hummel, R.P. (1991) Stories Managers Tell: Why They Are as Valid as Science. *Public Administration Review*, **51** (1), 31-31.
- IMF (1997) *The Efficiency of Government Expenditure: Experiences from Africa*. Washington D.C.: International Monetary Fund. WP/97/153.

- IMF (1999) *Tanzania: Recent Economic Developments*. Washington: International Monetary Fund.
- IMF (2011) *Revenue Mobilization in Developing Countries*. Washington: IMF Fiscal Affairs Department.
- Ingraham, P.W. (2005) Performance: Promises to Keep and Miles to Go. *Public Administration Review*, **65** (4), 390-395.
- IRAS (no date) *Annual Report 2009/10*. Inland Revenue Authority of Singapore. AR09.
- IRD (2010) *Annual Report 2010*. Inland Revenue Department New Zealand. B-23.
- IRS (2009) *Strategic Plan 2009-2013*. Washington: Internal Revenue Service. No 3744 (4-2009).
- Irungu, G. (2012) Fall in Tax Revenues Signals Fresh Spending Cuts *Business Daily*. Online ed. Nairobi, Nation Media Group.
- ITD (2010) *Revenue Administration in Sub-Saharan Africa*. Paris: International Tax Dialogue Comparative Information Series. No. 1. 2010.
- Jakobsen, L. (2002) *Explaining Society: Critical Realism in the Social Sciences* London: Routledge.
- James, S., Svetalekth, T. and Wright, B. (2005) Tax Charters, Performance Indicators and the Case for a More Strategic Approach to Tax Administration *Tax Research Network Conference* Edinburgh.
- James, S., Svetalekth, T. and Wright, B. (2006) The Benefits of a More Strategic Approach to Tax Administration and the Role of Performance Indicators *Conference on Tax Administration* Sydney.

- Jenkins, G., Kelly, R. and Khadka, R. (2000) *Modernization of Tax Administration in Low-Income Countries: The Case of Nepal*. Cambridge: Harvard Institute for International Development. Discussion Paper 68.
- Jenkins, G.P. (1994) Modernization of Tax Administration: Revenue Boards and Privatization as Instruments of Change *Bulletin for International Fiscal Documentation* **48**, 75-81.
- Johnsen, A. (2001) Balanced Scorecard: Theoretical Perspectives and Public Management Implications *Managerial Auditing Journal* **16** (6), 319-330.
- Johnson, B.B., Gratz, E., Rust, K.L. et al. Smith, R.O. (2007) *ATOMS Project Technical Report - Multiattribute Utility Theory Summarizing a Methodology and an Evolving Instrument for AT Outcomes*. University of Wisconsin Milwaukee, Updated 28 March 2007. [cited 23 June 2012]. Available from <http://www.r2d2.uwm.edu/atoms/archive/technicalreports/fieldscans/tr-mau.html>.
- Johnston, R. and Pongatichat, P. (2008) Managing the Tension between Performance Measurement and Strategy: Coping Strategies *International Journal of Operations & Production Management* **28** (10), 941-967.
- Jones, S. (2006) Disbelief as Hewitt claims 'best year ever' for NHS. *The Guardian*.  
<http://www.guardian.co.uk/money/2006/apr/24/publicfinances.politics>  
ed. London.

- Kariuki, E. and Kiragu, K. (2011a) Country Studies: Kenya. In: L. Adamolekun (Ed.) *Public Administration in Africa: Main Issues and Selected Country Studies*. 2nd ed. Ibadan: Evans Brothers, pp. 388 - 412.
- Kariuki, E. and Kiragu, K. (2011b) Public Expenditure Management. In: L. Adamolekun (Ed.) *Public Administration in Africa: Main Issues and Selected Country Studies*. 2nd ed. Ibadan: Evans Brothers, pp. 113 - 139.
- Kendrick, K. (2011) Keys to Successful Performance Measurement *Public Manager* **40** (1), 62-67.
- Kidd, M. and Crandall, W. (2006) *Revenue Authorities: Issues and Problems in Evaluating their Success* Washington D.C.: International Monetary Fund. WP06/240.
- Kinney, A.S. and Ruggini, J. (2008) Measuring for a Purpose: Trends in Public-Sector Performance Measurement and Management Practices *Government Finance Review* **24** (4), 14-23.
- Kloby, K. and Callahan, K. (2009) Aligning Government Performance and Community Outcome Measurement. *Public Manager*, **38** (3), 19-19-26.
- Klun, M. (2004) Performance Measurement for Tax Administrations: The Case of Slovenia. *International Review of Administrative Sciences*, **70** (3), 567-574.
- KRA (2003) *Volume 1: Second Corporate Plan: 2003/04-2005/06*. Nairobi: Kenya Revenue Authority.

- KRA (2006a) *Reform and Modernization Programme*. [cited 18 February 2012 2012]. Available from <http://www.kra.go.ke/rarmp/rarmp.html>.
- KRA (2006b) Taxpayer's Charter (Taxpayers Rights and Obligations). In: Kenya Revenue Authority (Ed.) Nairobi.
- KRA (2007) *Taxpayer's Charter 2007/08*. Nairobi: Kenya Revenue Authority. 30 June 2007 Edition.
- KRA (2009a) *Annual Report & Financial Statements*. Nairobi: Kenya
- KRA (2009b) *Fourth Corporate Plan 2009/10-2011/12*. Nairobi: Kenya Revenue Authority.
- KRA (2009c) *Revenue Performance Report for the Period July to September 2009*. Nairobi: Kenya Revenue Authority.
- KRA (2010a) *Annual Report & Financial Statements*. Nairobi: Kenya
- KRA (2010b) *Revenue Administration Reforms in Kenya: Experience and Lessons*. Nairobi: Kenya Revenue Authority.
- KRA (2011a) *Revenue Performance Report*. Nairobi: Kenya Revenue Authority.
- KRA (2011b) *Revenue Performance Report for the Period January to March 2011*. Nairobi: Kenya Revenue Authority.
- KRA (2012) *Revenue Performance Report for the Period October to December 2011*. Nairobi: Kenya Revenue Authority.
- Lee, A.S. (1991) Integrating Positivist and Interpretive Approaches to Organizational Research *Organization Science* **2**(4), 342-365.
- Lindblom, C.E. (1959) The Science of Muddling Through *Public Administration Review* **19**, 78-86.

- Lu, Y. (2008) Managing the Design of Performance Measures: The Role of Agencies *Public Performance & Management Review* **32** (1), 7-24.
- Mann, A.J. (2004) *Are Semi-Autonomous Revenue Authorities the Answer to Tax Administration Problems in Developing Countries? – A Practical Guide*. USAID: Fiscal Reform in Support of Trade Liberalization Project. August 2004.
- Mannion, R., Davies, H. and Marshall, M. (2005) Impact of Star Performance Ratings in English Acute Hospital Trusts. *Journal of Health Services Research & Policy*, **10** (1), 18-24.
- Mansfield, C.Y. (1987) *Tax Administration in Developing Countries: An Economic Perspective*. Washington: International Monetary Fund.
- Marr, B. (2009) *Managing and Delivering Performance: How Government, Public Sector and Not-for-Profit Organisations Can Measure and Manage What Really Matters* Oxford: Elsevier.
- Mc Adam, R., Hazlett, S.-A. and Casey, C. (2005) Performance Management in the UK Public Sector: Addressing Multiple Stakeholder Complexity *International Journal of Public Sector Management* **18** (3), 256-273.
- McCourt, W. (2001) The NPM Agenda for Service Delivery: A Suitable Model for Developing Countries? . In: W. McCourt and M. Minogue (Eds.) *The Internationalization of Public Management: Reinventing the Third World State* Cheltenham: Edward Elgar, pp. 107-128.
- Micheli, P. and Pavlov, A. (2008) Promoting a Culture of Performance Management in Public-Sector Organizations. In: KPMG International (Ed.) *Holy Grail or Achievable Quest?: International Perspectives on*

- Public Sector Performance Management* Toronto: KPMG International,, pp. 153-167.
- Miles, M.B. and Huberman, A., M. (1994) *Qualitative Data Analysis: An Expanded Source Book* California: Sage.
- Mintzberg, H. (1994) The Fall and Rise of Strategic Planning *Harvard Business Review* **71** (1), 107-114.
- Moesen, W. and Persoon, A. (2002) Measuring and Explaining the Productive Efficiency of Tax Offices: A Non-Parametric Best Practice Frontier Approach *Tijdschrift voor Economie en Management* **XLVII** (3), 399-416.
- Morrissey, O. (1995) Political commitment, institutional capacity and tax policy reform in Tanzania. *World Development*, **23** (4), 637-649.
- Moynihan, D.P. (2008) *The Dynamics of Performance Management: Constructing Information and Reform*. Washington D.C.: Georgetown University Press.
- Moynihan, D.P. (2009) *Through A Glass, Darkly: Understanding the Effects of Performance Regimes*. La Follette School of Public Affairs. Working Paper No. 2009-20.
- Moynihan, D.P. and Pandey, S.K. (2010) The Big Question for Performance Management: Why Do Managers Use Performance Information? *Journal of Public Administration Research and Theory*, **20** (4), 849-866.
- MRA (2011) *Corporate Plan 2011, 2012 and 2013: Challenging the Future*. Port Louis: Mauritius Revenue Authority.



- Muriithi, M.K. and Moyi, E.D. (2003) *Tax Reforms and Revenue Mobilization in Kenya*. Nairobi: African Economic Research Consortium.
- Mwachang`a, D. (2011) IPP Media, [cited 15 February 2012 Available from <http://www.ippmedia.com/frontend/index.php/?l=27151>].
- NAO (2001) *Inappropriate Adjustments to NHS Waiting Lists*. London: National Audit Office.
- Neely, A. (2007) *Business Performance Measurement: Unifying Theory and Integrating Practice* Cambridge Cambridge University Press
- Tax Administration Act 1994 1994
- Nove, A. (1958) The Problem of "Success Indicators" in Soviet Industry *Economica* **25** (97), 1-13.
- OECD (1990) *Taxpayers' Rights and Obligations – Practice Note*. Paris: OECD Centre for Tax Policy and Administration. GAP002.
- OECD (1997) *In Search of Results: Performance Management Practices*. Paris: Organization for Economic Co-operation and Development
- OECD (2001) *Principles of Good Tax Administration – Practice Note*. Paris: OECD Committee of Fiscal Affairs Forum on Strategic Management. GAP001.
- OECD (2009) *Tax Administration in OECD and Selected Non-OECD Countries: Comparative Information Series (2008)*. Paris: Forum on Tax Administration.
- OECD (2011) *Tax Administration in OECD and Selected Non-OECD Countries: Comparative Information Series (2010)*. Paris: Centre for Tax Policy and Administration.

- Office of the Prime Minister (2010a) *Performance Contracting Guideline*. Nairobi: Performance Contracting Department,.
- Office of the Prime Minister (2010b) *Sector Performance Standards (SPS): 2009-2030*. Nairobi: Performance Contracting Department.
- Office of the Prime Minister (2011) *Report on Evaluation of the Performance of Public Agencies for the Financial Year 2009/10*. Nairobi: Office of the Prime Minister.
- Osoro, N.E. (1995) *Tax Reforms in Tanzania: Motivations, Directions and Implications*. Nairobi: African Economic Research Consortium.
- Oxford Corpus (2009) *Oxford Dictionary of English*. Oxford: Oxford University Press.
- Pawson, R. and Tilley, N. (1997) *Realistic Evaluation* London: Sage Publications.
- PEFA Secretariat (2011) *Public Financial Management: Performance Measurement Framework*. Washington: Public Expenditure and Financial Accountability Secretariat.
- Perry, C. (1998) Processes of a Case Study Methodology for Postgraduate Research in Marketing. *European Journal of Marketing*, **32** (9/10), 785-802.
- Person, R. (2009) *Balanced Scorecards & Operational Dashboards with Microsoft Excel* Indianapolis: Wiley Publishing Inc.
- Pidd, M. (2005) Perversity in Public Service Performance Measurement *International Journal of Productivity and Performance Management* **54** (5/6), 482-493.

- Poister, T.H. (2010) The Future of Strategic Planning in the Public Sector: Linking Strategic Management and Performance. *Public Administration Review*, **70**, s246-s254.
- Polidano, C. (2001) Administrative Reform in Core Civil Services: Application and Applicability of the New Public Management. In: W. McCourt and M. Minogue (Eds.) *The Internationalization of Public Management: Reinventing the Third World State*. Cheltenham: Edward Elgar, pp. 44-69.
- Pollitt, C. (2006) Performance Management in Practice: A Comparative Study of Executive Agencies. *Journal of Public Administration Research and Theory*, **16** (1), 25-44.
- Pollitt, C. and Bouckaert, G. (2004) *Public Management Reform: A Comparative Analysis* Oxford: Oxford University Press.
- Propper, C. and Wilson, D. (2003) *The Use and Usefulness of Performance Measures in the Public Sector*. Bristol: CMPO. Working Paper 03/073.
- Purohit, M.C. (2007) Corruption in Tax Administration In: A. Shah (Ed.) *Performance Accountability and Combating Corruption* Washington: World Bank Group, pp. 285-301.
- PwC (2010) *Domestic Resource Mobilization: Policy Note*. A study commissioned by AfDB.
- Quinn, J.B. (1978) Strategic Change: 'Logical Incrementalism' *Sloan Management Review* **20** (1), 7-21.
- Radnor, Z. (2011) Hitting the Target and Missing the Point? Developing an Understanding of Organizational Gaming. In: W. Van Dooren and S. V. d. Walle (Eds.) *Performance Information in the Public Sector: How it is*

- Used. (Governance and Public Management)* New York: Palgrave MacMillan, pp. 98-109.
- Ragin, C.C. (2000) *Fuzzy-Set Social Science*. Chicago: The University of Chicago Press.
- Ragin, C.C. (2008) *Redesigning Social Inquiry: Fuzzy Sets and Beyond*. Chicago: University of Chicago Press.
- Ragin, C.C. and Sonnett, J. (2004) *Between Complexity and Parsimony: Limited Diversity, Countrefactual Cases, and Comparative Analysis*. Los Angeles: University of California Los Angeles.
- Ragin, C.C., Strand, S.I. and Rubinson, C. (2008) *User's Guide to Fuzzy-Set/Qualitative Comparative Analysis*. Tuscon: University of Arizona.
- Republic of South Africa (1997) South African Revenue Service Act, 1997. *Government Gazette*. Cape Town, Government of the Republic of South Africa.
- Public Finance Management Act No. 1 of 1999 1999
- Republic of South Africa (2007) Public Finance Management Act, 1999: Amendment of Treasury Regulations in Terms of Section 76. *Government Gazette*. Pretoria, Government Printer.
- Republic of South Africa (2009a) *Improving Government Performance: Our Approach*. Pretoria: The Presidency.
- Republic of South Africa (2009b) Public Audit Act (25/2004): Audit functions performed by the AGSA *Government Gazette*. Pretoria, Green Gazette.

- Republic of South Africa (2010) *2010: Tax Statistics: A Joint Publication Between National Treasury and the South African Revenue Service*  
Pretoria:
- Ridgway, V.F. (1956) Dysfunctional Consequences of Performance Measurements *Administrative Science Quarterly* 1(2), 240-247.
- Robson, C. (2002) *Real World Research* Malden and Oxford: Blackwell Publishing.
- SARS (1999) *South African Revenue Service: Annual Report 1998/99*.  
Pretoria: South African Revenue Service.
- SARS (2006) *South African Revenue Service: Annual Report 2005/06*.  
Pretoria:
- SARS (2007) *South African Revenue Service: Annual Report 2006/07*.  
Pretoria: South African Revenue Service.
- SARS (2008) *South African Revenue Service: Annual Report 2007 - 2008*.  
Pretoria: South African Revenue Service.
- SARS (2009a) *Annual Report: South African Revenue Service: 2009*.  
Pretoria: South African Revenue Service.
- SARS (2009b) *An Overview of SARS 1994-2009: The Past, the Present, the Future*. Pretoria, South African Revenue Service.
- SARS (2010a) *Annual Report 2009-2010*. Pretoria: South African Revenue Service. Rp: 173/2010.
- SARS (2010b) *Review of SARS Service Charter and Standards*. In: S. A. R. Service (Ed.) Version 1 ed. Pretoria.
- SARS (2010c) *South African Revenue Service: Annual Report 2009/10*.  
Pretoria: SARS.

- SARS (2011a) *South African Revenue Service: Annual Report 2010-2011*. Pretoria: SARS.
- SARS (2011b) *Strategic Plan 2011/12-2013/14*. Pretoria: South African Revenue Service. RP35/2011.
- Sayer, A. (2000) *Realism and Social Science* London: Sage Publications.
- Schneider, F., Buehn, A. and Montenegro, C.E. (2010) *Shadow Economies all over the World: New Estimates for 162 Countries from 1999 to 2007*. Washington D.C.: World Bank.
- Scott, J.C. (1998) *Seeing Like A State: How Certain Schemes to Improve the Human Condition have Failed* Yale: Yale University Press.
- Serra, P. (2005) Performance Measures in Tax Administration: Chile as a Case Study. *Public Administration and Development*, **25** (2), 115-124.
- Shields, P.M. (1996) Pragmatism. *Administration & Society*, **28** (3), 390-411.
- Silvani, C. and Baer, K. (1997) *Designing a Tax Administration Reform Strategy: Experiences and Guidelines*. Washington D.C.: IMF Fiscal Affairs Department. WP/97/30.
- Smith, L. (2003) The Power of Politics: The Performance of the South African Revenue Service and Some of its Implications. *Policy: Issues and Actors*, **16** (2), 5-19.
- Smith, P. (1993) Outcome-related Performance Indicators and Organizational Control in the Public Sector<sup>1</sup>. *British Journal of Management*, **4** (3), 135-151.
- Smith, P. (1995) On the Unintended Consequences of Publishing Performance Data in the Public Sector. *International Journal of Public Administration*, **18** (2-3), 277-310.

- Stake, R.E. (1995) *The Art of Case Study Research* Thousand Oaks Sage.
- Talbot, C. (2004) Executive Agencies: Have They Improved Management in Government? *Public Money & Management*, **24** (2), 104-112.
- Talbot, C. (2005) Performance Management. In: E. Ferlie, L.E. Lynn Jr. and C. Pollitt (Eds.) *The Oxford Handbook of Public Management* New York: Oxford University Press, pp. 491-517.
- Talbot, C. (2010) *Theories of Performance: Organizational and Service Improvement in the Public Domain* Oxford: Oxford University Press.
- Taliercio, R.R.J. (2004a) Administrative Reform as Credible Commitment: The Impact of Autonomy on Revenue Authority Performance in Latin America. *World Development*, **32** (2), 213-232.
- Taliercio, R.R.J. (2004b) *Designing Performance: The Semi-Autonomous Revenue Authority Model in Africa and Latin America*. Washington: World Bank.
- TAS (2010) *National Taxpayer Advocate: 2010 Annual Report to Congress*. Washington D.C.: Taxpayer Advocate Service.
- Therkildsen, O. (2004) Autonomous Tax Administration in Sub-Saharan Africa: The Case of the Uganda Revenue Authority. *Forum for Development Studies*, **31** (1), 59-88.
- Theurer, J. (1998) Seven Pitfalls to Avoid When Establishing Performance Measures *Public Management* **80** (7), 21-24.
- Thomas, P.G. (2008) Why is Performance-Based Accountability So Popular in Theory and So Difficult in Practice? In: KPMG International (Ed.) *Holy Grail or Achievable Quest?: International Perspectives on Public*

*Sector Performance Management* Toronto: KPMG International,, pp. 169-189.

TRA (1998) *Annual Report for 1996/97*. Dar Es Salaam: Tanzania Revenue Authority.

TRA (2004) *Corporate Plan: 2003/4-2007/8*. Dar Es Salaam: Tanzania Revenue Authority.

TRA (2005a) *Annual Implementation Report for the Year 2004/05 of TRA's Second Corporate Plan 2003/04-2007/08*. Dar Es Salaam: Tanzania Revenue Authority.

TRA (2005b) *Taxpayer's Charter*. Dar Es Salaam: Tanzania Revenue Authority.

TRA (2007) *Annual Implementation Report for the Year 2006/07 of TRA's Second Corporate Plan* Dar Es Salaam: Tanzania Revenue Authority.

TRA (2008a) *Taxpayer's Charter*. Dar Es Salaam: Tanzania Revenue Authority.

TRA (2008b) *Third Corporate Plan: 2008/09-2012/13*. Dar Es Salaam: Tanzania Revenue Authority.

TRA (2009a) *Annual Implementation Report of TRA's Third Corporate Plan for the Period Ending 30th June 2009* Dar Es Salaam: Tanzania Revenue Authority.

TRA (2009b) *Tanzania Time Release study, 2009*. Dar Es Salaam: Tanzania Revenue Authority.

TRA (2010a) *Annual Report 2009/2010*. Dar Es Salaam: Tanzania Revenue Authority.



- TRA (2010b) *Service Standards Performance Measurement: July-Sept 2010*. Dar Es Salaam: Tanzania Revenue Authority.
- TRA (2010c) *Third Corporate Plan: 2009/09-2012/13*. Dar Es Salaam: Tanzania Revenue Authority.
- TRA (2011a) *Implementation Report of the Third Corporate Plan for the Period 2008/09-2010/11*. Dar Es Salaam: Tanzania Revenue Authority.
- TRA (2011b) Tax Administration Reforms in Tanzania and Diaspora Contribution to Tanzania Development. In: *Diaspora London 3 Conference*. London.
- Transparency International, ABUCO and ForDIA (2011) *The East African Bribery Index 2011*. Nairobi: Transparency International.
- UNDP (2002) *Handbook on Monitoring and Evaluating for Results* New York: United Nations Development Programme.
- United Nations (2007) *Fifth United Nations Public Service Awards: Summaries of 2007 Winners' Successful Stories*. New York: United Nations Department of Economic and Social Affairs,.
- Tanzania Revenue Authority Act 1995
- United Republic of Tanzania (2000) *Tanzania Letter of Intent*. IMF, [cited 6 February 2012 2012]. Available from. <http://www.imf.org/external/np/loi/2000/tza/01/index.htm>
- Van de Walle, S. (2006) Comparative Statistics: The State of the World's Bureaucracies. *Journal of Comparative Policy Analysis*, **8** (4), 437 – 448.

- Van de Walle, S. and Roberts, A. (2011) Publishing Performance Information: An Illusion of Control? In: W. Van Dooren and S. V. d. Walle (Eds.) *Performance Information in the Public Sector: How it is Used*. (Governance and Public Management) New York: Palgrave MacMillan, pp. 215-230.
- Van Dooren, W., Bouckaert, G. and Halligan, J. (2010) *Performance Management in the Public Sector* Oxon: Routledge.
- Van Niekerk, R. (2011) SARS Spends 1,1c to Collect R1. *The Citizen*. Johannesburg, Moneyweb Holdings Limited.
- Vázquez-Caro, J. and Bird, R.M. (2011) *Benchmarking Tax Administrations in Developing Countries: A Systemic Approach*. Atlanta: Andrew Young School of Policy Studies.
- Verschuren, J.M. (2009) *Why a Methodology for Practice-Oriented Research is a Necessary Heresy*. The Netherlands: Radboud University.
- Von Soest, C. (2007) Measuring the capability to raise revenue: process and output dimensions and their application to the Zambia Revenue Authority. *Public Administration and Development*, **27** (4), 353-365.
- Waweru, M.G. (2007) Performance Management: Implementing Performance Contracting and the Balanced Scorecard in Kenya Revenue Authority. *28th Annual Technical Conference of the Commonwealth Association of Tax Administrators* Nairobi.
- Weiss, J.A. and Piderit, S.K. (1999) The Value of Mission Statements in Public Agencies. *Journal of Public Administration Research and Theory*, **9** (2), 193-224.

- Wiggins, A. and Tymms, P. (2002) Dysfunctional Effects of League Tables: A Comparison Between English and Scottish Primary Schools. *Public Money & Management*, **22** (1), 43-48.
- Williams, D.W. (2003) Measuring Government in the Early Twentieth Century. *Public Administration Review*, **63** (6), 643-659.
- Wilson, R. (2006) One Size Fits All. In: B. A. Radin (Ed.) *Challenging the Performance Movement: Accountability, Complexity and Democratic Values*. (Public Management and Change) Washington D.C.: Georgetown University Press, pp. 33-52.
- World Bank (1996) *Performance Monitoring Indicators: A Handbook for Task Managers*. Washington: Operations Policy Department, World Bank.
- World Bank (1999) *Project Appraisal Document on a Proposed Credit in the amount of SDR 26.8 Million (US\$ 40 Million Equivalent) to the United Republic of Tanzania for a Tax Administration Project*. Washington: World Bank.
- World Bank (2006) *Project Appraisal Document on a Proposed Credit in the amount of SDR 8.3 Million (US\$ 12 Million Equivalent) to the United Republic of Tanzania for a Tax Modernization Project*. Washington: World Bank.
- World Bank (2007) *Implementation Completion and Results Report (IDA-31840 IDA-3184A WBTF-28297) on a Credit in the amount of SDR 26.8 Million (US\$ 40 Million Equivalent) to the United Republic of Tanzania for a Tax Administration Project*. Washington: World Bank.
- World Bank (2011) *Trading Across Borders* World Bank,, [cited 13 February 2012 Available from

<http://www.doingbusiness.org/data/exploretopics/trading-across-borders>.

Yin, R.K. (2003) *Case Study Research: Design and Methods* California: Sage.

Yin, R.K. (2009) *Case Study Research: Design and Methods* (Applied Social Research Methods) Vol. 5. California: Sage.

Zadeh, L.A. (1965) Fuzzy Sets. *Information and Control*, **8**, 338-353.

# Annex A: Data collection instruments

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**For official use only**

Serial No

Code

Data Entry

**CONFIDENTIAL**

**SURVEY ON COMMONLY AND UNCOMMONLY USED KEY PERFORMANCE INDICATORS**

**INTRODUCTION**

Elizabeth Kariuki is conducting her doctoral research on performance measurement in African semi-Autonomous Revenue Authorities (ARAs). The aim of the research is to explore how best to address the following question: 'How can performance be efficiently and effectively measured in African ARAs?'

The aim of this questionnaire is to gather important information for the study, specifically on the following areas:

- The importance if any of key performance indicators that are commonly used by ARAs around the world to assess the attainment of organisational outcomes;
- The importance if any of key performance indicators that are universally used by development organisations to benchmark ARAs;
- The extents to which respondents agree that some select key performance indicators are amenable for universal application.

Any views obtained from you during the research will not be directly attributed to you by name. All records related to your involvement in this research will be stored in a locked file cabinet. Only the principal investigator will have access to any identifiable information – however, authorised representatives of the University of Bradford may review your identifiable research information.

Your participation in the research is voluntary. Whether or not you provide your consent for participation will have no effect on your current or future relationship with the University of Bradford. Furthermore, you may withdraw from the research at any time by providing a written and dated notice.

**INSTRUCTIONS**

I recommend you follow the guidelines detailed below in completing this questionnaire:

- Read each question / statement carefully;
- Read the response instructions carefully to ensure you are recording your views in the required manner;
- Record your first and natural answer;
- If you circle the incorrect response by mistake please make sure you score this out fully and indicate your actual response in the normal way

**Example 1**

1. To which of the following age groups do you belong? (*please circle one only*)

18-24	1
25-34	2
35-49	3
50-64	4
65+	5

Please fill in your name and contact details in the relevant boxes at the beginning of the questionnaire. This is for quality control and back check purposes only.

If you have any queries regarding the questionnaire or the study, please do not hesitate in contacting Elizabeth Kariuki by email at [ejnkariuki@yahoo.co.uk](mailto:ejnkariuki@yahoo.co.uk) or Tel +254-733-838710. Thank you.

## GENERAL

Name	
Name of revenue authority	
Department	
Job designation	

## COMMONLY USED KEY PERFORMANCE INDICATORS

Q1. Please indicate how important or unimportant the following commonly used key performance indicators (KPIs) are to your organisation, in gauging the achievement of the outcomes specified below?

*While some or all KPIs may or may not be important to you, please consider the scale carefully, as it would be beneficial to distinguish between the relative level of their importance or unimportance to you.*

Please circle one answer in each row only.

### Outcome 1 - Increased revenue collections for development

Actual revenue compared to forecast revenue

	<i>very important</i>	<i>quite important</i>	<i>no strong opinion</i>	<i>not very important</i>	<i>not at all important</i>
	1	2	3	4	5

### Outcome 2 - Operations modernised through automation

Percentage uptake in electronic filing

Percentage of ARA transactions which are processed using automated systems

	<i>very important</i>	<i>quite important</i>	<i>no strong opinion</i>	<i>not very important</i>	<i>not at all important</i>
Percentage uptake in electronic filing	1	2	3	4	5
Percentage of ARA transactions which are processed using automated systems	1	2	3	4	5

### Outcome 3 - Improved taxpayer services

Percentage uptake in electronic filing

Average processing turnaround time for tax returns and refunds

Percentage of taxpayers satisfied with services/information and tools provided by ARA

Percentage of calls/correspondence answered within a target timeframe

	<i>very important</i>	<i>quite important</i>	<i>no strong opinion</i>	<i>not very important</i>	<i>not at all important</i>
Percentage uptake in electronic filing	1	2	3	4	5
Average processing turnaround time for tax returns and refunds	1	2	3	4	5
Percentage of taxpayers satisfied with services/information and tools provided by ARA	1	2	3	4	5
Percentage of calls/correspondence answered within a target timeframe	1	2	3	4	5

### Outcome 4 - Taxpayers find it easy to pay taxes and hence comply

Reduction in taxpayer/trader compliance burden

Voluntary compliance rate

The level of collectable debt

The level of cash recovered from debt book

Percentage of tax returns received by the filing due date

Returns as a percentage of registered taxpayers

	<i>very important</i>	<i>quite important</i>	<i>no strong opinion</i>	<i>not very important</i>	<i>not at all important</i>
Reduction in taxpayer/trader compliance burden	1	2	3	4	5
Voluntary compliance rate	1	2	3	4	5
The level of collectable debt	1	2	3	4	5
The level of cash recovered from debt book	1	2	3	4	5
Percentage of tax returns received by the filing due date	1	2	3	4	5
Returns as a percentage of registered taxpayers	1	2	3	4	5

<b>Outcome 5 - Deliberate non-compliance effectively addressed through enforcement</b>	<i>very important</i>	<i>quite important</i>	<i>no strong opinion</i>	<i>not very important</i>	<i>not at all important</i>
Percentage of actual audits against plan	1	2	3	4	5
Percentage of actual audits Vs registered taxpayers	1	2	3	4	5
No of non-compliant cases uncovered as a result of audits	1	2	3	4	5
Number of cases recommended for prosecution	1	2	3	4	5
Number of cases successfully prosecuted	1	2	3	4	5

<b>Outcome 6 - The ARA operates efficiently &amp; effectively</b>	<i>very important</i>	<i>quite important</i>	<i>no strong opinion</i>	<i>not very important</i>	<i>not at all important</i>
Amount spent for every dollar of tax collected	1	2	3	4	5
Administrative costs as a percentage of revenue collected	1	2	3	4	5
Percentage of digitised records with the ARA	1	2	3	4	5
Percentage increase in timeliness	1	2	3	4	5
Percentage increase in accuracy of processing	1	2	3	4	5
Percentage reduction in escalated service queries	1	2	3	4	5

### UNIVERSAL KEY PERFORMANCE INDICATORS

Q2. Please indicate how important or unimportant the following universally available key performance indicators (KPIs) are to your organisation, in gauging the achievement of the outcomes specified below?

*While some or all KPIs may or may not be important to you, please consider the scale carefully, as it would be beneficial to distinguish between the relative level of their importance or unimportance to you.*

Please circle one answer in each row only.

<b>Outcome 1 - Increased revenue collections for development</b>	<i>very important</i>	<i>quite important</i>	<i>no strong opinion</i>	<i>not very important</i>	<i>not at all important</i>
Corporate Income Tax Productivity (CITPROD) <sup>1</sup>	1	2	3	4	5
Personal Income Tax Productivity (PITPROD) <sup>2</sup>	1	2	3	4	5

<b>Outcome 3 - Improved taxpayer services</b>	<i>very important</i>	<i>quite important</i>	<i>no strong opinion</i>	<i>not very important</i>	<i>not at all important</i>
Global ease of paying taxes ranking	1	2	3	4	5

<b>Outcome 4 - Taxpayers find it easy to pay taxes and hence comply</b>	<i>very important</i>	<i>quite important</i>	<i>no strong opinion</i>	<i>not very important</i>	<i>not at all important</i>
Time taken to prepare, file and pay various taxes	1	2	3	4	5
VAT Gross Compliance Ratio (VATGCR) <sup>3</sup>	1	2	3	4	5

1 Revenue productivity is calculated by dividing total corporate income tax revenues by GDP and then dividing this by the general corporate income tax rate.

2 It is calculated by taking the actual revenue collected as a percentage of GDP, divided by the weighted average PIT rate

3 It is computed by dividing VAT revenues by total private consumption in the economy and then dividing this by the VAT rate.



**Outcome 9 - Staff capacity and/or administrative systems strengthened**

	<i>very important</i>	<i>quite important</i>	<i>no strong opinion</i>	<i>not very important</i>	<i>not at all important</i>
Tax staff per population	1	2	3	4	5

**GOOD PRACTICE INDICATORS**

Q3. Please indicate the extent to which you agree/disagree that the following key performance indicators (KPIs) can be used on a universal basis (by ARAs), to gauge the achievement of the outcomes specified below?

*While some or all KPIs may or may not be important to you, please consider the scale carefully, as it would be beneficial to distinguish between the relative level of their importance or unimportance to you.*

Please circle one answer in each row only.

**Outcome 3 - Improved taxpayer services**

	<i>strongly agree</i>	<i>agree</i>	<i>no strong opinion</i>	<i>disagree</i>	<i>strongly disagree</i>
Percentage of electronic tax returns processed within x days of receipt	1	2	3	4	5
Percentage of paper returns for individuals and non-individuals processed within x and y days of receipt respectively	1	2	3	4	5
Percentage of correspondence sent to the automated reply email reply service addressed within x working days	1	2	3	4	5
Percentage of correspondence sent through normal channels addressed within x working days	1	2	3	4	5
Percentage of electronic and paper amendment requests addressed within x days and y days of receiving all the necessary information respectively	1	2	3	4	5
Percentage of taxpayers notified of the outcome of audits within x days of your ARA making a decision	1	2	3	4	5
Percentage of clerical or administrative errors fixed within x days	1	2	3	4	5

**Outcome 4 - Taxpayers find it easy to pay taxes and hence comply**

	<i>strongly agree</i>	<i>agree</i>	<i>no strong opinion</i>	<i>disagree</i>	<i>strongly disagree</i>
Percentage of taxpayers who agree that my ARA has made it easier to complete an income tax return	1	2	3	4	5
Percentage of taxpayers who think it is easier now than in the past to deal with the tax system	1	2	3	4	5

## Themes covered in interviews with ARA executives

### ***Performance measurement practices:***

1. Are all the results of all transformation initiatives measured?
2. Which transformation initiatives pose measurement challenges? Why?
3. How are measures agreed upon? How are targets set? Are performance measures and targets regularly reviewed to assess their efficacy and/or relevance? Which stakeholders are involved in the process?
4. What alternative measures could be used? Is it cost effective to collect data for such measures?
5. What incentives are in place to use performance measures and targets? Are there any sanctions for non-compliance?
6. How much of the performance measurement data is extracted from existing systems?
7. Does the ARA solicit taxpayer opinions to assess the adequacy, and effectiveness of its transformation initiatives? If not why not? If so, is such feedback incorporated into the performance measurement process?

### ***Reliability of performance measures:***

8. Do stakeholders/ARA staff trust the performance information/ measures reported by the ARA?
9. Are current indicators the right measures? Do they reflect the ARA's strategic priorities/ issues? Can they be used as proxies to attribute good/poor performance? How? Are there gaps?
10. Are there any unintended consequences associated with particular targets?

***Demand for performance information:***

11. What are the uses of performance measures (e.g. reporting, aid decision-making)? By whom?
12. What performance information do the ARA's management/board and Ministry of Finance demand? How frequently?
13. Do any external stakeholders review performance measures reporting in ARAs' annual reports?
14. What measures are most valued by ARA staff and their key stakeholders? Why?

***Processes/routines:***

15. Is the performance measurement process routinised? What routines/processes/ systems are used to collect, analyse and report data?
16. Who is involved in the operation of the performance measurement system? What is each jobholder's responsibility? How have their capacities been developed?
17. How do performance measurement routines vary in practice from prescribed rules?
18. How have the tasks/routines around performance measurement changed over time?
19. Is there discussion about making further changes to the process? What strategies are in place to effect changes? Who will be involved? What forms of resistance to the changes are anticipated? How can be resistance be minimised?

***Comparative arrangements:***

20. What measures do the best in class organisations use to monitor performance? Why?

21. What lessons can be garnered from best in class organisations?

***Enhancing the performance measurement framework:***

22. Can a monitoring framework be developed, implemented and sustained to measure impact on a holistic basis? What actions need to take place?

23. What capacity constraints and cultural changes need to be addressed to successfully implement and sustain a new performance measurement system? Why? How?

## Topic guide for external stakeholders – tax practitioners, academics, associations and think tanks

1. What if any are the merits of your tax office/authority reporting its annual performance?
2. In your view, what is the best medium for disseminating reports? – glossy publications, mass media, semi-Autonomous Revenue Authority (ARA) website etc. Why?
3. What priority performance information would you expect to find in your tax office/authority report?
4. Have you ever reviewed your tax office/authority's annual reports?
5. If so, what do you consider was the most valuable information reported? What reported information does not add value?
6. How would you rate the way your tax office/authority's annual reports are presented, structured, easy to read etc.? (1= very effective, 2=effective, 3= no strong opinion, 4= ineffective and 5= very ineffective)

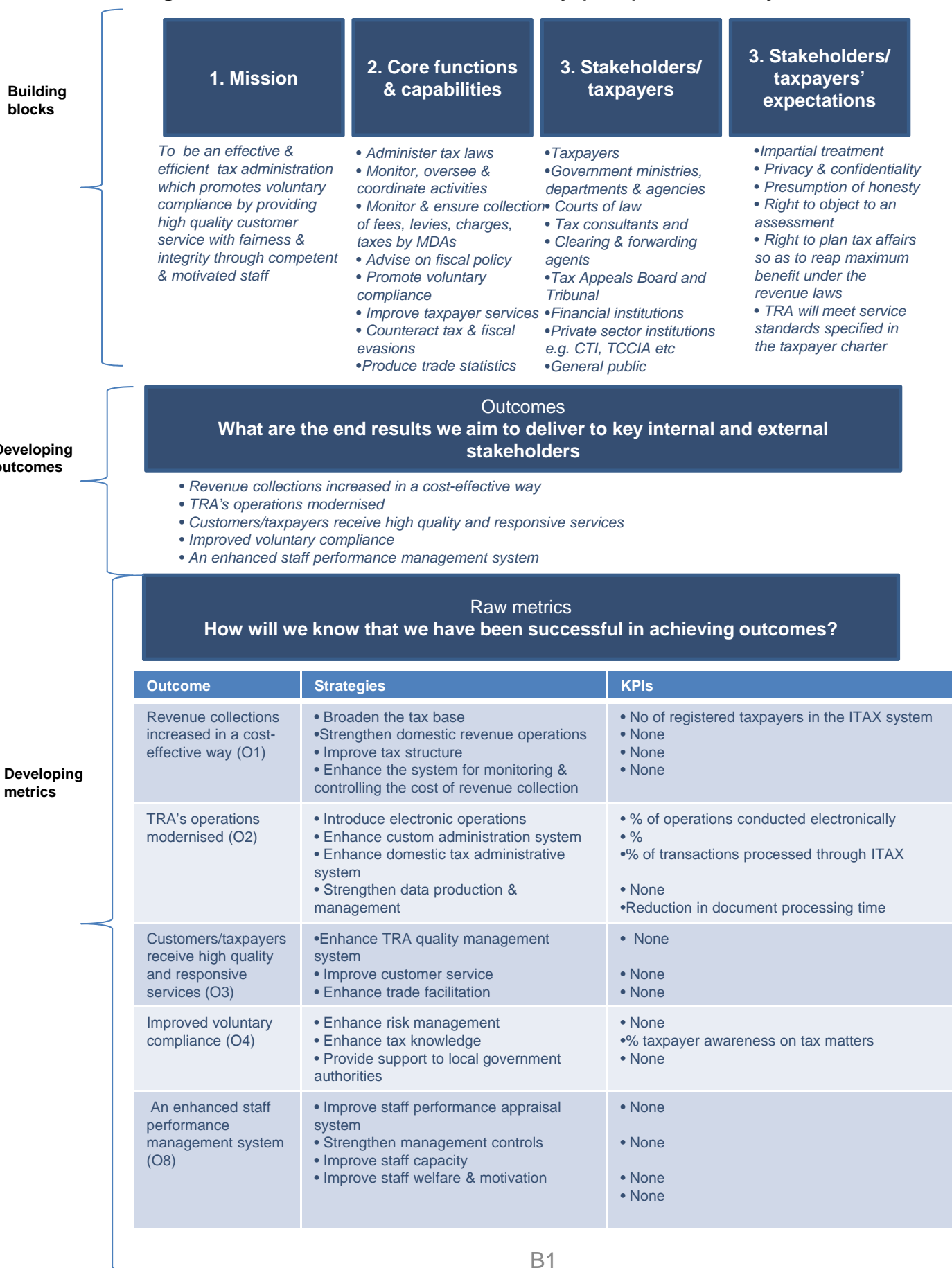
Very effective	1
Effective	2
No strong opinion	3
Ineffective	4
Very ineffective	5

7. How else if at all can performance reports be improved?
8. How accessible is the ARA to follow-up questions?
9. Are you aware of how other ARAs report performance?

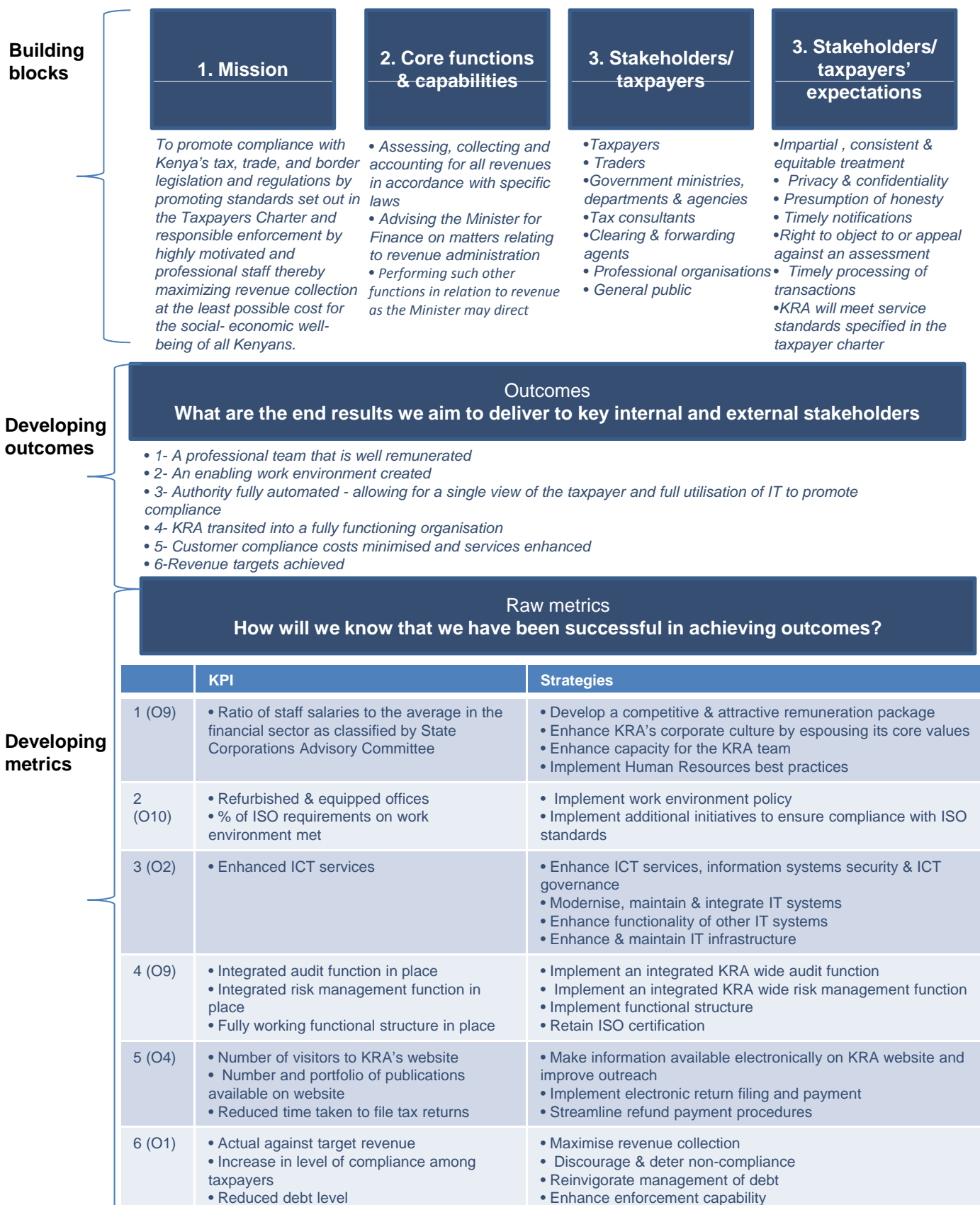
# Annex B: Various KPIs in use by ARAs

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## PSV's building blocks – Tanzania Revenue Authority (TRA) – case study

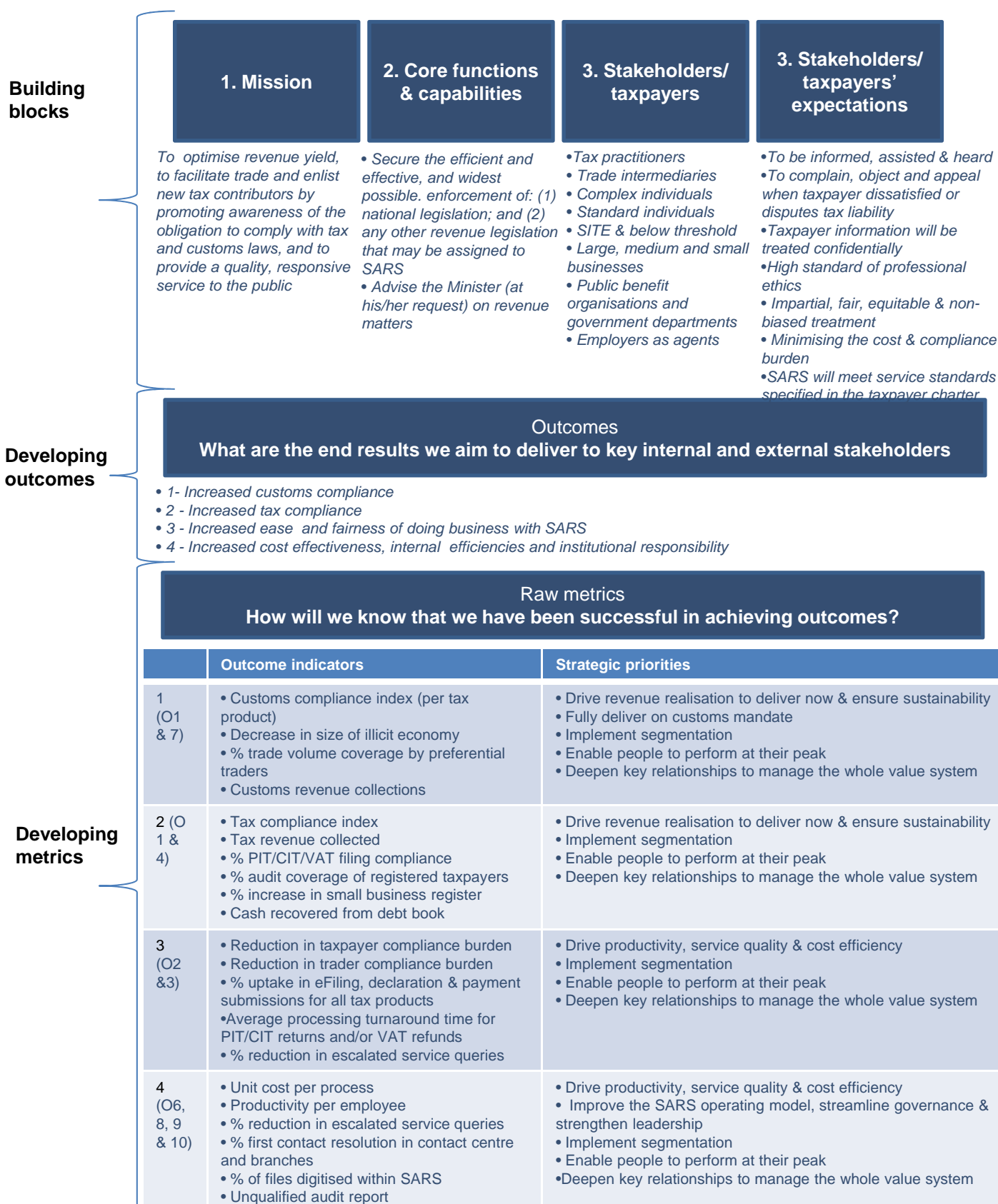


## PSV's building blocks – Kenya Revenue Authority (KRA) – case study

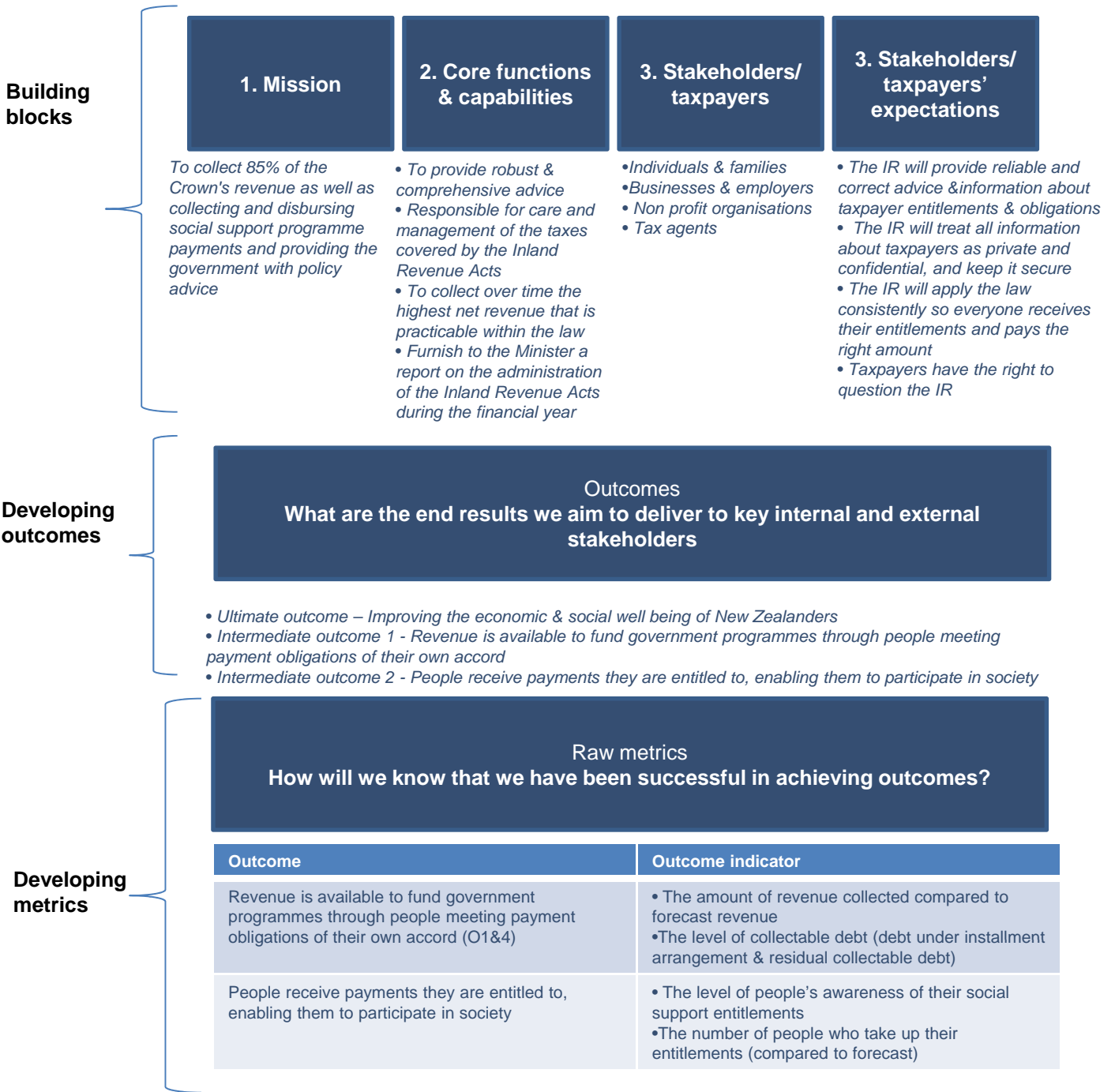




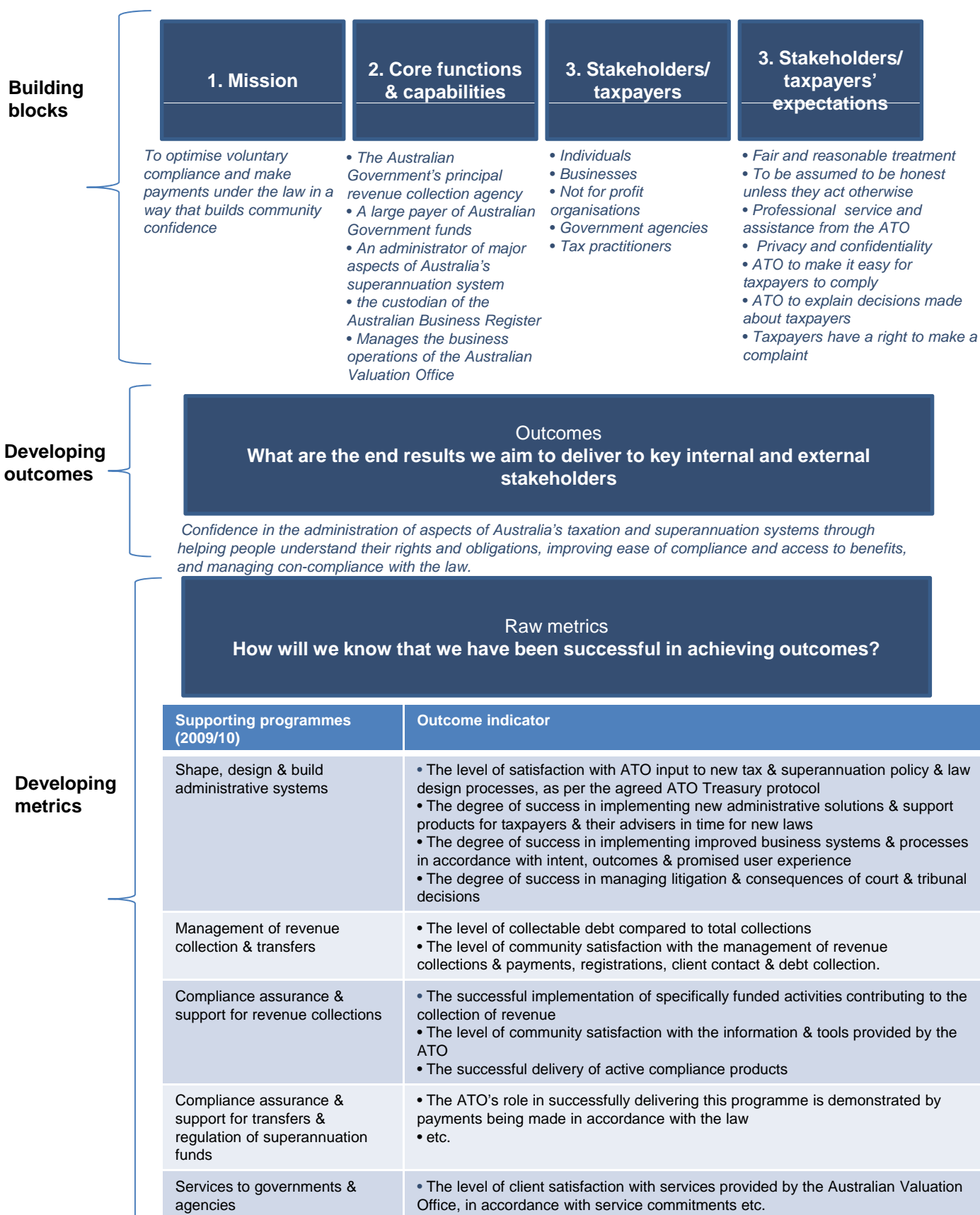
## PSV's building blocks – South African Revenue Service (SARS) – case study



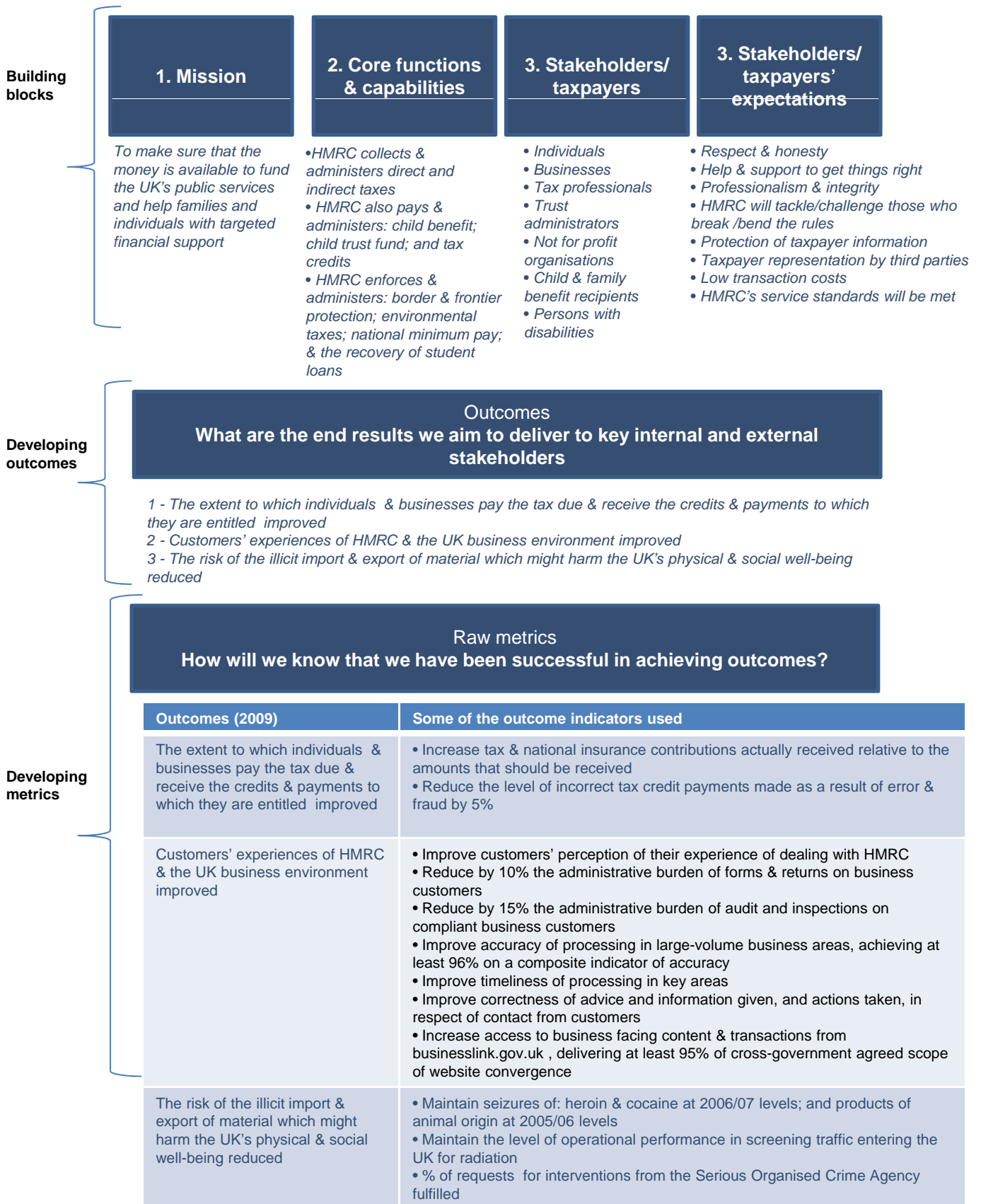
# PSV's building blocks – Inland Revenue (IR) of New Zealand - benchmark



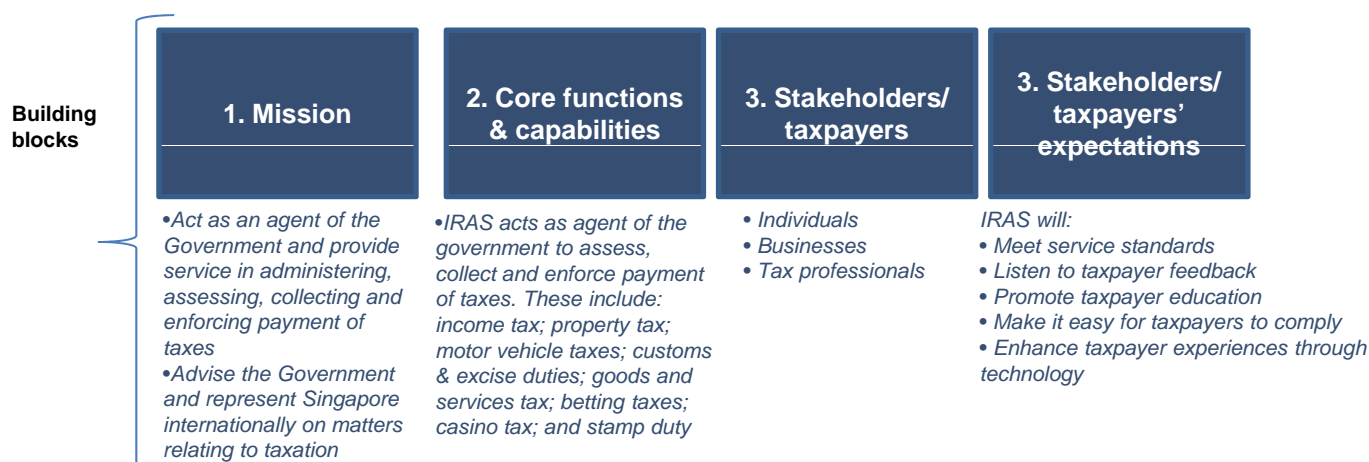
## PSV's building blocks – Australian Tax Office (ATO)- benchmark



# PSV's building blocks – Her Majesty's Revenue and Customs (UK) - benchmark



## PSV's building blocks – Inland Revenue Authority of Singapore (IRAS) - benchmark

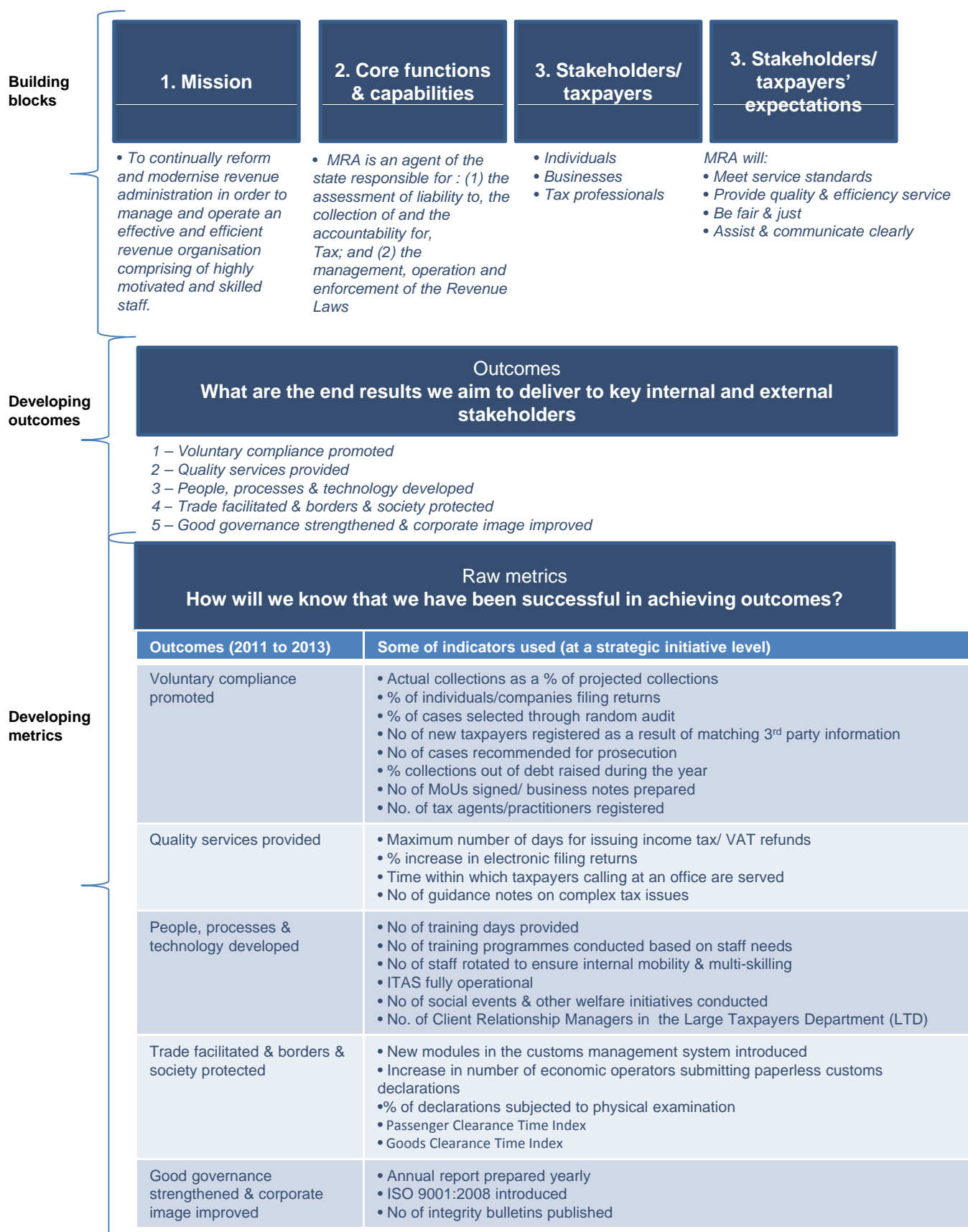


**Developing metrics**

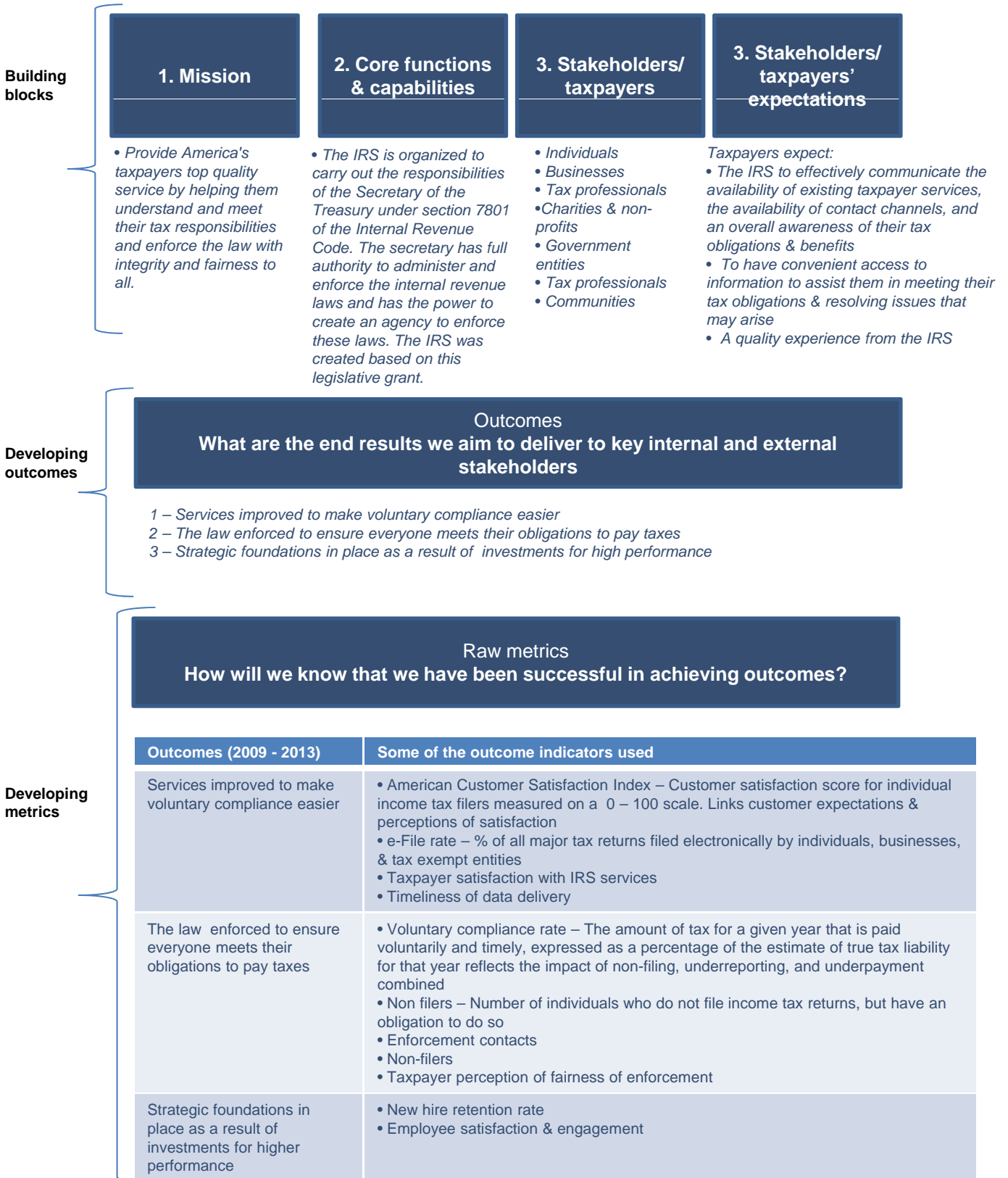
**Raw metrics**  
How will we know that we have been successful in achieving outcomes?

Outcomes (2009/10)	Some of the outcome indicators used
A competitive tax environment that encourages enterprise & supports economic growth is fostered	<ul style="list-style-type: none"> <li>No of unilateral &amp; bilateral advance pricing arrangements completed &amp; documented</li> <li>International collaboration as demonstrated by IRAS participation in conferences &amp; forums</li> <li>No of tax policies reviewed to assess competitiveness</li> </ul>
IRAS provides excellent services	<ul style="list-style-type: none"> <li>% of calls answered within one minute during non-peak &amp; peak periods compared to service targets</li> <li>% of emails received that were responded to within five working days</li> <li>% of refunds processed within 30 days</li> <li>% of taxpayers satisfied with IRAS' service</li> </ul>
Taxpayer compliance costs are minimised	<ul style="list-style-type: none"> <li>No of SMEs applying for the Accounting Software Assistance Scheme</li> <li>No of seminars &amp; hands-on workshops held</li> </ul>
All taxpayers comply	<ul style="list-style-type: none"> <li>% of income tax returns received by the filing due date</li> <li>No of non-compliant cases uncovered as a result of audits</li> <li>No of prosecution cases published in the media</li> <li>Value of cumulative tax arrears</li> </ul>
IRAS is cost effective & efficient	<ul style="list-style-type: none"> <li>Amount spent for every dollar of tax collected</li> </ul>
Staff are highly competent & satisfied	<ul style="list-style-type: none"> <li>% of payroll cost spent on training staff</li> <li>Recreational, social &amp; sporting events organised during the year</li> </ul>

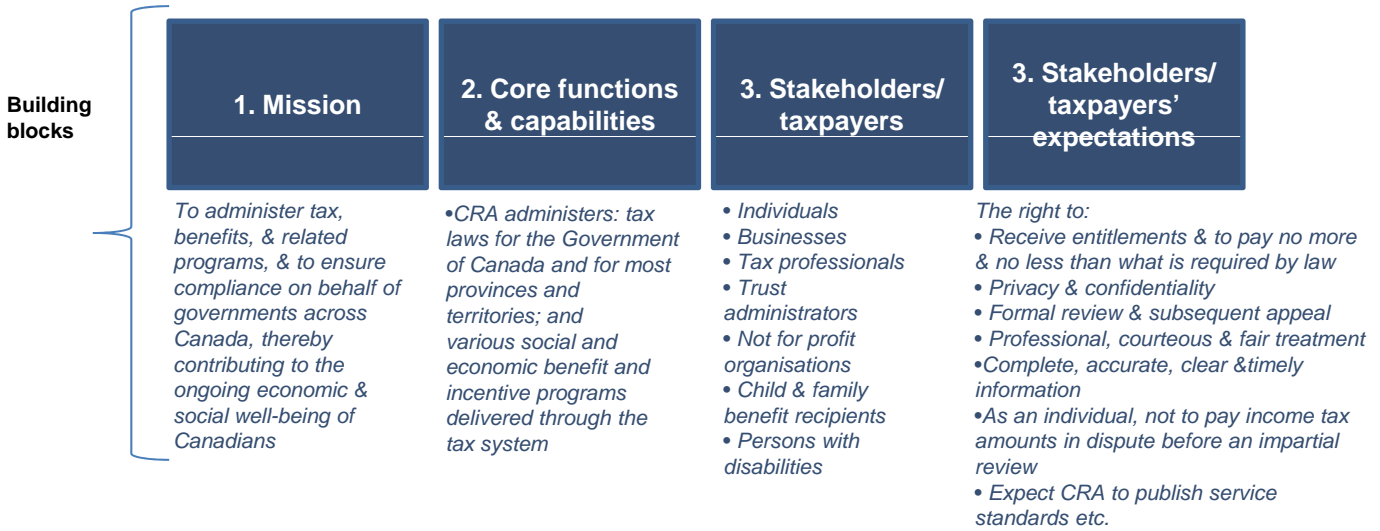
## PSV's building blocks – Mauritius Revenue Authority (MRA) - benchmark



# PSV's building blocks – Internal Revenue Service (IRS) (USA) - benchmark



# PSV's building blocks – Canada Revenue Agency (CRA) - benchmark

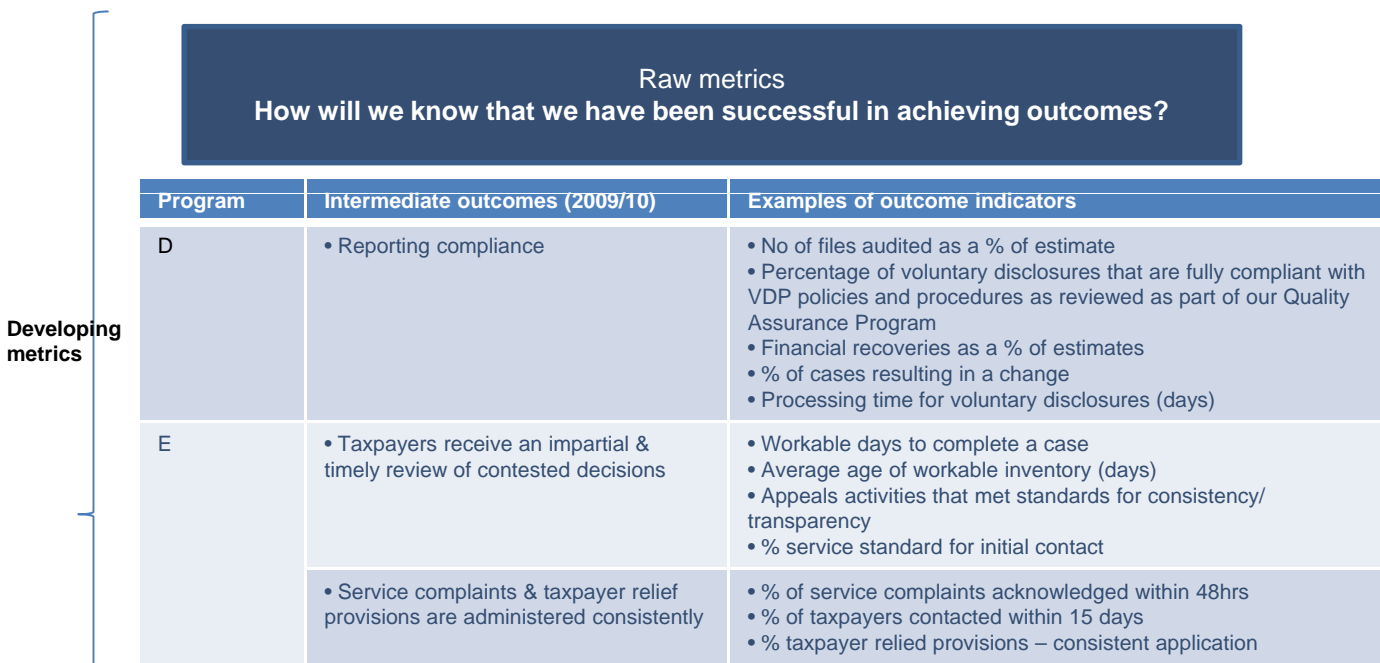
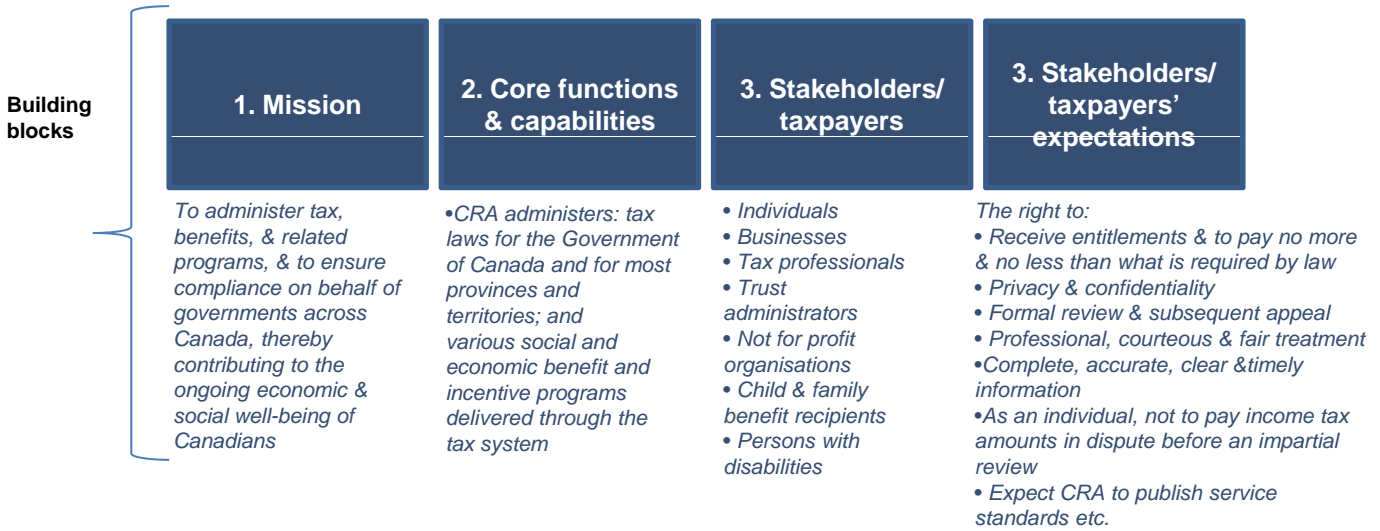


**Developing metrics**

Program	Intermediate outcomes (2009/10)	Examples of outcome indicators
A	• Taxpayers, businesses & registrants have access to timely & accurate information	<ul style="list-style-type: none"> <li>• % of calls answered within 2 minutes</li> <li>• Average no of days taken to issue an advance income tax rulings and interpretations</li> <li>• % of rulings/responses issued within target timeframes</li> <li>• % of accurately update internal reference materials for taxpayer services and charities' agents</li> <li>• % of callers who reach our telephone service</li> </ul>
	• Non-compliance is detected & addressed	• % of registered plan audits/reviews compared to planned
B	• Assessment & payment processing are timely & accurate	<ul style="list-style-type: none"> <li>• % of CIT returns processed within target timeframe</li> <li>• % of individuals /corporates who file electronically</li> <li>• % of funds from non-electronic payments deposited within 24 hrs of receipt</li> <li>• % of returns assessed accurately</li> <li>• % of taxpayer-requested adjustment reassessed accurately</li> </ul>
C	• Tax and non-tax debt are resolved on a timely basis and are within targeted levels	<ul style="list-style-type: none"> <li>• % of intake resolved in the year of intake</li> <li>• Non-tax debt collected (in US\$)</li> <li>• Dollar value of Tax Service Officers (TSO) production as a % of dollar value of TSO intake of new accounts receivable</li> <li>• Dollar value of TSO tax accounts receivable older than five years</li> <li>• TSO cash collection</li> <li>• Non-tax debt collected</li> </ul>
	• Non-compliance is detected & addressed	• Fiscal value of non-compliance (non -filers and registrants)

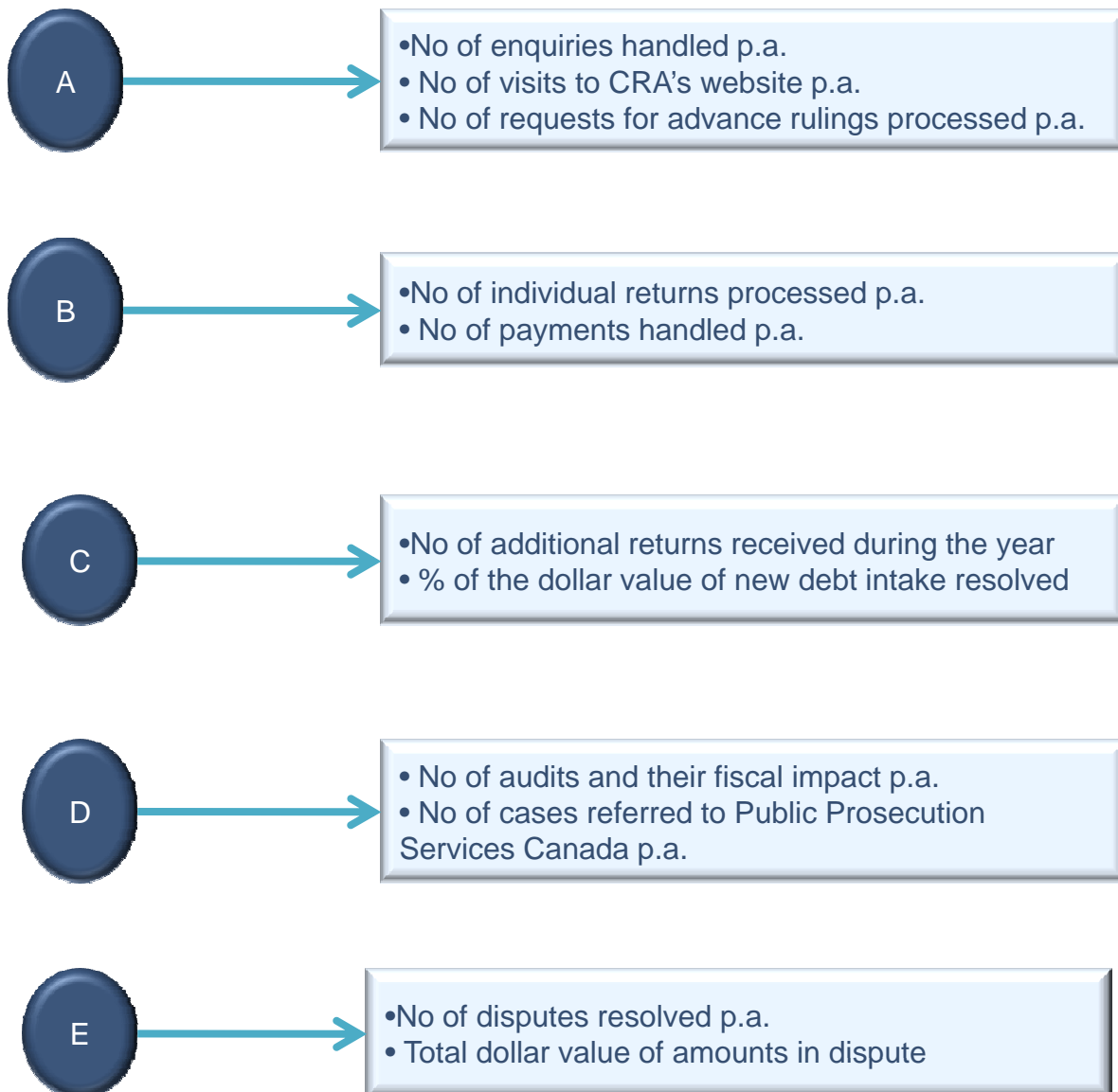


# PSV's building blocks – Canada Revenue Agency (CRA) - benchmark



Key: A= Taxpayer and business assistance; B= Assessment of returns & payment processing; C= Accounts receivable & returns compliance; D= Reporting compliance; E= Appeals. Not included – F= Benefit programs; and G= Internal services  
 Note – Each intermediate outcome is assigned a performance rating (Met, mostly met or not met). CRA also rates the quality of the data as good, reasonable or weak

## Volumetrics – CRA- benchmark



# Annex C: Frequency tables

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## Frequency tables - aggregated

### ARA

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	KRA	17	33.3	33.3	33.3
	SARS	19	37.3	37.3	70.6
	TRA	15	29.4	29.4	100.0
	Total	51	100.0	100.0	

### Q101KPI1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	43	84.3	84.3	84.3
	Quite important	7	13.7	13.7	98.0
	Not very important	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

### Q102KPI1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	36	70.6	70.6	70.6
	Quite important	15	29.4	29.4	100.0
	Total	51	100.0	100.0	

### Q102KPI2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	28	54.9	54.9	54.9
	Quite important	20	39.2	39.2	94.1
	No strong opinion	2	3.9	3.9	98.0
	Not very important	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

### Q103KPI1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	29	56.9	56.9	56.9
	Quite important	20	39.2	39.2	96.1
	No strong opinion	1	2.0	2.0	98.0
	Not very important	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

**Q103KPI2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	35	68.6	68.6	68.6
	Quite important	16	31.4	31.4	100.0
	Total	51	100.0	100.0	

**Q103KPI3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	37	72.5	72.5	72.5
	Quite important	12	23.5	23.5	96.1
	No strong opinion	2	3.9	3.9	100.0
	Total	51	100.0	100.0	

**Q103KPI4**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	25	49.0	49.0	49.0
	Quite important	21	41.2	41.2	90.2
	No strong opinion	4	7.8	7.8	98.0
	Not very important	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

**Q104KPI1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	35	68.6	68.6	68.6
	Quite important	16	31.4	31.4	100.0
	Total	51	100.0	100.0	

**Q104KPI2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	38	74.5	74.5	74.5
	Quite important	12	23.5	23.5	98.0
	No strong opinion	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

**Q1O4KPI3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	24	47.1	47.1	47.1
	Quite important	22	43.1	43.1	90.2
	No strong opinion	5	9.8	9.8	100.0
	Total	51	100.0	100.0	

**Q1O4KPI4**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	25	49.0	49.0	49.0
	Quite important	21	41.2	41.2	90.2
	No strong opinion	5	9.8	9.8	100.0
	Total	51	100.0	100.0	

**Q1O4KPI5**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	26	51.0	51.0	51.0
	Quite important	24	47.1	47.1	98.0
	No strong opinion	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

**Q1O4KPI6**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	28	54.9	54.9	54.9
	Quite important	20	39.2	39.2	94.1
	No strong opinion	2	3.9	3.9	98.0
	Not very important	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

**Q1O5KPI1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	25	49.0	49.0	49.0
	Quite important	19	37.3	37.3	86.3
	No strong opinion	4	7.8	7.8	94.1
	Not very important	3	5.9	5.9	100.0
	Total	51	100.0	100.0	

**Q105KPI2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	13	25.5	25.5	25.5
	Quite important	22	43.1	43.1	68.6
	No strong opinion	11	21.6	21.6	90.2
	Not very important	5	9.8	9.8	100.0
	Total	51	100.0	100.0	

**Q105KPI3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	23	45.1	45.1	45.1
	Quite important	21	41.2	41.2	86.3
	No strong opinion	4	7.8	7.8	94.1
	Not very important	3	5.9	5.9	100.0
	Total	51	100.0	100.0	

**Q105KPI4**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	12	23.5	23.5	23.5
	Quite important	20	39.2	39.2	62.7
	No strong opinion	16	31.4	31.4	94.1
	Not very important	3	5.9	5.9	100.0
	Total	51	100.0	100.0	

**Q105KPI5**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	29	56.9	56.9	56.9
	Quite important	15	29.4	29.4	86.3
	No strong opinion	7	13.7	13.7	100.0
	Total	51	100.0	100.0	

**Q106KPI1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	35	68.6	68.6	68.6
	Quite important	12	23.5	23.5	92.2
	No strong opinion	3	5.9	5.9	98.0
	Not very important	1	2.0	2.0	100.0

**Q105KPI2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	13	25.5	25.5	25.5
	Quite important	22	43.1	43.1	68.6
	No strong opinion	11	21.6	21.6	90.2
	Not very important	5	9.8	9.8	100.0
Total		51	100.0	100.0	

**Q106KPI2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	25	49.0	49.0	49.0
	Quite important	18	35.3	35.3	84.3
	No strong opinion	7	13.7	13.7	98.0
	Not very important	1	2.0	2.0	100.0
Total		51	100.0	100.0	

**Q106KPI3**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	17	33.3	33.3	33.3
	Quite important	23	45.1	45.1	78.4
	No strong opinion	9	17.6	17.6	96.1
	Not very important	2	3.9	3.9	100.0
Total		51	100.0	100.0	

**Q106KPI4**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	26	51.0	51.0	51.0
	Quite important	22	43.1	43.1	94.1
	No strong opinion	2	3.9	3.9	98.0
	Not very important	1	2.0	2.0	100.0
Total		51	100.0	100.0	

**Q106KPI5**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	35	68.6	68.6	68.6
	Quite important	16	31.4	31.4	100.0
Total		51	100.0	100.0	



**Q106KPI6**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	27	52.9	52.9	52.9
	Quite important	22	43.1	43.1	96.1
	No strong opinion	2	3.9	3.9	100.0
	Total	51	100.0	100.0	

**Q201KPI1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	28	54.9	54.9	54.9
	Quite important	10	19.6	19.6	74.5
	No strong opinion	11	21.6	21.6	96.1
	Not very important	2	3.9	3.9	100.0
	Total	51	100.0	100.0	

**Q201KPI2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	27	52.9	52.9	52.9
	Quite important	11	21.6	21.6	74.5
	No strong opinion	11	21.6	21.6	96.1
	Not very important	2	3.9	3.9	100.0
	Total	51	100.0	100.0	

**Q203KPI1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	31	60.8	60.8	60.8
	Quite important	14	27.5	27.5	88.2
	No strong opinion	3	5.9	5.9	94.1
	Not very important	3	5.9	5.9	100.0
	Total	51	100.0	100.0	

**Q204KPI1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	33	64.7	64.7	64.7
	Quite important	16	31.4	31.4	96.1
	No strong opinion	2	3.9	3.9	100.0

**Q106KPI6**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	27	52.9	52.9	52.9
	Quite important	22	43.1	43.1	96.1
	No strong opinion	2	3.9	3.9	100.0
	Total	51	100.0	100.0	

**Q204KPI2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	23	45.1	45.1	45.1
	Quite important	17	33.3	33.3	78.4
	No strong opinion	8	15.7	15.7	94.1
	Not very important	3	5.9	5.9	100.0
	Total	51	100.0	100.0	

**Q209KPI1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	14	27.5	27.5	27.5
	Quite important	8	15.7	15.7	43.1
	No strong opinion	18	35.3	35.3	78.4
	Not very important	8	15.7	15.7	94.1
	Not at all important	3	5.9	5.9	100.0
	Total	51	100.0	100.0	

**Q303KPI1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	32	62.7	62.7	62.7
	Agree	19	37.3	37.3	100.0
	Total	51	100.0	100.0	

**Q303KPI2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	15	29.4	29.4	29.4
	Agree	20	39.2	39.2	68.6
	No strong opinion	12	23.5	23.5	92.2
	Disagree	4	7.8	7.8	100.0
	Total	51	100.0	100.0	

**Q303KPI3**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	23	45.1	45.1	45.1
Agree	22	43.1	43.1	88.2
No strong opinion	5	9.8	9.8	98.0
Strongly disagree	1	2.0	2.0	100.0
Total	51	100.0	100.0	

**Q303KPI4**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	10	19.6	19.6	19.6
Agree	30	58.8	58.8	78.4
No strong opinion	6	11.8	11.8	90.2
Disagree	4	7.8	7.8	98.0
Strongly disagree	1	2.0	2.0	100.0
Total	51	100.0	100.0	

**Q303KPI5**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	22	43.1	43.1	43.1
Agree	24	47.1	47.1	90.2
No strong opinion	3	5.9	5.9	96.1
Disagree	1	2.0	2.0	98.0
Strongly disagree	1	2.0	2.0	100.0
Total	51	100.0	100.0	

**Q303KPI6**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	30	58.8	58.8	58.8
Agree	19	37.3	37.3	96.1
No strong opinion	1	2.0	2.0	98.0
Strongly disagree	1	2.0	2.0	100.0
Total	51	100.0	100.0	

**Q303KPI7**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	25	49.0	50.0	50.0
	Agree	18	35.3	36.0	86.0
	No strong opinion	6	11.8	12.0	98.0
	Disagree	1	2.0	2.0	100.0
	Total	50	98.0	100.0	
Missing	System	1	2.0		
Total		51	100.0		

**Q304KPI1**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	29	56.9	56.9	56.9
	Agree	21	41.2	41.2	98.0
	No strong opinion	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

**Q304KPI2**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	33	64.7	64.7	64.7
	Agree	15	29.4	29.4	94.1
	No strong opinion	2	3.9	3.9	98.0
	Disagree	1	2.0	2.0	100.0
	Total	51	100.0	100.0	

## Crosstabs

ARA \* Q1O1KPI1 Crosstabulation

			Q1O1KPI1			Total
			Very important	Quite important	Not very important	
ARA	KRA	Count	13	4	0	17
		% within ARA	76.5%	23.5%	.0%	100.0%
	SARS	Count	16	2	1	19
		% within ARA	84.2%	10.5%	5.3%	100.0%
	TRA	Count	14	1	0	15
		% within ARA	93.3%	6.7%	.0%	100.0%
Total		Count	43	7	1	51
		% within ARA	84.3%	13.7%	2.0%	100.0%

ARA \* Q1O2KPI1 Crosstabulation

			Q1O2KPI1		Total
			Very important	Quite important	
ARA	KRA	Count	15	2	17
		% within ARA	88.2%	11.8%	100.0%
	SARS	Count	12	7	19
		% within ARA	63.2%	36.8%	100.0%
	TRA	Count	9	6	15
		% within ARA	60.0%	40.0%	100.0%
Total		Count	36	15	51
		% within ARA	70.6%	29.4%	100.0%

ARA \* Q1O2KPI2 Crosstabulation

			Q1O2KPI2		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	11	5	1
		% within ARA	64.7%	29.4%	5.9%
	SARS	Count	8	10	0
		% within ARA	42.1%	52.6%	.0%
	TRA	Count	9	5	1
		% within ARA	60.0%	33.3%	6.7%
Total		Count	28	20	2
		% within ARA	54.9%	39.2%	3.9%

**ARA \* Q1O2KPI2 Crosstabulation**

			Q1O2KPI2	
			Not very important	Total
ARA	KRA	Count	0	17
		% within ARA	.0%	100.0%
	SARS	Count	1	19
		% within ARA	5.3%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total	Count		1	51
	% within ARA		2.0%	100.0%

**ARA \* Q1O3KPI1 Crosstabulation**

			Q1O3KPI1		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	10	5	1
		% within ARA	58.8%	29.4%	5.9%
	SARS	Count	11	8	0
		% within ARA	57.9%	42.1%	.0%
	TRA	Count	8	7	0
		% within ARA	53.3%	46.7%	.0%
Total	Count		29	20	1
	% within ARA		56.9%	39.2%	2.0%

**ARA \* Q1O3KPI1 Crosstabulation**

			Q1O3KPI1	
			Not very important	Total
ARA	KRA	Count	1	17
		% within ARA	5.9%	100.0%
	SARS	Count	0	19
		% within ARA	.0%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total	Count		1	51
	% within ARA		2.0%	100.0%

**ARA \* Q1O3KPI2 Crosstabulation**

			Q1O3KPI2		Total
			Very important	Quite important	
ARA	KRA	Count	12	5	17
		% within ARA	70.6%	29.4%	100.0%
	SARS	Count	14	5	19
		% within ARA	73.7%	26.3%	100.0%
	TRA	Count	9	6	15
		% within ARA	60.0%	40.0%	100.0%
Total		Count	35	16	51
		% within ARA	68.6%	31.4%	100.0%

**ARA \* Q1O3KPI3 Crosstabulation**

			Q1O3KPI3			Total
			Very important	Quite important	No strong opinion	
ARA	KRA	Count	14	2	1	17
		% within ARA	82.4%	11.8%	5.9%	100.0%
	SARS	Count	12	7	0	19
		% within ARA	63.2%	36.8%	.0%	100.0%
	TRA	Count	11	3	1	15
		% within ARA	73.3%	20.0%	6.7%	100.0%
Total		Count	37	12	2	51
		% within ARA	72.5%	23.5%	3.9%	100.0%

**ARA \* Q1O3KPI4 Crosstabulation**

			Q1O3KPI4		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	7	10	0
		% within ARA	41.2%	58.8%	.0%
	SARS	Count	9	7	2
		% within ARA	47.4%	36.8%	10.5%
	TRA	Count	9	4	2
		% within ARA	60.0%	26.7%	13.3%
Total		Count	25	21	4
		% within ARA	49.0%	41.2%	7.8%

**ARA \* Q1O3KPI4 Crosstabulation**

			Q1O3KPI4	
			Not very important	Total
ARA	KRA	Count	0	17
		% within ARA	.0%	100.0%
	SARS	Count	1	19
		% within ARA	5.3%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total		Count	1	51
		% within ARA	2.0%	100.0%

**ARA \* Q1O4KPI1 Crosstabulation**

			Q1O4KPI1		Total
			Very important	Quite important	
ARA	KRA	Count	16	1	17
		% within ARA	94.1%	5.9%	100.0%
	SARS	Count	9	10	19
		% within ARA	47.4%	52.6%	100.0%
	TRA	Count	10	5	15
		% within ARA	66.7%	33.3%	100.0%
Total		Count	35	16	51
		% within ARA	68.6%	31.4%	100.0%

**ARA \* Q1O4KPI2 Crosstabulation**

			Q1O4KPI2			Total
			Very important	Quite important	No strong opinion	
ARA	KRA	Count	15	1	1	17
		% within ARA	88.2%	5.9%	5.9%	100.0%
	SARS	Count	10	9	0	19
		% within ARA	52.6%	47.4%	.0%	100.0%
	TRA	Count	13	2	0	15
		% within ARA	86.7%	13.3%	.0%	100.0%
Total		Count	38	12	1	51
		% within ARA	74.5%	23.5%	2.0%	100.0%



**ARA \* Q1O4KPI3 Crosstabulation**

			Q1O4KPI3			Total
			Very important	Quite important	No strong opinion	
ARA	KRA	Count	10	4	3	17
		% within ARA	58.8%	23.5%	17.6%	100.0%
	SARS	Count	7	10	2	19
		% within ARA	36.8%	52.6%	10.5%	100.0%
	TRA	Count	7	8	0	15
		% within ARA	46.7%	53.3%	.0%	100.0%
Total		Count	24	22	5	51
		% within ARA	47.1%	43.1%	9.8%	100.0%

**ARA \* Q1O4KPI4 Crosstabulation**

			Q1O4KPI4			Total
			Very important	Quite important	No strong opinion	
ARA	KRA	Count	8	8	1	17
		% within ARA	47.1%	47.1%	5.9%	100.0%
	SARS	Count	10	6	3	19
		% within ARA	52.6%	31.6%	15.8%	100.0%
	TRA	Count	7	7	1	15
		% within ARA	46.7%	46.7%	6.7%	100.0%
Total		Count	25	21	5	51
		% within ARA	49.0%	41.2%	9.8%	100.0%

**ARA \* Q1O4KPI5 Crosstabulation**

			Q1O4KPI5			Total
			Very important	Quite important	No strong opinion	
ARA	KRA	Count	10	7	0	17
		% within ARA	58.8%	41.2%	.0%	100.0%
	SARS	Count	7	11	1	19
		% within ARA	36.8%	57.9%	5.3%	100.0%
	TRA	Count	9	6	0	15
		% within ARA	60.0%	40.0%	.0%	100.0%
Total		Count	26	24	1	51
		% within ARA	51.0%	47.1%	2.0%	100.0%

**ARA \* Q1O4KPI6 Crosstabulation**

			Q1O4KPI6		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	10	6	0
		% within ARA	58.8%	35.3%	.0%
	SARS	Count	10	8	1
		% within ARA	52.6%	42.1%	5.3%
	TRA	Count	8	6	1
		% within ARA	53.3%	40.0%	6.7%
Total		Count	28	20	2
		% within ARA	54.9%	39.2%	3.9%

**ARA \* Q1O4KPI6 Crosstabulation**

			Q1O4KPI6	Total
			Not very important	
ARA	KRA	Count	1	17
		% within ARA	5.9%	100.0%
	SARS	Count	0	19
		% within ARA	.0%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total		Count	1	51
		% within ARA	2.0%	100.0%

**ARA \* Q1O5KPI1 Crosstabulation**

			Q1O5KPI1		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	11	6	0
		% within ARA	64.7%	35.3%	.0%
	SARS	Count	4	10	2
		% within ARA	21.1%	52.6%	10.5%
	TRA	Count	10	3	2
		% within ARA	66.7%	20.0%	13.3%
Total		Count	25	19	4
		% within ARA	49.0%	37.3%	7.8%

**ARA \* Q1O5KPI1 Crosstabulation**

			Q1O5KPI1	
			Not very important	Total
ARA	KRA	Count	0	17
		% within ARA	.0%	100.0%
	SARS	Count	3	19
		% within ARA	15.8%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total	Count		3	51
	% within ARA		5.9%	100.0%

**ARA \* Q1O5KPI2 Crosstabulation**

			Q1O5KPI2		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	5	6	4
		% within ARA	29.4%	35.3%	23.5%
	SARS	Count	4	8	5
		% within ARA	21.1%	42.1%	26.3%
	TRA	Count	4	8	2
		% within ARA	26.7%	53.3%	13.3%
Total	Count		13	22	11
	% within ARA		25.5%	43.1%	21.6%

**ARA \* Q1O5KPI2 Crosstabulation**

			Q1O5KPI2	
			Not very important	Total
ARA	KRA	Count	2	17
		% within ARA	11.8%	100.0%
	SARS	Count	2	19
		% within ARA	10.5%	100.0%
	TRA	Count	1	15
		% within ARA	6.7%	100.0%
Total	Count		5	51
	% within ARA		9.8%	100.0%

**ARA \* Q1O5KPI3 Crosstabulation**

			Q1O5KPI3		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	7	7	1
		% within ARA	41.2%	41.2%	5.9%
	SARS	Count	8	7	3
		% within ARA	42.1%	36.8%	15.8%
	TRA	Count	8	7	0
		% within ARA	53.3%	46.7%	.0%
Total		Count	23	21	4
		% within ARA	45.1%	41.2%	7.8%

**ARA \* Q1O5KPI3 Crosstabulation**

			Q1O5KPI3	Total
			Not very important	
ARA	KRA	Count	2	17
		% within ARA	11.8%	100.0%
	SARS	Count	1	19
		% within ARA	5.3%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total		Count	3	51
		% within ARA	5.9%	100.0%

**ARA \* Q1O5KPI4 Crosstabulation**

			Q1O5KPI4		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	3	6	6
		% within ARA	17.6%	35.3%	35.3%
	SARS	Count	4	9	5
		% within ARA	21.1%	47.4%	26.3%
	TRA	Count	5	5	5
		% within ARA	33.3%	33.3%	33.3%
Total		Count	12	20	16
		% within ARA	23.5%	39.2%	31.4%

**ARA \* Q1O5KPI4 Crosstabulation**

			Q1O5KPI4	
			Not very important	Total
ARA	KRA	Count	2	17
		% within ARA	11.8%	100.0%
	SARS	Count	1	19
		% within ARA	5.3%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total	Count		3	51
	% within ARA		5.9%	100.0%

**ARA \* Q1O5KPI5 Crosstabulation**

			Q1O5KPI5			
			Very important	Quite important	No strong opinion	Total
ARA	KRA	Count	10	5	2	17
		% within ARA	58.8%	29.4%	11.8%	100.0%
	SARS	Count	10	6	3	19
		% within ARA	52.6%	31.6%	15.8%	100.0%
	TRA	Count	9	4	2	15
		% within ARA	60.0%	26.7%	13.3%	100.0%
Total	Count		29	15	7	51
	% within ARA		56.9%	29.4%	13.7%	100.0%

**ARA \* Q1O6KPI1 Crosstabulation**

			Q1O6KPI1		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	13	3	1
		% within ARA	76.5%	17.6%	5.9%
	SARS	Count	12	5	2
		% within ARA	63.2%	26.3%	10.5%
	TRA	Count	10	4	0
		% within ARA	66.7%	26.7%	.0%
Total	Count		35	12	3
	% within ARA		68.6%	23.5%	5.9%

**ARA \* Q1O6KPI1 Crosstabulation**

			Q1O6KPI1	
			Not very important	Total
ARA	KRA	Count	0	17
		% within ARA	.0%	100.0%
	SARS	Count	0	19
		% within ARA	.0%	100.0%
	TRA	Count	1	15
		% within ARA	6.7%	100.0%
Total	Count		1	51
	% within ARA		2.0%	100.0%

**ARA \* Q1O6KPI2 Crosstabulation**

			Q1O6KPI2		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	8	6	2
		% within ARA	47.1%	35.3%	11.8%
	SARS	Count	6	8	5
		% within ARA	31.6%	42.1%	26.3%
	TRA	Count	11	4	0
		% within ARA	73.3%	26.7%	.0%
Total	Count		25	18	7
	% within ARA		49.0%	35.3%	13.7%

**ARA \* Q1O6KPI2 Crosstabulation**

			Q1O6KPI2	
			Not very important	Total
ARA	KRA	Count	1	17
		% within ARA	5.9%	100.0%
	SARS	Count	0	19
		% within ARA	.0%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total	Count		1	51
	% within ARA		2.0%	100.0%

**ARA \* Q1O6KPI3 Crosstabulation**

			Q1O6KPI3		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	8	7	2
		% within ARA	47.1%	41.2%	11.8%
	SARS	Count	4	7	6
		% within ARA	21.1%	36.8%	31.6%
	TRA	Count	5	9	1
		% within ARA	33.3%	60.0%	6.7%
Total	Count		17	23	9
	% within ARA		33.3%	45.1%	17.6%

**ARA \* Q1O6KPI3 Crosstabulation**

			Q1O6KPI3	Total
			Not very important	
ARA	KRA	Count	0	17
		% within ARA	.0%	100.0%
	SARS	Count	2	19
		% within ARA	10.5%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total	Count		2	51
	% within ARA		3.9%	100.0%

**ARA \* Q1O6KPI4 Crosstabulation**

			Q1O6KPI4		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	9	8	0
		% within ARA	52.9%	47.1%	.0%
	SARS	Count	6	10	2
		% within ARA	31.6%	52.6%	10.5%
	TRA	Count	11	4	0
		% within ARA	73.3%	26.7%	.0%
Total	Count		26	22	2
	% within ARA		51.0%	43.1%	3.9%

**ARA \* Q1O6KPI4 Crosstabulation**

			Q1O6KPI4	
			Not very important	Total
ARA	KRA	Count	0	17
		% within ARA	.0%	100.0%
	SARS	Count	1	19
		% within ARA	5.3%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total	Count		1	51
	% within ARA		2.0%	100.0%

**ARA \* Q1O6KPI5 Crosstabulation**

			Q1O6KPI5		Total
			Very important	Quite important	
ARA	KRA	Count	12	5	17
		% within ARA	70.6%	29.4%	100.0%
	SARS	Count	11	8	19
		% within ARA	57.9%	42.1%	100.0%
	TRA	Count	12	3	15
		% within ARA	80.0%	20.0%	100.0%
Total	Count		35	16	51
	% within ARA		68.6%	31.4%	100.0%

**ARA \* Q1O6KPI6 Crosstabulation**

			Q1O6KPI6			Total
			Very important	Quite important	No strong opinion	
ARA	KRA	Count	9	7	1	17
		% within ARA	52.9%	41.2%	5.9%	100.0%
	SARS	Count	10	9	0	19
		% within ARA	52.6%	47.4%	.0%	100.0%
	TRA	Count	8	6	1	15
		% within ARA	53.3%	40.0%	6.7%	100.0%
Total	Count		27	22	2	51
	% within ARA		52.9%	43.1%	3.9%	100.0%



**ARA \* Q2O1KPI1 Crosstabulation**

			Q2O1KPI1		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	10	2	5
		% within ARA	58.8%	11.8%	29.4%
	SARS	Count	10	5	3
		% within ARA	52.6%	26.3%	15.8%
	TRA	Count	8	3	3
		% within ARA	53.3%	20.0%	20.0%
Total		Count	28	10	11
		% within ARA	54.9%	19.6%	21.6%

**ARA \* Q2O1KPI1 Crosstabulation**

			Q2O1KPI1	Total
			Not very important	
ARA	KRA	Count	0	17
		% within ARA	.0%	100.0%
	SARS	Count	1	19
		% within ARA	5.3%	100.0%
	TRA	Count	1	15
		% within ARA	6.7%	100.0%
Total		Count	2	51
		% within ARA	3.9%	100.0%

**ARA \* Q2O1KPI2 Crosstabulation**

			Q2O1KPI2		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	11	1	5
		% within ARA	64.7%	5.9%	29.4%
	SARS	Count	8	7	3
		% within ARA	42.1%	36.8%	15.8%
	TRA	Count	8	3	3
		% within ARA	53.3%	20.0%	20.0%
Total		Count	27	11	11
		% within ARA	52.9%	21.6%	21.6%

**ARA \* Q2O1KPI2 Crosstabulation**

			Q2O1KPI2	
			Not very important	Total
ARA	KRA	Count	0	17
		% within ARA	.0%	100.0%
	SARS	Count	1	19
		% within ARA	5.3%	100.0%
	TRA	Count	1	15
		% within ARA	6.7%	100.0%
Total	Count		2	51
	% within ARA		3.9%	100.0%

**ARA \* Q2O3KPI1 Crosstabulation**

			Q2O3KPI1		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	10	4	1
		% within ARA	58.8%	23.5%	5.9%
	SARS	Count	12	4	2
		% within ARA	63.2%	21.1%	10.5%
	TRA	Count	9	6	0
		% within ARA	60.0%	40.0%	.0%
Total	Count		31	14	3
	% within ARA		60.8%	27.5%	5.9%

**ARA \* Q2O3KPI1 Crosstabulation**

			Q2O3KPI1	
			Not very important	Total
ARA	KRA	Count	2	17
		% within ARA	11.8%	100.0%
	SARS	Count	1	19
		% within ARA	5.3%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total	Count		3	51
	% within ARA		5.9%	100.0%

**ARA \* Q2O4KPI1 Crosstabulation**

			Q2O4KPI1			Total
			Very important	Quite important	No strong opinion	
ARA	KRA	Count	13	4	0	17
		% within ARA	76.5%	23.5%	.0%	100.0%
	SARS	Count	8	9	2	19
		% within ARA	42.1%	47.4%	10.5%	100.0%
	TRA	Count	12	3	0	15
		% within ARA	80.0%	20.0%	.0%	100.0%
Total		Count	33	16	2	51
		% within ARA	64.7%	31.4%	3.9%	100.0%

**ARA \* Q2O4KPI2 Crosstabulation**

			Q2O4KPI2		
			Very important	Quite important	No strong opinion
ARA	KRA	Count	10	3	3
		% within ARA	58.8%	17.6%	17.6%
	SARS	Count	5	10	3
		% within ARA	26.3%	52.6%	15.8%
	TRA	Count	8	4	2
		% within ARA	53.3%	26.7%	13.3%
Total		Count	23	17	8
		% within ARA	45.1%	33.3%	15.7%

**ARA \* Q2O4KPI2 Crosstabulation**

			Q2O4KPI2	Total
			Not very important	
ARA	KRA	Count	1	17
		% within ARA	5.9%	100.0%
	SARS	Count	1	19
		% within ARA	5.3%	100.0%
	TRA	Count	1	15
		% within ARA	6.7%	100.0%
Total		Count	3	51
		% within ARA	5.9%	100.0%

**ARA \* Q2O9KPI1 Crosstabulation**

			Q2O9KPI1			
			Very important	Quite important	No strong opinion	Not very important
ARA	KRA	Count	4	2	6	4
		% within ARA	23.5%	11.8%	35.3%	23.5%
	SARS	Count	3	4	8	2
		% within ARA	15.8%	21.1%	42.1%	10.5%
	TRA	Count	7	2	4	2
		% within ARA	46.7%	13.3%	26.7%	13.3%
Total		Count	14	8	18	8
		% within ARA	27.5%	15.7%	35.3%	15.7%

**ARA \* Q2O9KPI1 Crosstabulation**

			Q2O9KPI1	Total
			Not at all important	
ARA	KRA	Count	1	17
		% within ARA	5.9%	100.0%
	SARS	Count	2	19
		% within ARA	10.5%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total		Count	3	51
		% within ARA	5.9%	100.0%

**ARA \* Q3O3KPI1 Crosstabulation**

			Q3O3KPI1		Total
			Strongly agree	Agree	
ARA	KRA	Count	13	4	17
		% within ARA	76.5%	23.5%	100.0%
	SARS	Count	9	10	19
		% within ARA	47.4%	52.6%	100.0%
	TRA	Count	10	5	15
		% within ARA	66.7%	33.3%	100.0%
Total		Count	32	19	51
		% within ARA	62.7%	37.3%	100.0%

**ARA \* Q3O3KPI2 Crosstabulation**

			Q3O3KPI2				Total
			Strongly agree	Agree	No strong opinion	Disagree	
ARA	KRA	Count	7	5	4	1	17
		% within ARA	41.2%	29.4%	23.5%	5.9%	100.0%
	SARS	Count	2	10	6	1	19
		% within ARA	10.5%	52.6%	31.6%	5.3%	100.0%
	TRA	Count	6	5	2	2	15
		% within ARA	40.0%	33.3%	13.3%	13.3%	100.0%
Total		Count	15	20	12	4	51
		% within ARA	29.4%	39.2%	23.5%	7.8%	100.0%

**ARA \* Q3O3KPI3 Crosstabulation**

			Q3O3KPI3		
			Strongly agree	Agree	No strong opinion
ARA	KRA	Count	9	7	1
		% within ARA	52.9%	41.2%	5.9%
	SARS	Count	6	10	2
		% within ARA	31.6%	52.6%	10.5%
	TRA	Count	8	5	2
		% within ARA	53.3%	33.3%	13.3%
Total		Count	23	22	5
		% within ARA	45.1%	43.1%	9.8%

**ARA \* Q3O3KPI3 Crosstabulation**

			Q3O3KPI3	Total
			Strongly disagree	
ARA	KRA	Count	0	17
		% within ARA	.0%	100.0%
	SARS	Count	1	19
		% within ARA	5.3%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total		Count	1	51
		% within ARA	2.0%	100.0%

**ARA \* Q3O3KPI4 Crosstabulation**

			Q3O3KPI4			
			Strongly agree	Agree	No strong opinion	Disagree
ARA	KRA	Count	4	12	0	1
		% within ARA	23.5%	70.6%	.0%	5.9%
	SARS	Count	2	13	2	1
		% within ARA	10.5%	68.4%	10.5%	5.3%
	TRA	Count	4	5	4	2
		% within ARA	26.7%	33.3%	26.7%	13.3%
Total	Count		10	30	6	4
	% within ARA		19.6%	58.8%	11.8%	7.8%

**ARA \* Q3O3KPI4 Crosstabulation**

			Q3O3KPI4	Total
			Strongly disagree	
ARA	KRA	Count	0	17
		% within ARA	.0%	100.0%
	SARS	Count	1	19
		% within ARA	5.3%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total	Count		1	51
	% within ARA		2.0%	100.0%

**ARA \* Q3O3KPI5 Crosstabulation**

			Q3O3KPI5			
			Strongly agree	Agree	No strong opinion	Disagree
ARA	KRA	Count	8	8	1	0
		% within ARA	47.1%	47.1%	5.9%	.0%
	SARS	Count	8	9	1	0
		% within ARA	42.1%	47.4%	5.3%	.0%
	TRA	Count	6	7	1	1
		% within ARA	40.0%	46.7%	6.7%	6.7%
Total	Count		22	24	3	1
	% within ARA		43.1%	47.1%	5.9%	2.0%

**ARA \* Q3O3KPI5 Crosstabulation**

			Q3O3KPI5	
			Strongly disagree	Total
ARA	KRA	Count	0	17
		% within ARA	.0%	100.0%
	SARS	Count	1	19
		% within ARA	5.3%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total	Count		1	51
	% within ARA		2.0%	100.0%

**ARA \* Q3O3KPI6 Crosstabulation**

			Q3O3KPI6		
			Strongly agree	Agree	No strong opinion
ARA	KRA	Count	12	5	0
		% within ARA	70.6%	29.4%	.0%
	SARS	Count	9	8	1
		% within ARA	47.4%	42.1%	5.3%
	TRA	Count	9	6	0
		% within ARA	60.0%	40.0%	.0%
Total	Count		30	19	1
	% within ARA		58.8%	37.3%	2.0%

**ARA \* Q3O3KPI6 Crosstabulation**

			Q3O3KPI6	
			Strongly disagree	Total
ARA	KRA	Count	0	17
		% within ARA	.0%	100.0%
	SARS	Count	1	19
		% within ARA	5.3%	100.0%
	TRA	Count	0	15
		% within ARA	.0%	100.0%
Total	Count		1	51
	% within ARA		2.0%	100.0%

**ARA \* Q3O3KPI7 Crosstabulation**

			Q3O3KPI7				Total
			Strongly agree	Agree	No strong opinion	Disagree	
ARA	KRA	Count	11	5	1	0	17
		% within ARA	64.7%	29.4%	5.9%	.0%	100.0%
	SARS	Count	8	8	2	1	19
		% within ARA	42.1%	42.1%	10.5%	5.3%	100.0%
	TRA	Count	6	5	3	0	14
		% within ARA	42.9%	35.7%	21.4%	.0%	100.0%
Total	Count		25	18	6	1	50
	% within ARA		50.0%	36.0%	12.0%	2.0%	100.0%

**ARA \* Q3O4KPI1 Crosstabulation**

			Q3O4KPI1			Total
			Strongly agree	Agree	No strong opinion	
ARA	KRA	Count	8	9	0	17
		% within ARA	47.1%	52.9%	.0%	100.0%
	SARS	Count	11	8	0	19
		% within ARA	57.9%	42.1%	.0%	100.0%
	TRA	Count	10	4	1	15
		% within ARA	66.7%	26.7%	6.7%	100.0%
Total	Count		29	21	1	51
	% within ARA		56.9%	41.2%	2.0%	100.0%

**ARA \* Q3O4KPI2 Crosstabulation**

			Q3O4KPI2				Total
			Strongly agree	Agree	No strong opinion	Disagree	
ARA	KRA	Count	10	6	0	1	17
		% within ARA	58.8%	35.3%	.0%	5.9%	100.0%
	SARS	Count	14	4	1	0	19
		% within ARA	73.7%	21.1%	5.3%	.0%	100.0%
	TRA	Count	9	5	1	0	15
		% within ARA	60.0%	33.3%	6.7%	.0%	100.0%
Total	Count		33	15	2	1	51
	% within ARA		64.7%	29.4%	3.9%	2.0%	100.0%