



**E-government and the Transformation of Public  
Administration in Developing Countries: A Case Study of the  
Kenya Revenue Authority**

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*Dedicated to my dear wife Lenah and to our children Moraa, Joy, Kemunto  
and Martha Kerubo for their show of commitment and dedication to  
continue with this path in search of knowledge, enlightenment, and wisdom.  
You all are everything to me and I pray to God that we may all remain  
faithful and pleased with each other.*

## **Thesis Abstract**

One question that continues to occupy the minds of scholars of e-government is whether information and communication technologies (ICT) can transform public administration. General opinion on the subject is sharply divided: some believe that e-government can shape public administration, while others doubt that it can have this effect. At the empirical level, the testing of the influence of e-government on public administration has been largely ignored. Consequently, the fundamental question remains unanswered, as do the further questions of precisely how and with what effects might information and communication technologies be reshaping public administration. These are the questions that motivated the research presented here, which examines and describes the transformative powers of e-government by focusing on the use of information and communication technologies to transform a particular public agency, the Kenya Revenue Authority.

The research used two main methods of data collection and construction: interviewing senior management at the Kenya Revenue Authority (KRA) and reviewing documents obtained from the KRA and other public sources. A transformation change analytical framework was used to analyze the KRA before the implementation of ICT-enabled reforms as an organization needing change and after these reforms as a transformed organization.

The results of the findings suggest that, although ICT has had some beneficial effects on the KRA, the changes produced to date fall short of being described as transformative. While the KRA has experienced significant improvements in performance in terms of revenue, it has yet to fully integrate its operations, change its organizational structure to achieve optimal efficiency, or transform the organizational behaviour and culture of its staff in ways that improve its operations or enhance its public image.

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## List of Abbreviations

<b>Abbreviation</b>	<b>Description of Abbreviation</b>
AEOs	Authorized Economic Operators
AfDB	African Development Bank
AITO	Anti-Counterfeit & Illicit Trade Office
APAs	Advance Pricing Arrangements
ATAF	African Tax Administration Forum
BI	Bribery Index
BPO	Business Process Outsourcing
BSC	Balanced Scorecard
CAMIS	Cargo Management Information System
CATA	The Common Wealth Association of Tax Administrators
CCK	Communication Commission of Kenya
CCRS	Common Cash Receipting System
CG	Commissioner General
CIAT	Inter-American Center of Tax Administrations
CIC	Complaints and Information Center
CIO	Chief Information Officer
COSIS	Customs Oil Stocks Information Systems
CP	KRA Corporate Plan
CPCs	Corruption Prevention Committees
CRS	Cash Receipting System
CSD	Customs Services Department
DLMS	Driving License Management System
DPC	Data Processing Centers
DRBCP	Disaster Recovery and Business Continuity
DTA	Double Taxation Agreements
DTD	Domestic Taxes Department
EACC	Ethics and Anti-Corruption Commission
EARATC	East African Revenue Authority Technical Committee
ECF	E-Government Transformational Framework
ECTS	Electronic Cargo Tracking System
EMACS	Enterprise Messaging and Collaboration System
ERP	Enterprise Resource Planning
ERS	Economic Recovery Strategy
ETRs	Electronic Tax Registers
FOSS	Free Open Source Software
G2B	Government-to-Businesses
G2C	Government-to-Citizens
G2E	Government-to-Employees
G2G	Government-to-Government
GDC	Government Data Centre
GDP	Gross Domestic Product
GOK	Government of Kenya
GT	Graduate Trainees
HOPS	Head of the Public Service
I&ED	Investigations and Enforcement Department
ICI	Information and Communication Infrastructure
ICPAK	Institute of Certified Public Accountants of Kenya
ICT	Information and Communication Technologies
IEE	Internal Effectiveness and Efficiency

<b>Abbreviation</b>	<b>Description of Abbreviation</b>
IFI	International Financial Institutions
IFMIS	Integrated Financial Management Information System
IMF	International Monetary Fund
IRTMS	Integrated Road Transport Management System
IT	Information Technology
i-Tax	Integrated Tax Management System
ITD	Income Tax Department
ITMS	Integrated Tax Management System
KES	Kenya Shillings – Kenya's official currency
KIPPRA	Kenya Institute of Public Policy Research
KOHA	Open Source Integrated Library System (ILS)
KRA	Kenya Revenue Authority
KRATI	Kenya Revenue Authority Training Institute
KRAVS	Kenya Revenue Authority Valuation System
KREISA	KRA Enterprise Integrated System Architecture
KES	Kenya Shillings - Kenya's official currency
KWATOS	Kilindini Waterfront Automated Terminal Operating System
LAN	Local Area Network
LTO	Large Taxpayer Office
LTU	Large Taxpayer Units
MAPs	Mutual Agreements Procedures
MoF	Ministry of Finance
MoU	Memorandum of Understanding
MTP	Medium Term Plan
NARC	National Alliance of Rainbow Coalition
NPM	New Public Management
NTC	National Targeting Centre
OECD	Organisation for Economic Co-operation and Development
OSBP	One-Stop Border Post
PCA	Post Clearance Audit
PIN	Personal Identification Number
PMBO	Programmes Management and Business Analysis Office
PSI	Pre-Shipment Inspection Services
PSV	Public Service Vehicles
QMS	Quality Management System
RADDex	Revenue Authorities' Digital Data Exchange
RARMP	Revenue Administration Reform and Modernization Program
RPS	Revenue Protection Services
RTD	Road Transport Department
S2005S	Simba 2005 System
SAPs	Structural Adjustment Programmes
SDC	Senior Deputy Commissioner
SSC	Shared Services Culture
SSD	Support Services Department
TCF	Transformation Change Framework
TEF	Technology Enactment Framework
TIEAs	Tax Information Exchange Agreements
TIMS	Transport Integrated Management System
TMP	Tax Modernisation Programme
TQM	Total Quality Management
UN	United Nations

<b>Abbreviation</b>	<b>Description of Abbreviation</b>
UNECA	United Nations Economic Commission for Africa
UNESC	United Nations Economic and Social Council
USD	United States Dollars
VAT	Value Added Tax
VMS	Vehicle Management System
WAN	Wide Area Network
WCO	World Customs Organization
WTO	World Trade Organization

## Chapter One

### Introduction

#### 1.1 Introduction

In 2004, the government of Kenya, like most countries around the world, decided to adopt and implement e-government<sup>1</sup> as part of its efforts to solve its governance problems, reduce corruption and improve public sector performance.<sup>2</sup> This decision was predicated on the belief that e-government can transform public administration in both developed and developing countries (Hannah, 2010). This belief is held not only by Kenyan policy makers but also by influential international organizations such as the United Nations (UN), the World Bank, the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD). The OECD, for instance, argues that “e-government is fundamental to reform, modernisation, and improvement of government” (2005, p. 97). The UN similarly notes in its *Survey of E-government 2008* report that e-government can “contribute significantly to the process of transformation of the government towards a leaner, more cost-effective government” (p. 1). According to these international organizations, e-government has direct benefits for developing countries in terms of improving effectiveness in government and public operations; realizing significant savings in areas such as public procurement, tax collection and customs operations; and in enhancing transparency and accountability.

Some have, however, questioned the transformative power of e-government. Bekkers and Homburg (2007), for instance, point out that “the actual implementations of e-

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<sup>1</sup>E-government is used in this context to refer to the use of information and communication technologies (ICT) in public administration. ICT refers to all types of technologies that include the hardware, software, networks and media for the collection, storage, processing, transmission and presentation of information (voice, data, text, images) as well as related services.

<sup>2</sup>Kenya, like most developing countries, is characterized by poor governance problems, including rampant corruption and ineffective and inefficient public administration (Tino, Schuppan (2009): “E-government in developing countries: Experiences from Sub-Saharan Africa,” *Government Information Quarterly*, 26(1), 118–127).

government policies have been disappointing” (p. 373). Other scholars are of the view that e-government has not only failed to transform government but also reinforces existing structures and practices (Kraemer and King, 2008; West, 2008). In view of the heterogeneity of these views, it seems remarkable that the impact of e-government initiatives on the structure and functioning of the public sector has received little attention in the wider public management reform debate among scholars and practitioners (O’Neill, 2009). The effects of e-government initiatives on public administration have also been largely ignored in public management debates, courses and text books. Consequently, research on the transformative impact of e-government has attracted little attention in the field of public administration (Margetts, 2003; Meijer, 2007). It is within this context that the present study investigates whether e-government has brought about the expected transformation in Kenya’s public administration and, specifically, the country’s tax administration agency, the Kenya Revenue Authority.

## **1.2 Research Problem – Tax Administration Reforms in Kenya**

Kenya endeavoured to improve its tax administration for several years, particularly the period 1995–2003, but with little progress. Prior to 1995, the country’s tax system faced several major challenges, including high tax evasion, low tax revenue and cumbersome and complex structures that made tax collection difficult to administer (Moyi and Ronge, 2006). In response, in 1995 Kenya established the KRA as a semi-autonomous organization<sup>3</sup> with a mandate to streamline and modernize the country's tax administration, in line with emerging

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<sup>3</sup>In most countries, tax administration is carried out by organizations that are separated from the Ministry of Finance. These organizations are usually granted legal status as semi-autonomous authorities and are broadly defined as “tax administrations that have greater than usual autonomy along several organizational design dimensions, including: legal character, corporate governance, financing and budgeting, personnel policy, procurement policy, and accountability relationships” (Robert J. Taliercio. October 2004. *Designing performance: The semi-autonomous revenue authority model in Africa and Latin America*. East Asia PREM: World Bank Policy Research Working Paper 3423, p. 46). Essentially, these organizations have autonomy-enhancing features including self-financing mechanisms and a high-level ranking board of directors from both public and private sector.

trends around the world. The KRA proceeded to focus on rationalizing its existence through a series of legal amendments and by improving the tax administrative system (Cheeseman and Griffiths, 2005).

Yet in spite of the efforts, the KRA continued to face the same challenges that existed prior to its inception. One of the key problems<sup>4</sup> cited for poor performance was “inadequate information technologies and poor integration between various functions and departments” (KRA, 2004, p. 2). Consequently, in 2004 the KRA embarked on a program of transformation through the increased use of ICT in order to deal with these problems. The then-Commissioner General declared at the launch of the second Corporate Plan in 2004/05 that “the whole organization is now in transformational mode” and that “modernisation and effective utilisation of modern technology is not negotiable...KRA must make use of computer resources to support efficient processing and analysis of information, intelligence gathering, information sharing and provision of management information” (Kenya Revenue Authority, 2004, p. 18).

During the fiscal year 2004/2005, the KRA started the implementation of an ICT-enabled program: the Revenue Administration Reform and Modernization Program (RARMP). The objective of the RARMP was to ensure that the KRA become a modern and fully integrated revenue administration institution by 2008/09 (Kenya Revenue Authority 2005). The program comprised seven key projects: the modernization of customs administration; the modernization of domestic revenue collection; streamlining the Road Transport Department; improving the investigation and enforcement of tax compliance through the detection, prevention and deterring of tax fraud; the modernization of the

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<sup>4</sup>Some of the problems cited with the implementation of first corporate plan (2003/04) were lack of computerization, poor organization structure that was tax-based instead of function-based, manual processes and rampant corruption involving KRA officials (Kenya Revenue Authority. 2003. *KRA Second Corporate Plan – 2003/04 – 2005/06*. Nairobi, Kenya).

agency's IT infrastructure; human resource management; and improvements of general business processes (KRA, 2005)

A study commissioned by the African Development Bank (AfDB) in 2010 points out that the performance of the KRA had improved under the RARMP. It specifically noted:

[I]mplementation of the RARMP, which prioritised quick wins to rapidly and significantly raise tax revenues (in real terms), has demonstrated considerable results, including the reversal, in a period of real GDP growth (2004-2007), of the decade long decline in tax to GDP ratio. The programme has also already accomplished significant outputs and outcomes in such areas of ICT applications as e-Filing and full computerisation of the customs operations (p. 28)

According to the Kenyan Ministry of Finance (2011), the implementation of RARMP led to several positive developments, including increasing Kenya's tax revenue-to-GDP ratio from 19.1% in 2003/04 to 21.6% in 2009/10; increasing revenue collection by over 130% from USD 2.9 billion in 2003/04 to USD 6.7 billion in 2009/10; improving customer satisfaction from 62% to 65% between 2008 and 2011; the provision of online tax services; and implementing business process improvements across the organization (Kenya Ministry of Finance, 2011).

From these accounts, it can be concluded that the KRA has made some tangible progress in tax administration. To facilitate the ICT-enabled reforms, the KRA also had to make several organizational changes, including investing heavily in the career development of its staff (AfDB, 2010). The AfDB report further explained that other organizational changes implemented as part of the KRA's corporate plan to facilitate ICT-led reforms under the RARMP include the streamlining organizational structures and administrative systems, the reorganization and capacity building of the KRA's tax assessment function and the realignment of collection functions within the KRA (AfDB, 2010). Based on these observations, it can be argued that the RARMP has, at least in some key ways, transformed the KRA's public administration.

This research, therefore, explains whether ICT has transformed public administration, in this case the KRA. It examines the various changes at KRA's in terms of organization's structure, organizational behaviour and culture, and image to determine and explain what role, if any, ICT has played in bringing these changes. Although determining such link is difficult given the fact that public sector environment is multi-faceted and complex (Weerakkody et al., 2011), such an attempt is academically rewarding because the issue of e-government transformation is widely misunderstood (Cullen, 2010). Cullen (2010) explains that e-government transformation has widely different connotations in different countries and, even, among different groups of scholars (particularly those from information systems and those from political science) yet is widely viewed as a simple solution to the public governance problems facing various countries, especially in the developing world.

### **1.3 Research Questions**

The foregoing discussion of the KRA's apparent progress in transforming itself through the use of ICT raises one primary and four secondary questions that are addressed in this study. The primary research question is: How, exactly, has the adoption of ICT transformed the KRA in its ability to meet its objectives?

This primary question, in turn, gives rise to two key concepts that require elaboration: ICT and transformation of public administration. For this research, ICT is used in a broader sense to refer to all types of technologies that are introduced to the organization. These technologies include the hardware, software, networks and other tools used to collect and process information. The other key concept in this research question is transformation. As shown in the literature review, transformation is a difficult concept to define and examine. In this research, it is used to refer to those fundamental organizational changes in terms of

organizational structure, organizational behaviour and culture and images that are attributable to the use of ICT.

Given the complexity in understanding and explaining transformation, the primary research question leads to the four secondary questions. We first ask, In what ways has the KRA used ICT? This study sought to determine the nature and extent of ICT that the KRA has adopted or implemented. Public organizations implement ICT in different and diverse configurations, ranging from simple installations of hardware and software to a more sophisticated IT infrastructure that includes fully integrated networks (West, 2008). According to West (2008), significant factors that impact the nature of ICT adoption include “institutional arrangements, budget scarcity, group conflict, cultural norms, and prevailing patterns of social and political behaviour” (p. 1). It was therefore an important step to first identify and assess what forms of ICT have been adopted at the KRA before delving into the nature of the transformation that has taken place.

The second secondary question addressed here is, What is the nature of transformation that has taken place at the KRA? Over the last several years, the KRA has undertaken various reforms covering many aspects of the organization. The term “reform” may have different meanings depending on the context in which it is used (De Guzman and Reforma, 1992; Turner and Hulme, 1997; UNESCO, 2006). The United Nations Economic and Social Council (UNESCO) stated in its 2006 white paper that “public sector reform consists of deliberate changes to the structures and processes of public sector organizations with the objective of getting them to run better. Structural change may include merging or splitting public sector organizations while process change may include redesigning systems, setting quality standards and focusing on capacity-building.” (p. 7). This study adapts this definition of reforms to include organizational restructuring undertaken to centralize key operational areas; initiatives to improve internal resource capabilities through training and human resource

management; and bringing in the modernization of operational processes. Hence, understanding the nature, depth and extent of these reforms or transformations was key in answering the primary research question.

The third secondary question address by this study is, What outcomes have resulted from the adoption of ICT at the KRA? As alluded to in the primary question, the adoption of ICT will cause transformation that will enable an organization to meet its objectives. In gauging the attainment of these objectives, this study identified and examined specific measurable outcomes, including improved performance, improved processes and the improved image or reputation of the organization.

Finally, this study sought to answer the question, Is the KRA truly a transformed organization? In other words, has ICT truly transformed the KRA into an effective and efficient organization in the spirit of e-government? Is it justified to claim that these administrative reforms — in tax administration, for instance — are, to a great extent, a direct result of the simple introduction of new technology? Or is it possible that these reforms are merely another example of using technology to improve efficiency in the wider and prerequisite context of organizational changes that were already carefully planned and closely controlled? The answers to these questions are undoubtedly complex and often interrelated, and finding and untangling them are the primary purposes of this study.

By embracing ICT, the KRA has been able to undertake several reforms that have led to improved efficiency and effectiveness in tax administration. Hence the main argument of this thesis is that, in order to significantly improve the efficiency and effectiveness of tax administration, the KRA must transform itself in ways that will ensure that the full potential of ICT is realized. This transformation includes, but is not limited to, fundamental changes in organizational structure, organizational behaviour and culture and improved organizational image or reputation.

## 1.4 Rationale of the Study

Studies examining e-government transformation are rare, particularly in the case of developing countries such as Kenya. In fact, e-government research is itself in its infancy, and most studies have been largely dominated by researchers from information systems disciplines and focused mainly on web portal development and other straightforward matters (Margetts, 2003; Heeks and Bailur, 2007). Schuppan (2009) points out that most of these studies mainly focus on the provision of online services and hardly attempt to study or explain the organizational changes that have resulted from the implementation of ICT-enabled reforms. There is thus a wide gap that needs to be filled with research in this field (Heeks and Bailur, 2007). Lips and Schuppan (2009) explain that studies focusing on the impact of the internal workings of the public sector (such as the production and processing of public services) are lacking because this area is not often acknowledged as an important part of e-government-focused public management research. Yildiz (2007) states that more research is required to explain both the process of e-government projects and their political environment.

A search for “e-government in Kenya” through the Scholars Portal and Web of Science search engine uncovered only a few scholarly articles, mainly from journals that focus on e-government in developing countries.<sup>5</sup> These articles all concentrate on website

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<sup>5</sup>These journals include *Government Information Quarterly*, *The Information Society* and *The Electronic Journal of E-Government*. *Government Information Quarterly* is an international journal that examines the intersection of policy, information technology, government and the public; <http://www.journals.elsevier.com/government-information-quarterly/>. *The Information Society (TIS)* provides an analysis of the impacts, policies, system concepts and methodologies related to information technologies and changes in society and culture. Some of the key information technologies are computers and telecommunications, and the sites of social change include home life, workplaces, schools, communities and diverse organizations, as well as new social forms in cyberspace; <http://www.indiana.edu/~tisj/>. *The Electronic Journal of e-Government (EJEG)* publishes research on topics relevant to the design, evaluation, implementation and management of e-government, e-governance, e-democracy, e-participation and other areas of this field of study; <http://www.ejeg.com/main.html>. All these journals have published extensively on e-government and its impacts in developing countries.

analysis. For instance, Kaaya (2004) analyzed the website content of three East African states (Kenya, Tanzania and Uganda) as products of individual governments striving for transformation, without examining the nature of transformation happening within each government. Similarly, Mutula (2008) conducted research comparing the e-government status (namely, the websites) of sub-Saharan countries with those of developed and transitional countries. More recently, Ochara-Muganda and Van Belle (2010) examined the relationship between expected e-government impacts (as the independent variable) and e-government conceptualization by government officials (as the dependent variables).

The key focus of Ochara-Muganda and Van Belle (2010) study was to establish the dominant actors in e-government adoption in Kenya. The key finding was that the interests of local actors are weak, while those of global actors are strongly entrenched in e-government conceptualization. The study did not explore the changes in the government as a result of e-government initiatives or their impacts on it. For the KRA as a subject of scholarly interest, to the knowledge of this researcher no study has been conducted to examine and explain the impacts of ICT-enabled reforms. The present study will, therefore, explore and discuss the extent to which the use of ICT has enabled the KRA to transform itself into a progressive tax collection and administration agency.

The focus on the Kenya Revenue Authority (KRA) is based on the presumption that tax administration is one area of public administration, especially in the case of developing countries, in which e-government will have the greatest potential for transformation, particularly in establishing a well-functioning tax collection agency, which is critical for promoting sound public sector management and general improvement in economic development (Bird, 2008; Schuppan, 2009). Schuppan (2009), for instance, explains that many governments in developing countries, especially those in sub-Saharan Africa, lack an efficient tax administration and finance system. Consequently, he claims, the introduction of

ICT and e-government will help such countries not only to control their expenditures but also to become engines for economic development through their increased capacity to generate revenue. Bird (2004) is also of the view that any fundamental improvement in tax administration calls for a transformation of tax organizations and their methods of collection. He believes that modern information technology will greatly facilitate such a transformation.

## **1.5 E-government and Tax Administration**

Tax administration is an essential component of any country's economic development strategy. It provides a framework for internal revenue mobilization. An effective tax administration means more revenue, and more revenue leads to higher economic growth and development (World Bank, 2000; Bird, 2008). One important aspect of tax administration is its dependence on ICT. If ICT is properly implemented and managed, it will be beneficial to tax administration significantly (Bird, 2008; Pritchard (2010); World Bank, 2000). The World Bank (2000), for instance, has noted that ICT can change tax administration in developing in several ways:

- It will lead to more revenue due to better audits, easy detection of stop-filers and non-filers, and faster payment and refund processing.
- It will increase the transparency of tax and customs administrations and therefore reduce corruption.
- It will enhance communication between tax authorities and the private sectors, which would lead to more revenue.

For developing countries, the importance of ICT in tax administration is even more critical (Bird, 2008). Bird (2008) argues that “the potential gains from improvements in technology are more likely in developing countries than in developed countries” (p. 814) because of the many challenges that developing countries face. Many countries such as

Kenya face several challenges that negatively impact the performance of tax collection agencies, including low compliance rates; corruption; an untapped growing financial sector; insufficient administrative capacity; and unintegrated administration of income tax, customs tax and excise duties.

There is a general belief among both scholars and practitioners that the use of ICT by tax authorities will eliminate or at least minimize these problems (World Bank, 2000; Bird, 2008; Bird and Zolt, 2008; Kenya Revenue Authority, 2010; Prichard, 2010). Accordingly, it is widely held that ICT can transform and even revolutionize tax collection agencies and dramatically improve their organizational structures, work processes and reporting requirements. Examples of tax administration areas where ICT is thought to have the greatest potential for developing countries are (World Bank, 2000; Bird, 2008; Bird and Zolt, 2008):

- Informal sectors and a growing financial sector — ICT will provide the tools to observe and monitor transactions, in terms of tracking physical inputs, electricity, labour and hence to estimate revenue and profits
- Administrative capacity — ICT will require re-engineering of process and restructuring of these organizations and retraining of staff to improve effectiveness and efficiency; for instance, the use of ICT will permit more a substantive analysis of tax assessments, which would lead to more revenue
- ICT will enable major changes in tax administration, structures and operations, thereby facilitating information sharing and coordination among various departments in a tax organization
- ICT will reduce corruption by minimizing face-to-face interaction, incorporating appropriate controls in procedures, tracking past operations and facilitating operational surveillance

- Enhancing compliance — ICT will provide an avenue for tax authorities to change their attitude and operation from treating taxpayers as thieves to viewing them as clients

These perceived benefits from the use of ICT in tax administrations are the main drivers for reforms in these organizations.<sup>6</sup> Most of these reforms are focused on improving the efficiency and effectiveness of enforcing tax policies (Gill, 2003; Kenya Revenue Authority, 2010). These reforms mostly target internal aspects of the tax administration but, if properly implemented, they will also lead to broader improvements in the capacity of the state to collect more revenues (Prichard, 2010). In other words, innovation through ICT in tax administration has the potential of having a spiralling beneficial effect on various other parts of the government.

For instance, Prichard (2010) explains that reforms in tax administration through improved monitoring are likely to spread to other parts of the government. This is especially so in the case of those agencies that have some connection with tax collection, such as business registration, foreign investment promotion and land registration. Similarly, improved data from resulting from the use of ICT by tax collection agencies would provide highly useful information to other government agencies, such as those associated with economic planning, business promotion and the targeting of services.

Another compelling reason for the use of ICT in tax administration is the increasing sophistication of business activity and, concomitantly, tax evasion schemes (Gill, 2003). Several factors — globalization, the use of advanced technology, increased competition in the private sector — have brought new challenges that tax collection agencies must strive to cope

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<sup>6</sup>Gill (2003) provides a list of four factors why tax administration reforms are necessary: to improve the efficiency and effectiveness of revenue administration; to improve the investment climate and private sector investment; to curb corruption; and to enable tax organizations to keep up with the increasing sophistication of business activity and tax evasion schemes.

with. These challenges include tax havens, electronic financial transactions and the increasing use of the Internet (e-commerce), all of which are increasingly difficult to detect using manual processes (Gill, 2003). Gill further argues that “without a matching increase in the professional and technological capacity of the revenue administration, its chances of monitoring taxable activity and countering tax evasion are seriously reduced” (p. 2). It has therefore become incumbent upon tax collection agencies to invest in modern tools in order to meet the special demands and challenges of modern tax administration.

In summary, many believe that tax administration reforms resulting from ICT are crucial and necessary for the economic development of any country and therefore should be viewed in a much broader context of public sector reforms. As the World Bank (2010) suggests, tax reforms impact a government’s various strategies for information technology, revenue collection, the enforcement of civil law and procurement policies, as well as communication and cooperation among government agencies. It was with these wider considerations in view that the Kenya government created the KRA and invested heavily in ICT to transform and modernize tax administration.

The research presented here on the impact of ICT on tax administration focuses more closely on the internal aspects of this particular government agency and examines in detail the actual changes brought by ICT to its organizational structure, work processes, employee behaviour and public image.

## **1.6 Thesis Organization**

This study is organized into eight chapters. Chapter One provides a brief introduction to the thesis covering the research context, research problem and rationale for the study. Chapter Two sheds light on e-government phenomena and highlights some of the unresolved issues surrounding them. It begins with a discussion of the factors that have led to the growth

of e-government, which is followed by a brief review on the meaning of the term e-government and the issues that complicates its study and understanding. This chapter also covers the discussion of transformed government and the controversies surrounding the meaning and definition of the term ‘transformation’ with respect to the use of ICT in the government. The chapter then looks at the various frameworks that have been used to study e-government transformation. It concludes with a discussion of the analytical framework that has been used to conduct the research.

Chapter Three covers the methodology and the qualitative approach used in the research. It also explains the reasons for using the case study approach and provides a background of the study. The rest of the chapter is devoted to discussing the research techniques used to collect the data and the data analysis approaches. Chapter Four provides the political, social and economic backgrounds in Kenya in order to gain an understanding of context of the research. It begins with a review of Kenya’s public sector reform experience since attaining independence in 1963 to date in order to provide context for the use of ICT in government. This chapter also provides a link between these reforms and the growth of e-government in Kenya and the establishment of the KRA.

Chapter Five is devoted to the KRA’s reform experience since the agency’s inception in 1995. It begins with a discussion of the historical background leading to the formation of the KRA. The chapter also covers the role and mandate of the KRA as Kenya’s tax administration agency. Chapter Five also explains the reforms that the KRA has undertaken over the years (1995–2002) prior to the implementation of RARMP.

Chapter Six focuses on the research findings. It presents a review of the data collected from interviews and document analysis in the format describe in the analytical framework. The chapter begins with the review of ICTs that have been implemented during the period under study, followed by a review of reforms covering the changes in organizational

structure, organizational behaviour and cultural changes. The findings from the interviews and documents are incorporated in the discussion of changes in these three areas.

Chapter Seven applies the analytical framework and discusses the impact of transformation on performance, process improvements and the image of the KRA. The premise of this part of the study is that the application of ICT and the resulting change in organizational structures, behaviour and culture will lead to favourable outcomes in performance, process improvements and image. This chapter therefore examines how these outcomes have evolved as the result of the implementation of RARMP.

Chapter Eight provides summary of the thesis's findings and their implication for the KRA. It also highlights the key contributions of this research, describes the limitations of the study and provides suggestions for further research.

## **Chapter Two**

### **Literature Review and Analytical Framework**

#### **2.1 Introduction**

This chapter first reviews the literature on the key theoretical issues, context and frameworks that have been used to examine e-government transformation and then proposes a suitable analytical framework for this study. The chapter is organized into three parts. The first begins with a review of the factors that have led to the growth of e-government in many countries, which is seen to be largely a response to global and local challenges (OECD, 2003; Brown, 2005; Roy, 2007; Borins, 2007; West, 2008; Hannah, 2010). Common global challenges include liberalization, deregulation across many sectors and countries, and powerful technological revolutions spurred by the development and widespread adoption of ICT (Hannah, 2010). From a local perspective, the growth of ICT has been a response of many countries, particularly developing countries, to address such common developmental challenges as growing budgetary pressures and shortfalls; weak governance; rising public expectations for service delivery; and the increased need for access to information.

The second part of this chapter explores the meaning of transformation in the context of e-government. The key promise of e-government has always been its perceived ability to fundamentally change the way the government works and, in consequence, to provide better services to the public. This chapter therefore examines the strength of the common argument that the use of ICT has the power to transform public organizations by bringing in the desired effectiveness and efficiency. Drawing upon the relevant literature, this chapter also highlights the key features of a transformed government and thus provides an insight into the fundamental structure of the framework required to conduct research into the question.

The chapter concludes with a detailed discussion of this analytical framework and the relationship of the variables that are studied. This discussion first reviews the various

frameworks that have been used to study e-government transformation and then, working on this basis, constructs a specialized analytical framework to examine the transformation of the KRA.

## **2.2 The E-government Phenomenon**

For the last two decades, the use of ICT in government has developed tremendously, thus making e-government an integral part of public sector transformation (OECD, 2008). Almost all governments around the world have implemented e-government initiatives and invested significant resources in them. Kraemer and King (2008) explain that the “investment in information technology at all government levels has increased, new capabilities are more diffused throughout government agencies, technical expertise is stronger and more widely spread, and governments successfully have institutionalized modern principles for management of IT” (p. 3).

It will be useful to examine here the key factors that have led to this unprecedented growth of e-government.

### **2.2.1 The Growth of E-government**

Many factors have contributed to the growth of e-government in many countries. They include the need to reinvent government along the new public management (NPM) principles<sup>7</sup> as a response to global pressures; the need to improve service delivery; the collapse of the dot-com bubble; the September 11, 2001, terrorist attacks; and the influence of

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<sup>7</sup>NPM has no specific definition, but Hood (1991) lists the key features of what are regarded as its distinctive components: (1) hands-on professional management — letting managers manage; (2) explicit standards and measures of performance — having clearly defined goals and performance targets; (3) greater emphasis on output controls — focusing on results as opposed to procedures; (4) a disaggregation of public sector units — breaking up large entities and providing autonomy to corporatized units; (5) greater competition in the public sector — using term contracts and public tendering to encourage competition; (6) emphasis on private sector styles of management — using private sector practices in the public sector; and (7) greater discipline and parsimony in resource use — cutting costs, raising labour discipline, resisting union demands and doing more for less (Christopher Hood (1991). A public management for all seasons? *Public Administration*, 69(1), 4–5).

international financial institutions in the case of developing countries (Brown, 2005; Roy, 2007; Homburg, 2008; Hannah, 2010). These factors deserve some closer consideration.

From a global perspective, the growth of e-government is attributable to the need to respond to the particular pressures that faced many governments around the world in the 1990s, which, according to Hannah, 2010, include increasing budgetary pressures, rising expectations, growing inequality and declining public trust. These pressures or challenges were acutely felt and compelled many governments to initiate several public sector reforms that used ICT, among other measures, to increase effectiveness and efficiency. In the last three decades, many governments both in developed and developing countries have faced budget pressures and shortfalls caused mainly by a combination of increased demand for public services on one hand and, on the other, insufficient tax revenues (Hannah, 2010). Hannah further points out the existence of increased pressure on most governments to demonstrate results and improved responsiveness from public expenditures.

These pressures were not unique to specific countries and generally called for governments all over the world to come up with new ways of doing business, since public services were commonly viewed to be slow, ineffective and inefficient (Osborne and Gaebler, 1992). Led by the United States, the United Kingdom and Canada, many governments initiated reforms starting in the mid-1980s to change or entirely reinvent ways of doing business along NPM principles, specifically those that emphasized the use of private sector values in public administration (Tolbert, Mossberger, and McNeal, 2008, p. 550). Homburg (2008) points out that, for instance, the U.S. administration of the 1990s was instrumental in advocating for these reforms and for the progress of e-government through its “re-engineering by technology initiatives that envisaged to overcome barriers of time and distance through electronic governance” (p. 3). Brown (2005) also explains that in Canada, the wave of NPM introduced new concepts that were initially developed in the private sector

world of e-commerce, which included “single-window client-centred delivery, customer relationship management, supply chain management, business process re-engineering and information governance that emphasized project management” (p. 245), which made extensive use of information technology.

The need for the efficient and effective delivery of services to citizens put pressure on governments to seek alternative forms of service delivery. One such form is the use of technology. Governments around the world turned to new technologies to achieve resource savings and efficiency and to improve service delivery. To realize these results, many governments — both in developed and developing countries — have consequently made large investments including the hiring of technologically skilled staffs who, in turn, have further orchestrated investments in e-government (Brown, 2005). Consequently, e-government is now, in essence, entrenched in many aspects of society. Homburg (2008) explains that e-government has been promoted around the world as a solution to many social issues, particularly those related to bringing administration closer to the people and through increased participation in the policy-making process.

The growth of the Internet and electronic commerce in the private sector during the 1990s also played a catalytic role in bringing online activities, innovation and user processes to the public sector. Roy (2007) explains that “much of e-government reflects private sector activity that has both encouraged and pressured public sector organizations to act in a similar manner” (p. 48).

Another aspect related to the evolution of e-commerce that has led to the growth of e-government is the problems that faced the IT sector in the last decade. Lofgren (2007) explains that the fast-growing Swedish software industry, when faced with a deep financial crisis, turned to the government for assistance in marketing their products. The industry lobbied for “the introduction of compulsory ICT strategies in all government agencies,

forcing agencies to report their progress on integrating ICTs in their operations” (p. 343). These industry-led efforts thus indirectly forced many public agencies to “procure more systems and services from the ICT industry” (Lofgren, 2007, p.3 43).

The September 11, 2001, terrorist attacks in the United States brought a new urgency for coordination across governments and for increased capacities that transcend organizational boundaries (Roy, 2007). This was the result of the realization that departmental agencies — particularly those directly responsible for security, both internally and externally — need to share crucial information in a timely and efficient manner. This new approach required significant investment in sophisticated and reliable digital architecture. As Roy (2007, p. 48) explains:

The heightened security-minded focus on centralization and clarity is accelerating attention and investments made in cyberspace, technology and internal governance reform, changes that may well bolster the level of seriousness and internal competencies within government devoted to deploying and managing digital technologies.

Thus the demands for public safety and security within national borders have necessitated re-thinking on the role of e-government in the delivery of services to the public.

Nonetheless, the growth of e-government in developing countries has mainly been driven by external forces, notably the international financial institutions (IFIs) (infoDev, 2002; OECD, 2003; Heeks, 2002). These IFIs, such as the World Bank and the IMF, have in so many ways engineered the growth of e-government in most developing countries that were perceived to have problems of corruption and poor governance. For instance, in the 1990s and early 2000, governance systems in Africa were considered to be in crisis (Heeks, 2002). Heeks (2002) points out that, during this period, many African governments were prone to wasteful, mismanaged and corrupt administrations that were causing unsustainably increasing public expenditures with a looming threat of heavy public debt. Coincidentally, it was during

this period that NPM was being promoted around the world as a solution to bring efficiencies into public sector organizations. The IFIs thus embraced this approach and used it as a condition to provide financial aid to these countries. Heeks (2002) explains that the IFIs promoted their governance agendas to these countries by “incorporating and transferring the e-government message” as part of the NPM package. They thus championed e-government as a solution to bring in better government through policy outcomes, higher-quality services and greater citizen involvement (infoDev, 2002; OECD, 2003). In a nutshell, it was expected that e-government would revolutionize and transform the way the public service works.

### ***2.2.2 The Meaning of E-government***

Despite the growth and promotion of e-government around the world, there are controversies on its meaning and its ability to transform government. In the literature, the term “e-government” continues to evolve, depending on the context and the academic orientation of the scholar. Gauld and Goldfinch (2006) point out that the term is a multifaceted concept that has a “different meaning to different constituents” (p. 9). They explain that, for instance, for politicians e-government means an engine for reform and for re-engineering government to meet the aspirations of new public management; for the bureaucrats, e-government is viewed as a managerial tool to improve their service delivery; while for the general public, e-government is viewed as a source of greater information and influence on government. E-government is thus multifaceted and has been implemented in a variety of forms and shapes, further complicating the process of trying to determine a single, universal meaning (Homburg, 2008). It has been defined in various ways: in the context of technology (Zhiyuan, 2002); from a service delivery perspective (Norris and Moon 2005); from a citizen-centric perspective (Roy, 2007); from a functional perspective (Selfert and Petersen, 2002); from a social fabric perspective (Brown, 2005); and from a radical change

perspective (Kraemer and King, 2008). To highlight the complexities in defining e-government, a selected sample of definitions is provided in Table 2.1 below.

**Table 2.1: Sample Definitions of the Term “E-government”**

<b>Authors</b>	<b>Definition</b>
World Bank / <i>infoDev</i> (2002)	E-government is the use of information and communications technologies (ICT) to transform government by making it more accessible, effective and accountable. E-government includes providing greater access to government information; promoting civic engagement by enabling the public to interact with government officials; making government more accountable by making its operations more transparent and thus reducing the opportunities for corruption; and providing development opportunities, especially benefiting rural and traditionally underserved communities.
Norris and Moon, 2005; West, 2008	The electronic provision of information and services by governments, 24 hours a day, 7 days a week
Kraemer and King, 2008, p. 2	The use of information technology within government to achieve more efficient operations, better quality of service, and easy public access to government information and services
Roy, 2007, p. 44	The continuous innovation in the delivery of services, citizen participation, and governance through the transformation of external and internal relationships by the use of information technology, especially the Internet
Brown, 2005, p. 244	The entire range of government roles and activities, shaped by and making use of information and communications technologies
Cook, Lavigne, Pagano, Dawes and Pardo, 2002, p. 3)	The uses of information technology to support operations, engage citizens, and provide government services
Snellen, 2006, p. 399)	Processes both inside and between political bodies and public bureaucracies, with businesses, citizens and civic society, at different layers of government: local, regional, national as well as international

A review of these definitions leads to two observations. First, the boundaries of e-government are unclear. For instance, it is uncertain whether e-government includes both internal and external aspects of public service, such as governance. For some scholars, such as Cook et al. (2002) and Snellen (2006), e-government encompasses all aspects of public service delivery and governance. For other scholars, such as Roy (2007), a distinction must be made between e-governance and e-government, with the former referring to the process of sharing and reorganizing of power across all stakeholders and the citizenry while the latter is more focused on public service delivery. Accordingly, e-governance is a much broader

concept, as it encompasses the use of ICT in a state's institutional arrangements, decision-making processes, and the implementation of all kinds of changes in relationships between the government and the public; e-government, on the other hand, seems to be essentially a subset of e-governance.

The second point and more important observation from the various definitions of e-government relates to transformation: the use of ICT in radically changing or transforming the government is embedded in all definitions. Hannah (2010) explains that ICT have the transformative power to realign and radically change the way government works and bring several benefits to public administration.

### ***2.2.3 Prospects and Risks of E-government***

The use of ICT in government has several possible benefits. These include improved governance and participatory democracy (Hannah, 2010); improved service delivery; improved competitiveness through innovation; and transformed organizational effectiveness (Heeks, 2003; Brown, 2005; Borins, 2007; Roy, 2007; Hannah, 2010). One area that has been thought to derive the greatest potential benefit from the e-government is improved governance and participatory democracy. ICT, if properly implemented, can improve access to information that will enhance government accountability and trust (Nye, 2002; Eggers, 2005; Borins, 2007; Hannah, 2010). Hannah (2010) explains that governments can use ICT to engage various stakeholders, including citizens and the media, to increase the accountability of the government and the participation of the public in matters impacting their well-being. Roy (2007) argues that e-government has not only accelerated openness in terms of putting more information available online but also expanded the exposure of the secrets and shortcomings of a government.

Another area that can benefit from using ICT is the improvement of service delivery (Fountain, 2001; Heeks, 2003; Haldenwang, 2004). Heeks (2003), for instance, points out that e-government has the potential of cutting process costs; improving government performance; making necessary government connections among government departments to improve service delivery; and creating necessary empowerment in areas where it makes maximum positive impact. Hannah (2010) points out that several countries have used ICT in several sectors, including education, health care and communication, to improve service delivery and, in the process, have significantly contributed to economic development. Hannah further explains that “ICT use in government can also facilitate effective decentralization, more transparent and accountable governance, delivery of responsive public services, making public information resources available to all, and improving the quality and reach of health, education, and other basic services” (p. 45).

ICT can also be a useful tool in encouraging innovation in governments (Hannah, 2010). Hannah explains that ICT is at the heart of government’s innovation agenda and helps to transform the way governments conduct research, communicate with each other and access the vast body of global knowledge. To be able to compete on the international stage, governments around the world are now challenged to harness the potential of ICT and to encourage the creativity of its citizens and stakeholders to be innovative and revolutionize their service delivery.

Perhaps the most important aspect of e-government is the impact of ICT in improving organizational effectiveness — the focus of this study. A number of scholars have argued that the use of ICT has revolutionized and transformed the government workplace — changing structures, cultures, organizational behaviours and the image of organizations (OECD, 2005; Borins, 2007; UN, 2008; Hannah, 2010). Hannah (2010) explains that ICT has reshaped and transformed the structure of organizations, radically changing the way they work and relate

with other organizations within and outside the government. She further explains that ICT has enabled new forms of organizations that are “flat, agile, lean, extended, globally networked, and client focused” (p. 53).

Despite these positive prospects of e-government, the growing use of ICT comes with some risks (Roy, 2007; West, 2008; Kraemer and Kings, 2008; Hannah, 2010). Hannah (2010) provides a list of possible disadvantages arising from the use of ICT, including the tendency to be wasteful due to likelihood of project failures; increased inequalities and exclusion of some sectors within and across countries; reinforcing existing power structures and relationships; and a tendency to control and not reinforce empowerment of citizens (p. 61).

The evidence suggests that the failure rate of ICT in government projects is higher than in private sectors — making the implementation of ICT projects in government a high-risk adventure that must be closely managed in order for governments to realize the expected results. The risks associated with the high failure rates of e-government projects emanate from several factors, including lack of senior management commitment to e-government initiatives; failure to involve users; misunderstanding of requirements; lack of skills required to implement the projects; difficulties in the introduction of new technologies; and poor or inconsistent funding (Heeks, 2006; Gauld, 2006).

A growing part of the e-government literature also claims that the use of ICT in government is accelerating inequalities in accessing and using services (Perez, 2002; Hannah, 2011). Access to ICT, particularly in developing countries, is limited to urban areas, with the majority of people in many areas having no access to the Internet. The extent, nature and form of this digital divide, as the inequality of access to ICT is often referred to, has been extensively discussed in the literature (Wresch, 1996; Thomas, 1996; Jurich, 2000; Parker, 2000; Thompson, 2004; Selwyn, 2004). Broadly defined, the concept of the digital divide

refers to the social exclusion in the use of ICT products and services or, more generally, the “information haves” and “information have nots” (Wresch, 1996; Parker, 2000).

Another likely risk of e-government is the tendency of public civil servants to use ICT to reinforce the existing communication structure and power relationships (Kraemer and King, 2008). Kraemer and King argue that the evidence from e-government implementations suggests that senior managers in public organizations resist change and instead use e-government to serve their interests and maintain the status quo. They explain (p. 4):

E-government has only been used to enhance the information available to them [senior managers and their direct subordinates] to increase their control over resources; to rationalize decisions to superiors, subordinates, and clients; to provide visible deliverables with the aid of the technology; and to symbolize professionalism and rationality in their management practices. These aims do not necessarily work against the welfare of the organization, simply because they work for the welfare of managers. Yet, such aims usually are not associated with and are frequently antithetical to administrative reform.

The risk of reinforcing current hierarchies and power structures directly undermines the essence of the usual e-government transformation agenda of increasing transparency and empowerment. Similarly, the use of ICT in government can be used as bureaucratic tool to control or influence the public (Hannah, 2010). Hannah explains that the use of the Internet places substantive information about the users in the hands of government and corporations and tends to act as a disincentive to use and exploit the full potential of ICT.

Despite these risks, the potential gains from using ICT in governments are real. As Hannah (2010) notes, ICT continues to “offer unprecedented opportunities, risks, and strategic options” for any government that desires to grow economically and socially (p. 65). Hannah further points out that the opportunities to exploit ICT to transform the way the government works and interacts with its citizens are too great to ignore. To ensure that these benefits are realized and the risks are minimized, governments will require strong political and senior management commitments to ensure that the ICT transformation agenda is fully

integrated within the government's development strategy agenda (Hannah, 2010). With such commitments, it is possible that e-government initiatives may, if properly implemented, be able to transform the government, as discussed in the next sub-section.

### **2.3 Transformed Government**

From the e-government perspective, a transformed government presupposes that the use of ICT has the capability of transforming the existing public organization and therefore creating new organizational structures, behaviour, culture and image (Hannah, 2010; Weerakkody et al., 2011). This transformed government is referred to by several names in the literature, including a "virtual organization" (Fountain, 2001), a "networked organization" (Nambiasan and Sawhney, 2008) or simply a "future government" (Hannah, 2010). But what, precisely, is entailed in this transformed government is unclear. This lack of clarity appears to be due to the complexity of defining the term "transformation" in the context of e-government.

The practical definition of "transformation" has interested many scholars of e-government. Some acknowledge difficulties in defining e-government in the context of transformation or organizational changes (West, 2004; Scholl, 2005). West (2004), for instance, summarizes these problems, explaining that it "is difficult to determine how much innovation and over how long a period of time is required before something can be considered a complete change in 'character,' and 'condition', the classic definition of transformation" (p. 15).

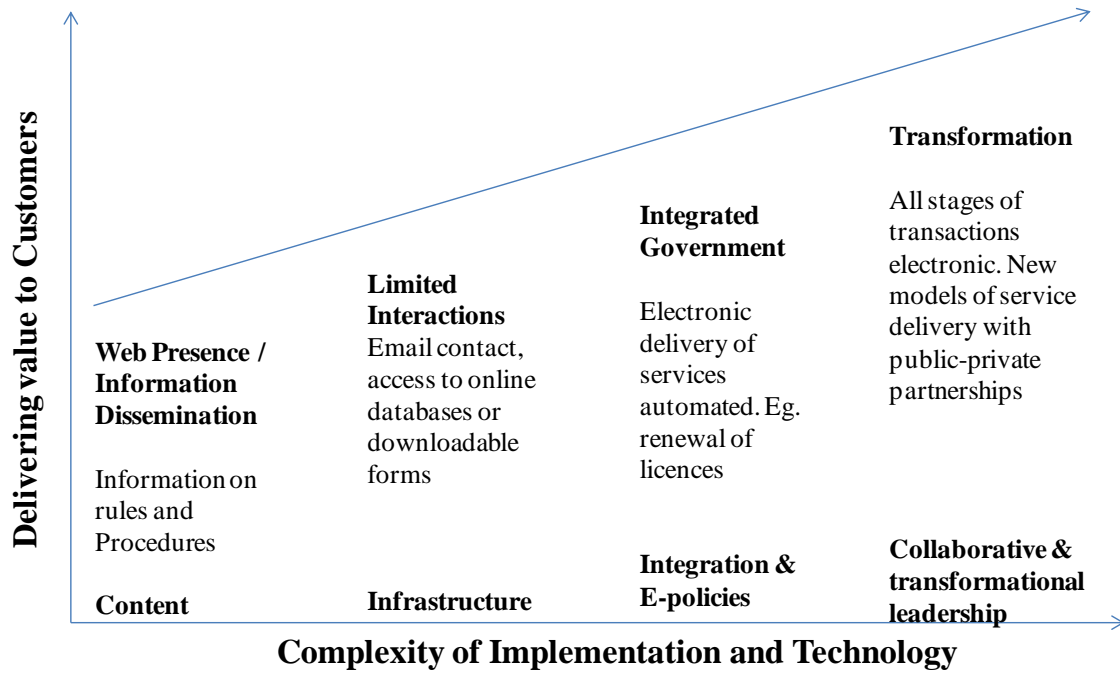
But despite the problem of definition, the goal of e-government producing major changes in public sector organizations remains. So what, then, is to be understood by "transformation"? The issue of the use of ICT in government for transformative purposes has been debated for several decades now. Bellamy and Taylor (1998), explaining the importance

of technology, point out that “at the heart ... lies the simple but hugely potential claim that liberating the power of new technology will drive down costs of public services and, at the same time, help to rebuild relationships with governments and their citizens” (p. 64).

The term “transformation” has no single, agreed-upon meaning but different senses for various scholars and, even, for governments (Cullen, 2010). In general terms, e-government transformation is regarded as comprising some radical changes. The main problem, though, is determining whether a change is radical or minor, while recognizing that these changes do not necessarily occur sequentially. Bannister and Connolly (2011) point out that no clear point exists at which something ceases to be a minor change and becomes a radical one and concede that the problem of defining transformation is more complicated.

One of the most simplified and commonly cited approach to understand the meaning of transformation and the nature of a transformed government is to view e-government development as a process that goes through several stages of an ICT development model that finally culminates at transformation (Layne and Lee, 2001; Andersen and Henriksen, 2006; O’Neill, 2009; Hannah, 2010). This model, which Hannah (2010) calls a “transformation map” (p. 90), depicts e-government as a process that goes through four or five stages and has been modified by various scholars to capture the expected changes in typical e-government implementation. (O’Neill, 2009; Layne and Lee, 2001; Andersen and Henriksen, 2006). Although most of these staged-model transformations differ in terms of the purpose and academic orientation of the writer, they have one commonality: they emphasize the fact that the e-government development process goes through several stages, including information dissemination, transaction processing and, finally, the transformation of government systems and processes.

**Figure 2.1 Stages of E-government Development Process**



Adapted from Nagy K. Hannah (2010), *Transforming government and building the information Society: Challenges and opportunities for the developing world*, Springer, Bethesda, USA.

The typical first stage of the e-government development process is called “web presence” or “information dissemination.” Its key features include providing an online listing of departments or ministries and contact information, linking various government sites, policy statements, organizational structure charts, downloadable forms and access to papers and documents (O’Neill, 2009; Hannah, 2010). Hannah (2010) explains that reaching this stage is relatively easy because it does not require significant resources and rarely requires interaction with other government departments. But she cautions that reaching this stage can still make a significant improvement in public service delivery as it makes information and services available online. It is assumed that at this stage there is no change to the nature of public user or business interactions with government.

The second stage of the development process is termed as “limited interaction” or “increased online presence” and mainly ensures that government departments have limited interactions with the users (Layne and Lee, 2001; Andersen and Henriksen, 2006; Hannah, 2010). According to Hannah (2010), this stage enables users to find information online and, to some extent, helps them to create their content. She further explains that the focus of the government at this stage is to provide “reliable, reliable, timely and accessible content” or generally to improve IT infrastructure (p. 88).

The third stage of the e process is called “integrated government” and focuses on process re-engineering in both the back and the front offices to ensure that government provides better and improved services and is able to interact with clients through portals or organized groups (O’Neill, 2009; Hannah, 2010). During this stage, the government continues to improve and upgrade its infrastructure for easy access; enhance interaction within and outside the department; design and create new portals; and even create powerful and searchable web content and knowledge management systems (Hannah, 2010). Hannah further explains that it is at this stage that the “government begins to function as a cohesive unit, and employees are in a better position to collaborate” (p. 90).

The final stage of the e-government development process is called “transformation” and should lead an organization to a transformed government. It is during this stage where governments have citizen-centric, integrated, inter-departmental processes across all levels of government (federal, state and municipal/local) and establish a common technical architecture for enabling content through any channel (Layne and Lee, 2001; Andersen and Henriksen, 2006; O’Neill, 2009; Hannah, 2010). Hannah (2010) argues that this stage is “more of a vision than a reality of any existing e-government so far” (p. 90) and will therefore require insurmountable efforts to achieve. According to her, progressing through the various stages and reaching this stage requires “higher levels of leadership, institutional

coordination, process innovation, and technology management to deliver higher value to customers” (p. 90).

This view of transformation, however, has been criticized as vague, because it assumes that e-government development follows a linear progression with one stage typically leading to another, something that does not happen in practice (Andersen and Henriksen, 2006). Hannah (2010) points out that it is possible to have an e-government project that has activities covering more than one phase or stage. It is also possible to have governments at various stages of the model at the same time, further complicating the understanding when a transformed government is achievable. This version of transformation is, moreover, only expressed in terms of desirable attributes instead of showing concrete changes in processes and structures (Bannister and Connolly, 2011).

Another approach that has been used to explain and understand transformation is to determine what has changed in the traditional bureaucracy that can be attributed to e-government. For instance, Davidow and Malone (1992) have pointed out that transformation means that e-government will revolutionize bureaucracies by questioning and, perhaps, by changing dramatically Max Weber’s fundamentals of bureaucracies. They explain that these changes will eliminate the constraints on, and limitations inherent in, the traditional bureaucracy. For Groth (1999), transformation means: having electronic Weberian files instead of the physical copies; replacing face-to-face with computer-mediated communication; doing away with traditional organization structures; creating seamless communication among departments; and replacing specialized tasks with cross-functional jobs. Thus, scholars have envisaged transformation as occurring only when there are visible changes in the bureaucracy, such as in the interaction between government and society; changes in the public sector workplace; and changes in the organization structure (Kraemer and King, 2008). Using the same reasoning, the OECD (2007) defines transformation in

general terms as “the set of processes leading to a change of the features of the public sector from a static organization-driven model to a dynamic user-driven model. It is about creating the environment and the basic conditions for continuous adaptation to changing demands and contexts” (p. 12).

Perhaps the most insightful view on e-government transformation comes from O’Neill (2009), who argues that the concept should be deconstructed into two separate and quite different applications: *instrumental* and *systematic* transformation. She defines instrumental transformation as “a radical change in the existing administration, information management and service delivery practices of government agencies that may also have a consequential impact on organizational structures and/or management practices” (p. 753). On this view, transformation is about the changes that may be noticed or easily visible within the public sector and is more concerned with operational and management practices with a view to increasing efficiency. The emphasis on instrumental transformation, therefore, is about ensuring convenience and quality of service, and satisfaction, for citizens (Pinho and Isabel, 2008). In short, it means doing the same things differently.

O’Neill (2009) defines systematic transformation as “a radical change in existing governance arrangements of public management including constitutional responsibilities and accountabilities; fiscal management; legislation; regulation; and decision-making rights over public resources” (p. 753). In systematic transformation, it is anticipated that e-government will facilitate the movement from operational management to a more interactive system between public officials, including elected ones, and the public. In this context, systematic transformation deals with the changes in organizational structure and institutional arrangements. According to O’Neill, this stage denotes “a change in key relationships within a broader systematic order. It is not about doing the same thing differently; it is about doing different things” (p. 754).

Whatever definition is attached to transformation, it still remains the basic premise underlying e-government. In fact, it is for this reason that e-government has now evolved to be referred as to as t-government, where “t” stands for transformation (Weerakkody et al., 2011). The concept of t-government assumes that e-government has the potential to fundamentally change structures, operations and, more importantly, the culture of the government (Weerakkody et al., 2011; Irani, 2008; Ramaswamy and Selian, 2007). Weerakkody et al. (2011) explain that, while e-government utilizes the existing structures and focuses on making services available online, t-government is broader in terms of organizational and social-technical dimensions and focuses on fundamentally changing these structures, processes and organizational culture. The research presented here, which is interested in the transformational aspects of ICT-enabled governance, has adopted this definition of e-government transformation, or t-transformation, in the sense that “t-Government is the ICT-enabled and organization-led transformation of government operations, internal and external processes and structures to enable the realization of services that meet public-sector objectives such as efficiency, transparency, accountability and citizen centrality” (p. 2).

Transformation in government can be quite broad and cover both internal and external aspects of public service. In fact, according to Ndou (2004), transformation covers three areas: internal, external and relational. The internal aspect of e-government transformation focuses on improving the efficiency and effectiveness of internal functions and processes of the government by linking different departments and agencies. The key objectives of internal e-government transformation include increasing the flow and sharing of government information among departments, reducing waste and duplication of services through process re-engineering, and eliminating bureaucratic structures that contribute to red tape and inefficiencies. The external aspect of e-government transformation encompasses government

collaboration with citizens and business and giving access to information collected and generated by the government. The relational aspect is much broader and covers fundamental changes in the way that government relates with citizens and with other nation states and other agencies. Fountain (2001) has referred to this concept of e-government transformation as a “virtual state,” arguing that governments are now organized with “virtual agencies, cross agencies, public-private networks whose structures and capacities depend on the Internet and web” (p. 4).

From this discussion, it is evident that the scope of e-government transformation is broad and extensive and does not consist of simple business re-engineering but includes several changes that are substantive and radical in the nature and functions of the entire organization and its relationship with other organizations (Ndou, 2004). Nevertheless, the present research is concerned specifically with changes in the efficiency and effectiveness of internal functions and processes, and so focuses on the internal aspect of e-government transformation.

Washington, Hacker and Hacker (2011) have proposed a transformation framework that views e-government transformation from three interrelated stages: standardization, incremental improvement and transformation. According to them, standardization involves mapping out organizational processes and flows to reduce variations and “thereby improving the overall performance and reliability” of production or service delivery (p. 6). For incremental improvement, Washington et al. (2011) explain that the initiatives for change aim at making radical shifts to bring performance to a more desirable level. They further point out that incremental improvement “entails a mind-set geared toward problem-solving: determining root-cause of inferior performance, converging on an answer or solution, and systematically implementing the solution” (p. 6). On transformational changes, these scholars have a perspective in line with that of O’Neill’s explanation of systematic transformation.

They argue that in order for change to be transformative, it must involve breakthroughs, be disconnected with the past and create something new and not merely solve a problem. In their own words, “new and radical ideas are allowed to surface, giving way to transformation and breakthrough performance” (p. 8). Interestingly, Washington et al. (2011) argue that for an organization to be successfully transformed, it must go through all the three stages in an interactive and continuous manner: standardization, incremental improvement and transformation, followed by repetition of the cycle.

From the foregoing analysis, transformations can be seen to comprise at least three key features: (1) radical redesign of the organization, which disregards all existing structures and procedures and invents new ways of doing work; (2) purposeful dramatic improvement, not merely incremental or marginal; and (3) ICT, which is essential to the change process, because without these new technologies and the different approaches they entail, there will be no fundamental change.

That much is clear for e-government transformations. Yet the problem remains of how to identify these transformative changes or propositions, especially those happening within the government. This situation is even worse for developing countries, where research has mainly focused — narrowly and simplistically — on web portal development for external users. Schuppan (2009) explains that past e-government studies from developing countries yield little information, show considerable methodological shortcomings and barely address organizational change or the transformation of public administration. It will thus be useful to examine whether such countries are, in fact, achieving the desired objectives of transformation in order to identify and explain potential barriers to change that will undermine the success of further e-government initiatives. This approach is of the greatest practical importance, both in itself and in view of the amount of resources, especially

financial, that poor countries currently expend on e-government with the expectation of transforming their public sectors to enhance economic growth.

Furthermore, the issue of e-government transformation has rarely been subject to rigorous scholarly examination. The few studies that have been done have mostly been on developed countries — such as Canada, the United States, New Zealand, Japan, Australia and the United Kingdom — and, even then, they have arrived at mixed results. On one hand, they seem to yield positive findings that reinforce the transformational agenda. For instance, Borins (2007), after reviewing e-government initiatives in Canada's federal service, concludes that e-government has transformed the government in terms of increasing transparency (insofar as making more information available online), revolutionizing the workplace and producing greater efficiency. He further points out that these initiatives have reduced operating and program expenses and made taxation more effective through uncovering tax evasions, as well as achieving other forms of cost savings.

On the other hand, some scholars have questioned the basis of the transformation agenda, arguing that e-government has not achieved it and will never do so. Bekkers and Homburg (2007), for instance, after reviewing e-government policy documents of several OECD countries and the performance of their e-government initiatives, find that “the actual implementations of e-government policies have been disappointing” (p. 373) because of their failure to achieve the expected results of transforming public administration. They view e-government skeptically as comprising myths, or unfulfilled promises, including those of better government, the use of ICT as an instrument of progress and transformation, and the assumption that e-government is a rational information planning tool. Their study of e-government policies in OECD countries leads them to conclude that ICT are a source of resistance from those stakeholders who want to maintain the status quo. They further point out that the failure of e-government to achieve transformational objectives is also attributable

to a lack of coordination among public agencies, itself a result of multiple actors and interests, often with conflicting goals; a focus on service delivery structures rather than processes of service delivery; and an incompatibility of systems.

Other researchers argue that e-government has not transformed the government and, perhaps, will not be an instrument for transforming public administration (Kraemer and King, 2008; West, 2008). After surveying the impact of technology on the United States government over the past two decades, Kraemer and King (2008) conclude that the evidence for transformation is meagre and that ICT have instead been used to reinforce existing power structures and relationships. West (2008) also argued that the few e-government-related changes that have been implemented in some countries are incremental in nature. He further explains that most countries appear to desire to maintain the status quo and minimize the uncertainties of drastic change. He concludes that “evidence for the research is consistent with incremental rather than transformational change” (p. 24). The insufficiency of evidence to support claims for transformation resonates with these scholars’ opposition to the e-government transformation agenda. Foley and Alfonso (2009) explain that while technology is widely anticipated to bring transformational change, “there is little robust evidence from the public sector” (p. 372). Similarly, Kraemer and King (2008) argue that “the main problem with the claim that information technology is an instrument of administrative reform is the lack of evidence to back it up” (p. 3).

While e-government, as a discipline, may still be maturing, more than 20 years have passed since many governments started implementing e-government initiatives, and so it now seems reasonable to examine the claims for this approach. There is no doubt that many governments have made significant investments in e-government at all levels; diffused more capabilities in simplifying the delivery of services to citizens; minimized the government bureaucracy, improving interactions within government units and with business, industry and

citizens; increased the empowerment of citizens and businesses through access to information, knowledge and services; ensured more efficient government management; improved productivity and efficiency throughout government agencies; increased technical expertise; and institutionalized and modernized the management of IT. The question that remains is whether these changes are sufficient to verify the claims of transformation.

Research on e-government transformation in developing countries is rare. The few studies that have been done, such as those of Kaaya (2004) and Mutula (2008) on evaluating the performance of e-government, have several methodological problems and are confined to the study of websites (Bannister, 2007). Schuppan (2009) points out that most of these studies focus mainly on the provision of online services and hardly attempt to study or explain the organizational changes resulting from the implementation of ICT-enabled reforms. He further argues that studies on e-government, particularly those assessing its performance, should be tailored to suit the individual context of developing countries because of the different institutional, cultural and wider administrative contexts.

One other aspect of e-government that has motivated the research presented here is the lack of a universal framework for studying and understanding the impact of using ICT in transforming public administration. The construction of a useful framework for this purpose is treated in the following subsection.

## **2.4 Analytical Framework**

Studying a social phenomenon such as e-government requires an analytical or conceptual framework (Miles and Huberman, 1994; Baxter and Jack, 2008). An analytical framework provides details and established relationships of key variables. Miles and Huberman (1994) define an analytical or conceptual framework as a “framework that explains, either graphically or in narrative form, the main things to be studied — the key

factors, constructs or variables — and the presumed relationships among them” (p. 18). These scholars describe three main functions of conceptual frameworks: (1) identifying who will and will not be included in the study; (2) describing what relationships may be present based on logic, theory and experience; and (3) providing the researcher with the opportunity to gather general constructs into intellectual “bins” (p. 18). They further point out that a framework can either be rudimentary or elaborate, theory-driven or commonsensical, descriptive or causal.

To enable us to assess the value of a number of frameworks that have been used to study e-government transformation, it is important to understand the various perspectives taken in the literature on e-government phenomena. In general terms, the study of e-government transformation has two main perspectives: internal changes and external relationships. The internal changes comprise what is commonly referred to in e-government literature as government-to-government (G2G), government-to-employees (G2E) and internal effectiveness and efficiency (IEE) changes, whereas the external dimension encompasses government-to-citizens (G2C) and government-to-businesses (G2B) relationships (Cullen, 2010). Although all these connections are important in understanding e-government transformation, this study will examine internal changes (G2G, G2E and IEE), as most e-government research to date has focused on the external relationships, and studies looking at the internal changes are rare (Heeks and Bailur, 2007; Yildiz, 2007; Schuppan, 2009). As Cullen (2010) notes, an examination of the evidence for internal changes is necessary to fully understand the extent of the transformation produced by e-government initiatives. Given the nature and complexity of governments, Bannister (2010) has argued that transformation should occur within the government before it affects external relationships. He puts the matter into perspective by stating that “the most likely locus of high first-order and second-order change will be in government-to-government, government-to-employees, and critically,

in internal effectiveness and efficiency rather than, say, government-to-citizen, which is where much of contemporary e-government research is focused” (p. 41).

A number of frameworks have been developed in the literature to assess and explain the impact of ICT on public administration or, simply put, the e-government transformation process. The technology enactment framework (TEF) has been developed by Fountain (2001) to study the impact of technology on an organization. Using this framework, Fountain (2001) examines how technology is conceived and implemented by the senior government officials. She explains that this technology enactment theory is the “result of cognitive, cultural, structural, and political embeddedness” (Fountain, 2001, p. 89). Her main argument is that actors will always try to “implement e-government policies in ways that reproduce, strengthen, and institutionalize socio-structural mechanisms that are not necessarily rational or optimal” (Fountain, 2001, p. 90). In other words, actors such as senior government officials implement the e-government policy in order to obtain and retain institutional legitimacy. Fountain (2001) thus explains that:

the challenge to restructuring information flows within organizations stems from what organizations theorists have called position bias, or subunit goal optimization, the tendency of managers to attend to goals that relate directly to their position rather than to broader, organizational goals...that public program managers involved in organizational restructuring were more likely to view information technologies and the organizational change project in which they participated as successful if the managers also reported that restructuring supported their positions. (p. 67)

The suitability of this framework for explaining the e-government transformation process is open to debate. On the one hand, some scholars such as Miles (1996) and O’Neill (2009) argue that the technology enactment framework adequately explains the choice of which technology will be supported by government officials and when and why others will be resisted. Miles (1996) argues that this framework provides the strongest rebuttal against technological determinism, since it is driven by personal self-interest, and that it provides a

balanced restraint to those who advocate for the rapid and radical transformation of public management.

On the other hand, Yang (2003) points out that the TEF has been criticized for “lack of explanatory power, blindness towards technological factors, and leading to a social determinism” (p. 435). He contends that Fountain’s argument that technology is socially constructed does not explain how different perceptions on technology shape the development of web-based technologies. He further argues that this framework is similar to the old institutionalism that views technology and institutions as dichotomous. Yang (2003) points out that, whereas earlier institutional economists argue that without technology there would be no change, Fountain’s TEF argues that even with technology there would not necessarily be change. Others, such as Schellong (2008) argue that the TEF has embedded technological determinism “with regard to potential of the web to transform the government” (p. 8).

Perhaps the strongest rebuttal against the TEF comes from Norris (2003), who claims that the framework proposes nothing new and is just a rewriting of existing theory on social-technical systems (STS). Norris argues that Fountain has failed to take into account the existing theories, particularly the STS, that explain IT and government, and yet the TEF itself seems to be similar to systems theory in all aspects. Schellong (2008) explains that the STS is grounded in systems theory and assumes that organizations have two systems: a technical system composed of IT equipment components and a social system comprising people and relationships. Norris (2003) also points out that STS argues that the adoption, use and management of IT depends on many factors, including technological, social, organizational, individual and environmental factors — the same line of argument articulated by Fountain’s TEF. In other words, the TEF is not a new theory but a restatement of an existing theory. Norris further argues that the “theory of IT enactment is little more than a repackaging of the dominant extant theory in the field, sociotechnical systems theory” (2003, p. 417). According

to Norris, Fountain's TEF thus fails in four areas: (1) to demonstrate a full understanding of the extant theory; (2) to provide an explanation of how the current theory is no longer adequate to the task of explanation; (3) to distinguish the new theory from the current theory; and (4) demonstrate why the new theory is superior.

But the essential point raised in the TEF is that the outcome from any e-government implementation depends on the both the nature of technology being used and the intention and commitment of the public officials charged with the responsibility of leading organizational change. In other words, the e-government transformation process should be seen in terms of a symbiotic relationship that recognizes the constraints and limitations of effecting any organizational change.

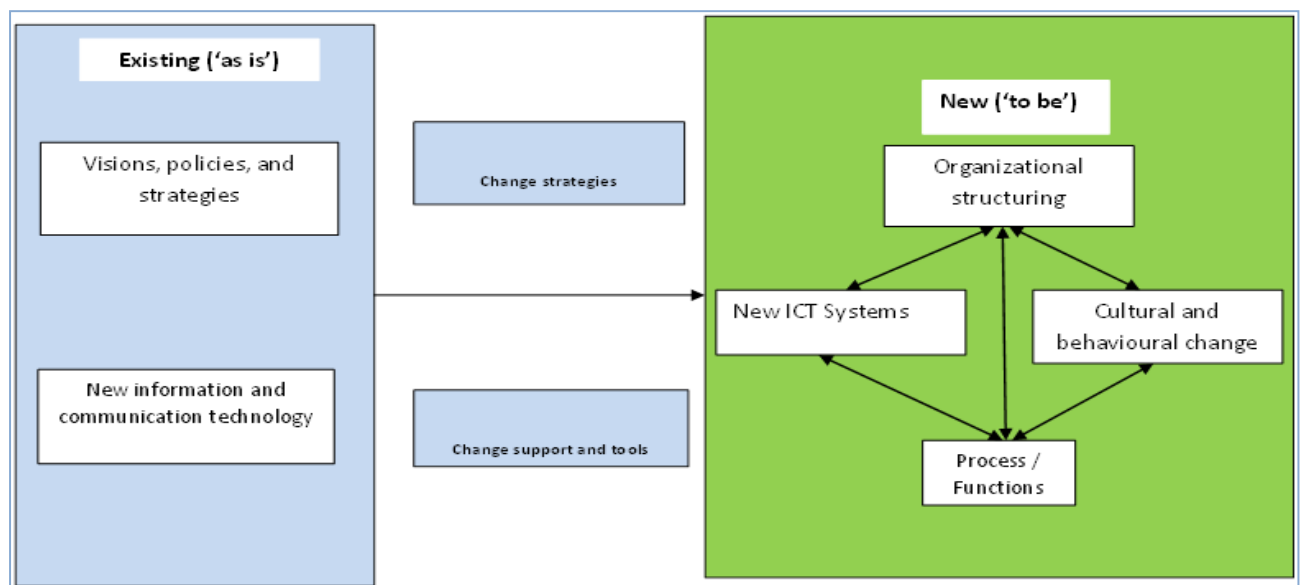
An improved framework that directly speaks to e-government and the process of transformation has been proposed by Weerakkody et al. (2011). These scholars formulate a transformation change framework (TCF) that they use to assess the internal structural changes within an organization.

The TCF (see Figure 2 below) is based on the premise that if an organization has the right vision, policies and strategies, e-government is able to cause radical changes in organization structures, in the culture and behaviour of employees, and in processes. The TCF thus compels researchers to identify what was in place before e-government was adopted (the original state, also referred to as the "as-is" situation), and where e-government is supposed to move the organization as part of the transformation process (the "to-be" situation). Although the authors of this framework — Weerakkody et al. (2011) — have not described this model in detail, they refer to several key features of transformation identified by Hammer and Champy (1993).

According to Weerakkody et al. (2011), "transformation involves moving from one state (i.e. one that is identified as needing improvement) to another state (i.e. one that

demonstrates improvement from the original state)” (p. 322). Based on two case studies — a large local authority in London, United Kingdom, and a large municipality in the Netherlands — these scholars point out that the “as-is” organization requiring improvement is typically characterized by several features, including having organizational structures with departmental silos and dominated by hierarchies; poor integration of services; and a heavy administrative burden due to duplication of services. Essentially, the “as-is” condition is also characterized by undertaking small incremental changes that are mainly focused on making information and services available online. The vision of the “needing-improving organization” is focused on using existing structures and processes.

**Figure 2.2: Transformation Change Framework:**



Source: Weerakkody, V., Janssen, M., & Dwivedi, Y. K. (2011). “Transformational change and business process reengineering (BPR): Lessons from the British and Dutch public sector,” *Government Information Quarterly*, 28(3), 320–328.

For the “to-be” or transformed organization, Weerakkody et al. (2011) explain that such an organization will “demonstrate fundamental breakthroughs in performance and radical change in the organizational structure, its culture, and business process driven by the

introduction of new ICT” (p. 323). The key findings from the application of the TCF in the two case studies indicate the following ten propositions for a transformed government.

**Table 2.2: Ten Propositions for a Transformed Government**

<b>Proposition</b>	<b>Explanations for transformed government</b>
Strategies and Goals	The organizational strategies and goals should be aligned with the goals and objectives of business process improvements
Fundamental Changes	Transformation should start with fundamental changes followed by other changes that are demand-driven (incremental)
Top-down approach to change	Public sector transformation may take any approach but must be facilitated by high-level senior management
Removal of functional barriers to create a shared services culture	All functional barriers for effective service delivery should be eliminated to facilitate proper information exchange and workflow harmonization
Focus on customer to ensure superior customer services	ICT changes should always focus on the customer for effective service delivery
Cost of service delivery	Although cost efficiency is the focus of organizational change, ultimately the focus is on ensuring a broader range of objectives (public values)
Process improvements	The focus of transformation should be on the process and tools that enable the redesign of the process
ICT-driven	The focus should be on ICT-enabled transformational change, that is, the reliance on ICT to help drive transformation by changing front- and back-office systems and processes
Costs versus profits	Transformation initiatives should balance costs and profit, bearing in mind that the focus of public sector should be on reducing administrative burden for governments, businesses and citizens
Information flow	The focus should be on seamless information flow across business functions and between organizations in the same supply chain to improve efficiency and speed of service

Adapted from Weerakkody et al., 2011, p. 326

With some minor adaptations to the TCF and leveraging the various performance indicators provided by Gill (2003), this research uses an improved analytical framework referred to as an E-Government Transformation Framework (ETF) to study changes that have taken place at the KRA, as shown in Figure 2.3 below. A number of reasons led the authors of this study to adapt and use the TCF. First, this framework focuses exclusively on internal transformation — an aspect relevant to this study. Other frameworks, such as the TEF discussed above, are broad and hence difficult to apply to a study of this nature. Second, Weerakkody et al. (2011) have identified ten propositions that will lead an organization into

transformation. These propositions proved highly useful in explaining the nature of the transformation that has taken place in organizations such as the KRA. Further, this framework is simple and clearly shows the variables that need to be considered in the study. Finally, this framework also describes the relationship among variables and thus clearly shows the state of the organization before and after the implementation of ICT-led reforms. As Miles and Huberman (1994) explain, a framework that shows key relationships gives the researcher an opportunity to easily collect the data required for the study.

Yet despite the merits of this framework, it is important to point out that the TCF does not show the expected outcomes for implementing ICT-led reforms and thus the changes or adaptations introduced in this study's analytical framework. To the components included in Weerakkody et al.'s TCF (2011), I have added a further one: outcomes to what is referred in this study as the e-government transformation framework (ETF). The ETF assumes that if ICT-led reforms are carried out successfully, then they should lead to a transformation in organizational structures, behaviour and culture, which in turn leads to desirable practical outcomes, namely improved performance, processes and image. The key premise of this study is that use of ICT in public organization leads to several outcomes that include improved quality of government performance, improved image, improved public access to information, and increased opportunities for participating in shaping democratic institutions and processes. In other words, ICT will be used in a creative manner to create and encourage the establishment of a transformed government. Accordingly, the key variables examined in the ETF are New ICT, Transformed Organization (new organizational structure, behaviour and culture) and Outcomes (performance, process improvements and improved image). The following provides a detailed synopsis for each of these variables:

**New ICT:** One of the key requirements for transformed organization, and the focus of this study, is how ICT have been used. In the context of this research, ICT comprise a wide range of technologies that facilitate the flow of information within and outside the organization. As discussed in Chapter Two, the term ICT is rarely defined in the literature but is generally assumed to encompass various aspects of technologies, including the Internet, personal computers, cellular phones, electronic banking and satellite devices.

**Organizational Structural Changes:** According to the ETF, organizational structural changes are particularly important for a transformed government. For instance, the study by Weerakkody et al. (2011) on two organizations that were ICT-transformed found that both organizations started their transformational changes by carrying out major changes in organizational structure. These changes are usually needed to remove any existing functional barriers and to create new structures that make it easy to integrate operations and services and to enable the sharing of information. For a tax administration organization such as the KRA, typical organizational structural changes will include the positioning of revenue administration within the overall government structure; combining tax and customs administrations; introducing a functional organizational structure within the revenue administration; and creating new divisions or services such as a data processing centres (DPC)<sup>8</sup> and large taxpayer units (LTU).<sup>9</sup>

**Organizational Behaviour and Cultural Change:** Although changing the behaviour and culture of the organization can be a great challenge, it is also considered a key requirement

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<sup>8</sup>Data processing centres (DPC) are typically used in tax administration authorities to carry out various tasks including registration of taxpayers, processing of returns and payments, maintenance of taxpayer accounts, and the detection of non-filing, stop-filing and non-payment of taxes based on declarations and routine correspondence with taxpayers (Gill, J. B. S. (2003). *The nuts and bolts of revenue administration reform*. Washington, D.C.: World Bank Paper).

<sup>9</sup>LTU perform all tax administration functions with respect to specified taxpayers.

for a transformed government. For an organizational requiring improvement, a change in organizational behaviour and culture is required to remove functional barriers, encourage services integration and bring in a shared-service culture (Janssen, Joha and Weerakkody, 2007). Gill (2003) also points out that in a transformed government, employees must hold beliefs centred on the primacy of customers, emphasize all jobs in the organization equally, and show commitment rather than just show up. For tax administration, Gills thus explains that “the success of the revenue administration critically depends on their numbers, skill level, experience, commitment and morale” (p. 6). Some of the indicators of changes in culture and behaviours are moving the organization to a shared services culture to eliminate data duplication and the integration of back-end processes; bringing in a performance-based rewarding system; establishing a top-down leadership to move the organization in the desired direction; and implementing coaching and mentoring to institute a new set of values and beliefs that embrace change (Gill, 2003; Weerakkody et al., 2011)

***Process Improvements:*** A transformed government also requires the fundamental redesign of business processes across functions and within departments (Fagan, 2006; Weerakkody et al., 2011). Weerakkody et al. (2011), for instance, point out that transformed governments such as those in the UK and the Netherlands have pursued back-office process and IT changes that are focused on cost-savings, service improvements and the reduction of administrative burdens. This redirection requires the removal of functional barriers to allow departments in a public organization to share common services. From a tax administration perspective, several processes may require changes, including taxpayer registration and the assignment of a personal identification number (PIN); processing declarations; processing payments and revenue accounting; recovery of arrears; risk analysis and selection of cases for audit and investigation; a third-party information system to compile information on tax transactions

from official and non-official third parties; system support for administrative actions such as auditing declarations, assessing additional tax payable, issuing refunds, granting instalments, waiving tax arrears, etc.; case management to allow for the processing of cases through different revenue administration process, such as audit, assessment, issue of refunds and appeals; electronic filing of declarations and electronic payment of taxes and duties; a system to detect non-filing, stop-filing and non-payment of taxes; a system to manage the warehousing of cargo; and a system to manage the disposal of confiscated goods (Gill, 2003). According to Gill, most of these process changes require ICT.

***Performance Improvements:*** In determining whether an organization has achieved the key objectives of transformation, it is important to assess the impact of ICT-led changes on performance. A fully transformed government must experience “fundamental breakthroughs in performance” (Weerakkody et al., 2011). As performance generally depends on the nature and business of the organization, the performance improvements for a tax collection agency such as the KRA can be assessed in terms of the total revenue collected; total revenue versus estimates or targets; a change in the revenue-to-gross domestic product (GDP) ratio; and even cost savings (Gill, 2003). This study examines these performance indicators as they existed during the period of implementing reforms.

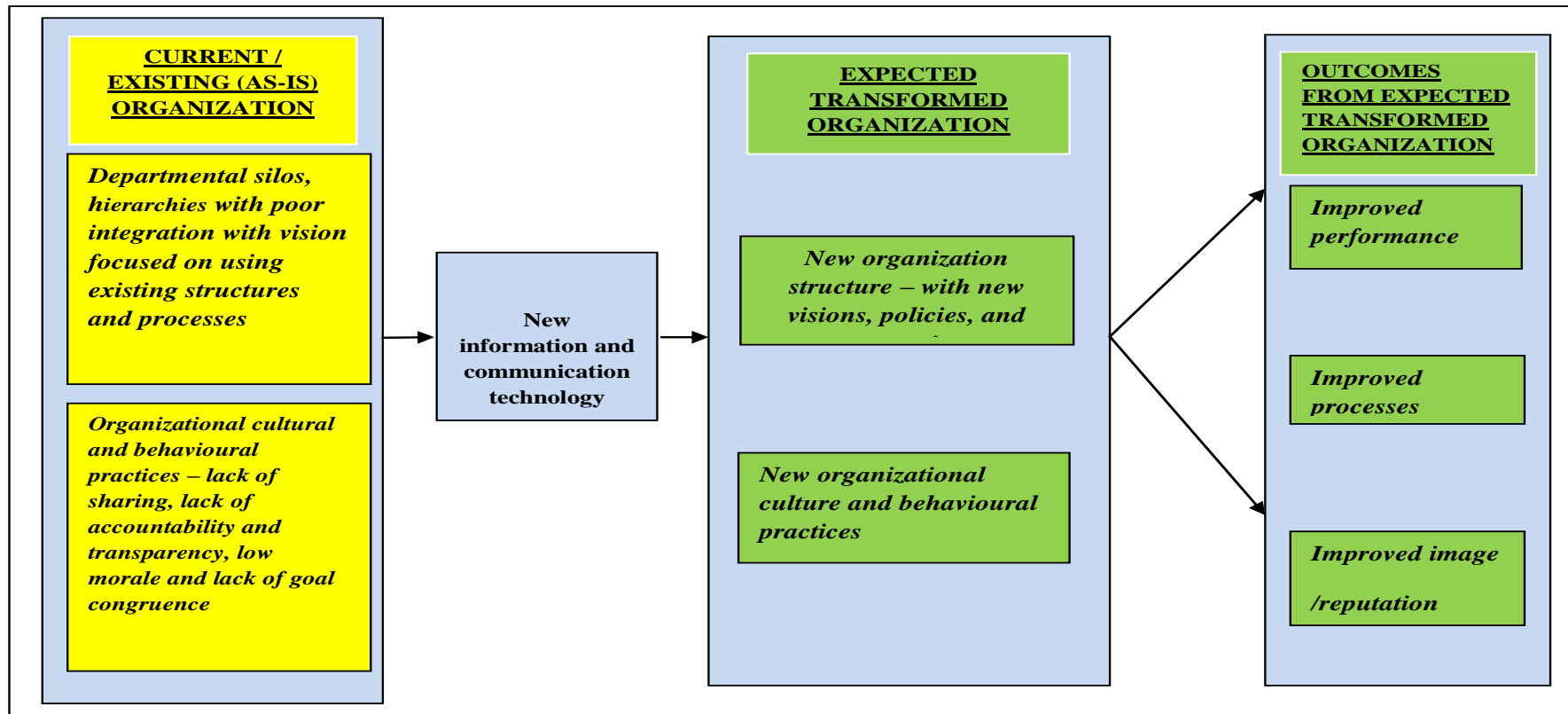
***Improved Image or Reputation:*** Another possible outcome from transformed government is the improved image or public reputation of the organization. According to Hatch and Schultz (1997), there are two perspectives of organizational image: internal and external. They explain that, from an internal perspective, image can be viewed as the “way the ‘organizational elites’ would like outsiders to see their organization” (p. 358). From an external perspective, they understand image to involve how external constituents view the

organization. Hatch and Schultz also point out that image can “be intentionally manipulable by insiders for the consumption of outsiders” (p. 359). Against this backdrop, they provide a more comprehensive definition of organizational image as “a holistic and vivid impression held by an individual or a particular group towards an organization of a fabricated and projected picture of itself” (p. 359).

The image and reputation of public organizations is one of the areas that are widely perceived to be significantly impacted by ICT (Brown, 2005; Bannister and Connolly, 2011). Most public sector organizations are considered ineffective and, therefore, have an unfavourable public image and reputation. Brown (2005) explains that ICT have the potential to change the image of an organization in terms of improving the relationships between the public, the civil service and elected representatives and, therefore, directly affect accountability. Bannister and Connolly (2011) also point out that technology is widely seen as a mechanism for reversing the negative image or reputation of a public organization by building trust and public confidence.

Given that ICT affect processes, structures and the cultural and behavioural aspects of organizations, it can be assumed by extension that the general image of the organization will change as the result of ICT-led transformation. Brown (2005) argues that as e-government enhances transparency by providing more information to the public and, consequently, increases trust, so it improves the image and reputation of organizations. The issue of image and reputation is particularly critical for tax collection agencies (Soest, 2008). Soest urges tax collection agencies to foster good relationships with their stakeholders because that will determine their image both for the public and among politicians.

Figure 2.3: An Improved E-Government Transformation Framework (ETF)



Adapted from Weerakkody, V., Janssen, M., & Dwivedi, Y. K. (2011). "Transformational change and business process reengineering (BPR): Lessons from the British and Dutch public sector," *Government Information Quarterly*, 28(3), p. 326.

In assessing the impact of ICT on image and reputation, I analyzed a number of qualitative indicators of image, including public perception of the organization in terms of corruption tendencies, management perception of change of image or reputation and the general morale and self-image of the KRA.

This analytical framework described in the foregoing was used to study the use of ICT under the RARMP to determine and explain how the KRA has been able to transform itself into an effective and progressive tax collection agency.

## **2.5 Summary and Conclusion**

This chapter has examined the literature on e-government transformation and the proposed analytical framework used for this study. The use of ICT in government continues to grow in most countries. This growth is mainly attributable to both global pressures and the local challenges prevailing in these countries. The factors that have accelerated the growth of e-government include budget pressures to seek efficiencies, rising expectations for service delivery, security and combating inequality, and the influence of international financial institutions such as the World Bank. The main goal of most governments initiating ICT-led reforms is to transform these public organizations into institutions that are effective and efficient in meeting their mandates.

Despite this growth in using ICT in government, the realization of the benefits of e-government is unclear. The literature makes clear that e-government has led to improved service delivery, innovation and organizational effectiveness. That being said, the claims of e-government to transform public administration are controversial. This controversy is partly attributable to the lack of universal meaning of the term “transformation,” which has been defined and used by various scholars in various ways. For many researchers, transformation

seems to refer to ICT-led changes in an organization that are radical and dramatic and not merely incremental or marginal.

In addition to the meaning of transformation, this study also reviewed the various types of transformations that can result from e-government. Based on this review, transformation can be broadly categorized into two groups according to its perceived effects: external and internal. External transformation refers to those changes that directly impact external stakeholders such as citizens and business. From an ICT perspective, these changes are referred to as government-to-citizens (G2C) and government-to-businesses (G2B) relationships. Internal transformation, which is the main focus of this study, focuses on internal operations and relationships affecting mainly employees within the government. From an ICT perspective, these internal changes are referred to as government-to-government (G2G) and internal effectiveness and efficiency (IEE).

In examining internal transformation, this study looked at various analytical frameworks that explain the variables that would affect changes in organization and can be attributed to ICT. Some of the frameworks reviewed are the technology enactment framework (TEF) and the transformational change framework (TCF). With some adaptations, this study adopted the TCF because of its simplicity in explaining the transformation process by showing what can change and how it can change to derive transformation. The TCF also provides a well-defined set of ten propositions that guided the assessment of the KRA as a transformed government institution and hence formed the basis for identifying, examining and explaining transformation.

The following chapter discusses the research methodology used to study internal transformation. It considers the particular approach to the research, the methods used for data collection and construction and the individual steps involved in analyzing the findings.

## **Chapter Three**

### **Methodological Approaches to the Study**

#### **3.1 Introduction**

The previous chapter reviewed the literature on e-government and the question of transformation. This provided a practical context for the development of an analytical framework in order to examine whether the adoption of ICT has had an impact on the KRA. Chapter Three describes the methodological approaches used in the case study. It highlights the research design, the case selection process, data collection and construction methods and the data analysis techniques used in this study. The chapter is organized into four parts. The first discusses the nature of the study, the use of the case study approach, the rationale for using case studies, and a description of the particular case selected here. The second part discusses the two methods of data gathering and construction. The third describes the steps that were followed in the data analysis, including searching, describing and explaining the data collected from documentary analysis and the interviewing technique. The final part then provides a summary of the chapter.

##### **3.1.1 *Qualitative Research***

The study is qualitative in nature. Broadly defined, qualitative research is any kind of research that does not use statistical means to obtain and analyze results (Strauss and Corbin, 1990). Qualitative research is commonly used to understand and interpret a social phenomenon in a context-specific setting such as “a real world setting [where] the researcher does not attempt to manipulate the phenomenon of interest” (Patton, 2001, p. 39). Patton (2001) thus describes qualitative research as kind of research that seeks findings from real-life settings where the “phenomenon of interests unfolds naturally” (p. 39).

Unlike quantitative research, whose theoretical framework is based on a positivist paradigm, qualitative research is more a constructivist paradigm, which is defined as “the view that all knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context” (Crotty, 1998, p. 42). Positivism is based on the study of causal relationships that emphasizes the facts and causes of behaviour and the statistical analysis of numerical data (Bogdan and Biklen, 1998; Charles, 1995). The constructivist paradigm attempts to obtain information concerning social phenomena within the historical and social contexts in their natural setting (Hoepfl, 1997; Crotty, 1998; Patton, 2001). The basic premises of constructivism are that various social phenomena are socially constructed and that the social construction is based on the belief system of the actors involved (Bogason, 2001).

A number of factors make qualitative research well suited for the study. First, qualitative research is generally considered appropriate for studying social complex issues such as e-government (Nastasi and Schensul, 2005; Leech and Onwuegbuzie, 2007). Research of this nature requires interpretation and understanding of a social phenomenon that cannot be obtained through quantitative or positivist approaches (Bogason, 2001; Alasuutari, 2007; Hennick, Hunter and Bailey, 2011). Understanding e-government transformation is not an exact science, that is, it cannot be determined objectively and has no unidirectional causality but instead has complex relationships enacted between social actors (Fountain, 2001; Helbig and Gil-Garcia, 2005). As Yang (2003) points out, technology is a “social artifact that has different meanings to relevant social groups, and the interaction between those groups eventually determines the evolution of technology” (p. 345). For complex social phenomena such as e-government, Nastasi and Schensul (2005) explain that qualitative research helps “researchers to describe various manifestations of intended outcomes that may

not be reflected in standardized instruments and to identify unintended positive or negative outcomes for the individual and institution / community” (p. 187).

A second feature of qualitative research that favours its use here is that it is considered to be more appropriate for the “how” or “why” research questions that are pertinent for this study (Alder, 1996; Leech and Onwuegbuzie, 2007). Alder (1996) explains that while quantitative research is most appropriate for “answering questions of who, where, how many, how much, and what relationship between specific variables (p. 5), it is not useful for answering why and how questions. Furthermore, qualitative research helps in overcoming quantitative research’s key limitation of ignoring contextual factors and failing to take into account the challenges impacting the outcomes of the social event under study (Leech and Onwuegbuzie, 2007). E-government is complicated by the fact that its success is contingent upon several contextual factors that are “environmental, organizational, data-related and technological” (Helbing and Gil-Garcia, 2005, p. 2). Under these circumstances, Leech and Onwuegbuzie (2007) point out that qualitative research is more preferable because it allows researchers to “focus on cultural and contextual factors that enhance or impede the efficacy and social/ecological validity of interventions or programs” (p. 559).

The other factor that appealed to the researcher to use a qualitative approach is the inherent active involvement in the research process (Baxter and Jack, 2008). Baxter and Jack explain that the key advantage of constructivism is the “close collaboration between the researcher and the participant, while enabling the participant to tell their stories” (p. 545). Given the nature of the problem of study, it was considered important for the researcher to be actively involved in the process to gather information by probing and seeking explanations as deemed necessary. Patton (2001) explains that in qualitative research, the researcher becomes actively involved in the process as the result of discussing the issue of the study with the subjects and recording what happens before, during and after the event. As argued by

Bogason (2001), qualitative research forces “the observer into a position of understanding of meaning; it redirects attention to relations between actors by emphasizing the actor as an active, purposive, and creative subject; and it recommends studying actions in a non-deterministic (non-causal) manner from the subject’s point of view” (p.185). In this way, close collaboration ensures that the participants tell their stories and view freely and enables the researcher to develop a deeper understanding of the actions of participants.

It is important to note that qualitative research has some weaknesses that must be addressed. Unlike quantitative research, which deals with issues of validity, reliability and objectivity,<sup>10</sup> qualitative research relates to the trustworthiness of the findings (Denzin and Lincoln, 1994; Golafshani, 2003; Bowen, 2005). In other words, qualitative research must address issues of credibility (in the sense of the confidence one places in the findings), transferability (meaning that other researchers can apply the findings to similar cases), dependability (the stability of the findings over time) and confirmability (ensuring internal coherence of the data in relation with the findings, interpretations, and recommendation) (Bowen, 2005, p. 216).

In addressing the issue of the trustworthiness of the findings, this study incorporated triangulation into the research techniques, the process of using multiple methods to create or construct data (Mathison, 1988; Patton, 2001; Golafshani, 2003; Bowen, 2005). To ensure triangulation, two methods of data collection and construction were used: a view of the documentary record and personal interviewing. According to Mathison (1988), triangulation helps to control bias in qualitative research and enhances the trustworthiness of the findings by establishing the validity of a study’s propositions. To further enhance the trustworthiness of the findings, member checking was also incorporated in the study by telephoning

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<sup>10</sup>The meaning of these terms is varied, but it can be said generally that validity refers to the extent to which the research truly measures what it intended to measure; reliability denotes the extent to which results obtained are consistent over time and an accurate representation of the population; and that objectivity relates to the extent to which research results are not influenced by the researcher’s own judgment (Golafshani, 2003).

respondents to verify the accuracy of the recorded interviews. This process was done simultaneously as the data collection and construction progressed. At the same time, and also to enhance trustworthiness, emails were sent to some participants to clarify facts and or obtain additional information.

### **3.1.2 *The Case Study Approach***

One of the approaches<sup>11</sup> used in qualitative research is the case study. The case study is a widely used research method that takes a holistic and in-depth investigation to bring out details of a particular social phenomenon from the viewpoints of participants within a specific context (Yin, 2003). Baxter and Jack (2008) define case study research as an “approach to research that facilitates exploration of a phenomenon within its context using a variety of data sources” (p. 544). In other words, case study research focuses on gaining an in-depth understanding of a phenomenon in its natural setting at a specific time through the use of one or multiple data collection and construction methods. By using multiple data sources, the case study approach allows the exploration and understanding of an issue through a variety of lenses (Baxter and Jack, 2008).

There are several ways of categorizing case studies. Yin (2003) identifies three main types of case studies: exploratory, usually required as a prelude a social research; explanatory, used for causal investigations in real-life interventions that are too complex for the survey or experimental strategies; and descriptive, used to describe an intervention or a phenomenon. Similarly, case studies can involve either single or multiple cases (Yin, 2003). Baxter and Jack (2008) explain that whereas single case studies are considered ideal for gaining a holistic understanding of a particular issue, multiple case studies are more

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<sup>11</sup>Approaches for qualitative research include narrative research, phenomenology, grounded theory, ethnography and case studies; see further John Creswell John (2013), *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*, Third Edition. Sage Publications.

preferable for situations where the researcher considers it useful to explore the differences within and between cases with the goal of replicating findings across cases.

The descriptive type of case study was used here since the question called for the researcher to understand various meanings, contexts and processes and to be in a position to explain the implications of certain variables affecting the subject of inquiry (Crowe et al., 2011). And — in view of the complexity of the subject of inquiry and the desired level of analytical rigour — a single case study was considered more appropriate for this study. Indeed, Creswell (2013) argues that studying more than one case “dilutes the overall analysis; the more an individual studies, the less the depth in any single case” (p. 76). A single case study approach provides a number of advantages, including its ability to “provide a nuanced, empirically-rich, holistic account of specific phenomena” and its provision of “being a more practical rather than theoretical level” of analysis (Willis, 2014, p. 1).

In determining the appropriateness of the case study for this research, I considered a number of factors, including the complexity of the subject of inquiry, the nature of the key variables being studied and the type of research question being examined. The subject of inquiry for this study, e-government transformation, is inherently complex as it deals with technology and the consequence of power relations within an organization (Doolin, 1998; Bogason, 2001; Yang, 2003). As explained above, the study of e-government is a complex social phenomenon because its success depends upon many actors: bureaucrats, politicians, interested parties and citizens. Furthermore, the key variables calling for examination in this study — such as organizational structure, organizational behaviour and culture — required a consideration of relevant contextual factors, including leadership style, available competencies in the organization, the nature and size of the change, and stakeholders’ interests (Heeks, 2006). Accordingly, by using the case study approach, it was possible “to retain the holistic and meaningful characteristics of real-life events” (Yin, 2003, p. 6) and,

thereby, to be able to understand and explain how this technology has been used in the KRA, given these contextual factors.

Another consideration for using the case study approach is the nature of the research questions asked. Yin (2003) explains that case studies are more preferable when “a ‘how’ or ‘why’ question is being asked about a contemporary set of events, over which the investigator has little or no control” (p. 9). As explained above, the pertinent questions in this study are mainly of the why or how type.

Despite its usefulness for this study, the case study approach has its weaknesses. For instance, Willis (2014) suggests that a single case may have weaknesses related to “methodological rigour, researcher subjectivity and external validity” (p. 5). Similarly, Flyvberg (2006) identifies five perceived misunderstandings or weaknesses of case study method: a perceived lack of ability to apply the results to a wider context; an overreliance on theoretical knowledge to the neglect of practical knowledge; an unsuitability for hypothesis and theory building; a perceived bias toward verification; and a perceived difficulty in summarizing specific case studies (Flyvberg, 2006, p. 221).

Despite these limitations, the case study approach was found to be well suited for this study in order to maximize what can be learned, given the constraints of time and of the resources available (Tellis, 1997). For instance, the decision to use a single case was mainly driven by the research aims to develop an understanding of how e-government has been implemented and what changes it has been able to provide to an organization (Willis, 2014). Willis (2004) explains that a single case study, if properly designed, can offset its limitations “by situating them within a broader, pluralistic mixed-method research strategy” (p. 6).

Furthermore, the case study method is a powerful approach for properly understanding a complex social phenomenon such as e-government (Yin, 1994; Stake, 1995). This approach has the inherent analytical generalization and flexibility to enable the

researcher to understand the various contextual factors and the meaning of the views expressed by the various actors. Thus, Stake (1995) explains that a case study research places “an observer in the field to observe the workings of the case, one who records objectively what is happening but simultaneously examines its meaning and redirects observation to refine or substantiate those meanings.”(pp. 8–9).

### ***3.1.3 Description of the Case***

The case examined for this study is that of the Kenya Revenue Authority (KRA), the agency charged with the administration and collection of taxes in Kenya. The reason for its selection is its apparent or perceived transformation of its organization structure and organizational behaviours as the result of aggressive use of ICT. Although a number of other public organizations in Kenya have embraced the use of ICT, the KRA stands out from them in terms of the consistency in implementing ICT and the agency’s improved performance. The KRA received awards from the Information Communication Technology Association of Kenya (ICTAK) and the Computer Society of Kenya (CSK) for the best performing public organization in ICT implementation for five years in a row (2009–2013) (<http://www.ictak.or.ke>; <http://www.cskonline.org>).

In 2003, the KRA implemented the Revenue Administration Reform and Modernization Program (RARMP), whose main thrust was to the use ICT to enable the organization to transform itself into an effective and efficiency tax collection agency. Against this backdrop, the KRA implemented several ICT initiatives under the RARMP and, as result, experienced unprecedented growth in revenue collection and customer satisfaction (AfDB, 2010; Kenya Ministry of Finance, 2011). With the claims of success in transforming itself, the reason why the KRA achieved such significant progress is assumed to be due directly and exclusively to ICT. On this record of accomplishment, the KRA has become a leader in ICT

implementation in the public sector (KRA, 2010). Against this backdrop, it was assumed that this particular case provided clear and abundant information for understanding and explaining how ICT can transform a public organization, which was the central purpose of the inquiry for this study.

In order to realize the aims of the study, it was important to define its parameters, including the time frame and place (Baxter and Jack, 2008; Crowe et al., 2011). The time frame for the study is 2003–2012, the period in which the RARMP was implemented and, as the evident result, the KRA experienced positive performance outcome. The place of study was mainly Nairobi, the site of the KRA's headquarters and the location of most of the key senior management whose perspectives were sought on the performance of the RARMP.

## **3.2 Data Gathering and Construction Methods**

It will be useful to discuss here the two main data gathering and construction methods that were used for this research: documentary analysis and elite interviewing.

### **3.2.1 *Documentary Analysis***

The main method used to collect and construct data was document analysis. Document analysis involves the systematic review or evaluation of documents in an attempt to understand and develop some empirical knowledge of a social phenomenon (Bowen, 2003; Yin, 2003). Documents can either printed or electronic and include any written texts intended for a specific purpose and audience (Scott, 1990).

Documentary analysis was used in this study for several reasons, these being chiefly its abilities to provide useful information to contextualize and prepare for the research; reduce costs for data collection and construction; enable the researcher to track changes on certain variables over time; and mitigate against the problems of obstruction and reactivity associated

with the interviewing process (Yin, 2003; Prior, 2004; Payne and Payne, 2004; Bowen, 2009).

To the extent that this study involved tracking changes and assessing transformation, it was important to examine periodic and final reports in order to get a clear picture of trends and how the KRA or the RARMP under study has fared over time. Yin (1994) explains that, in general, documents provide broad coverage in terms of the long span of time, many events and many settings. For this study, it was important to track the change of a number of variables, including financial performance, process improvements and reputation, which in turn required the examination and searching of documents or periodic reports over the period of study (Bowen, 2009).

To this end, a number of documents were obtained from the KRA during and after interview visits. Some documents in the public domain were retrieved online. Some of the documents obtained and used included the KRA's record of experience with the RARMP reforms; the agency's corporate plans for the fiscal years from 2003/04 to 2014/15; news releases on performance; senior management presentations at conferences, institutions of higher learning and other occasions; donor reports; and articles authored by KRA senior staff.

It is important to recognize at the outset that the use of documents has limitations for qualitative research. For instance, Bowen (2009) raises the possibility that documents may have insufficient detail as they are ordinarily produced for purposes other than research. Other limitations include the probability of low retrievability, that is, difficulty of access, and biased selectivity, that is, the tendency for documents to conform to the internal record keeping practices aligned with organizational policies and procedures (Yin, 1994; Bowen 2009). Scott (1990) explains that these limitations generally compromise the quality of research findings obtained through documentary analysis.

To improve the quality of findings obtained this way, Scott (1990) has argued that it is important for researchers to ascertain the relevance of the documents collected to the research. The quality-control criteria for ascertaining relevance include assessing each document for authenticity, credibility, representativeness and meaning (Scott, 1990; Mogalakwe, 2006; Bowen, 2009). With this consideration in mind, I took into account the source or ultimate origin of the document; its author, purpose and target audience; and the nature of the information it contained.<sup>12</sup> These precautions were necessary as documents are seldom written for the purpose of research but are naturally occurring objects with a concrete or semi-permanent existence that are created to explain some phenomena (Payne and Payne, 2004).

Despite its limitations, documentary analysis remains a powerful method for providing useful and rich descriptions of a social phenomenon — descriptions that may not be readily available from other data sources (Bowen, 2009). In the present case, the documents reviewed provided information on the context in which the participants operated; identified relevant and probing situational questions for the researcher to ask; enabled the researcher to track changes in the key variables; and, perhaps most importantly, enabled the researcher to corroborate information obtained from interviews. As Bowen (2006) explains, documents are useful sources of information for researchers interested in seeking convergence and corroboration of information.

### **3.2.2 *Interviewing***

Another data collection and construction method used for this research was interviewing. Interviewing is a well-established technique for data construction. It enabled the researcher to describe and examine the meanings of central themes in the life world of the

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<sup>12</sup>Appendix 8 provides a detailed summary of the documents reviewed, indicating the name of the document, the authors, the year of publication, the target audience and the nature of data examined and considered relevant for the study.

subjects (Kvale, 1996). In addition to seeking to obtain facts and possibly the meaning of a social phenomenon, interviews are particularly useful for getting the story behind a participant's experience (McNamara, 1999). According to Yin (2009), there are three types of interviewing: in-depth, focused and survey interviewing. In the case of in-depth interviewing, the focus is on obtaining detailed insights or viewpoints on an event or social phenomenon as a means for further inquiry. The main objective of in-depth interviews is to seek information from key informants who not only provide views on the case studied but also offer information on related aspects that may be helpful to the research. In focused interviews, the questioning is mainly structured around a specific issue. For survey interviews, the interviewing process is highly structured and the respondents are limited to a fixed set of questions. The interviewing approach used for the present study was in-depth interviewing of the KRA senior management, a process that is commonly referred to as elite interviewing.

#### *3.2.2.1 Elite Interviewing*

In elite interviewing, members from particular institutions, usually senior management, are selected and subjected to the same interview protocols, including the use of structured and semi-structured questions (Aberbach and Rockman, 2002; Berry, 2002). In this context, the elite refer to “a group of individuals, who hold, or have held, a privileged position in a society” (Richards, 1996, p.199). For this study, the focus was on government elites broadly defined to encompass “legislative, executive, and administrative public officeholders occupying senior positions as elected representatives, ministers, and members of the senior civil service” (van der Wal, 2013, p. 750). van der Wal (2013) explains that government elites are organized minority who execute power in the various domains of the public service and hence the main focus of the study. The basic aim of focusing on government elites interviewing in this study was to obtain information from key management staff that have the power to make key decisions and may have been involved in the

development and implementation of the reforms.

Goldstein (2002) has identified three basic goals of conducting elite interviewing: (1) gathering information from a sample of officials in order to make generalizable claims about all such officials' characteristics or decisions; (2) discovering a particular piece of information or obtaining a particular document; (3) informing or guiding work that uses other sources of data (p. 669). He further points that in elite interviewing, the researcher aims at gathering factual information and canvassing different points of view.

Elite interviewing was favoured here for a number of reasons. First, it is generally regarded as especially useful for qualitative research because it provides a means of obtaining more focused and targeted information on the social phenomenon under study (Yin, 2009). Second, it also has an inherent flexibility for obtaining an unbiased point of view on social phenomena such as e-government. As explained by Aberbach and Rockman (2002), elite interviewing usually involves senior officials who are willing to express their view freely through a conversational or unstructured style. Moreover, Yin (2009) also argues that elite interviews, particularly those that are open-ended, can offer richer and more extensive materials than most data collection and construction instruments.

A key issue in elite interviewing is the selection of participants. In this regard, purposive sampling strategy was used to identify and select participants for this study. This strategy employs non-random methods of ensuring that particular categories of cases within a sampling universe are represented in the final sample of the research (Robinson, 2013). In the case of the present research, the rationale for using purposive sampling was to ensure that certain categories of individuals (notably senior management at the KRA) are included in the sample. The natural expectation was that these individuals have a unique, first-hand and important perspective because of their knowledge and experience on how e-government has impacted the organization over the years.

Purposive sampling requires that the researcher have prior knowledge and a well-developed understanding of the social phenomenon under investigation. To this end, I examined the KRA's organizational structure to identify individuals who held top positions in the organization. I paid special attention to those officials who are or had been directly involved in the implementation of the RARMP and used the organizational record of reform experience to obtain the names, titles, telephone numbers and email addresses of various individuals mentioned in the various reports. Once the list of potential participants was completed, an email was sent out to all participants to seek their acceptance to be interviewed and also to provide them with information to enable them prepare for the interview. The purpose of the email was to set out the ground rules for conducting the interview.<sup>13</sup> The emails also contained four attachments: a letter of permission from the KRA dated May 22, 2013, allowing me to conduct the research; a letter of introduction from the University of Ottawa explaining the purpose of the research; a sample questionnaire; and a consent form.<sup>14</sup> The consent form was of particular importance because it provided assurance to the participants as to the purpose of the study, explained its risks and benefits, described the handling of the data collected and sought acceptance of the terms of participation. A consent form is usually a typical requirement for conducting qualitative research as it provides an opportunity for participants to make an informed decision on whether to participate in the fieldwork (Crowe et al., 2011). This preliminary process of establishing the ground rules before the interview not only helps the researcher to get the interviews but also increases the credibility of the research and the possibility for future research (Goldstein, 2002).

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<sup>13</sup>Goldstein (2002) has identified a number of ground rules for elite interviewing, including: How will the information gathered be used? How will the information gathered be reported and where will it appear? Is the interview completely on the record? Will particular responses or reported behaviours be attributed to particular respondents or organizations? Will information gained in the interview be released only in aggregate or summary form? What steps will be taken to keep sensitive information confidential? (p. 671)

<sup>14</sup>Provided in Appendix 7.

Once in the field, as a follow-up to the email, phone calls were made to all potential participants to set up the date and time of the interview. Where it was considered necessary, I visited the prospective respondent's office to book meeting times. As with most elite interviewing, there was some logistical difficulty in setting up the interviews, which necessitated several further phone calls and visits to the targeted respondents' offices; such problems are typical of elite interviewing, as Aberbach and Rockman (2002) note: "it can be quite difficult to secure interview with busy officials who are widely sought after" (p. 673). As it happened, the officials were especially busy at that time of the year, which was the fiscal year-end for the KRA.<sup>15</sup> In the end, I was able to secure in total 15 interviews: 12 from KRA senior management; one from the Ministry of Finance; one from the Kenya Institute of Public Policy Research (KIPPRA); and one from the Kenya National Taxpayers Association.

The 12 KRA officials were selected because of their direct involvement with the implementation of the RARMP. I therefore targeted representatives from the Steering Committee and the Programme Coordinating Committee, Project Owners, Project Managers and Project Team members. It should be noted that almost all members of the RARMP were also part of the senior management of the KRA, and therefore were in an especially knowledgeable position to assess transformation at the agency. The focus was placed on these officials in order to facilitate gathering information on the interpretation of e-government initiatives by public officials who are in decision-making positions and have the responsibility to implement change initiatives.

The purpose of seeking information from the other three, non-KRA participants was to seek information on some key variables within their expertise, particularly as it related to the KRA's image and reputation. These participants were deliberately selected from organizations with experience of the KRA and ongoing relationships with it. The participant

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<sup>15</sup>The end of the KRA's fiscal or financial year is June 30.

from the Ministry of Finance was chosen for his extensive experience in tax policy administration. This official, in addition to his public sector experience, had also conducted research and authored several articles on tax administration in Kenya. Another non-KRA participant was selected from KIPPRA, which is an autonomous public institute that provides public policy research advice to the Government of Kenya and other stakeholders by conducting research and capacity building. One of KIPPRA's divisions focuses on macroeconomic policy issues such as public expenditure and optimal tax policy. In conducting research for these issues, KIPPRA collects information from the KRA and thus was considered a possible important source of information for some insights on tax administration.

The third non-KRA interviewee was a senior official from the National Taxpayer Association (NTA), an independent, non-partisan organization with a focus on “promoting good governance in Kenya through citizen empowerment, enhancing public service delivery and partnership building” (<http://www.nta.or.ke/about-nta/vision-mission-a-values>). The NTA is made up of business associations, such as the Kenya Private Sector Alliance (KEPSA), the United Business Association (UBA) and the Kenya Alliance of Resident Associations (KARA); professional associations, such as the Institute of Certified Public Accountants of Kenya (ICPAK); and civil societies, such as the Transparency International-Kenya (TI-K) and the African Woman and Child Feature Services (AWCFS). The aim of the interview with the NTA official was to solicit information on the image and reputation of the KRA as a tax collection agency.

All interviews were conducted at the participants' offices, except two that were conducted at a place mutually agreed upon with the participants. The interviews took place in the months of June and July 2013 and averaged an hour. Some of the interviews were digitally recorded, while others were manually recorded by the researcher during the

interviewing process. . The face-to-face interview approach was preferred because of its well-known high response rate (Singleton Jr. and Straits, 2010). Accordingly, interviews were conducted in an informal setting that allowed the participants to tell their story and, where appropriate, to be asked probing questions. This approach was useful because it enabled the participants to tell their own stories without being confined to a specific structure (Aberbach and Rockman, 2002; Berry, 2002). Aberbach and Rockman (2002), for instance, have explained that a questioning process that does not follow any particular order is better than using “a typical pre-determined flow of questions that undermines in-depth ruminations on the issue of interest” (p. 674). Berry (2002) explains that one way of ensuring the validity and reliability of interview results is to maximize the flexibility of open-ended questioning, and that “the best interviewer is not one who writes the best questions. Rather, excellent interviewers are excellent conversationalists” (p. 679).

#### 3.2.2.2 *Open-Ended Questionnaire*

The tool used to conduct the interviews was an open-ended questionnaire.<sup>16</sup> Its questions were loosely structured and flexible (Foddy, 1993) on various topics including technology, organizational structure, organizational behaviour, culture, process improvements, image and performance. Unlike close-ended questions, the use of open-ended questions allows the researcher to draw spontaneous responses and opinions from the participants. According to Reja et al., (2003), the main incentive for using open-ended questions is to avoid “the bias that may result from suggesting responses to individuals, a bias which may occur in the case of close-ended questions” (p. 1). Aberbach and Rockman (2002) also explain that open-ended questionnaires are a good approach to “get at the contextual nuance of response and to probe beneath the surface of a response to the reasoning and premises that underlie it” (p. 674).

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<sup>16</sup>The questionnaire is provided in Appendix 7.

The open-ended questionnaire approach was considered most suitable for this research for several reasons. First, the issue of e-government transformation process is an abstract and complex issue that cannot be analyzed effectively through a structured approach. Berry (2002) explains that “where depth, context, or the historical record is at the heart of data collection, elite interviewing using broad, open-ended questioning might be the best choice” (p. 681). Aberbach and Rockman (2002) also point out that in situations where the type of data collected make it “difficult to produce an analytically elegant end product” (p. 674), an open-ended questionnaire is more ideal. Second, the type of respondents targeted for the study was senior management, who generally prefer to express their opinions and tell their stories without being limited to a set of options. This view is in line with Aberbach and Rockman’s (2002) idea that senior officials “prefer to articulate their views, explaining why they think what they think” (p. 674). Berry (2002) similarly notes that “open-ended questions have the virtue of allowing the subjects to tell the interviewer what’s relevant and what’s important rather than being restricted by the researchers’ preconceived notions about what is important” (p.681).

It must be noted, however, that an open-ended questionnaire has limitations. These include the fact that it is time-consuming and costly to analyze the responses, while there is the perception that the approach lacks analytical rigour (Aberbach and Rockman, 2002). Other limitations include the possibility of respondents exaggerating their responses and experiences; the content of the interview suffering from poor recording; and high costs for conducting the interviews, transcribing them and, where applicable, coding them (Singleton Jr. and Straits, 2010).

But despite these possible limitations, the open-ended questionnaire was judged to be appropriate for the particular subject of inquiry. This is because, as Aberbach and Rockman (2002) explain, studies that have to answer the “why” or “how” of a social phenomenon such

as e-government transformation process require open-ended questionnaires to analyze, describe, and understand contextual-based variables.

To ensure that the findings of this study would allow proper analysis and meet the required rigour, extra care was taken to ensure that the right participants were interviewed and that the interview process focused on the subject of inquiry. In addition, I ensured that most of the preparatory work was completed before the fieldwork. This work included using contacts and references known to be reliable by the researcher to get the interviews. Once I was in the field, I also chose a location close to KRA headquarters for ease of communication in order to take advantage of all opportunities to interview the participants.

In qualitative research, an overarching question is the number of interviewees needed to obtain good information. The most acceptable approach to determining the number of interviewees or, for that matter, any other size is saturation (Morse, 1995; Trotter, 2012). Trotter (2012) explains that saturation is an interviewing technique that interviews to redundancy — by which is meant until all new concepts are repeated a multiple time without new concepts or themes emerging — and therefore reaching a point of saturation. In other words, it is assumed that at the point of saturation, all questions have been thoroughly explored in detail and no new relevant aspects have emerged. To this end, I attempted to interview as many participants as possible. As the interviewing process progressed, several participants started retelling stories that were narrated in the documents for the KRA's reform experience; coincidentally, most of the interview participants were also the authors of some of the KRA documents. Consequently, as the stories and emerging themes from the interviewing were consistent with the contents of these documents, it was obvious to the researcher that the point of saturation had been attained after interviewing 15 respondents and that the research could now turn to analyzing and corroborating the information provided by the interviews and the documentary evidence.

Although the number of interviewees seems small, it was considered sufficient for this single case study. For qualitative research, there is no set number of interviews when saturation occurs (Glaser and Strauss, 1967; Strauss & Corbin, 1998; Thompson, 2011). The sample size that derives theoretical saturation depends on “the scope of the research question, the nature or sensitivity of the phenomena, and the ability, experience or knowledge of the researcher.” (Thompson, 2011, p. 48). Hence, the number of interviewees for single case studies ranges widely (Thompson, 2011; Marshall, Cardon, Poddar, and Fontenot, 2013). Thus, Thompson (2011) researched 100 research articles from various disciplines for a seven-year period (2002–2008) and found that the sample size ranged from 5 to 114 interviewees. Thompson (2011) found out that 33% of the studies used sample sizes between 20 and 30; 32% used between 10 and 19; 22% used more than 31; 12% used under 10; and one used more than 100 (114). Based on these findings, Thompson thus concluded that theoretical saturation generally occurs between 10 and 30 interviews. A similar study by Marshall et al. (2013) of 83 IS qualitative studies to identify the optimal sample size also found that for single case studies, 21% had less than 10 interviewees; 24% had between 11 and 20 interviewees; 9% had between 41 and 50 interviewees; 12% had between 51 and 100 interviewees; and only 9% had over 100 interviewees. Based on these findings, Marshall et al. (2013) recommended that, for a single case study, the number of interviewees should range between 15 and 30. From these studies, it is evident that the number of interviewees for a qualitative study varies depending on the research question, the experience of the researcher and other constraints such as time and money. That being said, having 15 interviewees is still within the recommended range of these studies.

To further enhance the credibility of the results, this study strived to maintain the quality of interviews by spending a reasonable amount of time with each interviewee. Hence this study only focused on those participants who were senior, experienced and

knowledgeable of the organization's performance track record. Thus, for the KRA, the sample population (senior management with the rank of Commissioner and above) is estimated at 30. Hence, the interviewing of 12 members of the KRA senior management represented approximately 40% of the sample population and therefore was considered sufficient for this research. In addition, the researcher strived to have reasonable contact time to ensure that the interview results were sufficiently detailed and that the subject of inquiry was thoroughly discussed. Thompson (2011) explains that for a small sample size, studies should generally involve more contact time with each interviewee or sometimes incorporate repeated interviews. For this study, each interview took at least one hour and involved providing each interviewee with the background information well in advance to enable the interviewees to make adequate preparations and, more generally, to ensure that the interview itself was of sufficiently quality and focused on the key aspects of the research.

### **3.3 Data Analysis Techniques**

#### **3.3.1 Introduction**

This section reviews the various techniques used to analyze the data collected from the documents and interviews. Data analysis refers to the process used by researchers to make sense of collected data (LeCompte and Schensul, 1999; Kawulich, 2004). LeCompte and Schensul (1999) define data analysis as the process a researcher uses to reduce data to a story and its interpretation, while Kawulich (2004) regards it is “the process of reducing large amounts of collected data to make sense of them” (p. 97).

Different scholars have identified various steps to undertake data analysis (Miles and Huberman, 1994; Kawulich, 2004; Babbie, 2007; Yin, 2009; Hennick et al., 2011; Creswell, 2013). These steps include planning, developing narratives, coding, reflection, pattern and theme matching, summarization, categorization, interpretation and comparison. Against this

backdrop, the main steps that were followed in the data analysis undertaken for this study are (a) searching the data; (c) describing or developing narratives; (d) categorizing and or explaining (Hennick et al., 2011).

### **3.3.2 Data Analysis Steps**

The first step of data analysis for the study was searching for the relevant data in the interviews and documentary evidence. This involved scanning through the interviews and documents obtained, identifying discernible patterns and identifying emerging themes and relationships (Kawulich, 2004; Babbie, 2007; Creswell, 2013). During this process, I reviewed several documents, carefully considering the purpose of the document and its target audience, author and relevance to this study. Hennick et al. (2011) explain that the process of searching involves looking for places where the topic is mentioned in the text and then reading these text extracts and developing an understanding of the issue.

The second step involved describing or developing narratives. Describing entailed characterizing and outlining each issue in sufficient detail and developing an understanding on how the issue is linked to ICT. Kawulich (2004) explains that the purpose of this step is to develop meaning through narrative reading or writing textual data. The process of describing is an intuitive, ongoing process that was undertaken through the entire research process. In Chapter Six, I will provide the several narratives that emerged on the KRA's ICT strategy, describing its vision, mission and vision; on the state of ICT implementation before and after the RARMP, describing the new technologies that have been introduced at the KRA; and on the organizational structural and behavioural changes during the RARMP. These narratives were the basis of the discussion on emerging themes and explaining how ICT produced transformations. As Hennick et al. (2011) point out, these descriptions help the researcher to

identify “connections and relationships between issues that become useful later when developing explanations” (p. 239).

The last step in the data analysis process was categorizing or conceptualizing. It involved considering all the facts collected, categorizing the data into various groups and developing a conceptual understanding to explain the issues being researched. According to Hennick et al. (2011), this process requires considering the relationship between these categories, viewing the data as a whole and developing a conceptual understanding of the key themes for the study. The process involves linking together the various data topics into a broad framework of public administration to begin explaining the impact of ICT on the KRA. This is the step where I assessed the hypothesis for this study. It required looking for simplicity to clarify core issues, making key linkages where necessary, providing explanations as appropriate and, overall, determining how the data collected contributes to the understanding of e-government and its transformative effect on public administration. Chapter Seven of the study is thus devoted to providing a summary of the categorization, conceptualization and explanation of the e-government transformation at the KRA.

In applying these steps, a researcher needs to develop a suitable plan to ensure that all issues pertinent to the study are addressed. Hennick et al. (2011) caution that any data analysis requires proper planning that takes into consideration the purpose of the analysis, the level of analysis desired to meet this purpose and the identification of the specific topic of the analysis. For this study, three topics formed the key focus of the analysis: organizational structure reforms, process reforms and other outcomes that may have impacted overall performance or effectiveness and the image and reputation of the organization.

It must be noted, however, that the process of data analysis poses several challenges for a researcher. Some of these challenges are “data shuffling, premature closure and overly delayed closure” (Kawulich, 2004, p. 111). She explains that it is always a challenge for

researchers to know when saturation has been reached and a “solid conceptual outcome is created” (p. 111). Kawulich further notes that “analysis of qualitative data is complex and requires that data be organized and reorganized, presented and represented” (p. 111).

Another challenge relates to the ethical issues that are usually present in qualitative research. These ethical issues are confidentiality,<sup>17</sup> reflexivity and power. The issue of reflexivity is particularly important for qualitative research (Kuper et al., 2008). It is defined as “the recognition of the influence a researcher brings to the research process” (Kuper et al., 2008, p. 689). Kuper et al. (2008) explain that this influence can result from the “researcher’s gender, ethnic background, profession, and social status” (p. 689). Against this background, every effort was made to adhere to the guidelines of the University of Ottawa Research Ethics Board. As part of these ethical requirements, each participant was required to read and sign the official consent form bearing the University of Ottawa letterhead (Appendix 6). The assurance provided by this formalized consent form was meant to create an environment in which the participants could exercise their discretion on whether to participate in the interview process and what to say during it.

### **3.4 Summary and Conclusion**

The focus of this chapter was the discussion of the methodological approaches to the study. These approaches were those of qualitative research and the case study method. The main reason for using the qualitative research methodology is centred on the nature of the phenomenon under study. The study of the e-government phenomenon is a complex social issue that lends itself to different interpretations. Under these circumstances, a qualitative research is recommended. In addition, the type of research questions that were the subject of

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<sup>17</sup>The issue of confidentiality in qualitative research relates to the need to maintain anonymity in the research findings so as to minimize any potential harm to the participants for sharing their personal experiences or stories. See A. Kuper, L. Lingard, and W. Levinson (2008). Qualitative research: Critically appraising qualitative research. *British Medical Journal*, 337 (7671), 687–689.

this study justified the use of qualitative research methodology. Similarly, the case study method was used to provide an in-depth analysis of the subject of inquiry in a context-specific setting. As with all qualitative research, various methodological issues must be addressed: trustworthiness of the findings, credibility, transferability, dependability and conformability. The approaches used in the study to address the issue of the trustworthiness of findings include triangulation involving at least two methods of data construction and member checking.

The two data collection and construction methods used were documentary analysis and elite interviewing. Document analysis was preferred for several reasons: its appropriateness for developing a deeper understanding of the nature and extent of transformation; to mitigate the obtrusiveness and reactivity related to the interviewing process; and, of course, its effectiveness with regard to cost and time, given that case study was based in Kenya while the researcher was based in Ottawa, Canada. Elite interviewing was used for data collection and construction because of its suitability for studying complex social issues such as e-government, as well as to ensure triangulation of the research findings. The use of face-to-face interviewing to gain information from key informants or senior management staff on how they view the use of ICT in their organization was of great importance to the study and to the methodological question of the value of the data collected by this means. Such views are considered to be objective because they come from senior staff, who are considered to be willing to freely express their views without fear.

The discussion of the data collection and construction was followed by a brief summary of the key steps followed in the data analysis. These steps are searching, describing, and categorizing or explaining. Searching involved reviewing documents and the transcribed interviews for relevant data, identifying discerning patterns and noting emerging themes and relationships. For describing, the key issues were characterized and outlined in sufficient

detail to develop an understanding on how ICT have been used to transform the organization. The last step of data analysis involved conceptualizing and linking various narratives to understand and explain the impact of ICT on the organization and operation of the KRA.

To understand the context of this case, the next chapter provides and discusses the relevant background information on Kenya's public sector reforms in general and on detailed reforms in the KRA.

## Chapter Four

### Kenya's Public Sector Reforms and the Use of ICT

#### 4.1 Introduction

This chapter reviews Kenya's experience in public sector reforms in order to provide a useful context for the present research. Kenya, as most developing countries, has undertaken many public sector reforms<sup>18</sup> over the years as measures to solve fiscal challenges related to extensive borrowing, increased public indebtedness, high rates of inflation and frequent currency devaluations (United Nations Economic Commission for Africa [UNECA], 2010). The UNECA points out that most of these challenges are due to poor governance, specifying in a report on Kenya "the poor performance of the public bureaucracies, the daily annoyances of irksome restrictions, cumbersome red tape, unpleasant officials, poor service and corrupt practices" (p. 2). Against this backdrop, many governments such as Kenya have over the years instituted various public sector reforms that focused on cutting expenditures, improving service and productivity and making efforts to enhance public performance. This chapter provides a detailed overview of Kenya's public sector reform experiences since attaining independence in 1963. Its aim is to provide the context and rationale for the establishment of the KRA and the effects of the implementation of ICT-led reforms, which is the focus of this research.

The chapter is organized into four main parts. The first provides an overview of the Kenya's political and economic environment concentrating on the basic performance indicators for development and giving an overview of economic performance since independence. The second part discusses Kenya's public sector experience from independence to date (1963–2012); this historical background of reforms provides the context

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<sup>18</sup>The United Nations Economic Commission for Africa (UNECA) defines public sector reforms as "processes and practices which are concerned with improving the capacity of institutions to make policy and deliver services in an efficient, effective and accountable manner" (p. 5).

for the present study's examination of ICT-led reforms. The third part focuses on the introduction of ICT in the public sector, followed by a discussion on e-government initiatives in Kenya. The last part of the chapter provides a summary and conclusion.

## **4.2 Overview of Kenya's Political and Economic Development**

Kenya's economy is the largest in the East African region<sup>19</sup> and the third largest in sub-Saharan Africa after those of South Africa and Nigeria respectively (Mohajan, 2013). From a geographical perspective, the country is strategically located to serve its landlocked neighbours such as Uganda, Rwanda and Burundi.

From a political perspective, Kenya is a unitary state and attained independence from British colonial rule on December 12, 1963. The country has gone through a number of constitutional changes since that time, from multi-party democracy at independence to single-party in 1969 and back to a multi-party system with a parliamentary democracy in 1992. The current Parliament, which came into power in early 2013, consists of the National Assembly and the Senate. The National Assembly consists in total of 349 members and the Speaker who serves *ex-officio*. The Senate consists of 67 members and the Speaker, who also is an *ex-officio* member. The members of the National Assembly are referred to as members of Parliament, while members of the Senate are referred to as Senators. Both the MPs and Senators serve a five-year term.

Political elections in Kenya are held every five years, the last two being held in 2007 and 2013. The most recent elections held in early 2013 were delayed because of the new constitution promulgated in August 2010. Since independence, Kenya has had four presidents: Mzee Jomo Kenya (1963–1978), Daniel Arap Moi (1978–2002), Mwai Kibaki

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<sup>19</sup>The East African Region comprises five countries: Kenya, Tanzania, Uganda, Rwanda and Burundi.

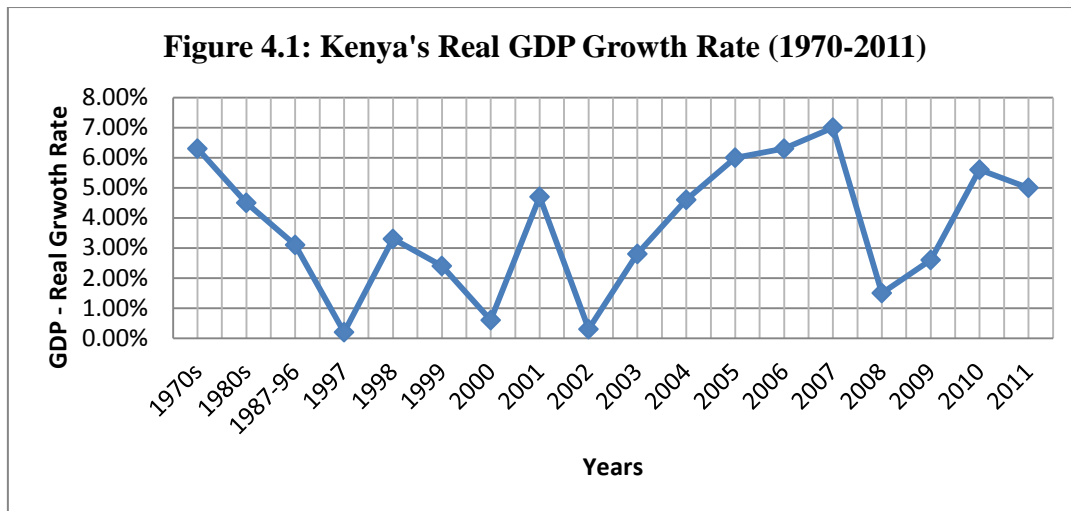
(2002–2013) and Uhuru Kenyatta (2013–present). An overview of Kenya’s basic characteristics is presented in Table 4.1:

**Table 4:1 Kenya Basic Development Performance Indicators**

<b>Characteristics</b>	<b>Facts</b>
Total Surface Area	580,140 sq. km
Border countries	Ethiopia, Somalia , South Sudan, Tanzania, and Uganda
Population	44 million (July 2013 estimate)
Population Growth Rate	2.27% (2013 estimate)
GDP – real growth rate	4.7% (2012); 4.4% (2011); 5.8% (2010)
Currency	Kenyan shillings (KES)
Exchange rates	KES per US dollar: 84.53 (2012 est.); 88.811 (2011 est.); 79.233 (2010 est.); 77.352 (2009); 68.358 (2008)
Communications	Telephones – main lines in use: 283,500(2011); mobile cellular users: 28.08 million (2011); Internet users: 4 million (2009)

Source: <https://www.cia.gov/library/publications/the-world-factbook/geos/ke.html>

Kenya’s economic performance has been mixed since attaining independence in 1963. For instance, while the country experienced an economic growth rate averaging 6% in the 1970s and 4.5% in 1980s, there was a consistent decline in the 1990s and early 2000s (IMF, 2009). This was followed by increased growth rates in 2004–2007 averaging 6% per year. The economic performance again declined steadily to less 2% in 2008 due to political election violence. The growth rate has since started increasing and is currently estimated at 4.7% in 2013 <http://www.worldbank.org/en/country/kenya>. These swings in economic performance have been marked by all kinds of reforms that will be briefly discussed in the sections below.



Sources: (1) IMF (2009). *Kenya: Selected issues and Statistical appendix*. Washington, D.C.  
 (2) IMF (2012). *World Economic Outlook*. Washington, D.C.:

Over the years, Kenya has experienced several problems occasioning sporadic public sector reforms. According to a UNECA 2010 report on public sector reforms, the main driver for these reforms has been a swelling bureaucracy that increased from 60,000 employees in 1963 to 274,000 employees in 1991. With this growing civil service, the country experienced a number of problems including poor management of financial resources, an absence of an accountability framework and enforcement; lack of good records, data and management; laxity at work; lack of clear performance targets and standards; job dissatisfaction; poor pay; bribery; favouritism; and poor management of budgetary flows (UNECA, 2010, pp. 35–36). These problems, together with external pressures from international financial institutions, drove the country to institute several public sector reforms.

### 4.3 Public Sector Reform Experience (1963–2012)

Kenya has undertaken a number of reforms since attaining independence in 1963. Their historical perspective can be traced to six distinct periods or eras: 1964–1973, characterized by high and stable economic growth; 1973–1980, in which the country experienced severe economic conditions occasioned by international oil shocks; 1980–1990,

the period of reforms under the Structural Adjustment Programmes (SAPs); 1990–1997, a time of economic stagnation; 1997–2002, a period of political instability; and 2002 to the present, with new political reforms leading to economic resuscitation.

#### **4.3.1 First Period: 1964–1973**

The 1964–1973 era was relatively calm and stable from an economic standpoint, with the economy growing at an average rate of 6%. During this period, the government incurred minimal deficits and contained its expenditures within the revenue limits (Moyi and Ronge, 2003). This economic stability was mainly attributable to two key factors. First and most important, the government, as with most developing countries at the time, inherited structural systems from British colonial rule (Fjeldstad and Rakner, 2003; KRA, 2010). During this period, economic management was in the hands of the colonial administration that maintained the colonial structures that existed prior to independence. The government at the time did not make any significant changes in almost any sectors of the economy and thus had the effect of ensuring economic stability. The second reason for the era's economic stability was the warm relationship between the Kenyan government and the donor community, which ensured a smooth flow of donor funds. Moyi and Ronge (2003) point out that the generous flow of donor funds led to lower fiscal deficits.

It is important to note that, although the political system changed hands from the British government to indigenous Kenyans, there was continuity of the bureaucracy that existed there before independence. Many government departments at the time were managed by Britons, or, as they were commonly referred to at the time, the white settlers ((Fjeldstad and Rakner, 2003). At independence, Kenya adopted a federalist kind of government consisting of a national government and eight semi-autonomous provincial governments (Khadigala and Mitullah, 2004). The national government comprised a bicameral legislature

with a Senate and House of Representatives; an executive, headed by the prime minister; and a civil service. During this period, the politicians pushed for the transfer of the economy from the white settlers to black African. With the politicians' support, many Africans — mostly the “African elite” — started taking over businesses in various sectors of the economy and assuming key leadership roles in the bureaucracy. This process of transferring leadership from the Britons to indigenous Kenyans was referred to as the Africanization of the bureaucracy, a political slogan that took root even before Kenya attained independence (AfDB, 2010; KRA, 2010; UNECA, 2010). A UNECA (2010) report points out that this Africanization of the bureaucracy “brought into service people with little or no experience to count on in handling the challenging decisions they would have to make” (p. 57).

The federal government created in 1963 did not last for long. In 1968, the president dismantled and eliminated provincial autonomy and federalism and moved the system of government to unitary system (Tordoff, 1997; UNECA, 2010). Tordoff (1997) points out that during this period there was centralization of power that was personalized by the president. In addition, it was during this period that the president converted the political system into a single-party system and made all other parties unlawful, a change that created the conditions for the further patronization and politicization of the bureaucracy. Tordoff explains that the ushering in of single-party politics increased political alliances and that many government agencies such as the army and cooperatives were heavily politicized. He further points out that the single-party era was the main reason for the political unrests of the late 1970s that finally culminated in the coup attempt of August 1982.

#### ***4.3.2 Second Period: 1973–1980***

The period 1973–1980 stands in total contrast to the previous era, witnessing severe economic and political shocks that negatively impacted the economy. From an economic

perspective, this period experienced two international oil crises in 1973 and 1979 (Bevan, Collier and Gunning, 1990; AfDB, 2010; KRA, 2010). Oil prices increased five-fold, weakening Kenya's capacity to meet its foreign debt obligations. This international oil crisis triggered heavy concessionary borrowing by the Kenyan government that was granted with few conditions (KRA, 2010). Further contributing to the worsening economic conditions was the boom in coffee prices in 1976–79 that encouraged imprudent consumer and government spending without corresponding increases in investment (Bevan, Collier and Gunning, 1990; KRA, 2010). Bevan, Collier and Gunning (1990) explain that the coffee boom increased massive public expenditures with a much smaller increase in public revenue and that the resulting net negative effect on capital formation brought about an increase in foreign borrowing. Another factor that contributed to the poor economic performance was the dissolution of the East Africa Community (EAC),<sup>20</sup> in which Kenya was the largest casualty (AfDB, 2010; KRA, 2010). The AfDB (2010) report explains that “the break-up of the EAC as a regional economic block in 1977 was a big blow for Kenya's economy. At that point, Uganda and Tanzania were absorbing about 30% of total exports, and the collapse of the economic block brought down these exports to just 10%” (p. 2).

On the political front, President Kenyatta continued to create and promote political alliances. Tordoff (1997) explains that during this period, there was less reliance on parliament in formulating policies and developing public policies. He further points out that most politicians, particularly those that were not so close to the president, felt sidelined, which created friction between them and the administration as the president relied on the

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<sup>20</sup>The East African Community (EAC) is the regional intergovernmental organization for countries in the East African Region. It was first founded in 1967 by Kenya, Uganda and Tanzania. Following its collapse in 1977, it was eventually revived in July 7, 2000. Its current membership comprises five countries: the Republics of Burundi, Kenya and Rwanda, the United Republic of Tanzania and the Republic of Uganda. Its headquarters is in Arusha, Tanzania. The main mandate of EAC is to widen and deepen economic, political, social and cultural integration in order to improve the quality of life of the people of East Africa through increased competitiveness, value-added production, trade and investments: [http://www.eac.int/index.php?option=com\\_content&view=frontpage&Itemid=1](http://www.eac.int/index.php?option=com_content&view=frontpage&Itemid=1)

bureaucracy for developing, executing and controlling public policy. One notable political development during this period was the death of President Mzee Jomo Kenyatta in August 1978 (AfDB, 2010; KRA, 2010). According to KRA (2010), his death shook investor confidence, and this, together with the oil crisis, caused the economy to start to slow down. Nevertheless, the full impact of these factors was not immediate, as the economy was still growing at a reasonable rate of 6% (Karingi et al., 2005). It is important to note that until this time, no major public sector reforms took place in the country. Perhaps the only significant reform from the standpoint of tax reforms was the transfer of the tax administration function from the East Africa Community to each of its individual constituent governments; at any rate, tax administration was by this time wholly managed domestically by the Kenya's Ministry of Finance.

#### ***4.3.3 Third Period: 1980–1990***

The era that followed (1980–1990) was a pivotal one for Kenya because it laid the course that would haunt the nation for the next two decades. With regard to politics, Kenya was officially declared a one-party state in June 1982, causing general unrest, political instability and a coup attempt in August 1982. These changes did not please western donors, and as a result there was a concerted demand for political reforms (Tordoff, 1998; Throup and Hornsby, 1998). By this time, the government was plagued by rampant corruption and public mismanagement. The UNECA (2010) report on public sector reforms notes that during this period, “public administration lost its linkages to national development as ministries were reduced to appendages of political power elites. The ministries were politicized to the core and political patronage undermined ethical and professional principles” (p. 57).

From the economic perspective, the country at the time experienced worsening conditions: heavy debt burden, rising budget deficits, and spiralling inflation (Fjeldstad and

Rakner, 2003; Moyi and Ronge, 2006; KRA, 2010). According to the Fjeldstad and Rakner (2003), these deteriorating economic conditions were further exacerbated by a reduced flow of donor funds over allegations of poor economic management. To resuscitate the economy, the Kenyan government yielded to pressure from international financial institutions (IFIs), notably the World Bank and the IMF, to introduce various public sector reforms under a structural adjustment program (SAP). This SAP had wide-ranging impacts covering all sectors of the economy, including “the liberalization of prices and marketing systems; financial sector policy reforms; international trade regulation reforms; government budget rationalization, divestiture and privatisation of state parastatals; and civil service reforms” (Rono, 2002, p. 83). Essentially, these reforms were meant to bring market liberalization, market competition and the development of the private sector along the doctrines of New Public Management to the Kenya public administration.

To coordinate and address the implementation of these reforms, the government commissioned Sessional Paper No. 1 of 1986 on *Economic Management for Renewed Growth* (Ministry of Planning and Economic Development, 2003). This document spelled out the framework for revitalizing the economic growth through a process of liberalization that opened up the economy to global competition. In a nut shell, the document proposed a number of drastic fiscal and monetary policy reforms that had far-reaching implications for the economic development of the country. Some of the notable changes implemented under the SAP included price controls; foreign trade liberalization; decontrol of the domestic marketing of agricultural commodities, customer and producer prices; and decontrol of interest rates and foreign exchange rates (Central Bureau of Statistics, 1997).

#### **4.3.4 Fourth Period: 1990–1997**

The subsequent period witnessed significant political reforms that ushered in many changes that, in turn, triggered other public sector reforms. During this period, the democratization wave had swept across many African countries (Tordoff, 1997). In Kenya, there was pressure from the IMF and the World Bank on the government to institute political and public sector reforms aimed at curbing corruption and poor governance. During this time, opposition politics was also very active in supporting the donors in asking the government to allow multi-party politics. The KRA (2010) report points out that political pluralism was partly responsible for an increased pressure to liberalize the economy and an increased tightening of donor conditionalities. The report further explains:

Calls for economic liberalisation coincided with an intensified agitation for return to political pluralism. Kenya, unable to meet the conditionalities, faced a sharp decline in donor funding. The 1990s were characterised by a very cold relationship with donors. There were regular reversals of aid conditionalities and aid freezes were regularly applied as a way of pressurising the government to implement reforms. Inevitably, most of the reforms undertaken were designed to meet immediate donor requirements rather than address long-term goals. The result was weak local ownership of the reforms, which negatively affected their commitment, sustainability and effectiveness. (p. 7)

Given the political instability in this period, some opposition leaders were arrested in 1991, which further exacerbated the deteriorating condition between the donor community and the government (Throup and Hornsby, 1998). These arrests intensified pressure on the government and president to implement governance and political reforms. As a result of this pressure, President Moi and the Government yielded to the reinstatement of multi-party politics in December 1991 and the legalization of opposition parties. But because the opposition was so divided, there were no significant changes in the 1992 and 1997 multi-party elections, with the result that the same problems of poor governance and official corruption continued (AfDB, 2010; KRA, 2010).

Economic performance during this period was much worse than in the 1970s and early 1980s (see Table 4.2). Real GDP declined from an average of 4.5 percent in the 1980s to an average of 1.9 percent in the 1990s and further to 1.3 percent in 2000–2003 (IMF, 2009). According to the IMF (2009), this poor economic performance was not only the weakest among the East Africa Community (Kenya, Tanzania and Uganda) but also weaker than the average for developing countries and Africa. Simply stated, “the initiatives in macro-economic and fiscal reforms of the late 1980s and 1990s were not successful” (AfDB, 2010, p. 2).

Some of the factors that contributed to this poor performance included natural disasters such as droughts and floods; political instability caused by intercommunity conflicts following the introduction of multi-party elections in 1992 and 1997, which significantly undermined investors’ confidence; and poor governance issues due to large-scale corruption and the failure of the government to implement governance reforms, which further worsened Kenya’s relationship with the donor community (AfDB, 2010).

**Table 4.2: Kenya: Comparative Growth Performance, 1980–2003**

	Average Annual Growth (In Percent)			Number of Years of Decline		Number of Years of Growth Higher Than 4 percent	
	1980s	1990s	2000– 2003	1980– 2003	Past 10 Years	1980– 2003	Past 10 Years
<b>Kenya</b>	<b>4.5</b>	<b>1.9</b>	<b>1.3</b>	<b>2</b>	<b>1</b>	<b>11</b>	<b>2</b>
Tanzania	2.9	2.7	6.9	1	0	9	5
Uganda	3.3	6.3	5.5	3	0	16	9
Developing Countries	3.8	3.9	5.0	0	0	15	9
Sub-Saharan Africa 2/	2.7	2.7	4.2	1	0	5	4
Least Developed Countries	2.7	3.7	5.2	0	0	10	9
World	3.4	3.2	3.1	0	0	6	3
1/ Kenyan data were provided by the Kenyan authorities. Data for other countries were provided by the World Economic Outlook (WEO) database.							
Aggregate groups were defined by WEO database. 2/ Excluding Nigeria and South Africa							

Source: International Monetary Fund (IMF). (2009). *Kenya: Selected issues and statistical appendix*. Washington, D.C.: International Monetary Fund.

#### **4.3.5 Fifth Period: 1997–2002**

The 1997–2002 era continued the strained relationship between the government and the donor community as a result of the 1997 multi-party elections, which were marred with allegations of rigging and corruption (UNECA, 2010). With widespread political uncertainties due to multi-party politics and public mismanagement, economic performance was largely stagnant. For instance, this period was characterized by donor community pull-outs over a lack of commitment from the Kenya government to meet aid conditionalities (KRA, 2010). Consequently, the country faced several economic challenges including corruption, and ineffective and inefficient public administration (Schuppan, 2009; KRA, 2010).

Despite this political uncertainty, the government undertook several reforms geared at improving the country's economic performance. Some of the areas in which reforms were initiated during this period are the civil service, justice, law and order, the judiciary, capacity building and training, result-based management, e-governance and the re-introduction of performance contracts (UNECA, 2010). For instance, some of the key changes or achievements that directly resulted from civil service reforms included the reduction of civil staff by over 45,000 positions; the establishment of formal staffing levels to enhance integrity and eliminate ghost workers; the computerization of various aspects of public sector management; and the hiring of a "change team" from the private sector and international organizations to clean out inefficiency and corruption from the civil service (UNECA, 2010).

However, economic instability and political uncertainty continued until 2002, when Daniel Arap Moi, the longest-serving president in Kenyan political history, was defeated in a multi-party election held in December 2002, ushering in a new coalition government composed of the major opposition political parties. The new coalition government was formed under the banner of the National Rainbow Coalition (NARC) and effectively ended

nearly 40 years of rule by Moi's *Kenya African National Union* (KANU) government. The new president-elect was 71-year-old Mwai Kibaki, who formed and led the NARC government.

#### **4.3.6 Sixth Period: 2003 to Date**

The period from 2003 to date provides another key turning point for Kenya's public sector reforms. The new NARC government provided a renewed breath of life and direction to Kenya's economic development. During its first year in office, the new government issued a policy statement titled *The Economic Recovery Strategy for Wealth and Employment Creation* (ERS) that underscored the importance of good governance, innovation, technology and a vibrant private sector as key ingredients for economic development (Ministry of Economic Planning and National Development, 2003). Embedded in this policy document was the use of technology in almost every sector to facilitate the process of public sector reforms. The AfDB (2010) report lists some of the reforms undertaken under the ERS:

Maintaining a stable macroeconomic framework; reforming the financial sector and strengthening its regulation to increase savings and investment; implementing mechanisms for private sector participation in the provision of infrastructure services; and establishing a competitive environment able to attract increased private investment in productive sectors such as tourism, trade and industry. (p. 3)

This report and also KRA (2010) attribute the economy's improved growth from 0.6% in 2002 to 6.5% in 2006 to these ERS reforms.

To augment the 2003 ERS policies, the government developed a national long-term development plan known as Vision 2030 to help guide the economy toward industrialization (Office of the President, 2008). According to the Kenya's Office of the President, the aim of Vision 2030 was to make "Kenya a new industrialized, middle-income country providing a

high quality of life to all its citizens by the year 2030” (Office of the President, 2008, p. 2).

The vision is anchored on three pillars: economic, social and political:

- Economic pillar: aims at ensuring prosperity for all Kenyans through an economic development program that seeks to achieve a high and sustained economic growth rate of 10% per year up to 2030
- Social pillar: seeks to build a just, cohesive and equitable society living in a clean and secure environment
- Political pillar: aims to have a democratic political system that respects the rule of law and offers protection of the rights and freedom of all individuals in society

One of the cross-cutting issues that played a critical role in the realization of these three pillars — and, hence, the fulfilment of Vision 2030 — is the use of ICT.

#### **4.4 Role of ICT in Public Sector Reforms**

Despite the reforms undertaken by the government from 2003 onward, Kenya continues to face several challenges typical of most developing countries, including a slow pace of economic growth due to corruption and poor governance. In solving these problems, many governments, scholars, practitioners, and multilateral donor agencies such as the World Bank and IMF have turned to ICT, which they believe can provide avenues to address these challenges. ICT is generally regarded as an option to facilitate the desired reforms to improve the performance and credibility of the government, the private sector and a host of other sectors (OECD, 2005; UN, 2008; Hannah, 2010). These technologies provide a mechanism for the country to transform itself and, perhaps, to become a middle income country as envisaged in Vision 2030. For these reasons, the Kenyan government made ICT a central component of the Vision 2030 strategy (Ministry of Planning, Economic Development, 2003). In fact, the use of ICT figures prominently in the three pillars and in every sector identified in Vision 2030. The government believes that the “effective and full exploitation of the opportunities in this emerging sector is expected to translate into high and sustainable

economic growth and boost international competitiveness” (Ministry of Planning, National Development and Vision 2030, 2011, p. 35).

Vision 2030 touches on virtually every sector of the economy. It seeks to achieve improvements in the energy sector; exploit science, technology and innovation; carry out land reforms; expand labour and human resource development; manage security through peace building and conflict resolution; and promote public sector reforms and transformation (Office of the President, 2008, p. 2).

To achieve this vision, the Kenyan government has developed a series of five-year plans, the first being the 2008–2012 Medium Term Plan (MTP) that has just been implemented. The MTP 2008–2012 focuses on faster job creation, poverty reduction, improved income distribution, regional balance and gender equality.

The realization of the objectives set forth in the first MTP was, however, hampered by the 2007 post-election violence resulting from a dispute over the election results.<sup>21</sup> Together with this violence, the country was also negatively impacted by fuel and food shortages and the 2008 global financial crisis that saw the real GDP slump to 1¾% in 2008 (IMF, 2010). This meant that much of the effort was spent in 2008 on national healing and reconciliation and that little was achieved on growing the economy. In fact, the economy only realized a 2.6% growth rate in 2009 against the target of 8.3%. But the economy picked up in 2010 and also 2011, registering growth rates of 5.6% and 5% respectively. Although these gains are

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<sup>21</sup>The opposition, led by leader Raila Odinga, and its supporters rejected the declared victory of incumbent Mwai Kibaki, alleging it was the result of rampant vote rigging. Protests degenerated into widespread violence as decades of economic frustration and ethnic rivalry spiralled out of control. In the days immediately after the results were announced, gangs of youths blocked Kenya’s main roads and set fire to hundreds of homes of perceived “outsiders.” In all, more than 1,200 people were killed and some 600,000 displaced into temporary camps, with an equal number seeking refuge with friends or relatives. Agricultural activity was seriously hampered as farmers moved away from their fields, posing long-term risks for the country’s food security, which was already threatened by drought and soaring fertilizer prices. The education and health sectors were also compromised by the large-scale displacement of professionals; <http://www.irinnews.org/in-depth/76116/68/kenya-s-post-election-crisis>

attributable to a host of factors, including a favourable political climate and much good will, progress in ICT seems to have accounted for a great portion of this development.

According to the Ministry of Information and Communication (2013), ICT can help the economy to realize the aims of Vision 2030 in several ways: by lowering transaction costs and improving efficiency; enhancing Kenya's competitiveness on the global stage; reducing corruption in government offices; improving security through updated surveillance methods; providing greater access for ordinary Kenyans to information from around the world; improving education methods; and improving employment opportunities, particularly among young people. In striving to make Kenya globally competitive, the Ministry of Information and Communication (2013) contends that the "aggressive introduction of ICT in all sectors of the economy will serve to enhance efficiency and security, provide Kenyans with far greater access to information from around the world and improve education methods" (p. 5).

Over the last decade, Kenya has made great ICT-led strides in ensuring that the intent and vision of Vision 2030 continue to bring significant improvements in virtually all sectors of the economy. Some of the actions that have been undertaken by the government to exploit the potential of ICT include passing several legislative measures<sup>22</sup> to promote the use of ICT; creating the position of ICT Secretary and a Directorate of E-government in the Office of the President; posting ICT Officers in each ministry and government department; and developing and implementing a new scheme of service for ICT professionals.

These ICT reforms have produced several key achievements:

- The ICT has outperformed all other segments of the economy and grown at an average of 23 per cent per annum, accounting for 13% of growth in Kenya's GDP during the last decade

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<sup>22</sup>Some of these legislative measures include the Kenya Communications Act 1998, which removed the duopoly in fixed or mobile services; Kenya Communications Regulations 2001, which provides regulations for key players; the establishment of Kenya ICT Board to champion ICT activities in Kenya; and the Kenya ICT (Amendment) Act 2008, which underscored the importance of e-government.

- A common e-mail solution Enterprise Messaging and Collaboration System (EMACS) has been introduced in all government ministries to enhance collaboration
- Significant employment (over 1,500 positions) has been created through Business Process Outsourcing (BPO), which continues to market Kenya as a BPO destination
- Extensive submarine (5,000 km) and terrestrial (5,500 km) fibre optic cable systems have been installed and put into full operation
- 210 digital villages and the digitalization of land registry have been established
- Over 135 institutions have been connected
- A shared services system has been adopted by the Government, with implementation of the system ongoing at Treasury (World Bank, 2010; Ministry of Planning, National Development and Vision 2030, 2011)

Various other steps have been undertaken by the government to transform the country through the use of ICT:

- An e-government strategy paper has developed and relaunched as a roadmap for the delivery of improved and efficient services to the public
- The Kenya Communications Amendment Act (2009) has been enacted
- An Information and Communications Regulations and a Competition Policy have been prepared
- A Government Data Centre (GDC) has been established to facilitate storage for all government databases
- Strategic partnerships have been made with several countries and international organizations to facilitate the development of the ICT sector. These partnerships include the Government of Kenya (GOK)/World Bank to develop the Kenya Transparency Communication Infrastructure project as well as the development of the ICT Park; GOK/Government of Singapore Memorandum of Understanding (MoU) to

develop e-government services and capacity building; and the GOK/ Government of Chinese and private companies to develop telecommunication infrastructure (Ministry of Planning, National Development and Vision 2030, 2011)

And as part of the Kenyan government's ICT strategy, widespread use of ICT was adopted within the government itself to create e-government.

#### **4.5 E-government and Public Sector Reforms in Kenya (2003–2012)**

One of the key milestones of ERS related to ICT was the formulation and enactment of an e-government strategy, which was formally approved in March 2004. The e-government strategy document spelled out the government's commitment toward the implementation of e-government initiatives. The document described in detail the objectives of the e-government, the institutional framework and structure for e-government, and the priorities for e-government (Office of the President, 2004).

The objective of e-government, according to the Office of the President (2004), was to help the government realize the national development goals and the objectives of wealth and employment creation that were described in the ERS by facilitating the better and more efficient delivery of information and services to the citizens; promoting productivity among public servants; encouraging participation of citizens in government; and empowering all Kenyans.

On establishing a suitable institutional framework and structure for managing and spearheading the implementation of e-government initiatives, the government created various bodies within the public civil service to directly deal with ICT-related issues:

- A Cabinet Committee on ICT to oversee the implementation of the e-government strategy, chaired by the Minister of State for Provincial Administration and National Security. This committee comprises the

Minister of Finance; Minister for Tourism; Minister for Information and Communication; Minister for Education; Minister for Higher Education, Science and Technology; and Minister of Transport

- A Permanent Secretaries Committee to coordinate the implementation of e-government initiatives and ensure that institutional support and resources are provided. This committee is chaired by the Head of the Public Service (HOPS) and consists of Permanent Secretaries and Accounting Officers.
- Ministerial E-government Committees to review various policies initiatives, undertake ICT audits, identify gaps in ministries and make recommendations. This committee is chaired by the Permanent Secretary and consists of Senior Management in each ministry (Office of the President, 2004).

The priorities set out in the e-government strategy have been categorized by the government in three groups: (1) improving communication within the government; (2) improving communication with businesses; and (3) improving communication with citizens. For communication within the government, some of the priorities that directly impact the KRA included implementation of the Integrated Financial Information System (IFIS) that connects with all government ministries and departments; development and implementation of integrated property and asset registration systems, including land and motor vehicles; implementation of integrated taxation databases and information systems; and integration with other government ministries and departments, including the National Registration Bureau (NRB), the Immigration Department; Road Transport; and the Personal Identification Number (PIN) (Office of the President, 2004). On the issue of improving communication with businesses, priorities for the KRA included electronic administration of business, such as PIN applications; electronic government returns and claims (income tax returns, tax

claims, business compliance returns and VAT returns); portal services for data warehousing and statistical reports; and electronic payments.

It is against this backdrop that the KRA commenced the aggressive implementation of ICT-led reforms in early 2000 under the RARMP, the focus of this study. But before discussing these reforms, it will be helpful to first review the tax administration reforms made prior to the RARMP.

#### **4.6 Summary and Conclusion**

This chapter focuses on Kenya's public sector reform experience in order to provide a context for this study, since the implementation of ICT-led reforms was implemented as part of public sector reforms. For Kenya, public sector reforms have been undertaken as measures to combat and provide solutions to several economic challenges. These challenges include unstable economic growth, poor management of financial resources; lack of an accountability framework and enforcement; lack of good records, data and management; laxity at work; lack of clear performance targets and standards; job dissatisfaction; poor pay; bribery; favouritism; and poor management of budgetary flows.

It is notable that Kenya economic performance was positive and progressive after attaining independence in 1963. For instance, between 1964 and 1973, Kenya's economy grew at an average 6%, and this result was mainly attributable to the government structure inherited from the British colonial government. In the 1970s and 1980s, the Kenya government instituted several reforms, including changing the governance system from federalism to unitary government and eliminating provincial autonomy. Concomitant with the centralization of power around the president, there was notable increased mismanagement of public resources due to rampant corruption and impunity. This created poor relationships between the Kenya government and the donor community, occasioning donor pullouts from

the economy and the imposition of stiff financing conditionalities. In 1982, the country formally converted from a multi-party to a single-party political system, further worsening the relationship between the government and various stakeholders, such as the opposition parties and international financial institutions.

With political unrest and economic uncertainties, the economic performance of the country experienced stagnant or negative economic growth in the 1990s. Real GDP declined from 4.5% in 1980s to 1.9% in the 1990s. The main cause of this poor economic performance is controversial and unclear. But several factors may have contributed, including political instabilities, rampant corruption, poor public management and, perhaps, untenable donor conditionalities that led to frequent donor funding freezes.

The turning point for Kenya's economic development was in 2002, when the long-serving President Moi lost in a multi-party election in December and ceded power to the opposition. The new coalition government under President Kibaki ushered in new public sector reforms in 2003 as stipulated in a new policy document, *The Economic Recovery Strategy for Wealth and Employment Creation*, which focused on good governance, innovation, technology and a vibrant private sector. It is through this policy statement that the KRA was able to institute and implement the ICT-led tax administration reforms, which are considered in the next chapter.

## Chapter Five

### Tax Administration Reforms and the Emergency of the KRA

#### 5.1 Introduction

The focus of this chapter is on tax administration reforms<sup>23</sup> undertaken in Kenya since 1995, when the KRA was established. Tax reforms are considered to be a central part of any public sector reform in developing countries and can be quite broad, covering tax policy, tax structure systems and administration (Prichard, 2010). However, the focus of this study is mainly on tax administration reforms, that is, the implementation and management process of tax collection activities. According to Prichard (2010), tax administration reforms comprise five elements: reorganization, information technology, taxpayer services, autonomy and general improvements in capacity. All these elements will feature prominently in the discussion of the research findings. The main thrust of tax administration reforms is on increasing effectiveness (the collection of more revenue) and efficiency.<sup>24</sup> In the particular case of the KRA, the focus of reform was on “simplifying tax procedures, addressing incidences of corruption and enhancing the integrity of a country’s tax system” (KRA, 2010).

This chapter is organized in four parts. The first provides background information on earlier tax administration reforms in Kenya that led to the formation of the KRA. The second part is devoted to the development of the KRA, discussing how the KRA was formed, its structure and its challenges during the formative years. The third part focuses on the specific reforms undertaken by the KRA prior to the introduction of the RARMP and presents the KRA’s achievements and challenges. The last part provides a summary and a conclusion.

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<sup>23</sup>The term tax reforms will be used throughout this paper to refer to changes in the way taxes are collected and managed.

<sup>24</sup>KRA (2010) identifies two objectives of tax administration reforms: (1) to enhance the efficiency and effectiveness of the tax system by improving compliance rates and reducing the cost of tax administration and compliance; and (2) to assist in attracting foreign exchange earnings through direct investment and private sector development.

## 5.2 Tax Administration Reforms (1980–1995)

Tax administration reforms in Kenya first began in the early 1980s, before the KRA was formally established as a tax collection agency in 1995. Prior to the agency's establishment, tax administration was undertaken by three departments situated in the Ministry of Finance that were part of the mainstream civil service: the Income Tax, Customs and Excise, and Value Added Tax (VAT) departments. Unfortunately, their performance left much to be desired, which led to the initiation of a number of reforms.

The first major tax administration reforms were undertaken under the *Sessional Paper No. 1 of 1986*, when the Government launched the Tax Modernisation Programme (TMP) as part of World Bank and IMF financing conditionality. The key objective of the TMP was to raise more government revenue or, more specifically, to increase the tax–GDP ratio from 22% in 1985/86 to 24% by 1999/2000. According to the Ministry of Planning and National Development (2003), this aim was to be achieved in several ways: by enhancing reliance on a self-assessment system of taxation supported by selective audit; improving administrative efficiency through automation; reducing non-compliance and administrative costs; improving the economic efficiency of the tax system by lowering and rationalizing tax rates; establishing a tax analysis capacity to help implement organizational reforms; and by closing revenue loopholes. The number of these methods was expanded in 1992 to include:

- Raising the revenue–GDP ratio to 28%;
- Invigorating the growth of the fledgling capital market;
- Emphasizing self-assessment systems;
- Strengthening taxpayer education and service; and
- Implementing organizational reforms that would modernize tax administration

(Ministry of Planning and National Development, 2003).

Essentially, these reforms were meant to raise more revenue for the government and bring economic stability (Cheeseman and Griffiths, 2005). Although their key driver was compliance with donor conditionality, the government's main objective was to mobilize public revenue in order to replace the donor funds that were not flowing into the country as expected due to Kenya's worsening economic situation (KRA, 2010). Cheeseman and Griffiths (2005) explain that, as the economic conditions worsened and the flow of donor funds dried up, the government realized that the only feasible solution to reverse the trend was to minimize the impact of an overreliance on external financing. It has been pointed out that "it is likely the pressure from the IMF and World Bank to liberalize came with a realization within the government that the then prevailing economic situation was untenable and, thus, the need for fiscal reform" (KRA, 2010, p. 5). It was, therefore, anticipated that a reformed tax system together with the tax administration reforms would stabilize the economy, which, in turn, would bring economic buoyancy and lead to increased revenue.

Under the TMP, Kenya introduced several tax reform measures to increase revenue. These included the introduction of VAT in 1990 to expand the tax base; the reduction of tariffs to encourage local industries to be more competitive both locally and internationally; the introduction of Export Processing Zones (EPZs) to promote investment; and granting tax amnesty to taxpayers to encourage self-assessment and tax compliance (Cheeseman and Griffiths, 2005; AfDB, 2010; KRA, 2010). But despite these reforms, the government did not significantly increase public revenue (Karingi et al., 2005; AfDB, 2010). According to Eissa and Jack (2009), under the TMP, Kenya was unable to meet the set revenue targets and the program's policies were ineffective.

One of the main problems associated with the early implementation of the TMP was that it ignored tax administration reforms (Karingi et al., 2005; AfDB, 2010). Karingi et al. (2005) explain that most of the reforms introduced during the early part of the TMP (mainly

in the 1990s and early 1990s) were policy reforms changing or introducing new tax structures and did not incorporate reforms geared at bringing efficiency and effectiveness in tax administration. In other words, the early part of the TMP failed to address the fundamental matters of organizational and administration issues related to tax collection. The failure to tackle administrative reforms in the early years of the TMP meant that the implementation of policy reforms was uncoordinated and lacked commitment and ownership, and were therefore inherently unable to have a significant impact (Moyi and Ronge, 2006).

Another problem with the TMP was a lack of stable management at the Treasury and Ministry of Finance, which contributed to poor revenue performance (AfDB, 2010). According to the AfDB (2010), “between 1988 and 2002, a total of eleven permanent secretaries had been appointed to the Treasury, with two of them serving for less than two months each. During the same period, the Ministry of Finance had six ministers” (p. 7).

With pressure from the World Bank and the IMF, the government yielded to addressing these shortcomings in the later part of the TMP’s implementation (Moyi and Ronge, 2006). One of the actions taken by the government was to institute tax administration reforms to bring efficiency and effectiveness in tax collection. This was addressed by taking the necessary steps to delink the administration of tax from the mainstream civil service and by creating a semi-autonomous body responsible for tax administration (Karingi et al., 2005; Moyi and Ronge, 2006; AfDB, 2010; KRA, 2010). Unfortunately, the proposal to initiate these tax administration reforms was met with resistance from the political establishment (Moyi and Ronge, 2006; AfDB, 2010). A number of politicians were unsure of the extent of the new body’s mandate in collecting revenue and, therefore, were unenthusiastic in supporting its formation. The then-Minister of Finance, Musalia Mudavadi, explains how the proposal to create the new body was resisted by the political elites:

There were spirited attempts by some legislators to shoot down the KRA Bill, necessitating the Minister to hold private discussions with President Moi to

assuage his fears and those of other influential parliamentarians regarding the role and autonomy of the KRA. The resistance and suspicion was attributable to the fear that a taxman with autonomy would likely be used as a political weapon to settle scores with opponents. The other source of fear was the fact that the KRA would have the “muscle” to vigorously pursue non-compliant and recalcitrant taxpayers, many of who were politically connected. (p. 18)

However, with the growing budget deficit and the realization that tax administration organizational reforms were inevitable to mobilize more public revenue, the government yielded to pressure of the World Bank and established the Kenya Revenue Authority in 1995 as a semi-autonomous tax collection agency, which had become the common trend in tax administration in developing countries (Fjeldstad and Rakner, 2003). As noted by Fjeldstad and Rakner (2003), the formation of the KRA was “largely a manifestation of the pressure from within and a realization that it is only through internally generated revenue that Kenya would solve the predicament that it faced” (p. 8). The formation of the KRA in 1995 was thus perhaps the most notable initiative to date in the history of Kenya tax reforms.

### **5.3 The Development of the Kenya Revenue Authority**

The Kenya Revenue Authority was created by an Act of Parliament, Chapter 469 of the laws of Kenya on July 1, 1995, with the main purposes of enhancing the mobilization of revenue for the government and improving tax administration and the sustainability of tax collection. Prior to the KRA’s creation, the institutions responsible for tax administration performed absurdly badly. According to Waweru (2009), these tax collecting departments lacked coordination, transparency and accountability. As they were part of the central government, it was generally believed that there was interference from the executive.

From the literature and the foregoing discussion, it seems that the key factor that led to the creation of the KRA was the deteriorating economic conditions produced by the slow flow of donor funds. These conditions were precipitated by a poor relationship between the government and the international financial institutions (IFIs), compelling the government to

explore ways of improving internal revenue generation. In some ways, therefore, the move to create the KRA was a demonstration of the government of its commitment to become self-reliant in funding government expenditures (Waweru, 2004; KRA, 2010). The KRA (2010) further explains:

... by 1993, Kenya's economy was at its lowest ebb, economic growth was negative, inflation topped 100%, the currency had lost value against the major trading currencies, interest rates averaged 40–60%, foreign exchange reserves had been depleted to almost one-month import cover and unemployment was at an all-time high. This was the period when the Goldenberg scam that cost Kenyan taxpayers billions of shillings took place. These factors led to poor relations with development partners who insisted on a more accountable macro-economic management. (p.14)

Another factor that led to the creation of the KRA was the wave of larger public sector reforms that were taking place in most countries under the banner of new public management (NPM) principles (Fjedstad and Rakner, 2003; Moyi and Ronge, 2006). Around this time, many developing countries, bowing to the pressures from IFIs, established autonomous tax collection agencies.<sup>25</sup> Moyi and Ronge (2006) explain that, for Kenya, the KRA was formed to bring autonomy and efficiency in tax collection. The newly formed KRA exhibited several features of NPM: a self-financing mechanism, governed by a Board of Directors (BOD) constituted from the private sector, with the Commissioner General as Chief Executive overseeing the day-to-day operations and having the power to hire, retain, dismiss and promote high-quality staff by paying salaries above civil service terms (p. 4). For instance, the self-financing mechanism that pegged funding to a proportion of estimated revenue meant that the KRA management would have incentives for over-performance or bonuses when

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<sup>25</sup>In Africa, the revenue authority model has been instituted in Ghana (1985), Uganda (1991), Zambia (1994), Kenya (1995), Malawi (1995), Tanzania (1996), South Africa (1997), Rwanda (1997) and Mauritius (2004). Some of the aims that led to the formation of autonomous revenue collections agencies include: (1) to bring business principles into tax administration, thus reducing vulnerability to political interference; (2) to recruit, retain and promote quality staff by paying competitive salaries that provide incentives for greater job motivation and less corruption; (3) to focus on tax administration and formulation of tax policies; and (4) to attract donors and senior politicians because revenue collection reform opens up opportunities for more widespread reforms. (Fjedstad, O. and Rakner, L. 2003). *Taxation and tax reforms in developing countries: Illustrations from sub-Saharan Africa*. Bergen, Norway: Chr. Michelsen Institute).

targets are exceeded, an NPM feature that is typical of private organizations. Even the autonomy to hire and fire meant that the KRA had the mechanism of instilling discipline among its employees, a characteristic that is typical of the NPM doctrine (Hood, 1991).

It should be noted that, although the KRA was created to be autonomous in tax administration, it still operates under the Ministry of Finance (MoF) as an arm's-length agency. In this regard, the MoF sets the revenue targets and level of funding while the agency works to meet these targets without the direct control of the minister. For instance, the MoF sets the revenue target as a percentage of the gross domestic product (GDP), currently at 22% of GDP and the spending level for the KRA at 2% of total revenue collected. The KRA then operates within these parameters to collect revenue forecasted in the estimates of the government budget.

The overall objective of creating the KRA was to bring operational autonomy in revenue administration and much-anticipated modernization in tax administration. According to Waweru (2004), the KRA was to “streamline the public revenue-collection function by bringing these departments under a single organization, thereby enhancing efficiency, transparency and accountability” (p. 4). More specifically, the KRA's key functions are to:

- assess, collect and account for all revenue in accordance with the written laws and their specified provisions;
- advise on matters relating to the administration and collection of revenue under the written laws or their specified provisions;
- enhance the efficiency and effectiveness of tax administration by eliminating bureaucracy;
- eliminate tax evasion by simplifying and streamlining procedures and improving tax payer service and education, thereby increasing the rate of compliance;

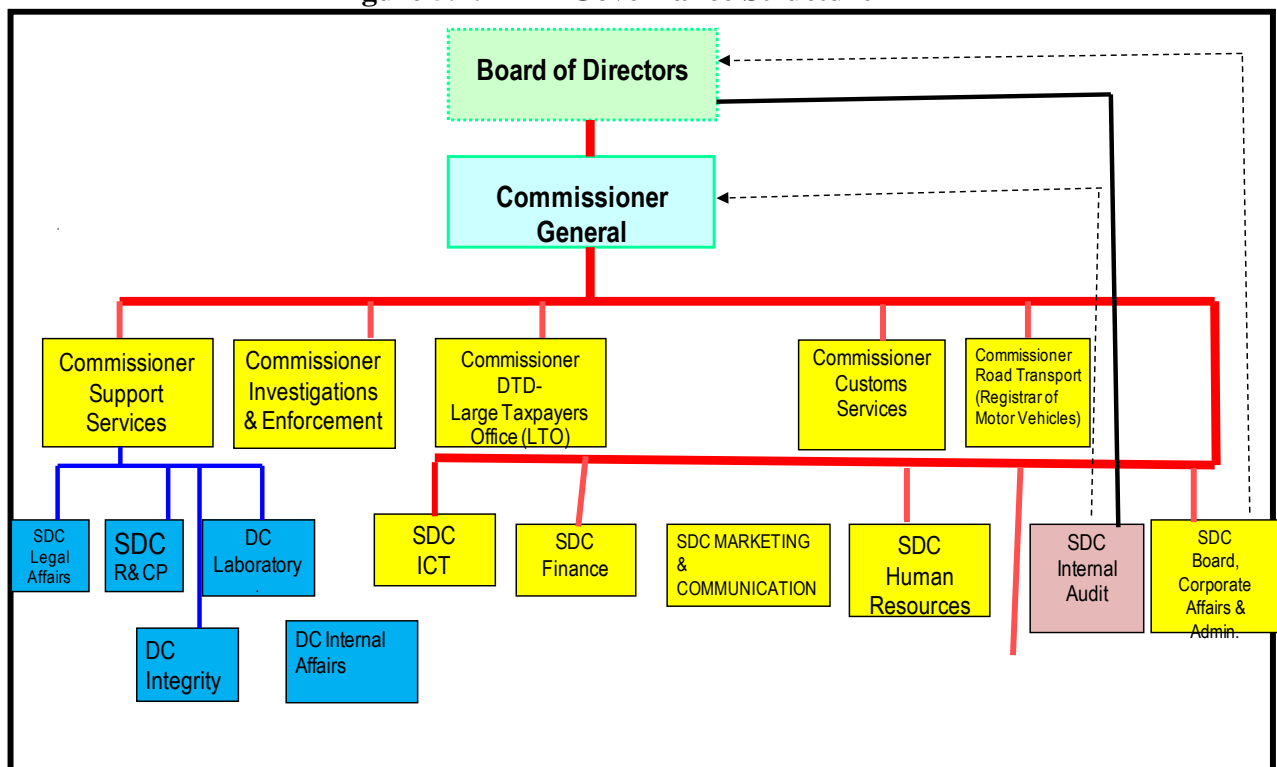
- promote professionalism and eradicate corruption among the KRA employees by paying adequate salaries, which enables the institution to attract and retain competent professionals of integrity and sound ethical standards;
- restore economic independence and sovereign pride by eventually eliminating the perennial deficits by creating organizational structures that maximize revenue collection;
- ensure protection of local industries and facilitate economic growth through the effective administration of tax laws relating to trade;
- ensure the effective allocation of scarce resources in the economy by effectively enforcing tax policies, thereby sending the desired incentives and shift signals throughout the country;
- facilitate distribution of income in socially acceptable ways by effectively enforcing tax laws affecting income in various ways;
- facilitate economic stability and moderate cyclic fluctuations in the economy by providing effective tax administration as an implementation instrument of the fiscal and stabilization policies;
- be a watchdog for the government agencies (such as Ministry of Health, Finance, etc.) by controlling exit and entry points to ensure that prohibited and illegal goods do not pass through Kenyan borders; and
- perform such other functions relating to revenue as the Minister may direct. (KRA, 2010; Malinda, 2010; Waweru, 2011)

On governance structure, the KRA is managed by a Board of Directors that comprises both public and private sector experts. The board is headed by a Chairman of the Board who is appointed by the President. The KRA is managed by the Chief Executive of the Authority, the Commissioner General, who is appointed by the Minister of Finance. The agency is

organized into four main departments: Customs Services, Domestic Taxes, Road Transport Department, and Investigations and Enforcement. In addition to these four, it has seven support services departments consisting of Human Resource, Finance, Board Corporate Services and Administration, Internal Audit, Information and Communication Technology, Research and Corporate Planning, and Marketing and Communication. Each of the four main departments and the support services departments as a whole are headed by a Commissioner.

By the end of 2012, the KRA had approximately 4,300 employees (Customs – 31%, Domestic Taxes – 31%, Road Transport – 5% and Support – 33%) (Waweru, 2011, 2012). An overview of current KRA organizational structure is provided by Figure 5.1:

**Figure 5.1: KRA Governance Structure**



Adopted from Waweru, M. (2011). Implementation status of “The revenue modernization programme” RARMP. *Bachelor of Commerce Students in Strathmore University, Kenya* Nairobi, Kenya.

From a geographical distribution perspective, the agency is organized into seventeen stations, or regional branches. Four of these stations are in Nairobi, the capital; two in Mombasa, the main port; and the rest distributed throughout the country. In addition to these

stations, a number of much smaller offices or “satellites” offer limited services, such as taxpayer registration, tax forms and payment facilities.

Operations are mainly driven by a set of laws that the agency is mandated by the KRA Act to administer. Currently, the KRA administers a total of 17 laws relating to revenue (KRA, 2010; Malinda, 2010; Waweru, 2011). These laws are divided into two broad categories: exchequer revenues (Treasury) and agency revenues (revenue collected on behalf of other government agencies).

The laws that pertain to exchequer revenues are the Income Tax Act; the East African Community Customs Management Act; the Customs and Excise Act; the Value Added Tax Act; Traffic Act; the Entertainment Tax Act; the Stamp Duty Act; the Second-Hand Motor Vehicle Purchase Tax Act; the Widows and Children’s Pensions Act; the Parliamentary Pensions Act; and the Government Lands Act.

The laws relating to revenue collected on an agency basis include the Road Maintenance Levy Fund Act; the Kenya Airports Authority Act; the Civil Aviation Act; the Standards Act; the Air Passenger Service Charge Act; and the Sugar Act (Malinda, 2010; Waweru, 2011, 2012).

Given this governance and legislative framework, the agency has numerous stakeholders. Its key stakeholders include several public institutions:

- the Registrar of Companies;
- the Registrar of Persons;
- the Ministry of Foreign Affairs;
- the Ministry of Finance, Public Procurement Oversight Authority;
- the Department of Mining and Geology, Anti-Corruption Agency;
- the Ministry of Transport;
- the Kenya Ports Authority;

- Tax Intermediaries, for example, auditors/tax agents;
- Regulatory Bodies, such as the Central Bank of Kenya, the Institute of Certified Public Accountants of Kenya (ICPAK) and the Capital Market Authority (CMA);
- Utility Companies, such as the Kenya Power and Lighting Company (KPLC) and the Nairobi City Water and Sewerage Company (NWSC); and
- the general public.

Other KRA partners include:

- members of International Tax Bodies, e.g., the Center for Inter-American Tax Administrators (CIAT), Commonwealth Association of Tax Administrators (CATA), Organisation for Economic Cooperation and Development (OECD), African Tax Administration Forum (ATAF), etc.;
- Tax Information Exchange Agreements (TIEAs);
- Double Taxation Agreements (DTAs), including MAPs and APAs;
- Transfer Pricing Legislation based on arm's-length principles; and
- Regional Authorities Technical Forum, such as the East African Revenue Authority Technical Committee (EARATC) affiliation (Nyaga, 2012).

During its formative years, the agency faced a number of challenges that slowed the process of transformation (Waweru, 2004; KRA, 2010). First, by inheriting the various departments from the Ministry of Finance, the newly formed organization had to deal with a number of legislative issues. For instance, the powers of the Commissioner General were unclear as the legislations governing the various departments (Income Tax, VAT) referred to the chief executive office as the Commissioner. To solve this problem, the KRA Act had to be amended to clearly specify that the term “commissioner” be interpreted to mean the Commissioner General (KRA, 2010). A second challenge was dealing with disloyal staff inherited from the Treasury. According to a 2010 report on the reforms, “there was an

obvious lack of loyalty and commitment to KRA emanating from the fact that they were seconded and not employed by KRA” (KRA, 2010, p. 20). The report further notes that all cases of indiscipline had to be sent to the Permanent Secretary Treasury for direction, which contributed to further ineffectiveness and efficiency. However, this problem was temporary and was resolved when all staff were formally absorbed into the employment of the agency in July 1996 (KRA, 2010).

Another challenge that the agency had to deal with was the political interference and patronage that contributed to a high rate of turnover in Commissioner Generals. It is notable that in a span of five years, the KRA had over five individuals in this office, some lasting for only a couple of months. This high turnover made it difficult for the agency to implement significant reforms. A 2010 African Development Bank (AfDB) report explains:

In the late 1980s and early 1990s, for example, the ruling elite conspired to rake billions of shillings of public resources through tax exemptions as well as through a scheme, famously known as the Goldenberg scandal, by which pre-export financing and export compensations were paid for fake exports. Consequently, as fiscal deficits became a problem, the need for measures to tighten tax administration was acknowledged. Also, the establishment of the KRA in 1995 was to a significant extent expected to insulate the tax system from the rampant corruption that then pervaded the public administration system. However, competition among political constituencies for control of the tax system as an instrument for patronage continued. Consequently, for example, in the first decade after its launch, the KRA experienced frequent changes to its leadership. The first two Commissioner Generals did not complete their three year terms. (p. 7)

Despite these challenges, the agency was able to undertake a number of reforms during its first formative years.

#### **5.4 The KRA Reforms (1995–2003)**

Since its inception, the KRA has undertaken a number of reforms geared at meeting its objectives: increasing the tax base and reducing the taxation gap by tapping into the information sector; reducing the high incidence of tax evasion; and using information

technology in support of the tax administration (Cheeseman and Griffiths, 2005). These reforms include internal process reforms, people-centred reforms and revenue-enhancing reforms (KRA, 2010). According to the KRA's record of reforms, the internal process reforms included the expansion of the agency's stations, a review of organization structures and the adoption of a formal strategic approach. The adoption of a formal strategic approach was a particularly major shift from the planning process typically found in mainstream civil service. This tool is generally regarded to have been a key milestone as it has continued to guide the KRA in achieving its strategic objectives.

Three years after its inception, the KRA adopted a three-year corporate plan that uses a balanced scorecard (BSC) as a performance measurement strategy along four dimensions (Cheeseman and Griffiths, 2005): financial, geared at surpassing revenue targets set by the MoF; internal processes, focused on increasing efficiency; stakeholders, geared towards high-quality service; and the people, focused on developing a highly motivated and professional work force. To date, the KRA has issued five corporate plans: 1995/96 to 2002/03; 2003/04 to 2005/06; 2006/07 to 2008/09; 2009/10 to 2011/12; and 2012/13 to 2014/15.<sup>26</sup> The underlying theme of most of these plans is modernization by way of using technology, innovation, and process improvements in tax collection activities.

The agency uses these corporate plans to monitor and analyze performance. The importance attached to them is amplified by the immediate past-Commissioner General stating, "We are continuously monitoring performance and innovatively applying global best practices in revenue administration within the provisions of the Corporate Plan." (Waweru, 2004, p. 4). One chapter in these plans is devoted exclusively to assessing and explaining the performance of the previous period's Corporate Plan. This chapter, entitled "Evaluation of

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<sup>26</sup>Details on the strategic themes and strategic goals of these corporate plans are given in Appendix 9.

Previous Corporate Plan,” details key achievements, challenges and lessons learnt and was used here as the basis for assessment of the performance of the RARMP initiatives.

The key milestones achieved during the first corporate plan included computerizing the basic management support services for payroll, financial management, etc.; increasing revenue modestly from KES 122 billion in 1995/96 to KES 229 billion in 2003/04; and generally increasing the tax base. Moyi and Ronge (2006) point out that during this period, the agency increased the number of Value Added Tax (VAT) taxpayers from 17,106 in 1997 to 40,537 in the 2004/05 financial year. Some of the other key milestones achieved under the first Corporate Plan (2000/1–2002/03) are:

- Expansion of KRA stations to cope with increasing demands and bring services closer to the people;
- Reorganization, including the creation of the research department and Revenue Protection Service (RPS);
- Adoption of formal strategic planning with the first KRA strategic plan (1999/2000 to 2001/2002);
- Conception (but not implementation) of a corporate-wide integrated information technology project, the KRA Enterprise Integrated System Architecture (KREISA);
- Implementation of a Customs single-entry document, computerization of customs entry processing, the formation of the Large Taxpayer Unit (LTU) and strengthening of the instalments payment system as key revenue enhancement measures;
- Implementation of the Graduate Trainee Programme, which improved upon earlier tax training by provided a comprehensive program covering all departmental and tax areas for new trainees; and
- Staff-downsizing in 2000 to ensure that the KRA’s staff strength was in line with requirements (Waweru, 2009)

But despite these achievements through the first Corporate Plan, the KRA did not make significant progress in revenue collection. In fact, for the first ten years since its inception (1995–2003), the KRA’s revenue performance was consistently below its target. This period was considered to be a transition period — converting from mainstream civil service departments to a semi-autonomous agency — mainly devoted to instituting the KRA as an organization (KRA, 2010, AfDB, 2010). It thus mainly focused on clearing the legal hurdles and transforming itself from a collection of individual civil service departments to an integrated revenue authority. The AfDB (2010) explains that the first ten years of the KRA’s existence were mainly centred on “achieving rationalisation and stabilisation of its organisational structures and general administrative systems, and coping with changes in tax policies” (p. 16). During these formative years, the KRA faced a number of challenges:

- Low filing compliance, which stood at 29% in 2000;
- Manual business process leading to service delays, incorrect data, frustrations, etc.;
- Duplication of functions and resources;
- Lack of an information-sharing platform;
- Poorly integrated process of registration and filing, as most of the operations were conducted manually;
- widening taxation gap between potential and declared taxes;
- Income taxes and VAT rates being considered punitive and lacking built-in mechanisms to enhance self-assessment;
- Concern that the KRA existed mainly to respond to the demands of IMF and the World Bank and not domestic issues, such as equitable taxes;
- Many planned automations failing to be instituted due to lack of funding;
- Perceptions of thriving corruption involving KRA officials; and

- Failure to meet revenue targets as revenue-to-GDP ratio remained largely unchanged, the ratio dropping from 23.8% in 1994 before the KRA was established to 21.21% in 1998 after the KRA was in place) (Cheeseman and Griffiths, 2005; Karingi et al., 2005; Moyi and Ronge, 2006; AfDB, 2010, 2011; KRA, 2011)

The failure to use information technology in the agency's operations was a key factor that compounded the intensity of these challenges and, in the process, undermined the effectiveness of tax administration. For instance, Karingi et al. (2005) explain that the KRA failed to:

exploit the Personal Identification Number (PIN) facility that every taxpayer is supposed to have due to lack of computerization at the KRA. With computerization, it is possible to interact with taxpayers through an integrated computer interface. This would not only save time but it would also help in raising compliance, as the PIN would become the most important number. It would also become easier to consolidate the payments of all taxes and levies. (p. 27)

Cheeseman and Griffiths (2005) also point out the concerns of the Commissioner General in 2003 over the slow pace of automation:

Kenya has failed to computerise income tax administration in the 1970s and Customs administration in 1989. We realize that we must use technology to support tax administration, even if it is an expensive venture. How else shall we be able to address the problems of transfer pricing, taxation of e-commerce and tax evasion? We look forward to the time when all the KRA departments, both revenue and support, will be networked, and taxpayers and other stakeholders will be able to transact business with KRA online. (p. 14)

Organizational structural problems also contributed to inefficiencies leading to low performance. The three key departments — VAT, Income Tax and Excise Duty — still operated as stand-alone entities and were not fully integrated (Karingi et al., 2005; AfDB, 2010; KRA, 2010). This absence of consolidation hampered the sharing of crucial information that would lead to increased revenue and improve customer service. According to Karingi et al. (2005):

The Taxpayers face significant compliance costs and these interfere with their willingness to pay taxes. The administrative structure of the KRA in itself

contributes to this high cost. For instance, a taxpayer in Kenya can at times be audited three times — VAT, Income Tax and Excise Tax — yet dealing with only the KRA and after that be audited by the government ministries if liable to pay a levy. The tax-type organization of the KRA needs a revisit. The international best practice is to have a revenue administration that is organized on a functional basis — like audit as one function and not by type of tax. (p. 27)

Also, as AfDB (2010) explains, the agency continued to suffer from problems of political patronage. To this end, it notes:

Competition among political constituencies for control of the tax system as an instrument for patronage continued. Consequently, for example, in the first decade after its launch, the KRA experienced frequent changes to its leadership. The first two Commissioners General did not complete their three-year terms. (p. 157)

Clearly, the KRA as a tax collection agency needed to institute further reforms that included restructuring of the agency from a tax-based to a function-based authority such that common functions such as audits are performed by a single operation (Karingi and Wanjala, 2005). Even more important, this kind of organizational transformation required significant investment in ICT so that various functions could be performed across the organization.

To initiate the required reforms to modernize the agency, the government recommended key actions for the KRA under *The 2003 Economic Recovery Strategy (ERS) for Wealth and Employment Creation* policy statement that paved the way for the agency's modernization programme (Ministry of Planning and Economic Development, 2003). The ERS measures had four main themes: restoration of economic growth within the context of a stable macroeconomic environment; infrastructure development; enhanced equity and reduction of poverty; and improvement in governance to ensure efficiency and effectiveness in the public sector. Tax administration reforms were founded under the first theme, restoring economic growth through improved tax administration. The specific actions stipulated in the ERS included:

- Removing suspended import duties and all remaining discretionary duty exemptions in order to reduce the scope for tax evasion;
- Consolidating all tax collections through the use of PIN and VAT registration systems;
- Expanding the tax base, particularly to target the informal sector. This will create space for the government to reduce some of the tax rates;
- Harmonizing Kenya's tax regime to bring it in line with those of other members of the East African Community; and
- Rationalizing personal income tax by raising the tax threshold and reducing the number of tax brackets (Ministry of Planning and Economic Development, 2003, p. 5)

Embedded in these actions was the agency's use of ICT to transform itself into an effective and efficient tax collection agency. Thus, the ERS further stated that:

steps will be taken to modernize tax administration infrastructure of the KRA in order to strengthen its capacity to effectively enforce tax collection. This will also improve administrative efficiency and ensure greater compliance and collection of tax arrears. When this has been accomplished, the compliance costs of business will progressively come down. (p. 5)

Although these measures seem similar to the one set out by the TMP of 1986, they faced a different political dispensation, one that was committed to reform. As part of wide consultations involving key stakeholders, including Cabinet Ministers, Members of Parliament, government officials, consultants, professionals, civil society organizations, development partners and friends of Kenya, the government acknowledged its previous record of weak implementation of reforms and restated in the policy document that "the NARC Administration is fully committed to implementing the policies contained in this recovery programme. In this regard, the Government will put in place an implementation framework to ensure that the programme is implemented." (p. xi)

The path to modernization and the implementation of ICT-led reforms, however, was not easy. The agency had to contend with a number of roadblocks, including justifying the need to spend vast amounts of money on tax administration and computerization when such funds could be used elsewhere for other needy causes. Cheeseman and Griffiths (2005) put this dilemma in perspective:

To fully computerise the entire Kenyan tax collection procedure in the way Waweru outlines would cost the Kenyan government hundreds of millions of dollars. Yet this is a government that is currently struggling to raise one hundred million dollars to stave off the threat of starvation for hundreds of thousands of its population following a poor year of rains. To spend vast amounts on computerising the tax system when there are strong claims that this money could be better spent elsewhere cannot be defended on the basis that this is a purely 'administrative' decision. Whether a country needs a better administrative capacity more than better schools and hospitals is itself a decision that needs to be made transparently and defended publicly. The evidence from recent attempts also suggests that such a computerisation policy is unlikely to make much of a difference. (p. 14)

According to Cheeseman and Griffiths (2005), this dilemma was increased by three reasons:

- The Kenyan economy was cash-strapped due to high budget deficits and the slow flow of donor funds
- A history of failure for computer projects in Kenya
- A lack of clarity about whether an efficient KRA would lead to greater tax revenue

But the agency faced a different political environment when these proposals to computerise its operations were being deliberated and decided upon. The transformation of the agency was clearly articulated in the 2003 ERS that aimed to modernize the KRA to be able to mobilize revenue more effectively. As a demonstration of renewed commitment to reforms, the government appointed a new Commissioner General to bring in new synergy and leadership to the agency (KRA, 2010). This appointment was also intended to clearly demonstrate the importance the new government attached to effective revenue mobilization. With this appointment, the KRA ushered in a new era of reforms through its second

Corporate Plan 2003/04–2005/06 under the Revenue Administration Reforms and Modernisation Programme (RARMP).

## **5.5 The Revenue Administration Reforms and Modernisation Programme**

The goal of the Revenue Administration Reforms and Modernisation Programme (RARMP) was to transform the KRA into a modern, fully integrated and client-focused organization through the use of technology, or as AfDB (2010) put it, “to harness Information and Communication Technology (ICT) applications for modernising the tax administration” (p. 149). According to the then-Commissioner General, the objectives of the RARMP were to:

- Enhance efficiency of the tax collection process;
- Strengthen the responsiveness of systems in terms of their accuracy and timeliness;
- Minimize contact between taxpayers and tax officials as a means of reducing corruption;
- Facilitate the sharing of information with third parties;
- Enable the KRA to have a single view of the taxpayers’ dealings with the Authority; and
- Reduce transaction and administration costs for taxpayers and the KRA respectively (KRA, 2010; Waweru, 2011, 2012)

Launched in the 2004/05 financial year, the RARMP consisted of seven projects: (1) customs reforms and modernization; (2) domestic taxes reform and modernization; (3) road transport reform and modernization; (4) investigation and enforcement reform and modernization; (5) infrastructure development; (6) business automation; and (7) human resource revitalization. Table 5.1 provides an overview of each of these projects:

**Table 5.1: RARMP Project Overview**

<b>RARMP Project</b>	<b>Aim</b>
Customs Services Department (CSD) Reform and Modernization Project	Transform CSD into a modern customs administration in accordance with WTO and WCO standards
Domestic Taxes Reform and Modernization Project	Create an integrated approach to domestic taxes administration to improve service delivery
Road Transport Reform and Modernization Project	Create an efficient mechanism for streamlined service delivery to taxpayers
Investigation and Enforcement Department Reform and Modernization Project	Enhance the KRA's capability to rapidly, efficiently and effectively detect, prevent and deter tax and economic fraud
KRA Business Automation Project	Implement an enterprise-wide ICT strategy for the KRA that promotes effective integration and the seamless sharing of information in a secure manner
Infrastructure Development Project	Provide a platform for implementing reform projects
Human Resource Revitalisation	Upgrade and diversify the KRA skill base to include best practices

Source: [http://www.kra.go.ke/rarmp/pdf/RARMP\\_200607-200809\\_flier.pdf](http://www.kra.go.ke/rarmp/pdf/RARMP_200607-200809_flier.pdf)

The RARMP governance comprises four main parts: the Steering Committee, the Project Owners, a Project Coordination Team and Project Management, consisting of project managers and project teams (see Figure 3.1 below). The Steering Committee is the apex body for the RARMP and provides overall guidance to the reform programme. It comprises the Commissioner General as the Chair and overall programme sponsor, all commissioners and the respective Heads of the departments implementing the reform projects. Project Owners are respective Heads of departments or Commissioners. They have the responsibility of providing leadership and strategic direction to their respective projects.

Under the Office of the Commissioner General, the Programmes Management and Business Analysis Office (PMBO) was created to coordinate the reform program and undertake comprehensive monitoring and evaluation functions. Under the PMBO, the program Coordination Committee is responsible for harmonizing and aligning departmental projects to the corporate objectives and for providing a forum for learning and the sharing and dissemination of information. This committee comprises the Head of PMBO as the leader, assistant team leader and Project Managers. Project Managers report to the Project

Owner and are responsible for guiding their respective project teams and coordinating the operations of the projects.<sup>27</sup>

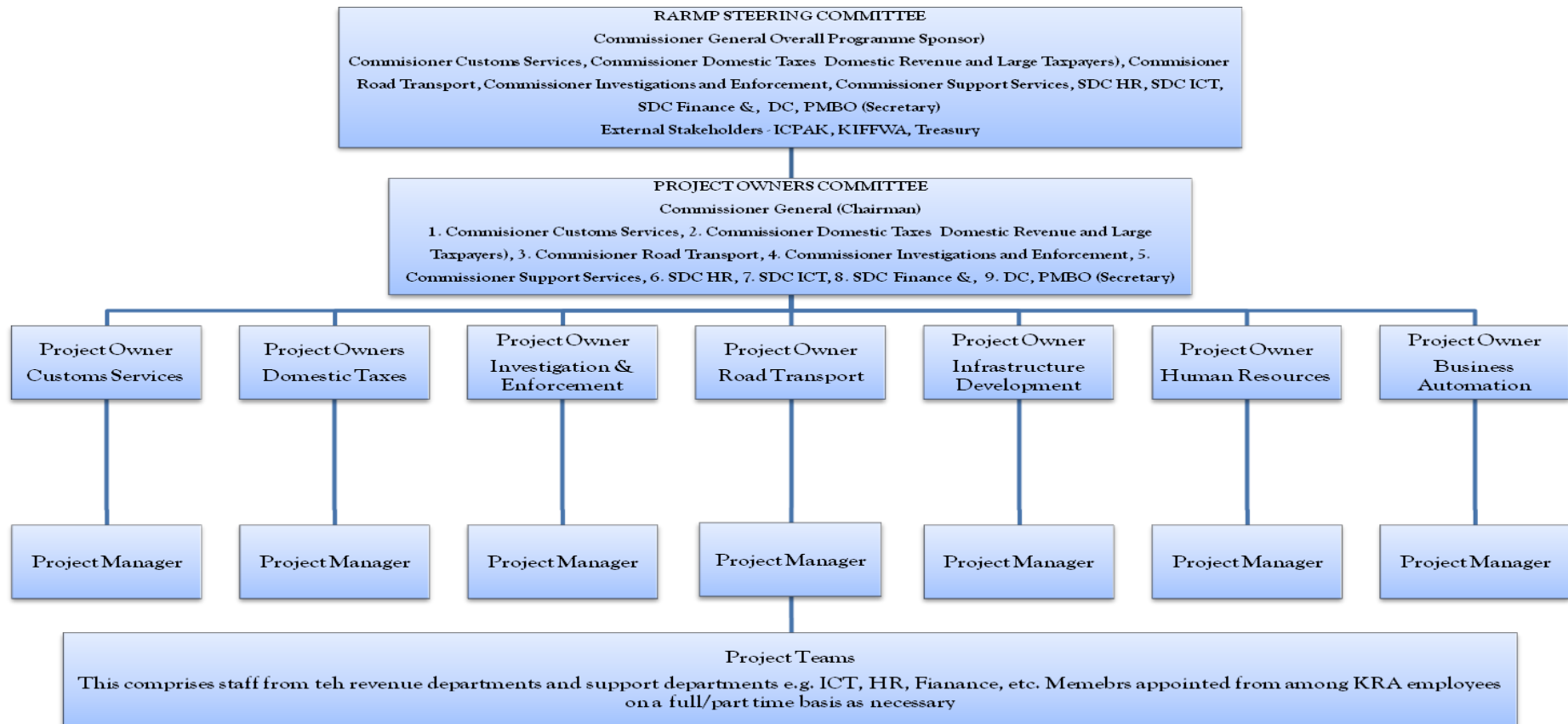
The third Corporate Plan (2006/07–2008/09) implemented several of the initiatives envisaged in the RARMP (KRA, 2006). It was during this period that the KRA claimed several major achievements through the RARMP, including increasing tax revenue to GDP ratio from 19.1% in 2003/04 to 21.6% in 2009/10; increasing revenue collection from KES 229 billion in 2003/04 to KES 534 billion in 2009/10; improving customer satisfaction from 62% to 65%; implementing a web-based customs IT system; implementing an integrated tax management system for domestic revenue that provides online tax services; and having electronic tax registers (ETRs) for use by VAT-registered taxpayers.

Given the resounding success of the initial implementation of the RARMP initiatives, the fourth Corporate Plan (2009/10–2011/12) focused on consolidating these gains and “entrenching the reforms at the operational levels to achieve operational efficiencies and enhance service delivery” (KRA, 2011). The results of this corporate plan were also very impressive. The KRA boasted of increasing revenue by 13.7% and attributing it to the Reform and Modernisation Programme (KRA, 2012). Accordingly, this study will assess this performance and any transformative changes that have taken place as the evident result of the RARMP. As a result of the implementation of the RARMP, the KRA has experienced organizational transformation due to “a high rate of computerisation” (KRA, 2010), which is the focus of the next two chapters.

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<sup>27</sup>For further details, see <http://www.kra.go.ke/index.php/reform-and-modernisation/resources/reforms-governance-structure>.

**Figure 5.2: RARMP Governance Structure**



Source: [www.kra.go.ke](http://www.kra.go.ke)

## **5.6 Summary and Conclusion**

The purpose of this chapter was to provide background information on the KRA and explain its reform experience prior to the implementation of the RARMP. The KRA was created in 1995 to be responsible for all of Kenya's revenue collection activities. The creation of the agency was predicated on two main factor factors: the need to bring the various tax collection departments — Income Tax Department, the Customs and Excise Tax Department and the VAT Department — under a single organization; and the KRA's realignment with the wave of public sector reforms under the banner of NPM that was taking place at t time in many countries and spearheaded by the IFIs. The agency operates as semi-autonomous public organization under the Ministry of Finance.

With regard to governance structure, the agency is managed by a Board of Directors comprising both private and public sector experts who are responsible for providing strategic leadership to the organization. The day-to-day operations are managed by the Chief Executive Officer of the Authority, the Commissioner General, who is appointed by the Minister of Finance. Currently the KRA is organized into four operational departments — Customs Services, Domestic Taxes, Road Transport, and Investigations and Enforcement — and seven support services departments — Human Resources, Finance, Board Corporate Service, Internal Audit, ICT, Research and Corporate Planning, and Marketing.

Over the years since its inception, the agency has continued to undertake several reforms geared at enhancing operational effectiveness and efficiency. These reforms include increasing the tax base and reducing the taxation gap by tapping into the informal sector and using ICT; adopting a formal strategic approach to corporate planning; organizational restructuring; and the basic computerization of a number of services. Despite these improvements, the agency

continued to face several challenges, including low filing compliance, inefficient services due to manual processes, waste of resources due to duplication of services across operational departments, lack of information leading to loss of revenue, and a poor public reputation due to the tendency of employees to collect bribes. Findings from the study attributed these challenges to the agency's failure to effectively use IT in its operations.

In an effort to resolve these challenges and streamline tax administration in order to raise more revenue to cover chronic budget deficits, the Kenyan government spearheaded tax administration reforms under *The 2003 Economic Recovery Strategy (ERS) for Wealth Creation and Employment Creation*. A significant portion of these reforms was devoted to the modernization of tax administration through the use of ICT, thus paving the way for the implementation of the RARMP in 2003. The main objectives of the RARMP were to enhance the efficiency of tax collection process; ensure accuracy and timeliness of the agency systems; reduce corruption by minimizing contact between taxpayers and tax officials; facilitate information sharing to improve tax revenue collection; and enable the agency to provide better and quality services through the implementation of a single view for taxpayers.

It is claimed by several documents and reports that the implementation of the RARMP significantly improved the operations of the agency and caused it to be transformed into an effective and efficient tax collection agency. To weight these claims, the next chapter examines in detail the nature and extent of the transformation that has taken place under the RARMP.

## **Chapter Six**

### **KRA Reforms (2003–2012)**

#### **6.1 Introduction**

This chapter discusses the findings obtained from the interviews conducted and the documents reviewed. In particular, this discussion covers the nature of the new technologies that were introduced in the KRA and the resulting changes in organizational structure, behaviour and culture.

The chapter is organized into five parts. The first provides an overview of the vision, mission and the strategic themes driving the transformational agenda at KRA and explains how they align to the objectives of the RARMP/ICT strategy. In discussing this strategy, the section highlights the key drivers for this transformation. The second part gives an overview of the reforms that have taken place under the RARMP. The third reviews the various technologies that have been introduced and implemented at KRA to bring about the desired transformation. The fourth part discusses the organizational structural changes that have taken place during the implementation of ICT-led reforms, while the fifth discusses the organizational behavioural and cultural changes that have happened during the implementation of the ICT-led reforms. The sixth and final part provides a summary and conclusion of the chapter.

#### **6.2 The KRA's Vision, Mission and Drivers of Change**

The vision and mission for the KRA's transformation agenda have remained the same over several years (KRA, 2003; 2006; 2009; 2012). The agency's vision is to be the leading revenue authority in the world and respected for professionalism, integrity and fairness. Its mission is to promote compliance with domestic tax, trade and border legislation and regulations

by supporting the standards set out in the Taxpayers Charter and to apply responsible enforcement by highly motivated and professional staff, thereby maximizing revenue collection at the least possible cost for the socio-economic well-being of all Kenyans.<sup>28</sup> What has been evolving over the years are the strategic themes that underlie this vision and mission. Table 6.1 summarizes these matters for each planning period (with emphasis added where these themes link directly to the main topics of this study):

**Table 6.1: The KRA’s Vision, Mission and Strategic Themes**

Planning Period	Vision	Mission	Strategic Theme
First Corporate Plan	To be the leading revenue authority in the world respected for professionalism, integrity and fairness	To promote compliance 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 socio-economic well-being of all Kenyans	Revenue collection enhancement and quality service delivery
Second Corporate Plan (2003–2006)			Enhance revenue collection through enhanced quality service to stakeholders, <b>modernization of KRA internal processes</b> and revitalization of the workforce
Third Corporate Plan (2006–2009)			Develop a dedicated professional team embracing <b>modern processes and technologies</b> to deliver customer-focused services that enhance compliance and revenue collection
Fourth Corporate Plan (2009–2012)			Attaining international best practices in revenue administration by investing in a professional team, <b>deepening reforms and quality service delivery</b> to enhance compliance

*Source: KRA’s First, Second, Third and Fourth Corporate Plans*

This review of the strategic themes for each of the three-year corporate plans clearly shows that modernization and, with it, the use of ICT have been the driving force of the agency’s transformation agenda. For instance, the second corporate plan (2003–2006) speaks of “modernization of KRA internal processes,” the third plan (2006–2009) refers to “modern processes and technologies” and the fourth (2009–2012) talks of “deepening reforms and quality service delivery” — with all these statements implying that the use of ICT and the

<sup>28</sup><http://www.revenue.go.ke/index.php/about-kra/vision-and-mission>.

implementation of various modernization reforms are central to agency’s transformation agenda. These strategic themes are embedded in the components of the KRA’s ICT strategy / RARMP. According to several of the agency’s corporate plans, the objectives of the ICT strategy under the RARMP are to achieve full automation of operations, full integration to allow a single view of the taxpayers and full utilization of IT to effectively undertake compliance and audit activities (KRA 2003; KRA, 2006; KRA, 2009). By taking a single, comprehensive view of the taxpayer, KRA aimed at gathering and consolidating data on taxpayers across departments, functions and agencies. Some of the strategic initiatives listed to enable KRA to realize the single view of taxpayer included business improvement and integration in such areas as taxpayer recruitment and registration, audit, return processing and payment, debt management, enforcement and prevention services; organizational restructuring to enhance effectiveness and efficiency; and computerization (KRA, 2003).

The ICT strategy was formulated in 2002 and focused on driving the transformational agenda for agency “to be a modern and fully integrated revenue administration by 2008/09” (KRA, 2006). At the time, the KRA ICT strategy comprised seven projects as summarized in Table 6.2:

**Table 6.2: The KRA’s ICT Strategy**

<b>RARMP Project</b>	<b>Aim</b>	<b>Strategy</b>
Customs Services Department (CSD) Reform and Modernization Project	Transform CSD into a modern customs administration in accordance with WTO and WCO standards	<ul style="list-style-type: none"> <li>• Business process improvements</li> <li>• Improved enforcement, anti-smuggling and compliance strategies</li> <li>• Improved joint border initiatives</li> </ul>
Domestic Taxes Reform and Modernization Project	Create an integrated approach to Domestic Taxes administration to improve service delivery	<ul style="list-style-type: none"> <li>• Convert the KRA from a tax-type structure to a function-based structure</li> <li>• Develop and simplify tax regime for the informal sector</li> <li>• Strengthen the Large Taxpayer Office (LTO)</li> </ul>
Road Transport Reform and	Create an efficient mechanism for streamlined service delivery to taxpayers	<ul style="list-style-type: none"> <li>• Simplify administrative procedures</li> <li>• Modernize and automate motor vehicle</li> </ul>

<b>RARMP Project</b>	<b>Aim</b>	<b>Strategy</b>
Modernization Project		<ul style="list-style-type: none"> <li>and drivers' licence operations</li> <li>• Introduce smart card drivers' licences</li> </ul>
Investigation and Enforcement Department Reform and Modernization Project	Enhance KRA's capability to rapidly, efficiently and effectively detect, prevent and deter tax and economic fraud	<ul style="list-style-type: none"> <li>• Capacity building</li> <li>• Establishing a KRA-wide risk management strategy</li> </ul>
KRA Business Automation Project	Implement an enterprise-wide ICT strategy for KRA that promotes effective integration and seamless sharing of information in a secure manner	Implementation of several systems including the Customs System, Integrated Tax Management System, Vehicle Management System, Enterprise Resource Planning System, Data Warehousing and Revenue Portal, Disaster Recovery and Business Continuity Plan, improvement of IT infrastructure, enhancement of IT security, implementation of a Common Cash Receipting System (CCRS), Performance Dashboard, and e-learning systems, among others.
Infrastructure Development Project	Provide a platform for implementing reform projects	<ul style="list-style-type: none"> <li>• Timely acquisition and provision of needed utilities</li> <li>• Upgrade KRA infrastructure and enhance asset and security management systems</li> <li>• Capacity building</li> </ul>
Human Resource Revitalization	Upgrade and diversify KRA's skill base to incorporate best practices	<ul style="list-style-type: none"> <li>• Embracing performance management</li> <li>• Developing HR policies</li> <li>• Harmonizing job titles</li> <li>• Training</li> <li>• Staff motivation initiatives</li> </ul>

*Source: KRA Third Corporate Plan. (2006). Kenya Revenue Authority Third Corporate Plan - 2006/07 to 2008/09. Nairobi, Kenya: Kenya Revenue Authority.*

Based on the findings, two main factors compelled the agency to pursue the ICT strategy. First, there was the need to integrate the operations of the four departments inherited from both the Ministry of Finance (Income Tax, Customs and Excise, Value Added Tax) and Ministry of Transport (Road Transport). These four revenue departments operated independently and thus presented serious challenges for KRA leadership, including lack of synergy leading to unhealthy competition and rivalry and duplication of effort (KRA, 2010). After the formation of the KRA,

each of these revenue departments still continued to be solely responsible for their own units in taxpayer recruitment, audit, investigation, taxpayer education, debt management and a host of other support functions. The systems in each of these departments were manual, with very little computerization and an inadequate capability to share information. This situation negatively impacted the process of decision making and revenue performance (Waweru, 2006). Waweru identifies the lack of integration and the failure to exploit the potentials of ICT as the main causes of poor performance.

The other factor that compelled the KRA to implement the ICT strategy was the perceived different cultures in each of the agency's departments. In a report presented at the Inter-American Center of Tax Administrations (CIAT), Malinda (2010) explains that the four revenue departments at the inception of the KRA came with a disparate set of cultures from their parent Ministries, occasioning a period of instability and a lack of common identity. She further explains that many years prior to the RARMP, "staff still considered themselves to be either income tax, value added tax and customs and not as Kenya Revenue Authority" and that "each department seemed to be pulling in a different direction" (p. 12). This situation was exacerbated by the lack of systems, requiring employees to have a lot of contact with taxpayers and thus creating an environment that encouraged corruption. One respondent explained that the culture that existed at the KRA at the time was prone to corruption and that staff were not customer-focused as most were perceived by the public to be like policemen who were always looking to apprehend and penalize taxpayers. The respondent further explained that this police-style approach was used by the staff to intimidate taxpayers to pay bribes to be let go or to receive favourable assessments.

In order to resolve these problems, the agency, with the support of the government, resolved in 2003 to invest heavily in ICT under the RARMP to integrate and harmonize the operations of all departments, instil and cultivate a new culture and, ultimately, improve performance. The strategic thrust of the RARMP was to exploit the use ICT to modernize the agency's operations and thereby improve service delivery by providing a single, unified view of an individual taxpayer's case and ultimately transform the agency into an effective and efficient tax collection organization (KRA, 2010).

### **6.3 The KRA's Reform Experience Under RARMP (2003–2012)**

#### ***6.3.1 Overview of Reforms***

Although the RARMP was ICT-driven, the nature and extent of the reforms undertaken under this program were broad and covered a wide spectrum of public sector management practices. Some reforms were structure-driven and included the creation of new organizational structures and the re-alignment of existing structure to modernize revenue collection; others specifically addressed organizational behaviour and cultural issues; and still other reforms were intended to modernize operational processes and procedures through the use ICT. Out of a sample of 55 reform<sup>29</sup> identified in the 2010 KRA Reform Book, 17 reforms were directly ICT-driven; 15 were considered to be organizational structure-driven; and 25 were considered to be organizational behaviour- and cultural change-driven. Note that some reforms were targeted to bring changes in more than one area: structure, processes and organizational behaviour and

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<sup>29</sup> Reform in this context constitutes any change that meets the UNESCO definition of reforms that were implemented during the study period and undertaken under the RARMP initiatives. According to UNESCO's 2006 white paper, reforms include "deliberate changes to the structures and processes of public sector organizations with the objective of getting them to run better. Structural change may include merging or splitting public sector organizations while process change may include redesigning systems, setting quality standards and focusing on capacity-building" (p. 7)..

culture. Appendix 10 provides an overview of the extent of the reforms undertaken at the KRA under the RARMP program as documented in KRA’s 2010 record of reform experience. A detailed assessment of these reforms follows in the next sub-sections.

### 6.3.2 *New Technologies*

The KRA has made a significant investment in ICT. A review of the three corporate plans in our study period revealed substantial amounts of financial resources put into ICT initiatives or the RARMP. A total of over US\$200 million was invested in the program, comprising roughly 27% of the KRA’s annual total budget (see Appendix 2). A snapshot of the KRA’s financial commitments on RARMP initiatives is presented in Table 6.3:

**Table 6.3: RARMP Budget Estimates (2003–2012)**

<b>Corporate Plan</b>	<b>Proposed Budget</b>
2003/04–2005/06	KES 6 billion (US\$75 million) <sup>30</sup>
2006/07–2008/09	KES 4 billion (US\$50 million)
2009/10–2011/12	KES 8.7 billion (US\$108 million)

*Source: KRA’s First (2002), Second (2006), Third (2009) and Fourth (2012) Corporate Plans*

A listing of a sample of these ICT initiatives is provided in Appendix 3. Full automation of the authority and ensuring that IT is fully integrated within it continue to be one of the agency’s key strategic priorities.

As a result of these initiatives and the deliberate efforts to use ICT, the agency has successfully implemented a number of IT projects in almost all of its departments. According to several participants, as well as the documents reviewed, the agency’s new systems, such as Customs’ Simba 2005 System and the Road Transport’s Vehicle Management System, have

<sup>30</sup>These amounts are estimated from the development budget included in the corporate plans. The conversion of KES to US\$ is estimated at rate US\$1 = KES 80.

“revolutionized” the conduct of business through automation and process improvements. The agency is now heavily automated and provides improved ICT infrastructure by way of a local / wide area network covering 95% of all its work station by 2011 and providing staff with computers. Over the period of implementation of the reforms, the ratio of computers to staff improved from 1:5 in 2002 to 1:3 by 2010 (KRA, 2010).

An overview of some of the ICT implementation is presented in Appendix 11. For instance, in the Customs Services Department (CSD), new systems implemented included the Simba 2005 System, a Cargo Management Information System (CAMIS), a Revenue Authorities’ Digital Data Exchange (RADDEX), X-ray Cargo Scanners and a Valuation Database System. In the Domestic Taxes Department (DTD), new systems included an Integrated Tax Management System (I-Tax) and GPRS Electronic Tax Registers; and in the Road Transport Department (RTD), new systems included the Vehicle Management System (VMS).

Although most of these systems have targeted service delivery or external stakeholders, they have also had significant and highly beneficial impacts on the way the organization conducts its internal operations:

- Automated back-end processes and effectively reducing staff administrative burden;
- By providing online services, service delivery has improved and, to some extent, reduced direct interaction between taxpayers and KRA staff;
- Facilitated the KRA to restructure its organizational structure to improve internal operations; and
- Caused the KRA to review and redesign several processes, including the way it collects both domestic and customs taxes.

As a result of its commitment to full automation, the agency has received awards and won recognition for ICT excellence and for being a leading government institution in ICT investment. For instance, from 2009 to 2012, it received for four consecutive years in a row the ICT Excellence Award for ICT Excellence at the Kenya Computing and Communications Annual Awards, hosted by the Computer Society of Kenya in conjunction with the World Information Technology Services Alliance. The KRA was recognized for the outstanding application of Information Technology in the Public Sector. Furthermore, in 2010, it won the award for being the best organization for using IT in the public sector during the Chief Information Office 100 ICT Awards Competition. The KRA also received the *PlusOne* Award<sup>31</sup> for its Customs Reforms and Modernization Project.

The following subsection provides a detailed examination of how the implementation of ICT has changed the agency in terms of its organizational structure, behaviour and culture, and processes.

### ***6.3.3 Organizational Structural Changes during the RARMP***

One area that experienced significant changes during the RARMP is the KRA's organization structure. The authority undertook several major and minor organizational changes considered to be transformational and directly attributable to the RARMP:

- (a) The transformation of KRA from a tax type- to a function-based organization. This change led to the creation of several new organizational structures:

- Formation of a Domestic Taxes Department (DTD)

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<sup>31</sup>The *PlusOne* Awards are given by CIO magazine to honour organizations delivering real business results through the innovative use of IT. The awards recognize five winners annually from among the 100 who have demonstrated outstanding achievement toward a specific business goal. CIO is a professional organization that brings together IT professionals in the East African Region.

- Restructuring of a Customs Services Department (CSD)
  - Formation of a Support Services Department
  - Formation of an Investigation and Enforcement Department
  - Formation of a Regional Structures
- (b) Adoption of a segmented approach in the provision of tax services, leading to the formation of a Large Taxpayer Office (LTO)
- (c) Formation of a Marketing Department

### ***Formation of a Function-Based Organization***

The conversion of the agency from tax type- to a function-based organization was a necessity for KRA to integrate the various departments that once operated as autonomous silos. Prior to these reforms, most if not all of the revenue departments operated more or less independently in a tax-type structure (Waweru, 2006). Under this structure, revenue departments are organized on the basis of the taxes, whereas in a functional type-structure they are organized according to function, such as those of tax registration, compliance audit, taxpayer services and support services (KRA, 2010). According to Waweru (2006), the conversion of the KRA from a tax-type structure to a function-based one was inevitable and intended to realize the full potential of ICT in several ways: through the provision of a single point of access for taxpayer enquiries; enabling the integration of common function, such as the registration of taxpayers by way of a unique identification number; enabling an integrated accounting framework; enhancing revenue through joint audit and enforcement; and having dedicated information processing operations and common support functions. In creating a function type–structure, the agency made the following changes:

- (i) *Formation of Domestic Taxes Department:* The agency merged and integrated all departments providing domestic tax services to form a new, larger Domestic Taxes Department (DTD). The new DTD merged the operations of the previous Income Tax, VAT and Domestic Excise Departments, of which the last had previously resided within the Customs Tax Department. The main motivations for consolidation were to synchronize and integrate operations and to work toward a common goal (KRA, 2010). The KRA 2010 report further explains that the merger “aimed at improving taxpayer services by providing: a one-stop shop for taxpayer services; a common registration function; a single accounting framework; enforced collection and audit across tax heads, data processing and information sharing operations” (p. 78). The merger led to the creation of several new joint tax programs, including Taxpayer Registration and Recruitment; Returns Processing; Refunds; Audit; Compliance and Collections; Debt Management; Policy and Legislation / Technical Services; and Taxpayer Education and Information Services.
- (ii) *Restructuring of Customs Department:* The Customs and Excise Department also underwent some changes as part of the conversion to a functional organization, with the Excise function moving from Customs to the Domestic Services Department in 2004 on the rationale that the excise tax, being a domestic tax, was better suited to being applied within the domestic taxes framework. According to the KRA Reform Book, this restructuring led to the further realignment of various other services, including the creation of several divisions under the Customs Services Department: Trade Division; Operations Division; Policy and Legislation; Post Clearance Audit; Enforcement and Compliance; and Valuation and Tariff.

- (iii) *Formation of Support Services Department:* Prior to 2004 and before the RARMP; 18 departments reported directly to the Commissioner General. These departments — the majority of which were providing support services — such as human resources, communication, legal and research, overstretched the Commissioner General’s management of the authority. As part of the RARMP, several of these support departments were therefore merged to form a new Support Services Department.<sup>32</sup> The aim of this new department was to reduce the wide span of control<sup>33</sup> for the Commissioner General in order to make it easier to manage and increase efficiency and effectiveness for the organization (KRA, 2010).
- (iv) *Formation of Investigation and Enforcement Department:* As part of the organizational restructuring reforms under the RARMP, the specialized Investigation and Enforcement Department (I&ED) was established with the key mandate of harmonizing and integrating the investigation activities of three revenue departments. This new department embraced ICT in performing its duties in gathering information from several sources, notably the national statistics office, third parties and internal databases in order to profile taxpayers, develop compliance programs and design and implement investigations and other intelligence operations.

Other organizational restructuring resulted from the RARMP’s conversion of the KRA into a function-based organization:

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<sup>32</sup>The Support Services Department comprises several divisions: Research & Corporate Planning, Legal Services; Integrity Divisions; Finance; Human Resources; Information Communication & Technology (ICT); Board, Corporate Services & Administration; Internal Audit & Risk Management; and Marketing & Communications.

<sup>33</sup> Span of control is a term commonly used in management to refer to the number of subordinates a supervisor has.

- Creation of a Business Intelligence Office in 2005 to gather and analyze the risk profile of taxpayers and be able to disseminate information easily while conducting audits
- Formation of a Digital Forensic Unit in 2007 to provide computerized forensic laboratory services and analysis of digital evidence
- Formation of an Anti-Counterfeit and Illicit Trade Office in 2005 to take the lead in establishing policies and procedures on matters relating to counterfeits and smuggling
- Establishing a Prosecution Office in 2006 comprising a team of lawyers to spearhead the enforcement function. As a result of this initiative, the Office of the Attorney General commissioned six officers as prosecutors in June 2009.

(v) *Formation of Regional Structures:* In 2003, a new structure was created in each of Kenya's eight provinces reporting directly to the Commissioner General. Prior to this change, regional offices reported to their respective commissioners, making the process of coordination difficult and cumbersome.

Based on the findings from documentary analysis, the process of making these structural changes to convert KRA into a fully function-based organization was slow and often impeded by resistance from both internal and external stakeholders (KRA, 2010; AfDB, 2010). But the transition was completed in 2011, with the result that the agency now has a fully institutionalized “functional structure that includes having integrated recruitment, audit and debt functions and creation of Regional Commissioners” (KRA, 2012, p. xi).

One other restructuring reform undertaken as part of the RARMP was the adoption of a segmentation approach for administering domestic taxes. This approach, which has been implemented in different countries around the world, required that customers be categorized

according to size of their total revenue (KRA, 2010; 2013). The agency’s management believed that implementing segmentation will “assist in addressing the unique needs of each category of taxpayers” (KRA, 2010, p. 81). And as result, operations of the Domestic Taxes Department have been further categorized according to their involvement with large, medium and small taxpayer groups.<sup>34</sup> This categorization of taxpayers has been seen to have boosted taxpayer compliance and, as a consequence, to have improved revenue collection. The segmentation of taxpayers has been particularly useful for the audit and compliance department. A KRA presentation at the 2013 Inter American Center of Tax Administrations conference summarized some of the benefits that the agency has leveraged from segmentation:

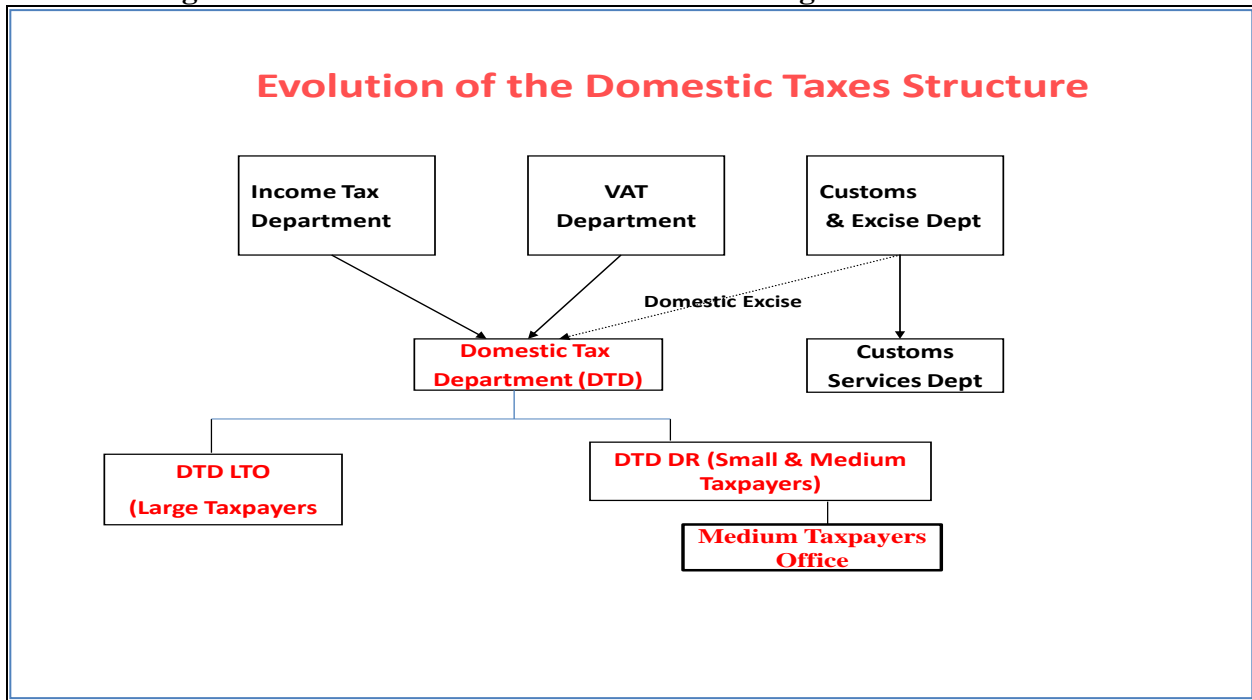
<b>Table 6.4: Benefits of Segmentation to KRA’s Audit and Compliance</b>
<p>The market segmentation specialization program has allowed the Kenyan tax administration to:</p> <ul style="list-style-type: none"> <li>• establish industry benchmarks, which are used to rate taxpayers’ performance against industry averages and peers</li> <li>• evaluate the effectiveness of its audit activity</li> <li>• identify those taxpayers or sectors that have a good compliance record and hence defer them from consideration for audit, while focusing on areas of poor compliance. For instance, it has not been difficult to establish the sectors more prone to non-filing, nil filing, or repeat offenders.</li> <li>• improve the relationship between the tax administration and the customers (taxpayers)</li> <li>• increase the rate of voluntary taxpayer compliance</li> <li>• make the audit process more efficient and effective</li> </ul>

*Source: KRA’s CIAT Conference Presentation on Tax Audit: Market segmentation specialization programs, September 9–12, 2013)*

Based on this segmentation approach, the Domestic Taxes Department continues to evolve as follows:

<sup>34</sup>The criteria used to categorize the taxpayers into the three categories were: (a) large taxpayers: all companies with turnover of KES 750 million and above, all central government headquarter operations, all banks and insurance companies, all wines and spirits manufacturers and local authorities with city status; (b) medium taxpayers: all other taxpayers with turnover between KES 5 million and 749 million; and (c) small taxpayers: all taxpayers with turnover between KES 0.5 million to 4. 9million. As of 2010, there were about 800 large taxpayers. (KRA, 2010, p. 82)

**Figure 6.1: Evolution of the Domestic Taxes Organizational Structure**



Source: Waweru, M. (2012). Implementation of the Kenya Revenue Authority Reform Programme Presentation to Ghana Revenue Authority Senior Management Team, Accra, Ghana. May 17, 2012.

One of the most noticeable reforms arising from the implementation of the segmentation approach was the elevation of the Large Taxpayer Office (LTO) to a full department headed by a Commissioner (KRA, 2010). The LTO was first set up as Unit in 1997 and later as a division in the Domestic Taxes Department. The efficient operation of the LTO, which provided services to about 20% of taxpayers (who contributed 80% of the total department revenue), is critical to the success of any tax administration regime. According to the OECD (2009), large taxpayers pose significant risks with regard to compliance; hence, the need for special considerations. These risks include having significant offshore activities; policies and strategies to minimize tax liabilities; and significant and growing differences between financial accounting profits and the profits computed for tax purposes. In addition, large taxpayers have a critical role to play in terms of withholding tax collection since a large portion of tax assessments result from audits of

large taxpayers. In order to minimize these risks, tax administration around the world has invested heavily in ICT to provide the capability to process large volumes of transactions from large taxpayers.

The LTO has been at the forefront in embracing ICT and other modern tools and techniques of revenue administration. Some of the initiatives undertaken by the LTO to enhance revenue collection and improve service delivery include the development of a revenue tracking module; the establishment of a rapid response capacity for compliance monitoring; the creation of a LTO homepage on the KRA website; the creation and dissemination of LTO email addresses for taxpayers; the establishment of an e-mail database for large taxpayers; and the formation of a communication function and customer care desk in the headquarters building.

The establishment of a Marketing Department was also another milestone resulting from the program. This new department was formed in 2007 by amalgamating the public relations, taxpayer services and marketing functions (KRA, 2010). Its focus was to assist in increasing public awareness of the agency's services, rebranding its image and, more importantly, acquainting taxpayers with their rights and obligations. In accomplishing these mandates, the new department embraced the use of ICT in creating mobile tax clinics and mobile audio-visual presentations to educate the public and provide tax services to remote areas of the country. One key achievement has been the procurement and use of a Mobile Taxpayer Services Unit bus that travels to various parts of the country to provide various online tax services, including instant issuance of PIN certificate; registration of Turnover Taxpayers; processing of VAT applications; renewal of driving licences; and verification of driver and motor vehicle records (Waweru, 2011).

#### **6.3.4 *New Organizational Behaviour and Cultural Changes***

One of the challenges that KRA had to deal with after its formation was the disparity of cultures brought by employees from the parent ministries. A 2010 KRA report on reforms explains that “the mix of staff from various departments with diverse cultures, different structures, systems and procedures” caused instability in the organization, leading to dysfunctional performance (p. 12). In the early 2000, KRA had a poor corporate image and was perceived to be rigid and corrupt. In 2002, the agency was ranked 14<sup>th</sup> by Transparency International out of sample of 50 public institutions in Kenya as the most corrupt (KRA, 2003).

The findings from the interviews and document review point to three likely factors that contributed to this negative organization behaviour and culture. First, the agency inherited a two-tier salary scheme — one from mainstream public service and the other from the KRA — causing disunity among staff and low morale. In addition, the lack of a scheme of service for most of staff, particularly the support staff, led to a “negative culture and contributed towards poor work ethics” (KRA, 2003, p. 17). The third likely factor that encouraged dysfunctional behaviour was the prevalence of a cumbersome and outmoded manual system and a lack of integration among various functions within departments. As stated in the second corporate plan (KRA, 2003), many of systems were “not transparent and promoted face-to-face contact and encouraged the use of discretion” (p. 26). The lack of integration not only encouraged dysfunction but also impeded the development of a common culture across the agency.

To change the behaviour of the employees and build a more acceptable corporate image, the agency took a number of strategic steps through the RARMP. These included:

- Implementing several systems that integrated KRA operations and minimized employee contact with customers / taxpayers
- Revamping Human Resources by reviewing organizational structure, adopting modern human resource management practices, and promoting a singular corporate culture and team building
- Developing a customized and integrated policy in line with the Public Sector Integrity Assurance Programme, the Provisions of the Public Officer Ethics Act and the Anti-Corruption and Economic Crimes Act
- Restructuring the support function to improve the quality of service and devoting more resources to frontline services, compliance and enforcement functions
- Training staff in new skills to improve the corporate image (KRA, 2002, 2006, 2009, 2010, 2012; Malinda, 2010)

Other initiatives undertaken to change organizational behaviour and culture included:

- Establishing structures to tackle various integrity issues
  - creating an Integrity Office to inculcate a culture of integrity within KRA
  - forming an Internal Affairs Unit to deal with staff integrity matters; this unit is linked to Investigations and Enforcement operations
- Developing and implementing a Corruption Prevention Plan
- Introducing several institutional reforms (such as the Corruption Prevention Committee, Integrity Testing) to increase the detection of fraud and corrupt malpractices
- Reviewing several tax laws and procedures to reduce monopolistic power and the discretion of officers
- Providing training on changing attitudes of employees

- Establishing the Complaints and Information Centre (CIC) to gather intelligence or unsolicited information and then use it to take corrective action
- Developing and implementing a new scheme of service for employees
- Undertaking capacity building among staff
- Developing a standards charter for staff
- Employing a new performance contracting and appraisal system based on a Balanced Score Card
- Training staff on all tax modules to take a broad, holistic view and to work in an automated environment
- Implementing a new scheme for the coaching and mentoring of staff
- Developing new Human Resource policies and recruiting staff from the private sector
- Establishing psychometric testing and assessment centre activities to harmonize the recruitment, deployment, training needs assessment, promotions and career progression(KRA's First, Second, Third and Forth Corporate Plans; KRA Reform Book, 2010; Malinda, 2010)

It is notable that the agency also embarked on several reforms geared at building capacity and professionalism in the workforce, a key requirement for transforming government (Gills, 2003; Palanisamy, 2004; Culbertson, 2005). In fact, Human Resource Revitalization, with its accompanying effects of improved service and productivity, was a key strategic initiative in all three corporate plans reviewed. Thus the second plan (2003–2006) has the strategic objective of Revitalization of Human Resources aimed at developing a workforce that is technically competent and professional. According to KRA (2003), this goal was to be attained through the review of organizational structures and subsequent changes, as well as a review of Terms and Conditions

of Service; the third corporate plan (2006–2009) states its strategic goal to develop a dedicated and professional team; and the fourth plan contains the aim to develop a professional team that is well remunerated. Consequently, the KRA placed great emphasis on Human Resources, particularly in the 2006–2009 period, and adopted the strategic theme to develop a dedicated professional team embracing modern processes and technologies to deliver customer-focused services to enhance compliance and revenue collection (KRA, 2006). Some of the initiatives undertaken included:

- Development and implementation of a new scheme of service for Support Service Department
- Harmonization of position titles across the Support and Operations staff
- Embracing performance management by introducing the Balanced Score Card, performance appraisal and performance contracting
- Development of new Human Resource policies on code of conduct, career path development, training, pensions and other issues
- Providing training through the established Kenya Revenue Authority Training Institute (KRATI) to equip staff with new skills
- Recruiting and employing professionals from the private sector (AfDB, 2010; KRA, 2010; KRA, Malinda, 2010)

Other initiatives implemented and aimed at developing a dedicated and professional team at the agency include implementing corruption prevention plans, conducting job evaluations to determine internal and external equity, developing a coaching and mentoring program, and revamping of KRATI with modern training facilities (KRA, Malinda, 2010). KRATI now offers several online courses on tax administration and is also the World Customs Organization's

(WCO's) Regional Training and Capacity Building Coordinator for 21 countries in East and Southern Africa (AfDB, 2010).

The agency has also embraced several modern tools and techniques to enable it to realize the full potential of ICT through a transformed government. For instance, it implemented a Quality Management System (QMS) to ensure that the authority meets the requirements and expectations of its customers. The implementation of the QMS involved the documentation of processes, procedures and practices and led to the attainment of ISO 9001:2000 certifications in 2007. The agency also embraced the Total Quality Management (TQM) technique, with which it ensured that it was making significant progress in realizing its vision of being a “leading revenue authority in the world respected for professionalism, integrity and fairness” (KRA, 2010, p. 54). Other modern techniques embraced under the RARMP include the adaption of risk management techniques and Authorized Economic Operators<sup>35</sup> in various operations of the organization, particularly in the Investigations and Enforcement Department (I&ED). The I&ED rates and profiles customers based on their perceived risks and determines where to place more emphasis on the use of existing resources as opposed to using the traditional approaches of 100% verification. A former Commissioner is quoted as saying that a risk-based approach is the most feasible way to carry out effective investigation and enforcement activities. He noted:

Revenue Authorities can never have all the resources they need. Therefore emphasis has to be placed on efficient and effective allocation of existing resources through adoption of risk management techniques. Risk-based compliance and enforcement are the way to go and revenue authorities will have to gradually let go of traditional practices such as 100 per cent verification or

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<sup>35</sup>Under the Authorized Economic Operators method, customers are profiled and categorized according to their compliance history. If a customer is perceived to have a good compliance record, then he is provided with preferential treatment and allowed to file returns based on self-assessment. This provides taxpayers with an incentive to voluntarily comply and, by extension, allows KRA's I&ED to focus on those taxpayers perceived to be a risk or are otherwise inclined not to comply.

expansion of audit coverage. Investment in intelligence and risk management techniques, tools and skills provide the key to the future. KRA, 2010, p. 109) The adoption of the risk management approach led to the establishment of a National Targeting Centre in 2009 based at KRA headquarters in Nairobi. One respondent explains that this centre currently provides a focal point for risk management within the Customs Services Department.

From interviews and document review findings, the impact of all these initiatives on the behaviour of agency's employees can be seen to have been significant. Some of the changes are self-evident, while others are only implied. The findings point to several changes in organizational behaviours and cultures, including working in an automated work environment; increased collaboration among departments; the introduction of a shared services culture; minimized contact between staff and taxpayers; and increased training.

A number of interviewees agreed that the work environment has changed significantly over the years and now enables most employees to work in automated environment. One respondent summarized the impact of technology in the work environment by noting:

Technology has enabled employees of KRA to complete their transactions in a timely manner. For instance, employees can promptly communicate to a large number of taxpayers in a short time by use of email. Initially, use of postage could take weeks, and sometimes the posted letters could get lost along the way as a result of human error. Technology has helped cut on logistical / transport cost in the sense that distance has been reduced and the frequency of travelling by staff has been reduced because the taxpayers can access KRA services online even from the comfort of their homes. The use of the LOTUS [email] systems has enhanced internal communication at KRA where employees can communicate with one another via email. Circulars and Memos can be circulated to all the employees conveniently, hence effective communication.

Another respondent explained that the implementation of a number of enterprise resource planning (ERP) systems, such as the SIMBA 2005 System, has enabled employees to prepare their monthly reports and to access any details from other departments, hence reducing errors like refunds to taxpayers who owe other departments. Respondents were also in general

agreement that most employees are now able to undertake online training, hence reducing training costs. Other areas of automation in the work environment include the implementation of e-payments, which has enabled employees to bank online, thus reducing banking transaction costs. Further, several respondents mentioned how online PIN application has significantly reduced long queues at KRA offices for this service and enabled the agency to concentrate on other revenue-generating transactions.

In addition to an increasingly automated work environment for its employees, there is increased collaboration and integration of operations through the single view of the taxpayer initiatives. This change has enabled employees to share information and determine the impact of their decisions on the entire organization. For instance, the interface of Simba 2005 system with the Vehicle Management System (VMS) has enabled the Customs Services Department and the Road Transport Department to collaborate when processing customs tariffs and registering motor vehicles. As one respondent explained, real-time transactions have greatly enhanced sharing information and, even more so, increased the integrity of KRA employees:

Technology has facilitated a single view of the taxpayer. If a taxpayer has an amount owing in one department and cannot be cleared and needs a refund in another department, he cannot get the refund because the departments are integrated, hence sharing of information across. By processing transactions on a real-time basis, KRA has been able to address a number of integrity issues at KRA.

Collaboration and the sharing of critical information have also been extended to other government agencies, professional bodies and even international or bilateral donor agencies, thanks to the use of technology. The agency now easily works with the Bureau of Statistics, Registration Bureau, ICT Board, Safaricom, CCK, ICPAK, Parliament, IMF, World Bank, the Inter American Center of Tax Administrations (CIAT), the World Customs Organization (WCO), among others. The WCO, for instance, provides online training resources for KRA staff.

Perhaps a major change in organizational behaviour and culture resulted from the introduction of a shared services culture. By definition, shared services refers to a concentration of services in a particular section of an organization (Janssen, Joha, and Weerakkody, 2007). The merger of the VAT and Income Tax Departments into the Domestic Taxes Department ushered in the shared services culture at the KRA. This merger enabled these departments to share resources and conduct joint audits, compliance and taxpayer registration. This shared services concept was complemented by the alignment of Support Departments along functional lines. Prior to the implementation of the RARMP, support departments were decentralized in the revenue departments, leading to duplication of resources, divergent and often antagonistic agendas and the creation of management conflicts as each of the 18 departmental heads reported directly to the Commissioner General. The centralization of these services through the Support Department brought about a fundamental change in organizational behaviour, moving the agency from decentralized decision making to a shared services culture. According to Malinda (2010), the sharing of services at the head office and in the regions

has not only streamlined uniform application but has strengthened authority and control over the various support functions.... The sharing of offices and common resources such as support staff has greatly boosted integration. Prior to this, different departments in the regions were responsible for their own finances, resources such as motor vehicles and staff. Staffs were still operating in silos of income tax, customs and vat, and offices were scattered in different buildings in the same town. This has now changed and the image of the Authority has been boosted. (p. 18)

The shared services culture also provides the rationale behind the creation of the Investigation and Enforcement Department (I&ED). Prior to the reforms, this function was performed by three departments, one in each of the revenue departments. Some respondents indicated that during this time, incidents of one client being visited by three different teams from the agency were common. The creation of the new I&ED thus consolidated the investigation of cases of tax

evasion and the prosecution of tax evaders, in addition to investigating staff involved in abetting tax evasion. This new scenario “allowed for common strategies and approach to tackling the issue of tax evasion. Previously each revenue department had its own investigations function and there was no coordination of the activities, nor common strategies and direction” (Malinda, 2010, p. 18).

The shared services culture has been facilitated by the promotion of a single view of the taxpayers. One respondent explained that if an employee has not been cleared from one department and needs services such as a refund from another, he will not be served because the departments are integrated. Another respondent reinforced this view, explaining that the increased integration of departments has enabled the sharing of information between the VAT and Income Tax Departments.

But there are instances where departments have not fully embraced the ideas of integrating their operations and sharing critical information. This is because of an unhealthy competition to meet set targets due to performance contracting and the performance appraisal system that has been instituted in the agency (Gill, 2003; Mansor, 2010). At the KRA, managers and supervisors are provided with targets and objectives that enable them to manage change initiatives and ultimately determine their bonuses (KRA, 2010; Malinda, 2010). But performance contracting, if not properly implemented, can be counterproductive as it leads to wasteful competition. One respondent explained how performance contracting sometimes discourages the sharing of useful information and potentially leads to a loss of revenue collection:

In certain situations, we do not share information because of the targets we have. Take for instance: customer for rental income may have properties in two separate regions, say Nairobi and in one of the regions. Ideally, this customer should report his or her income from the region with the highest number of properties, usually Nairobi. But because we want also to boost our revenue collection, we willingly

refuse to disclose his or her tax status to Nairobi and continue to process his income as if he has one source of income.

The problem of a lack of sharing information appears in the agency's self-evaluation of the performance of the third corporate plan (KRA, 2009). This evaluation explains that one of the challenges in implementing reforms was the occasional lack of an exchange of information among the various departments, which hinders effective risk assessment, the profiling of customers and the facilitation of effective departmental strategies. The report attributes this lack of exchange of information to a lack of integration of internal systems that would enable the use of information across departments. This situation raises some doubt on the effectiveness of the purported sharing culture within the organization.

It is also notable that not all departments are fully integrated. For instance, the Customs Services Department and the Domestic Taxes Department each maintain separate databases. Mohamed and Munde (2012) point out that the automation systems in these departments still remain "silos" as they are not interfaced through a shared database and this has limited their overall effectiveness and efficiency. In fact, the agency is currently in the process of replacing the Customs' main system — Simba 2005 — with a more robust system that will address the various challenges that affect revenue collection, risk management, system stability and security (Njirani, 2013). According to Njirani (2013), the new system is expected to fully integrate the Domestic and Customs systems and be able to provide the "holistic view of each taxpayer across the entire spectrum of their operations" (p. 1).

For some respondents, the use of technology in the workplace and the ability to work remotely have increased job productivity, satisfaction and staff morale. One respondent explained that technology had positively transformed his work life to be easier, meaningful and motivating:

Professionally, I work better using IT-based technologies. I virtually can work from home or at least know what's going on while I am away. We used to send leave forms from Moyale to be approved in Nairobi and that could take two months before they come back so that you can proceed on leave. First, the form was sent to Garrisa for departmental Head approval. Then the form is sent from Embu to Regional Head, then to Nairobi, and perhaps it could be an emergency. Today, I just log on to the system, fill the form online, and all parties have timelines to respond. We have readily available information about taxpayers, and we are more updated on our profession, which makes us more satisfied and motivated as professionals.

One respondent was more cautious, mentioning that more needs to be done to enhance productivity and staff morale. This respondent explained that the agency needs to be more professional and improve in the areas of integrity issues, communication and information flow within the authority. Another respondent agreed, pointing out that although the agency has implemented change management programs, some employees' behaviours have not changed due to a tendency to seek bribes from taxpayers.

Another aspect of work behaviour that has been impacted by ICT relates to increased training. Agency employees have undertaken training in IT and other specialized areas, such as handling of X-ray scanners and using of Electronic Tax Registers (ETRs). The ETRs are used for improving compliance with VAT requirements through improved record keeping. These ETRs provides audit trail for invoices issued by traders and thereby make it easy to detect and deter tax evasion (Waweru, 2006; KRA, 2010). In addition, all new graduate trainees have to undergo comprehensive training on all types of taxes and therefore easy to serve a variety of taxpayers. Although this approach has enhanced integration in the organization and enabling employees to work in various departments, it undermines specialization in particular tax types. Prior to the reforms, employees focused only on one type of tax, enabling them to develop specialized knowledge and expertise. But overall, as one respondent explained, the comprehensive

knowledge provided to new graduate trainees is creating a new calibre of employee who will identify themselves as KRA staff and not merely as members of “Department X.”

To enhance and transform its image, the agency has also accompanied ICT reforms with several initiatives aimed at enhancing taxpayer relations. Waweru (2009) lists some of the steps taken to improve taxpayer relations (p. 116–117):

- Producing a Taxpayer Charter setting out the KRA’s commitment to taxpayers
- Preparing internal standards that commit managers to meeting the requirements of the Taxpayer Charter
- Consolidating taxpayer services within the taxpayer services division
- Educating taxpayers to specifically addresses each category of taxpayer
- Holding tax clinics for the public to provide basic information on compliance
- Establishing a Complaints and Information Centre to provide a rapid feedback for taxpayers’ queries

Other steps that have been undertaken by the agency to boost its corporate image include training Integrity Assurance Officers; establishing Corruption Prevention Committees (CPCs); reviewing its Code of Conduct; preparing operational manuals for all functions; developing Corruption Risk Assessment and Corruption Prevention Plans; sensitizing all staff on integrity issues; and preparing Integrity and Whistle Blowing Policies (KRA Reform Book, 2010, p. 53). The authority has also undertaken a number of initiatives aimed at changing the public perception of the KRA in order to boost its corporate image.

While it seems that the impact of ICT-led reforms on organizational behaviour and culture has been positive, changing culture and work ethics of employees has not been easy but at times difficult. For instance, the implementation of a number of systems such as the Simba

2005 at Customs and ETR for Domestic Taxes faced resistance from both internal and external stakeholders that at some point resulted into court cases and injunctions. Even the merger of the various revenue departments to harmonize several KRA functions and build a common culture continues to face resistance from some employees. For instance, the Third Corporate Plan reported that modernizing operations and using technology have failed to change organizational behaviour and build team work among staff (KRA, 2006). The report explains that changing organizational behaviour has been difficult and is a key bottleneck to enabling the agency to achieve its objectives. The report further points out that cultural change has failed to take place and that departments have continued to operate as silos, therefore limiting the scope and potential benefit of integration (KRA, 2006). The following brief statements from the interviews confirm the report's findings:

- Value and perception have changed for the better, but we are very far from embracing integrity
- The culture of impunity and corruption is very high
- Many employees have stagnated (no promotions) because of corruption
- We have technology, but even with technology we have problems because other stakeholders are still lagging behind
- The case of KRA is unique because technology has not curbed corruption as critical details are not captured
- The notion that if employees of KRA were well paid they could not be corrupt was ironical as it did not happen

These statements attest to the fact that a culture of ethical behaviour among employees is yet to be fully realized at the agency. Detailed discussion on how these organizational behaviour

and cultural changes have impacted performance, process improvements and image is the focus of Chapter Seven.

#### **6.4 Summary and Conclusion**

This chapter has reviewed the research findings from documentary analysis and interviews. This discussion of these findings was aligned to the analytical framework for this study and mainly focused on what has changed at the agency during the implementation of the RARMP. Accordingly, the chapter was divided into four main parts: an examination of the KRA's vision, mission and strategies; a review of the various technologies that have been introduced and implemented at the agency; a review of organizational structural changes; and an examination of organizational behaviour and cultural changes.

The agency's vision and mission have not changed over the years. The agency's vision is to be a world-class leading tax collection agency in terms of professionalism, integrity and fairness, whereas its mission is the promotion of compliance and enforcement to boost revenue collection. From this vision and mission come several strategic themes that have been evolving over the last ten years, the period of study. Central to these strategic themes is an emphasis on the modernization of the KRA operation through the use of ICT. Its ICT strategy underscores the importance of transformation by setting strict timelines to be modern and fully integrated by 2009/10. A number of factors led the agency to pursue a ICT-driven transformation agenda, including the need to integrate departmental silos that inherited from the Ministry of Finance and the need to harmonize cultural diversities that were hampering effective and efficient revenue collection. Since its inception in 1995, the KRA was considered by the public to be an extension of the mainstream civil service and therefore perceived to be corrupt and inefficient. To correct

this negative image, the agency embarked on ICT-driven reforms under the RARMP to transform itself into an effective and efficient organization.

Over the years that followed the initiation of the RARMP in 2003, the agency made significant investments in ICT. Several documents, reports and interviews point to the fact that the KRA was committed to the full automation and integration of its operations. It is notable that the KRA embarked on these initiatives and invested heavily in various types of technology in almost all departments of the organization, impacting its organizational structure, behaviour and culture. These concerted efforts and commitments were recognized nationally.

On the question of organizational structural changes, the agency undertook several reforms, including converting from a tax type-based organization to a function based-organization; segmenting the administration of domestic taxes into various customer groups; and creating new departments. An overarching question for this research was to determine how these structural changes have been impacted by ICT. Most participants in the interviews were of the view that these changes would not have been effective without the use of ICT. ICT was central in facilitating and enabling these changes, merging departments and realigning them from a tax-type structure to a function-type. For example, the basic premise for converting to a function-based organizational structure was to integrate common functions to provide a single view of a customer, a goal that would not be feasible without ICT.

Another area examined in this chapter was organizational behaviour and cultural changes. The interviews showed some of the changes in this area to include employees being able to work in an automated environment; increased collaboration among its departments; and the ushering in of a shared services culture. Several respondents mentioned that these changes have led to increased productivity, satisfaction and staff morale, particularly because ICT enabled employees

to work remotely or in an automated environment. An analysis of the documentary evidence showed that the agency has not achieved full integration, as some departments are still operating as unintegrated silos. The implementation of the various reforms has not been smooth due to resistance from key stakeholders, notably employees and clearing agents. This resistance at some times resulted in court cases that slowed the pace of the change process.

In summary, the findings of this study seem to confirm that the agency has indeed made some progress in changing its structure and organizational behaviour and culture. The impact of these changes on performance, process improvements and image is the subject of the next chapter.

## **Chapter Seven**

### **The KRA, ICT and Transformation**

#### **7.1 Introduction**

This chapter examines the impact of the changes that have been implemented at the KRA under the RARMP as the result of the introduction of ICT. It applies the analytical framework developed in Chapter Two to explain the outcomes that have resulted from the implementation of ICT. The chapter is organized into five parts. First, the changes in performance are reviewed. Second, the impact of ICT on processes is examined. The third part discusses the impact of ICT changes on the KRA's image or reputation. Part four examines the KRA as a transformed organization and considers a number of propositions contained within the analytical framework. The last part provides a summary and conclusion. It will be helpful to begin here with a review of the analytical framework.

##### ***7.1.1 Analytical Framework Revisited***

The analytical framework used in this study has four main interrelated components, as shown in Figure 2.3. The first component is the existing organization desiring the change or transformation. According to the analytical framework, such an organization is considered to be ineffective and inefficient as it is characterized by departmental silos with poor integration, lack of a common vision, functional barriers that make the sharing of information and services difficult, and a disparity of cultures. The second component is ICT. The framework regards ICT as a key ingredient in converting the existing organization into a new or transformed organization, the third component of the analytical framework. The two variables considered in the transformed organization are a new organizational structure and behavioural or cultural changes. The fourth

component is the expected outcomes from a transformed organization. In the discussion of the analytical framework in Chapter Two, it was explained that the implementation of ICT-led reforms leads to positive outcomes such as improved performance, process improvements and improved image or reputation of the organization.

In addition to the three outcome variables, the analytical framework proposes a number of propositions that explain the nature of transformation. These propositions include the alignment of ICT with the KRA's strategies and goals; ensuring that the reforms are fundamental breakthroughs; the removal of functional barriers; the application of a top-down leadership approach; the focus of reforms on improved customer service or quality service; a seamless flow of information across the departments; and reliance on ICT (Weerakkody et al., 2011). This chapter examines these three outcome variables and explains the nature of the transformation that has taken place in the agency using these propositions.

## **7.2 Impact on Performance**

For the purposes of this research, the KRA's performance was reviewed from a financial perspective. For a tax collection agency, performance can be assessed using these indicators (Gill, 2003):

- Revenue generation
- Revenue-to-GDP ratio
- Cost of collection as a percentage of revenue

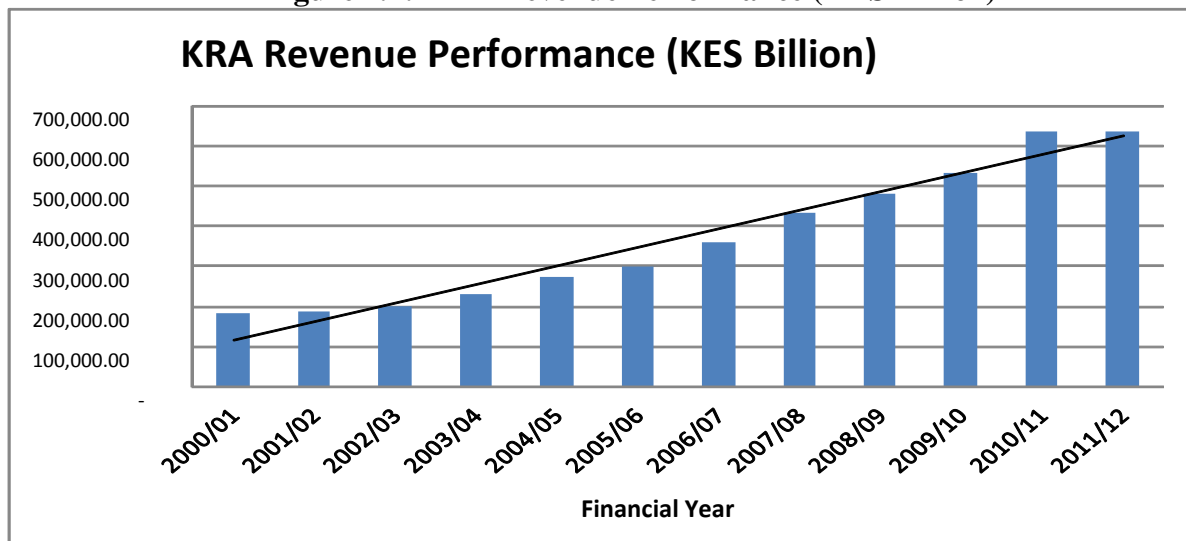
### 7.2.1 Revenue Generation

Several documents and findings from the interviews demonstrate that the performance of the agency from a revenue perspective has been impressive. Reports obtained during the field research claim many successes in improving revenue under the reform program. For instance, a quick review of the agency performance as explained in each of the corporate plans examined shows sustained progress in revenue during the RARMP implementation period:

- Third Corporate Plan: revenue collection increased by 10% annually during 2003/04 and 2004/05 (p. viii)
- Fourth Corporate Plan: the KRA achieved an average revenue growth of 17.2 percent over 2006/07–2008/09, exceeding the forecast rate of 12 percent (p. viii)
- Fifth Corporate Plan: during the 2009/10–2011/12 plan period, the amount of revenue collected by the KRA increased from KES 480,569 million in 2008/09 to KES 634,903 million in 2010/11, an increase of 32 percent. (p. xii)

Generally, the KRA has recorded a sustained upward trend in revenue, particularly during the years of implementing the RARMP (Figure 7.2).

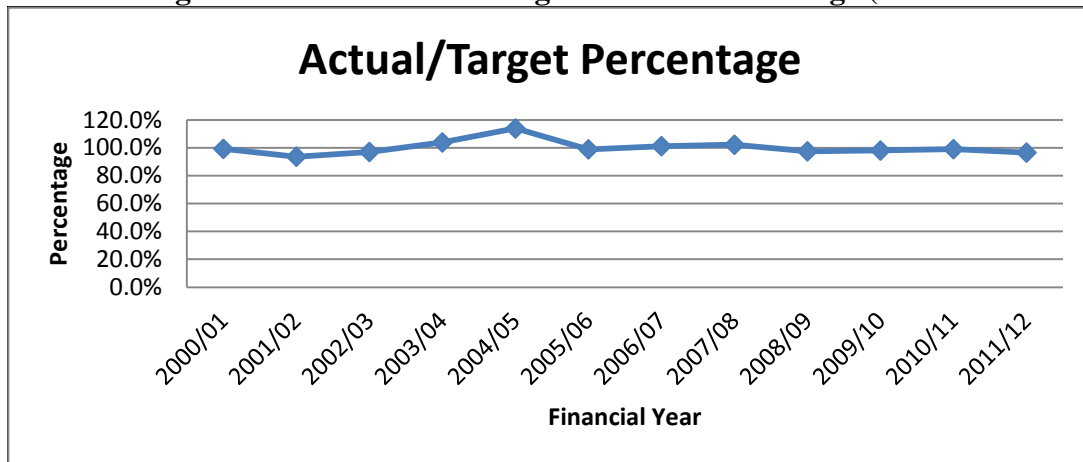
**Figure 7.1: KRA Revenue Performance (KES Billion)**



Source: KRA First Corporate Plan (2001/01 to 2002/03); Second (2003/04 to 2005/06); Third Corporate Plan (2006/07 to 2008/09); Fourth Corporate Plan (2009/10 to 2011/12); Fifth Corporate Plan (2012/12 to 2014/15). Nairobi, Kenya: Kenya Revenue Authority

Figure 7.3 describes the trend in terms of actual versus target:

**Figure 7.2: KRA Actual/Target Revenue Percentage (2000/01–2011/12)**



Source: KRA First Corporate Plan (2001/01 to 2002/03); Second (2003/04 to 2005/06); Third Corporate Plan (2006/07 to 2008/09); Fourth Corporate Plan (2009/10 to 2011/12); Fifth Corporate Plan (2012/12 to 2014/15). Nairobi, Kenya: Kenya Revenue Authority

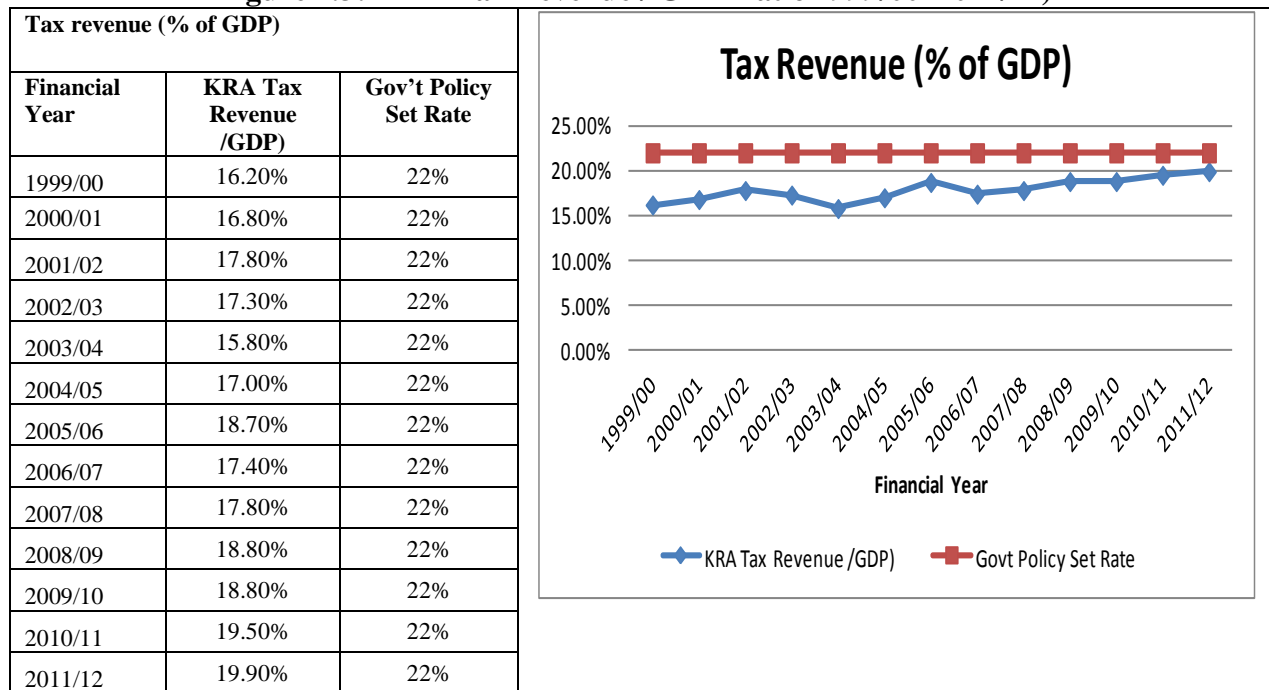
From Figures 7.2 and 7.3, the following points emerge on KRA’s revenue performance:

- Revenue performance is on a sustained upward trend for most of the periods
- Revenue growth averaged over 11% between 1999/00 to 2011/12
- For most years, the KRA seems to have achieved the set revenue targets, with revenue performance (actual/estimates) averaging 100.1 percent over the period 1999/00–2011/12

### 7.2.2 Tax-to-GDP Ratio

The tax-to-GDP ratio is a common indicator of the performance of tax administration authorities. For Kenya, the government has set a target rate of 22 percent revenue-to-GDP ratio. Data obtained from the World Bank shows this rate to have averaged 18 percent in the period 1999/00–2011/12 as shown in Figure 7.4:

**Figure 7.3: KRA Tax Revenue / GDP Ratio 1999/00–2011/12)**



Source: World Bank retrieved on February 27, 2014  
<http://data.worldbank.org/indicator/GC.TAX.TOTL.GD.ZS>

From Figure 7.4 above, the tax revenue-to-GDP ratio appears to have been relatively stable, averaging 18 percent over the period 1999/00–2011/22. It is notable that this ratio did not change significantly during the RARMP period (2003–2011), which would suggest that perhaps KRA’s improved revenue performance was a result of general improvement in the economy as a whole. However, as Waweru (2008) argues, the performance of the tax revenue-to-GDP ratio is not an indication of poor tax administration performance but rather a reflection of the tax structure enforced by the government of the day. In fact, a study by the African Development Bank placed the tax-to-GDP ratio at 22 percent in 2007/08, an increase from 20.5 percent in 2002/03 (African Development Bank, 2010). The study noted that the ratio was much better than that for most African countries and explained this result as being mainly attributable to the agency’s reforms under the RARMP.

### 7.2.3 Cost of Tax Collection

Another indicator used to assess the performance of tax administration is the cost associated with tax collection. The government has set a 2 percent benchmark to be the maximum ceiling on the cost of collecting tax.<sup>36</sup> The following data on the cost of collections per revenue department, compiled from the review of the agency's evaluation of the corporate plans, shows a sustained decline and one consistently below the set statutory rate:

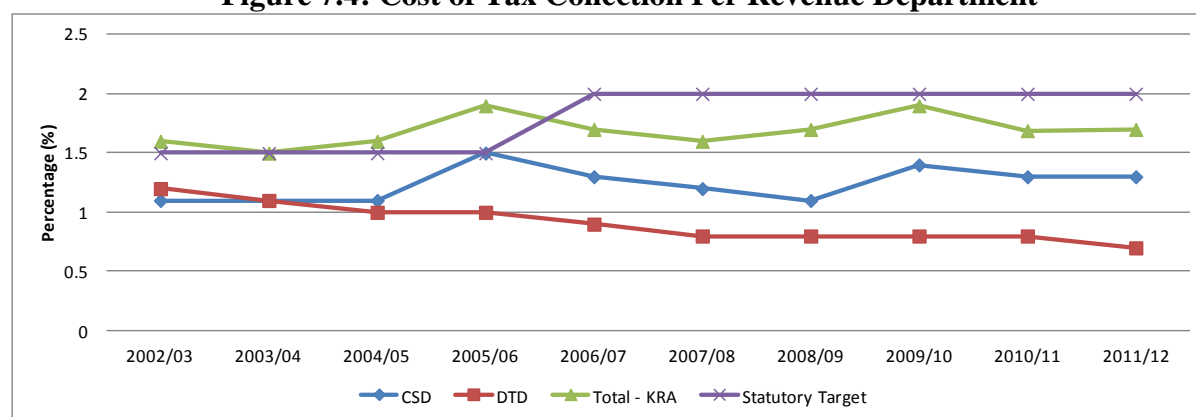
**Table 7.1: Cost of Tax Collections by Department as a Percentage of Revenue**

Department	2002 /03	2003 /04	2004 /05	2005 /06	2006 /07	2007 /08	2008 /09	2009 /10	2010/ 11	2011/ 12
CSD	1.1	1.1	1.1	1.5	1.3	1.2	1.1	1.4	1.3	1.3
DTD	1.2	1.1	1.0	1.0	0.9	0.8	0.8	0.8	0.8	0.7
RTD	14.1	12.9	14.5	18.2	23.0	26.8	23.5	27.9	25.0	24.6
Total	1.6	1.5	1.6	1.9	1.7	1.6	1.7	1.9	1.69	1.7
Statutory Target	1.5	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0

Source: KRA First Corporate Plan (2001/01 to 2002/03); Second (2003/04 to 2005/06); Third Corporate Plan (2006/07 to 2008/09); Fourth Corporate Plan (2009/10 to 2011/12); Fifth Corporate Plan (2012/12 to 2014/15). Nairobi, Kenya: Kenya Revenue Authority.

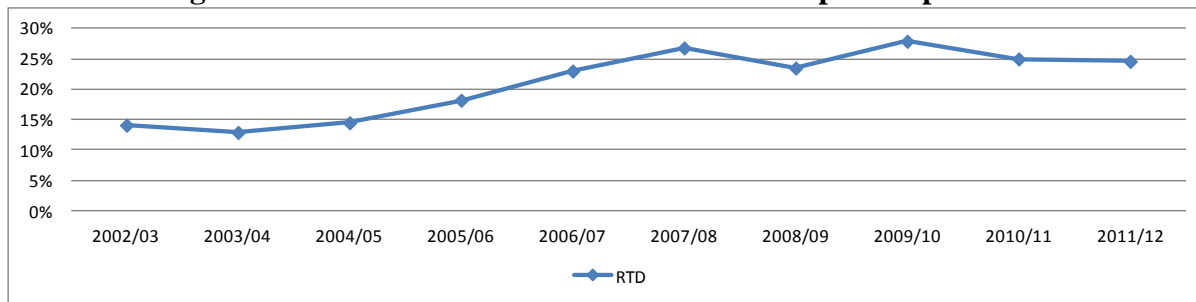
This information in Table 7.1 above is presented graphically in Figures 7.5 and 7.6:

**Figure 7.4: Cost of Tax Collection Per Revenue Department**



<sup>36</sup> Determining the cost of a tax is a complex process that involves identifying the costs of collecting and administering a tax system. The cost of collection is usually measured as a percentage of total revenue (Moyi and Ronge, 2006). For KRA, the cost of tax collection constitutes staff or personnel costs, material used to collect taxes and other costs incurred to run each department (Waweru, 2007)

**Figure 7.5: Cost of Tax Collection – Road Transport Department**



In terms of the cost of collecting tax revenue per department, the following observations can be made:

- The cost of collection has remained relative stable for both the Customs Department and the Domestic Revenue Department
- The cost of collection for the Domestic Taxes Departments is showing a decreasing trend, averaging 0.8% during 2006/07–2011/12
- The worst performing department is Road Transport, with the cost of collection far above the 2% ceiling — averaging 21%
- Overall, the KRA's cost of collection has averaged 1.7%, a result below the 2% statutory target

Overall, the performance of the agency from the revenue perspective has been positive.

According to a former Commissioner General, this positive result is attributable to three factors:

- (a) The KRA's adoption of a strategic planning approach and performance contracting, which has allowed the KRA to outline its vision, clarify its mission and identify its key results areas, performance objectives and operational strategies as well as to introduce the Balanced Score Card as a management tool.

- (b) The implementation of the Revenue Administration Reform and Modernization Programme (RARMP), involving seven projects, to ensure all reform initiatives are harmonized and well coordinated; and
- (c) The ability of the authority to successfully implement an ambitious information technology upgrading program under the RARMP, which enabled the KRA not only to improve taxpayer service but also to benefit from the synergies arising from data sharing to improve compliance (Waweru, 2008)

A number of interviewees also attributed improved performance to technology. Here are a few representative statements:

- Technology has played a central role in increased tax collection at the KRA.
- Technology has reduced transaction costs, hence increased revenue collection.
- The year 2003 was a turning point when the KRA started using technology has revenue shoot up; there was upward trend in revenue with an occasional plateau due to common problems of change.
- Technology supported the KRA in increasing government revenue collection from \$200 million to 1.5 trillion, which means that 90 percent of the government budget can be supported by KRA collection.
- The KRA is among the best collection authorities in Africa.

A number of the agency's internal reports also corroborate these statements. For instance, a review of the performance of the agency under the three corporate plans under study (the second, third and fourth) have identified four key factors or drivers for revenue performance: a broadened tax base, enhanced enforcements, improved tax audits and better debt management.<sup>37</sup>

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<sup>37</sup>Appendix 12 summarizes the results of these four drivers of revenue.

A close look at these key factors points to the heavy use of technology. For instance, the broadening of the tax base involved increased online recruitment of taxpayers; improved enforcement and compliance all point to investment in modern technology by way of X-ray scanners, better management of taxpayer databases and digital surveillance gadgets; and better debt management using modern tools and techniques. A number of interviewees also attribute the improved performance to technology. Several respondents ascribed this improvement to the implementation of online services, making it easier for taxpayers to comply with tax legislation requirements; better integration of operations among departments, leading to reduced administrative costs; and better tools and techniques of modern technology for staff to investigate and enforce compliance. For instance, the online tool to issue PIN number electronically has significantly improved the enrolment of taxpayers over the years and, in the process, increased KRA's revenue collection (KRA, 2009)

Nevertheless, some interview responses and a review of some documents indicate that the introduction of some technologies was disruptive to revenue collection. For instance, the implementation of the Simba 2005 system at the Customs Department led to customs revenue tumbling "significantly in the first months of implementation" (KRA, 2010, p. 65). The African Development Bank study on the agency's Domestic Resource Mobilization in 2010 explains that the Simba 2005 System even caused the decline in the tax-to-GDP ratio due to start-up technical problems during implementation (AfDB, 2010). Such disruptions, however, are often short-lived and even to be expected when implementing large systems such as the Simba 2005. The findings that attribute the excellent revenue performance to the RARMP are also consistent with the findings of the AfDB study on Kenya's domestic revenue mobilization. That study also attributed the positive revenue performance to the RARMP; it stated:

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The implementation of the RARMP, which prioritised quick wins to rapidly and significantly raise tax revenues (in real terms) has demonstrated considerable results, including the reversal, in a period of real GDP growth (2004-2007), of the decade-long decline in tax-to-GDP ratio. The programme has also already accomplished significant outputs and outcomes in such areas of ICT applications as eFiling and full computerisation of the customs operations. The programme has definitely placed KRA on a firm modernisation trajectory (AfDB, 2010, p. 28)

A recent KRA paper presented during the 2013 Inter American Tax Center (CIAT) conference also attributes the improved performance of the Domestic Taxes Department — particularly the Large Taxpayer Office (LTO) — to improved audits and compliance (KRA, 2013). It claims that the agency significantly reduced tax evasion by improving compliance control processes using ICT, taxpayer segmentation, risk-based audit strategies and industry benchmarks, all leading to improved revenue collection over the reform period.

In summary, based on these findings, it can be argued that the positive performance of the KRA in terms of revenue generation can be attributed to the reforms under the RARMP program, among other factors such as the economic environment and changes to tax policies<sup>38</sup>. It must be noted, however, that the revenue generation is determined by several interrelated factors, such as the general economic environment, the nature of tax structures or tax policy, administrative systems and overall efficiency of the various public institutions in the country. However, given the fact that the KRA, prior to the implementation of RARMP initiatives, made no significant financial performance improvement since its inception in 1995, the natural inference is clearly that the ICT-driven initiatives under RARMP were a key factor in invigorating revenue growth. Indeed, the view that ICT played a major role in improved financial performance is well represented in several KRA and Government of Kenya documents and was frequently expressed in the interviews.

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<sup>38</sup> Examining the impact of the external environment on the KRA's financial performance was considered beyond the scope of this study and is therefore excluded from the analysis.

### **7.3 Impact on Process Improvements**

This study focused on internal process improvements that resulted from the implementation of the RARMP. Although it is notable that most process improvements have largely had an external impact (that is, the way in which the agency interacts with taxpayers and other external parties), these processes<sup>39</sup> have significantly altered the internal operations. It is undeniable that the KRA has made some significant progress in automating processes across all departments, thereby changing the way employees work and interact with their customers. For instance, in the Customs Services Department, the implementation of the Simba 2005 System has changed the processing of customs duties by automating several processes that were previously done manually. This system now made it possible for agents to lodge entries online and present them electronically; then, using these entries, the system computes the applicable duties and taxes automatically, effectively eliminating many human interventions and the possibility of corruption and other malpractices. Other systems that have impacted the customs internal processes operations include:

- A Valuation Database, making it possible for staff to compare declarations by different importers from the same source country for the same commodity, and even for same exporter, and to note value differences. As one respondent put it, the valuation database has greatly helped in managing risk and detecting tax frauds in advance by identifying risk transactions that require further audit or verification.

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<sup>39</sup>Appendix 13 provides an overview of some of the process improvements that the KRA implemented during the study period.

- The Revenue Authorities Digital Data Exchange (RADDEx), which has enhanced communication with other revenue authorities in the region and thus improved surveillance and the possible detection of revenue leakages.
- The establishment of the 24/7 centralized Data Processing Center (DPC) has also revolutionized the processing of Customs lodgments. The DPC is web-based and allows customers to lodge customs documents from anywhere in the world, effectively eliminating the long queues that were typical of the former Long Room;<sup>40</sup> abolished manual processes; and changed the work environment at the KRA, where there are now fewer officers, about 30 based in the Headquarters.
- Direct banking for all Customs Payments has changed the processing of payments from manually receiving and documenting payments to now simply verifying the correct data capture and validation from the customs systems that receives the information from banks. In the words of the former Commissioner General, this process has eradicated revenue leakages from physically handling cash and cheques and, therefore, “tax frauds involving incidents such as the multiple usage of revenue cheques are now a thing of the past.” (Waweru, 2006, p. 2)
- The Customs Oils Stocks Information System (COSIS), which has improved the monitoring and accounting for local transit and export of oil products, reconciliation of oil stock imports and preparation of management reports
- The Post Clearance Audit, which has changed from a cumbersome and labour-intensive review of all entries to focusing on areas perceived to be at risk (KRA, 2010; KRA, 2013; KRA Corporate Plans 2003, 2006, 2009, 2012)

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<sup>40</sup>The Long Room was a term used at KRA to refer to the manual customs processing that required tedious data capture and often caused lengthy queues (KRA, 2010, p. 63)

The Domestic Taxes Department has also witnessed several process improvements under the RARMP. The merger of the Income Tax Department (ITD) and Value Added Tax Department (VAT) ensured that several processes previously done by each department were now integrated and harmonized: registration and recruitment; returns processing; refunds; audit; compliance and collections; debt management; policy and legislative/technical services; taxpayer education; and information services. Based on the documentary analysis, these processes are now done jointly and have effectively reduced administrative burdens and increased compliance for both the taxpayer and the agency. For instance, the Integrated Tax Management System (ITMS) was implemented to enable online registration and the filing of returns, thereby reducing the administrative burdens on staff and increasing compliance.

One area that has benefited immensely from cross-functional integration in the Domestic Taxes Department (DTD) is audit, investigation and enforcement. These functions were previously done by each revenue department and, consequently, were plagued with a lack of coordination, wasteful duplication of resources and no common strategies and direction. This lack of integration also led to high incidences of tax evasion. The situation greatly inconvenienced taxpayers because it was common for the staffs of different departments to visit a single taxpayer more than once, sometimes seeking information of a similar nature (KRA, 2010). With the formation of the Investigation and Enforcement Department, these functions were consolidated and ensured that the various revenue departments pursued similar strategies to minimize tax evasion.

The Road Transport Department also modernized several of its processing, making it one of the most automated departments at the agency (Waweru, 2009). Some of the back-end processes that have been modernized include:

- The document scanning and imaging that facilitated electronic processing and retrieval of documents. This new process has significantly improved record keeping and queue management and has effectively eliminated the malpractice of missing files.
- Automated revenue collection via the Cash Receipting System (CRS) has greatly enhanced revenue collection and accountability by staff
- The Driver's Licence Status Query and online motor vehicle registration via the interface between the Vehicle Management System (VMS) and Simba 2005 have allowed customers to retrieve information online as opposed to coming to KRA offices and, as a result, have reduced congestion and administrative burden from KRA staff (KRA, 2010)

At the corporate-wide level, several process improvements have been achieved. For instance the implementation of a Free Open Source Software (FOSS) system has significantly improved several administrative functions, such as human resources management, payroll and accounting. As most respondents explained, some basic functions, such as processing leave requests, have now been fully automated, effectively saving significant time and resources. The data and information available from the various systems have improved the process of decision making and, as a result, have enhanced the efficient use of financial and human resources.

Another positive change in process improvement relates to the workplace environment, which has been changed with the use of technology. According to several respondents, the work environment has witnessed less congestion, reduced cases of missing files and, more important, minimized contact between employees and taxpayers. Prior to the reforms, most offices were busy with long queues as taxpayers were compelled to file their returns and resolve any issues in person, and incidents of long, tiring waits and missing files were common. Many respondents explained that, with the implementation of these ICT-led reforms, long queues have been

eliminated and incidents of missing files were minimal as most information can now be accessed online. In the Customs Services Department, for instance, the Simba 2005 System was frequently said by interviewees to have eliminated human intervention and, hence, minimized the possibility of corruption and removed the long queues in the long room. This automation of some frontline services created a conducive work environment, helping KRA staff to concentrate on their work (KRA, 2010). In general, it can be said that some systems have to some extent minimized the contact between the employees and taxpayers.

Despite these process improvements, it is noteworthy that our findings show manual processes to still exist. As one agency's report notes, one of the shortcomings from implementing RARMP is that a number of internal operations, such as return processing and processing of payments, still use legacy systems (KRA, 2012). The report further points out that some support functions, such as audit, are not fully integrated at the agency. For instance, both the Customs Services Department (CSD) and the Domestic Taxes Department (DTD) conduct their own audits at the time of the data collection and construction for this research.

#### **7.4 Impact on Image / Reputation of the KRA**

Poor corporate image is one of the challenges that continue to haunt the KRA. For many years, the tax administration authority was perceived to be one of the most corrupt public institutions in Kenya. For instance, in 2002, the KRA ranked 14<sup>th</sup> by Transparency International out of a sample 50 public institutions for corruption, whereas the Road Transport Department was ranked 19<sup>th</sup>. One of the major challenges for the KRA is to stay out of the Transparency International rankings (KRA, 2010). In practical terms, this meant that at the outset of the reform process, the agency had to come up with mechanisms to improve its corporate image.

Although the use of ICT and other modernization of processes at the agency has minimized contact between staff and clients, the culture of corruption and impunity has not changed much and continues to damage the agency's reputation. Hence, one of the major objectives and strategic goals of the RARMP's modernization initiatives has been to try to minimize the interaction between agency employees and their customers. For instance, the Third Corporate Plan expressly states that "KRA will harness the power of technology to minimize contact between KRA officers and taxpayers" (p. 29). Although many factors<sup>41</sup> cause corruption in tax administration, practitioners and scholars believe that having too much discretion in tax administration encourages corruption (Purohit, 2007). Purohit (2007) explains that "the greater the discretion, the greater the opportunity tax officials have to provide 'favourable' interpretations of government rules and regulations to businesses in exchange for illegal payments" (p. 287). To mitigate this risk, ICT can be used to minimize interactions between taxpayers and tax officials and thereby minimize opportunities for corruption. Purohit (2007) further explains that "the use of information technology reduces the discretionary power of local officials, cuts transaction costs, and increases transparency. Most important, it reduces the interaction between taxpayers and tax officials, thereby reducing the opportunity to engage in corrupt practices" (p. 295).

The use of technology to minimize contact between tax officials and taxpayers was mentioned by several respondents as the main driver for using technology, a view that recognizes that the direct interaction of taxpayers with KRA employees presents opportunities for bribery. However, from the responses of most participants and a review of a number of documents, it seems apparent that these reforms have had little impact on corruption and other malpractices in

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<sup>41</sup>Other factors include complexity of tax laws and procedures, which encourage tax evasion and corruption; lack of monitoring and supervision, which encourages tax officials to refrain from performing their duties effectively; unwillingness of taxpayers to pay taxes and therefore encourages them to bribe tax officials to reduce their tax liability; and political leadership that is not committed to eradicate the vice. (Purohit, 2007)

employee behaviour. Indeed, a number of respondents indicated that corruption and malpractices are still common at the agency. In fact, one respondent explained that a number of KRA employees still behave as if they have the power of a policeman to seek better or bigger bribes. This view of common employee behaviour has not changed as a result of RARMP, as this respondent explains:

Here is a story of two taxpayers — an Asian man and his wife — who perceived KRA to be like policemen. The lady taxpayer feared coming to KRA offices because she thought she could be apprehended. So this lady would always send her husband to first represent her at KRA and know exactly what the officials required. But over time the man realized that changes have taken place in KRA, and they treated taxpayers respectfully. Realizing that things have changed, the lady changed her perception to the extent that she now visits KRA premises on her own.

The reality of corruption makes some departments such as Customs, a more desirable place for staff to work. Some employees regard it as a blessing and a great opportunity to be posted at Customs, as can be seen from one respondent's story about a junior worker who desperately wanted to be transferred to Customs where his father, now retired, used to work:

There is a boy who desperately wanted to be transferred from Compliance to Customs. As the manager responsible, I rejected his requests. After some time, I realized that the boy was being pressured by the father to move to Customs, where it was perceived that it is easy to obtain bribes. The father was a past KRA employee who used to work at the Customs Department. Finally, the boy used other means to get into Customs. This shows the extent to which employees are determined to work at the Customs — because it is believed to have BIG money.

A former Commissioner General expressed his frustration at the rampant corruption that gave the agency a negative image while addressing managers from the Customs Taxes Department and Road Transport Department. He noted:

However, within the Authority, the Road Transport and Customs Services Departments are perceived as the most corruption-prone departments. In these departments, it appears that our own officers do not seem to mind the various abuses going on around them. I challenge you to ask yourselves why cases of outright fraud, fake driving licences, motor vehicles registered as motor bikes or

trucks registered as tractors still occur, yet we have the tools and means to stop them! Is this not corruption happening right under our noses? And the more fundamental question is: Why don't you as managers see the same deficiencies? Or do you see them and do nothing about it? (Waweru, 2006b, p. 2)

and

In spite of the reform and modernization initiatives, I am concerned about the many operational weaknesses that still afford unscrupulous individuals with opportunities to evade taxes. There are still several incidences of laxity in supervision and other serious revenue leakage points. (Waweru, 2006, p. 5)

The problem of poor image has continued to persist for a number of years. For instance, in the fourth corporate plan, the evaluation of the third plan notes that “the Authority continues to face integrity challenges amongst staff, and the resultant effect was KRA’s re-entry in the 2008 Transparency International Urban Bribery Index. Therefore, there is need to revamp the KRA integrity programme during the next period” (KRA, 2009, p. 22). Similarly, in the fifth corporate plan, management expressed disappointment in its evaluation of the fourth corporate plan, stating:

staff have not fully embraced the culture of integrity. New integrity challenges continue to emerge calling for more robust mitigation strategies. Fraud has shifted from manual to automated environment, making it harder to detect and resulting in high amount of revenue leakage. The automated environment has also exposed the KRA automated systems to hacking and other system abuse from both within and without (KRA, 2012, p. 20)

The objective of building professionalism at the agency by attracting professional staff and paying them well seems not to have worked in improving ethics and culture. As one respondent explained, the notion that if employees are paid well they will then not be corrupt is ironical and has not happened at KRA.

Some highlights of the agency’s reputation during the reform period are as follows:

- In 2007, the KRA no longer placed in the Transparency International’s Bribery Index (BI) (KRA, 2009)

- In 2008, the KRA re-entered the Transparency International Urban Bribery Index (KRA, 2009)
- In 2011, KRA management again admits that integrity is still challenge: the KRA is ranked 13 out of 38 public institutions in the 2011 Transparency International (Kenya) corruption perception ranking — worse than the ranking of 14<sup>th</sup> it attained in 2008/09 (KRA, 2012)

From these statements, it is obvious that the KRA's image has not changed; if it had, then public perception would have been reflected in the Transparency International BI rankings. A number of interviewees admitted that corruption and malpractice are still rampant at the agency and that in some ways this has hindered the agency from meeting its collection targets. One respondent explained that the KRA has a potential of collecting over one trillion Kenya shillings, but because of corruption, the agency continues to lose revenue.

The problem of corruption is, however, not uniquely confined to the KRA but rather is an institutionalized epidemic in the entire nation (AfDB, 2010). Miruka (2010) explains that “most Kenyans seem to have lost trust in government institutions as impartial public service providers” (p. 190). Although the KRA hoped to minimize the problem by investing in technology, it is not an issue of technology issue but rather one of culture, which will require more than technology to uproot. A number of studies, particularly that of the African Development Bank (AfDB) on domestic revenue mobilization in Kenya, seem to corroborate these arguments. This AfDB 2010 study explains that corruption is not simply an internal problem of the KRA but rather a problem that exists within Kenya's business community. A former KRA senior staff member elaborates on the magnitude of the problem and the KRA's predicament:

You know that we have never shied away from admitting that we have a problem.... We have sacked people at KRA, we have changed management but

the vice is still with us. Therefore, what is it that is the problem? It is those business people, and they need to begin changing. These people will foster corruption as long as they are not arrested. Therefore, we all need to work together to eradicate this costly vice. (Wambui, 2009, p. 1)

The findings suggest that, for the most part, the KRA's image has not changed significantly during the implementation of the RARMP. The intent of the ICT strategy to minimize contact between employees and taxpayers, and thereby reduce corruption, has not been effective or transformative.

The idea of reducing corruption through automation is one of the biggest challenges in transforming government (Weerakkody et al., 2011). As was noted above, corruption and fraud have now shifted from manual procedures to automated systems, making it even harder to detect (KRA, 2011). The assumption of ICT changing culture is itself controversial (Bhatnagar, 2003; Ndou, 2004; Andersen, 2007). According to Bhatnagar (2003), "e-government offers a partial solution to the multifaceted problem of corruption" (p. 30). While technology provides an opportunity to minimize contact between employees and clients and make more information directly accessible to the public, it does not prevent corruption practices in environments where corruption is embedded and thrives. As this study found out, corruption is still rampant at the KRA, a position that the Commissioner General has admitted on more than one occasion. In 2006, he is reported to have complained about laxity and malpractice among staff leading to serious revenue leakages (Waweru, 2006).

Institutionalized corruption is difficult to eradicate, especially if the government is not fully committed to stamp out the problem (Miruka, 2010). Miruka (2010, p. 191) explains that corruption is widespread in Kenya to the extent that most Kenyans have lost confidence and trust in the public service. In these circumstances, where there is lack of transparency in the functioning

of government and weak institutions, fighting corruption is extremely difficult, and even efforts to use ICT may not bring any meaningful results. Bhatnagar (2003) explains:

A lack of transparency in the functioning of the government agencies can make it easy for the perpetrators to cover their tracks, and unearthing corruption becomes very difficult. The weak character of institutions which are supposed to investigate charges of corruption and prosecute the guilty, as well as an inefficient or corrupt judiciary, further exacerbate the problem of corruption and facilitate immunity against prosecution (p. 1)

It is therefore not surprising that the agency has been unsuccessful in using ICT to stamp out corruption. While ICT provides at least partial help toward this end by reducing discretion, providing data on transactions, tracking transactions and exposing possible areas of corruption, it will not be the solution to the vice. More than ICT will be needed to change the values and belief system of the entire country.

In view of these findings on image and reputation, the question on whether the agency is a transformed organization remains open. The next subsection examines the agency as a transformed organization in general terms.

## **7.5 The KRA as a Transformed Organization**

In discussing and explaining the nature of transformation at the KRA, this study turned to the propositions raised by the analytical framework in Chapter Two (Section 1.4: Analytical Framework). These propositions included the alignment of ICT with the KRA's strategies and goals; fundamental breakthroughs; the removal of functional barriers; the application of a top-down leadership approach; the focus of reforms on improved customer service or the quality of service; and the seamless flow of information across the departments and the KRA's reliance on ICT (Weerakkody et al., 2011). The other propositions noted in the earlier chapter have been sufficiently discussed in previous sections (cost of service delivery: section 7.2; process

improvements: 7.3; the KRA's reliance on ICT: 6.4). A detailed assessment and discussion of each of the remaining factors in the context of the KRA transformation follows.

### ***7.5.1 Aligning ICT with the KRA Vision and Mission***

The importance of aligning ICT strategy with the organization's vision and mission is a key requirement for transforming the government. Prior to the KRA's embarking on ICT-led reforms, its strategic theme was revenue collection enhancement and quality service delivery. This theme did not specifically state how the agency's vision would be achieved, and it contained no mention of ICT. In 2003, at the commencement of the RARMP, the strategic theme was modified to include ICT and hence stated the aim to "enhance revenue collection through enhanced quality service to stakeholders, modernization of KRA internal processes and revitalization of the workforce" (KRA, 2003, p. 4). It must be noted that the agency emphasized the use of ICT and therefore realigning the mission to the ICT strategy.

This strategic theme has not changed significantly over the years and continues to emphasize the importance of using ICT in the reform agenda. Although the strategic theme in 2006 focused on revitalizing the workforce, the driver for that change still remained ICT. The strategic theme thus states to "develop a dedicated professional team embracing modern processes and technologies to deliver customer focused services that enhance compliance and revenue collection" (KRA, 2006, p. xvii). The focus on professionalism through ICT continued in 2009 with the theme of attaining international best practices in revenue administration by investing in a professional team, deepening reforms and quality service delivery to enhance compliance (KRA, 2009).

From these strategic themes, a few points are noteworthy for the present study. First, the main focus of these strategic themes is on service delivery and, by extension, the customer. Second, a prominent role is given to ICT in facilitating the attainment of these strategic themes. And third, there is increasing realization of the role of a committed and dedicated workforce in ensuring that the vision and mission is achieved. In sum, what matters in transforming government is that the strategic themes and goals must be aligned with the ICT strategy. For the agency, the ICT strategy was well supported and closely aligned with the vision and strategic themes of the organization.

### ***7.5.2 Fundamental Breakthroughs***

One of the propositions discussed in the analytical framework as an enabler for transformed government is making fundamental changes. From the findings, it can be observed that the agency started its reform process under the RARMP by undertaking some fundamental organizational structural changes, which were then followed by smaller incremental improvements in various parts of organization. These radical structural changes focused mainly on converting the agency from a tax-type structure to a functional structure-based organization. These structural changes were necessary to prepare the organization to implement and support ICT-led reforms. The changes started by realigning services or functions that were considered to be compatible and therefore easy to integrate at the operational level. As result, the VAT and Income Tax Departments were merged to form the Domestic Taxes Department as both were involved with domestic taxes and, in most cases, had similar taxpayers. This merger paved the way for the reorganization and integration of several support functions, such as the conduct of

joint audits, compliance, investigation and tax registration. But it is important to note that the merged departments maintained their existing procedures.

The creation of the Support Department was necessary to ensure that the agency streamlined its internal operations and, more importantly, to ensure that all other reforms were uniform across the organization, thereby reducing the possibility of conflicting decisions. Note that before the RARMP, revenue departments were decentralized and operated independently, circumstances in which it was not possible to push for change and move toward a common goal. Accordingly, the centralization of these support functions under one department not only streamlined these services to eliminate duplication but also ensured that the entire organization shared the same vision and mission.

One other notable structural reform needed to steer reforms was the creation of a Marketing and Communication Department. Management recognized that implementing change is not easy, especially when an organization is dealing with multiple stakeholders both internally and externally. As a result, some entity within the organization was required to lead all change-management initiatives and also to ensure effective communication among staff and for stakeholders. The Marketing and Communications Departments was therefore created to drive change. The department has thus been cited as being instrumental in marketing new ICT products or systems, such as the Electronic Tax Register (ETR), the Integrated Tax Management System (ITMS) and the Call Center (KRA, 2010). Internally, the new department took the lead in change-management initiatives, such as having several events to communicate key messages to staff and rebranding the organization, and also facilitated the documentation of reform experiences for information sharing.

### **7.5.3 *Removing Functional Barriers***

Another proposition for a transformed organization is the removal of functional barriers within the organization. As an organization within the mainstream civil service, the KRA inherited several functional barriers that proved to be impediments for the authority's realizing the objectives of its ICT strategy. Prior to the reforms, it operated as departmental silos that did not communicate with each other. As noted by a number of interviewees, the various revenue departments functioned as stand-alone organizations; duplication of services was rampant; and key taxpayer services were fragmented, occasioning repeated visits by the taxpayer to several departments. In these circumstances, it was not possible to implement ICT and to achieve the full potential of a transformed government (Culbertson, 2002; Murphy, 2005; Weerakkody and Dhillon, 2008). Management therefore rightly knew that undertaking organizational structural reforms was essential before implementing ICT. One of their reports states:

Changes in organizational structure and functions of different departments should be effected before IT solutions are rolled out. Uncertainties regarding departmental structures, roles and responsibilities make it difficult to prescribe appropriate IT solutions and organizational changes during systems development and can lead to considerable rework, higher costs and delays in implementation (KRA, 2010, p. 110)

Beginning with some fundamental structural changes was inevitable for the agency to remove the existing functional barriers — a process that reinforces a key proposition for having a transformed government. Transformation is ICT-enabled, but it must be organizational structure-led because, quite often, an organization requiring transformation has to eliminate certain functional barriers and obstacles before implementing ICT. By merging several of its departments and creating common service departments, the agency may have managed to remove some of the functional barriers that hampered its effectiveness in tax administration activities.

#### ***7.5.4: Top-Down Leadership***

The role of leadership in the transformation process is another proposition in this study's analytical model. From the review of several documents and interview results, the strong role of leadership for the implementation of several of the ICT-led reforms was evident. The implementation of the reforms under the RARMP seems to rest on strong top-down leadership, particularly from the immediate former Commissioner General. A few statements imply the importance of a strong top-down leadership style.

- During the early years of the implementation when the Commissioner General realized that he had no control or monitoring capability for the program, he created a Project Management and Business Analysis Office (PMBO) in 2006 to directly report to him on the program's performance. The mandate for this office was to “provide programme coordination, monitoring and evaluation, hasten progress and decision making, undertake business analysis and conduct business process mapping” (KRA, 2010, p. 42).
- The implementation of the largest system in the Customs Department — the Simba 2005 System — did not involve a number of key external and external stakeholders.
  - The clearing and forwarding agents alleged that the system was imposed on them, and they resolved to seek readdress through the court.
  - There was also resistance from senior customs officials prompting their dismissal to allow the implementation of the system to proceed.
- The roll-out of reforms was done in quick succession and often “caught members of staff unawares, yet they were meant primarily for their benefit.” (p. 102)

Based on this study's assessment, it seems the leadership approach used was top-down and the said-leader had the firmness of purpose to "make difficult decisions" when warranted (KRA, 2010, p. 98). One factor that enabled the leader to have such a strong impact was accessibility to necessary political support that gave him security of tenure extending over nine years, support aspect that his immediate predecessors lacked (AfDB, 2010; KRA, 2010). Previous Commissioner Generals served an average of three years, whereas this leader served close to ten years, almost the entire period of the RARMP implementation (AfDB, 2010). This AfDB (2010) report further explains that:

The relative success of KRA in rapid and successful implementation of reforms of the tax system since 2003/04 could not have been feasible if the politics of patronage and corruption were still rampant. In this regard, furthermore, it is noteworthy that KRA enjoyed relative leadership stability and autonomy in this period. (p. 8)

The leadership enjoyed constant political support from the president, Cabinet, Ministry of Finance (Treasury) and Parliament (KRA, 2010; Malinda, 2010). The president at the time, Mwai Kibaki, had just assumed power in 2003 and was committed to change. It is interesting to note that it was during his first year in office that he appointed the immediate past Commissioner General, Michael Waweru, to help the agency stamp out corruption and mismanagement in the organization (Jopson, 2007). The president himself was a top change agent and is reported to have taken every opportunity to pass on to the public key critical messages on tax administration changes and the need to comply and accept change (Waweru, 2009; KRA, 2010). Having the necessary political support ensured not only that key messages were communicated with maximum possible impact but also that the organization could easily mobilize funding resources for their various initiatives. The then-Commissioner General was the main

champion for these reforms and was described by a number of respondents as visionary, unwavering, persistent and totally committed to seeing that the reforms were successfully implemented. The Commissioner General demonstrated determination and non-compromising leadership that, in the words of one respondent, ensured that reforms succeeded by whatever means, including terminating the services of senior management staff, or “rebel commissioners,” and old managers resisting the implementation of the reforms.

The problem with top-down leadership is that it often leads to resistance and costly legal battles from affected stakeholders (O’Brien, 2002). Such was the case in Kenya. For instance, the implementation of the ETR system in the Domestic Department and the Simba 2005 System at the Customs Department both faced serious resistance, including “litigation, hostility and negative attitude from sections of the business community” (KRA, 2010, p. 86). Our findings also reveal resistance from internal staff in the Road Transport Department, who are alleged to have even physically disconnected the computer wiring system so that they could revert to the manual system. This resistance, however, was met with full force from the Commissioner General as he did not hesitate to undertake non-compromising disciplinary action by deploying the entire staff in the affected unit to other areas and hiring new ones for the Road Transport Department. The resistance from both the KRA’s staff and external stakeholders was also attributed to inadequate communication on reforms prior to their roll-out. KRA (2010) explains the reason for some widespread resistance was because “a large number of stakeholders both internally and externally believed they were going to be disadvantaged” (p. 110). This widespread resistance from both internal and external stakeholders may have been a negative consequence of top-down driven reforms.

It is notable, however, that the use of a top-down approach may have been deliberate and perhaps necessary for transforming government. Transformation entails major changes that will obviously elicit resistance and resentment. For the KRA, some employees and taxpayers and other stakeholders were directly beneficiaries of an inefficient and ineffective system. Some the KRA employees were so attached to their legacy departments that they were not willing to let go. At Road Transport, for instance, the resistance was physical, and employees campaigned for the Commissioner General's removal. Jopson (2007) explains:

Transport officials repeatedly disconnected the computer system so they could revert to manual methods, and when the commissioner-general visited them in his early days, he was greeted by a chorus of "Waweru must go!" You show you are not prepared to go back and eventually people will accept it. (p. 1)

In such circumstances, a bottom-up kind of leadership may not prove effective. It is important to note that the top-down approach requiring top-management support is often considered most appropriate for transforming government (Hammer and Champy, 1993; Weerakkody and Hinton, 1999). Transforming a public organization such as the KRA requires some direct leadership that focuses on a more long-term view than short-term operational issues. As Weerakkody et al. (2011) explain, transformation is never about "understanding today's business but rather about shaping tomorrow's business" (p. 322).

#### ***7.5.5 Focusing on Customer-Centric Reforms***

Another proposition for transformed government relates to focusing ICT-led reforms on the customer. Our findings show that most reforms were focused on the customer. In the Customs Services Department, several systems — including the Simba 2005 System, the Orbus System, the Cargo Management Information System (CAMIS), the Customs Oils Stocks

Information System (COSIS), the Revenue Authorities Digital Data Exchange (RADDEx) — and new tools such as X-ray scanners were implemented and installed at various locations of the organization. These systems are mainly used for service delivery. In the Domestic Taxes Department, new ICT systems such as the Integrated Tax Management System and Electronic Tax Registers were implemented. And in the Road Transport Department, the Vehicle Management System (VMS) was a major milestone achieved during the RARMP. Most of these systems in the various departments were focused on streamlining back-office operations and improving the way services were delivered online so that taxpayers would not necessarily have to travel to the KRA premises to seek service.

Accompanying each of these ICT implementations reforms were continuous process improvements across the entire organizations that focused on improved customer service delivery. Some notable process improvements include using the RADDEx to share customs information among East Africa countries; introducing self-assessment declarations through the Simba 2005 System; and tracking of goods in transit with the Electronic Cargo Tracking System (ECTS). An in-house, free open source software (FOSS) ERP Enterprise Resource Planning (ERP) system was implemented to automate and enhance several support functions, including compliance and enforcement. In short, ICT has become an integral part of the KRA's tax administration activities.

The main point to emerge from the implementation of these organizational structural-led and ICT-enabled reforms is that the importance of improving the customer experience. It should be noted that the customer in these initiatives can be broad to include taxpayers, businesses, neighbouring countries, regulation agencies, and KRA employees. That the targeting of the focus was on improving service delivery in various ways — through structuring, process

improvements and the implementation of new systems — is readily apparent from all the major reforms undertaken to date:

**Table 7.2: The Customer-Centric Nature of ICT-led Reforms**

<b>System / Reform</b>	<b>Service</b>	<b>Customer</b>
Integrated Tax Management System (ITMS)	<ul style="list-style-type: none"> <li>• Registration</li> <li>• Filing</li> <li>• Revenue Reconciliation</li> </ul>	<ul style="list-style-type: none"> <li>• Taxpayers</li> <li>• KRA Employees</li> </ul>
Common Cash Receipting System (CCRS)	<ul style="list-style-type: none"> <li>• Online processing of payment receipts</li> </ul>	<ul style="list-style-type: none"> <li>• Taxpayers</li> <li>• Banks</li> <li>• KRA Employees</li> </ul>
Electronic Cargo Tracking	<ul style="list-style-type: none"> <li>• Online monitoring of transit cargo</li> </ul>	<ul style="list-style-type: none"> <li>• Taxpayers</li> <li>• Clearing Agents</li> <li>• Regulatory Agencies</li> </ul>
Flow Meters	<ul style="list-style-type: none"> <li>• Aligning declarations to flow-meter readings for the liquor industry</li> </ul>	<ul style="list-style-type: none"> <li>• Liquor Producers</li> <li>• Regulatory Agencies</li> <li>• KRA Employees</li> </ul>
GPRS Enabled Electronic Tax Registers (ETRs)	<ul style="list-style-type: none"> <li>• Online monitoring of sale transactions</li> </ul>	<ul style="list-style-type: none"> <li>• Taxpayers</li> <li>• Businesses</li> <li>• Regulatory Agencies</li> </ul>
Simba 2005 System	<ul style="list-style-type: none"> <li>• Linking document lodgment, processing clearing and payments</li> </ul>	<ul style="list-style-type: none"> <li>• Taxpayers</li> <li>• Clearing Agents</li> <li>• Regulatory Agencies</li> </ul>
Vehicle Management System (VMS)	<ul style="list-style-type: none"> <li>• Online vehicle registration and transfer</li> </ul>	<ul style="list-style-type: none"> <li>• Taxpayers</li> <li>• Clearing Agents</li> <li>• Regulatory Agencies</li> </ul>

*KRA Commissioner of Domestic Taxes, Mr. Pancrasius Nyaga's Presentation to CIAT Conference, Amsterdam, Netherlands, October 2012*

The customer-centric nature of these reforms clearly attests to the requirements of transformed government that ICT-enabled services should be designed around the customer for the KRA and not necessarily the provider (Weerakkody et al., 2011).

### **7.5.6 Seamless Information Flow**

Full integration to ensure seamless information flow across the departments and business functions has been and continues to be one of the KRA's modernization goals. Having a single view of taxpayers is the reasoning behind the merger of several departments and the automation

of most business processes. Hence, one of the aims of ICT strategy is to enable a “Single View of the Taxpayer” approach across all KRA functions to facilitate operational excellence. As part of the RARMP, the KRA has made some significant progress in realizing full integration and providing a single view of the taxpayer, as reported in the 2010 KRA reform book:

- The interconnectivity of the Simba 2005 System with the Vehicle Management System (VMS) has facilitated the flow of information from the Customs Services Department (CSD) to the Road Transport Department (RTD) and enabled faster verification of motor vehicle data on as well as enhanced security (p. 97)
- The Common Cash Receipting System (CCRS) now allows cash payments to individual taxpayers through integration with Simba, Integrated Tax Management System (ITMS) and VMS systems (p. 117)
- The Customs Revenue Accounting Module of the Simba 2005 system accounts for all import and export transactions and provides a single view of the position of stakeholders’ accounts (p. 122)
- The ITMS is also expected to facilitate “seamless sharing of information across the KRA and relevant third parties to assist in cross matching and statistical analysis, providing a single view of a taxpayer, and improving tax collection” (p. 122)

The sharing of information via “Single View of the Taxpayer” is also used in the Domestic Taxes Department. As one respondent explained, the merger of Income Tax and VAT, for instance, ensures that employees can serve clients for both taxes simultaneously. But the KRA is yet to realize full integration among its departments and also with business partners in the same supply chain. Based on our findings, the integration of Customs with the Domestic Taxes Department is yet to be realized. In fact, the KRA is in the process of implementing another

system to replace Customs' Simba 2005 System with a more robust system that will be able to fully integrate with the Domestic Taxes Department and perhaps achieve the envisaged single view of the taxpayers across the entire organization (Njiraini, 2013).

Our findings and the review of the various outcomes from these ICT implementations show that the various propositions proposed in the analytical framework are well represented in the transformation of the KRA. The larger question of whether their existence has led to a transformed organization is the topic of the next chapter.

### ***7.5.7 Is the KRA a Transformed Organization?***

The focus of this section is to revisit the analytical framework to examine the KRA as a transformed organization. A key question that this research must explain is how the use of ICT has transformed the KRA. Based on this study's findings, it is undeniable that the KRA has made significant progress in transforming itself into an effective and efficient organization. There are several clear indications that the organization has changed over the last decade:

- The merging of several departments is part of a well-defined path toward full integration
- The heavy reliance on ICT in all departments shows a clear commitment toward operational efficiency and improved service delivery
- There has been a remarkable improvement in several processes
- The unprecedented increase in revenue during the reform period is also evidence of a changing and an effective organization

However, the question still remains whether these changes have produced a transformed organization. As explained in the analytical framework and for purposes of this research, a transformed organization is an organization that uses ICT to fundamentally change its existing

organization in terms of creating new organizational structures, behaviour, culture and image (Hannah, 2010; Weerakkody et al., 2011). Based on the analytical framework, transformative organization will have changes that are radical and disregard existing structures, take the form of breakthroughs, have little or no connection with previous ways of doing things, and involve the creation of something new that leads to improved performance (O’Neill, 2009; Washington et al., 2011; Weerakkody et al., 2011). This study’s findings and analysis show that the agency has not achieved the threshold for a transformed organization, for a number of reasons:

- ***Lack of Full Integration.*** The lack of full integration suggests that, although the organizational structural changes were fundamental, the various departments continued with existing structures and, in the process, retaining the wide span of control for the Commissioner General. The conversion of the KRA into a full function-based organization took over 10 years (2002–2011), indicating a more incremental approach as opposed to the transformative approach, which is more rapid and radical. The Customs Service Department is not fully linked with the other departments, especially the Domestic Taxes Department, an indication that silos still exist within the KRA. The merger itself of the various departments did not assess and determine the optimal structure for operational efficiency (KRA, 2012). Hence, the reason why one of the strategic priorities of the KRA for 2012/13–2014/15 is to review this organizational structure to reduce the number of direct reports to the Commissioner General and to integrate accountability (KRA, 2012). What this tells us is that the KRA has yet to find an optimal structure that will enable it to realize the full potential of a transformed government.

- ***Using an Incremental Approach.*** The implementation of most ICT projects adopted an incremental approach. The Simba 2005 System was implemented for over 10 years, and yet it has been assessed to be inappropriate for Customs operation and the KRA is currently in the process of sourcing another system to replace it. Several other systems are incomplete. The free open source software ERP is 50% complete and its use stands at only 21%. The Domestic Taxes Department's Integrated Tax Management System (ITMS) is 65% complete, and even the VMS in the Road Transport Department is only 80% complete. Several manual processes also exist, and use of legacy systems is still common at the KRA (KRA, 2011). This incomplete status of several systems and the continued existence of manual processes are indications of an organization that is still far from full transformation.
- ***Failure to change organizational behaviour and culture.*** As discussed above, the expected changes in the organizational behaviour and culture of KRA employees have not been realized. Based on our analysis, it is clear that the values and belief systems of most KRA employees are the same as they were prior to the implementation of reforms. Various departments still operate as silos, hence the inadequate sharing and exchange of information. Corruption and fraudulent activities also still exist within the organization. Further, KRA management admits that most staff have yet to embrace a customer-focused culture, resulting in low customer satisfactions (KRA, 2009). The resistance to reforms, particularly among internal stakeholders, is also an indication of a failure in changing organization behaviour, thus raising further doubts on whether the KRA is indeed a transformed organization.

Based on these findings, it can be concluded that the KRA is not a fully transformed organization. Several factors explain why the KRA has not achieved full transformation: the adoption of an incremental approach; funding issues; the leadership's approach; and a failure to embrace change support tools.

The incremental approach used in implementing the RARMP may have considerably slowed the process of transforming the KRA into an effective and efficient organization. Although the KRA started the reforms by undertaking fundamental changes in organizational structure, the changes were not radical enough to transform the organization. The fact that even establishing a fully function-based structure took over 10 years to complete is evidence of an incremental approach that is not typical of a transformed organization. Weerakkody et al. (2011) explain that for a transformed organization, organizational structure changes should be radical and undertaken at the beginning of the reform process. Yet most public organizations, to the contrary, find it convenient to follow an incremental approach, making small and gradual changes in order to maintain the status quo and minimize uncertainties related to the changes because of the environment in which such organisations exist (West, 2008). West explains that several factors encourage public organizations to take an incremental approach, particularly when it comes to ICT, including “institutional arrangements, budget scarcity, group conflict, cultural norms, and prevailing patterns of social and political behaviour” (p. 18). West further explains that these factors pose major challenges to using ICT to transform public administration.

The issue of narrowly functional structures at the KRA seems to have played a role in the slowing the process of transformation. The interviews suggest that a departmental structure based on the tax-type still exists. Each of the main departments still regards itself as responsible and accountable only for a specific policy and does not necessarily share the vision of the entire

organization. This situation perhaps explains the lack of full integration, particularly between the Domestic Taxes and Customs Service Departments. For instance, the latter department still views itself as responsible solely for customs and no other aspects of domestic taxes. This situation is further exacerbated by the KRA's incentive structure, which rewards management based on the performance of their individual departments. According to Fountain (2001, 2007), such an incentive structure that is departmental-driven hinders e-government transformation. Fountain explains that a departmental-based performance management system encourages wasteful competition and discourages the cross-department collaboration that is necessary to realize the full potential of ICT. Roy (2007) also points out that such performance incentives and accountability frameworks have an inherent conflicting role between organizational and individual managers' goals, particularly between the operational departments (the revenue departments) and support departments from the KRA perspective. Roy (2007) explains that "there is no shared accountability to facilitate collaboration, as lead departments become responsible for process and results; managers felt frustrated by tensions between horizontal intent strategically and vertical constraints operationally" (p. 54). Perhaps this explains why the full integration of functions across all revenue departments, such as audit, has not been realized at the KRA. In such circumstances, an incremental approach to changes seems an easy way but does not necessarily lead the organization into full transformation.

Another factor that may have contributed to the adoption of an incremental approach to implementation and slowed the pace of transformation is underfunding. Although the RARMP seemed to have secured sufficient budget allocations for implementing the various initiatives, there were cases of underfunding or a failure to get funds because of poor sequencing. KRA (2010) reports that funds for the RARMP came from internal sources, government (Treasury)

and development partners, but that there was “lack of synchronization between project life cycles and cash flow from Treasury and donor agencies, often leading to an inability to absorb allocated projected funds within the set time frame” (p. 104). KRA (2012) also points out that “underfunding of the Fourth Plan was the main cause of underperformance” (p. xvii) and continues to “poses an extremely serious risk to its ability to continue to carry out its mandate” (p. xiii). For instance, during the Fourth Corporate Plan period (2009-2012), underfunding was estimated at 20 percent of the budgeted amount. Poor funding mechanisms encourage an incremental approach to e-government implementation and, in the process, hinder transformation.

Although the adoption of an incremental approach to e-government offers a more cautious way to avoid the errors and risks associated with radical changes, it has its own problems. This approach to e-government implementation rarely leads to better decisions (Fountain, 2001). Fountain explains that an incremental approach might offer a better way to avoid errors when making e-government-related decisions but does not necessarily prevent government actors from moving incrementally in the wrong direction. Chadwick (2006) also points out that technologies, once implemented, can become embedded in institutional settings such as departments and can be a mechanism for exploitation. An incremental approach tends to duplicate existing processes and thereby reproduce the rules, routines, norms and power relationships (Fountain, 2001; Kraemer and Kings, 2008). A process that starts as an incremental approach in order to avoid error and maintain the status quo therefore sets a path on which it has increasingly become difficult to make radical changes, a process commonly referred to as path

dependency (Pierson, 2000; Fountain, 2001; Gasco, 2003).<sup>42</sup> Fountain (2001) articulates this argument as follows:

Commitment to a failing course of action often escalates through a series of small movements as decision makers become psychologically, economically, and politically committed to it. In these instances, actors find it increasingly difficult to alter course even in the face of negative feedback. In addition, economic sunk costs — time, energy, and money spent on a course of action — make decision makers reluctant to change direction. In the case of large, complex information systems, the economic sunk costs are enormous and each subsequent decision is highly path-dependent. It is costly and difficult to reconfigure, rebuild, modernize, or otherwise substantially change information systems. Thus, incremental offers only limited guidance for constructing a digital government (p. 85).

Fountain further explains that many studies have shown that “the so called path-dependent decisions streams are those which a course of action (or path), once chosen, is difficult to alter; thus a series of interrelated small decisions may take a momentum of their own, propelling continued movement in harmful directions” (p. 85). This perhaps explains why the KRA has spent significant resources implementing the Simba 2005 System for the CSD for almost 10 years and only recently decided to replace it even before the system was fully complete.<sup>43</sup>

Another factor that may have hindered the process of e-government transformation at the KRA is the leadership approach. Although a top-down leadership approach is recommended for transforming government (Weerakkody et al., 2011), it seems to have not worked in the KRA case. It is possible that this leadership approach may have contributed to internal resistance, resentment and possibly the undermining of the reform process. Although it is claimed in several internal reports that the leadership was visionary, unwavering and committed to change, the imposition of change without taking necessary steps to manage that change is evident from our

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<sup>42</sup>Different meanings are attached to the term “path dependence” (Pierson, 2000). A broader meaning of path dependency theory is provided by William Sewell (1996:262–3), as cited in Pierson (2000), to mean “that what happened at an earlier point in time will affect the possible outcomes of a sequence of events occurring at a later point in time” (p. 252). Pierson (2000) further explains that path dependence means that “once a country or region has started down a track, the costs of reversal are very high. There will be other choice points, but the entrenchments of certain institutional arrangements obstruct an easy reversal of the initial choice” (p. 252).

<sup>43</sup>Its full implementation is reported to have been completed in 2012 (KRA, 2012).

findings. Top-down leadership leads to several problems, some of which KRA management has documented in their “lessons learnt” section in the reform experience book (KRA, 2010):

- Lack of staff buy-in
- Reforms were rushed without first explaining and ensuring that employees understood the rationale behind the reforms
- Both the authority’s staff and external stakeholders were not adequately appraised on the reforms prior to their roll-out
- Ineffective communication on organizational restructuring caused fear among employees
- Employees employed tactics such as sabotage, go-slow and even striking to either delay or impede the implementation of reform initiatives
- The KRA reforms program rolled out initiatives in quick succession that often caught many members of staff unawares, yet were primarily for their benefits
- There was lack of change management initiatives during the prime time for implementing these reforms; hence, no initiatives to popularize reforms through change champions
- There was no effort to actively engage external stakeholders (KRA, 2010, p. 99–111)

One other problem that seems to have emerged from the top-down leadership approach and the failure to adequately manage change relates to the sequencing of the reforms and their vulnerability to poor project management techniques. Although most of the respondents interviewed were positive and quite supportive of the reform agenda, a number of them felt that the RARMP reforms were somehow rushed and uncoordinated and that too many of them placed a strain on staff and other resources. A few statements from interviewees and the KRA Reform Book that seem to attest to this view:

- X-ray scanners were procured without first training staff on how to use and manage them
- Some systems were implemented without addressing compatibility and maintenance issues
- There was failure to address buy-in and change-management issues prior to the implementation of some reforms
- Staff were not adequately appraised on some reforms before their roll-out (KRA, 2010)

These statements point to some project-management issues related to the implementation of the various systems. A number of KRA reports admit that there were communication and change-management issues that were not factored into the implementation of some systems, hence the resistance from both internal and external stakeholders (KRA, 2009; KRA, 2010). This partly explains why there were some funding problems, incidents of resistance, resentment and sometimes outright sabotage of the reform initiatives. The problem of poor change management and communication channels was cited in almost every review of the corporate plans. For instance, in the review of Third Corporate Plan, KRA management admits that “current communication channels on policy and administrative matters are not effective” (2009, p. 22). The review of Fourth Corporate Plan also points out that there was “no buy-in and linking of the Corporate Plan to operations, aligning the organization towards a single purpose, i.e. the Authority’s Vision and Mission” (KRA, 2012, p. 20).

The lack of buy-in and resistance can be attributed to top-down leadership and may have hindered the process of KRA transformation. Thus O’Brien (2002) explains:

[T]op down approaches to change management do not have much success in winning hearts and minds of employees. They do not work because they typically

fail to tackle three interrelated structural-cum-attitudinal factors, namely, the requirement through coordination teamwork, the need for commitment, and the need to develop competencies. (p. 443)

In summary, although the KRA claims to have achieved 80 percent of its ICT strategy and boasts of becoming a transformed organization (KRA, 2010), the organization seems to be a long way from achieving full transformation. To reach that end, the KRA is currently rewriting its ICT strategy to perhaps enable it to realize full integration and the single view of the taxpayer and, possibly, to become the agency of a transformed government visualized in the study's analytical framework (KRA, 2012).

## **7.6 Summary and Conclusion**

The purpose of this chapter was to apply the analytical framework to the research findings in order to examine the impact of the changes introduced under the RARMP on performance, process improvements and image. First, the research examined the impact of ICT-enabled reforms on the performance of the KRA. Based on the findings arising from the document analysis and interviews, the KRA's performance in terms of revenue collection improved significantly during the RARMP period, with revenue growth between 2000 and 2012 averaging 11% and, for most years, achieving the projected targets. The tax-to-GDP ratio indicator for performance was also impressive, with at an average of 21% — better than most African countries. The cost of collecting revenue also averaged at 1.7% of total revenue, falling below the 2% statutory target. A review of several documents obtained from the KRA and other sources suggests that these impressive results in terms of revenue generation are mainly attributable to the RARMP and, more specifically, the application of ICT in various parts of the organization.

Second, this research examined the impact of the RARMP on process improvements. According to the analytical framework used for this study, it is premised that the effective use of ICT in an organization leads to process improvements and, hence, operational effectiveness and efficiencies. Based on the research findings, several processes have benefited from the RARMP and from investment in ICT. The implementation of systems such as the Simba 2005 System and the Integrated Tax Management System and the automation of several support services meant that processes had to be changed and enhanced. As a result of organizational structural changes and the automation of several processes, the work environment of most employees witnessed changes in terms of reduced congestion in customer service areas, minimal cases of missing files and considerably reduced interaction between taxpayers and tax officials. Nevertheless, the findings also show that manual processes still exist in the KRA and that some services lack full integration.

Lastly, the question remained of whether the image of the KRA has been radically changed. The findings in this area seem to suggest that, although the use of ICT has to some extent minimized contact between the taxpayers and tax officials, the culture of corruption and the tendency for tax officials to seek and encourage bribes still exist. It also appeared from the document analysis and interview findings that the hiring of professional staff has not improved work ethics. As a result of these failures to change the culture of corruption and to improve work ethics, the KRA has not been able to transform its image and reputation. Hence, the agency has continued to be ranked unfavourably as a corrupt organization by Transparency International. Yet it is important to place this problem in context and to note that corruption is not confined to the KRA but pervades the entire government.

While the KRA seems to have experienced positive changes at least in terms of performance and process improvements, these changes are best regarded as only incremental and not sufficient to bring the agency to the goal of full transformation as envisaged in the analytical framework.

In addition, the findings also suggest that the KRA has not achieved full transformation due to other reasons: the lack of the full integration of its departments, particularly between the CSD and DTD; the use of an incremental approach toward the implementation of most ICT-enabled reforms; and the failure to dramatically change the behaviour and culture of employees, particularly in the area of corruption. Factors that may have prevented the KRA from achieving full automation include funding issues, which allowed only an incremental approach toward changes; a leadership style that may have contributed to resistance and a lack of ownership on the change process by key stakeholders; and a failure to embrace modern tools and techniques for project management.

## **Chapter Eight**

### **Summary, Conclusion, and Recommendations**

#### **8.1 Introduction**

The final chapter provides a summary of the study, conclusions and recommendations. It also offers a future perspective on research in this area by highlighting the contributions to knowledge, limitations of the study and suggestions for further research.

The first of this chapter's six main parts provides a summary of the study covering the research question, the analytical framework, the findings and the nature of transformation that has taken place at the KRA. The second part offers concluding remarks on the study. The third covers the theoretical contributions of the research, and the fourth focuses on its implications for the KRA. Part five notes the limitations of the study. Part six considers the implication of this study for further research.

#### **8.2 Thesis Summary**

In the first chapter, an overview of the subject of inquiry, e-government transformation, was introduced as a means of providing the context, research question and rationale for the study. The chapter began by explaining that many governments around the world have made significant investments in e-government with the aim of transforming their public organizations into effective and efficient entities. One of the areas that most governments, particularly those in developing countries, have focused their e-government efforts is on tax administration. In addition to providing increased public revenue, e-government in tax administration presents opportunities for these countries to improve their investment climate; curb corruption; and, more importantly, are themselves against the increasing sophistication of business activity and tax

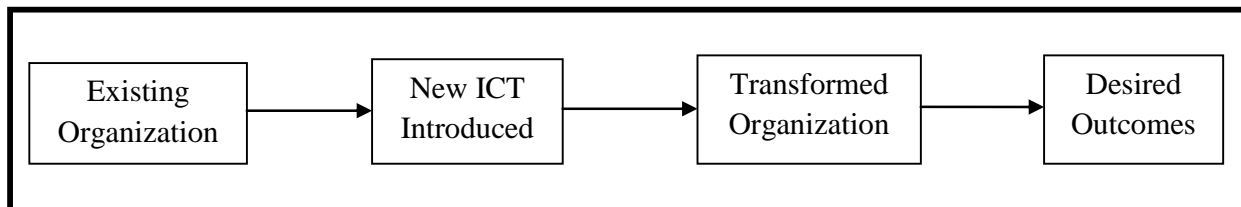
evasion schemes. It was against this backdrop that the government of Kenya made significant ICT investments in tax administration through its tax collecting agency, the Kenya Revenue Authority (KRA).

Over the last decade, the KRA invested heavily in ICT under the Revenue Administration Reform and Modernization Program (RARMP) in most areas of its tax administration activities. As a result of these investments, the KRA reported significant improvements in organizational effectiveness and overall performance during and after the implementation of ICT-led reforms under the RARMP. Based on this performance, a number of reports, both internal and external, described these changes as being transformative, a designation that led to the research question addressed in the study, that is, how the adoption of ICT can produce the transformation of a public organization. Subordinate to this question were the related questions of whether these changes can be attributed to ICT and whether the KRA is truly a transformed government agency. The hypothesis tested in the study is that the use of ICT under the RARMP enabled the KRA to transform itself into an effective and progressive tax collection agency in terms of its organizational structure, behaviour and culture.

The rationale for this study was to develop a better understanding on how e-government can transform a public organization. The issue of e-government transformation is itself complex and controversial. Various scholars hold competing views on the impact of ICT on transforming a public organization such as the KRA. Further, studies on e-government and the transformation of public administration in developing countries are rare, with most of them focusing on website development and the impact of ICT on external stakeholders rather than internal changes within an organization.

Chapter Two focused on developing and explaining the analytical framework used for the study. A simplified version of the analytical framework — the E-Government Transformation Framework (ETF) — is presented in Figure 8.1.

**Figure 8.1: Simplified Version of E-Government Transformation Framework (ETF)**



The ETF assumes that an organization desiring change has certain structural, behavioural and cultural practices that make it ineffective and inefficient. These practices include a dysfunctional organizational structure characterized by departmental silos and poor integration; lack of information sharing and corroboration; lack of accountability and transparency; corruption; and lack of common goals. Given these characteristics, the analytical framework is built on the premise that the introduction of new technologies enables reforms that radically change a number of aspects, including structure, behaviour and culture, that can make these organizations more effective and efficient.

The key variables considered for a transformed organization included a new organizational structure, new behavioural practices and a new organizational culture. According to the analytical framework, the new organizational structure includes creating new departments or divisions, discontinuing existing departments or divisions, merging departments, creating new reporting relationships, and changing roles and responsibilities. In terms of new behavioural practices, the analytical framework envisaged transformation in employees' beliefs, work environment, introducing a performance-based reward system, establishing a new leadership style and creating a new sense of commitment to working for the betterment of the organization.

It was also premised for the study that new cultural changes will be part of the transformed organization and may include the ushering in of a sharing services culture to eliminate duplication of services, abolishing or radical reducing corruption, developing a new set of core values and instilling transparency and accountability. For all these variables, the analytical framework assumed that ICT would play a central role in their transformation.

In order to achieve the desired transformation, the analytical framework suggested a number of propositions that must take place. These include aligning the organizational strategies and goals with the objectives of ICT-enabled reforms, initiating the change process with radical reforms, adopting a top-down leadership approach, removing functional barriers, focusing the change process on the customer, ensuring efficiency through the reduction of costs of service delivery, improving processes, ensuring that reforms are ICT-driven, and establishing the seamless flow of information. According to the analytical framework, it is only when these propositions have been incorporated in the change process that a transformed organization will emerge. Further, the analytical framework suggested that once these ICT-enabled reforms have created a transformed organization, the organization will benefit from a number of positive outcomes, including improved performance, improved processes and improved image and reputation.

Chapter Three discussed the methodological approaches used to study the various variables proposed in the analytical framework. The main methodological approach was the qualitative case study, which seeks to understand and explain a social phenomenon in a context-specific setting. This approach was used for two main reasons. First, e-government transformation is a complex social phenomenon that is open to different interpretations and explanations from different actors and thus difficult to analyze through quantitative research

approaches. Second, explaining how e-government has transformed a public organization requires consideration of contextual factors, which is better suited to qualitative research. The case study method was also followed for this study because it allows for a detailed and in-depth examination of the e-government transformation process.

In applying the qualitative case approach to the study, two methods were used to construct the data: document analysis and participant interviews. To the extent that this study examined change and transformation, document analysis was a preferred method for data collection as it provided useful, concrete information to track change over the study period. To complement document analysis, this study also conducted interviews with senior management. The focus on this group was based on the assumption that these participants had the best combination of knowledge, experience and discretion to provide views on how ICT has helped their organization to transform itself over the years. The data collected using these two methods was then analyzed through the process of searching for relevant information, describing the emerging themes through narratives and linking up these narratives to understand and explain how ICT has been used on the KRA.

Chapter Four offered an analysis of the political and economic environment surrounding the KRA in the period under study. Its main thrust was to explain how the reforms implemented at the KRA were part of the larger public sector reforms undertaken by the government. These reforms were mainly aimed at combating several challenges facing the country, including unstable economic growth, poor management of financial resources, lack of accountability and rampant corruption. In addressing these challenges, the government focused on reforms aimed at good governance, innovation, technology and a vibrant private sector. It was against this

background that the KRA instituted and implemented several ICT-led tax administration reforms.

Chapter Five provided the specific context for the KRA's earlier reform activity that finally led to the ICT reforms. It therefore focused on tax administration reforms prior to 2003. In fact, the most noticeable reform prior to 2003 was the creation of the KRA in 1995 in order to streamline Kenya's tax administration activities. Since its inception, the KRA undertook several reforms geared at enhancing operational efficiency, including expanding the tax base by tapping into the informal sector, adopting a formal strategic planning approach, organizational restructuring and computerizing basic services. Despite these reforms, the KRA continued to face a number of challenges: low revenue, inefficient manual processes, duplication of services, lack of information sharing among departments and a reputation for bribe seeking by its staff. Most of these challenges were attributed to the KRA's failure to use ICT in its operations. To alleviate these challenges, the KRA thus commenced several ICT-led reforms in 2003 through the Revenue Administration Reform and Modernization Program (RARMP).

Chapter Six focused mainly on the reforms that the KRA implemented during the RARMP (2003–2012) and aligned its findings with the study's analytical framework. These findings related to ascertaining the extent of new ICT introduced and implemented and the resulting changes in organizational structure, behaviour and culture. First, the nature of ICT investment was reviewed. Over the years following the inauguration of RARMP, the KRA made significant investments in ICT that impacted all parts of the organization. New IT infrastructure and systems were implemented in all departments to the extent that some KRA reports claimed significant automation and integration for most of its operations. This substantial investment enabled the KRA to be recognized nationally as a leader in ICT.

As part of the ICT-led reforms, the KRA also carried out a number of organizational structure changes, including converting from a tax type-based to a function-based organizational structure; segmenting the administration of domestic taxes into various customer groups; and creating new departments. Other changes included the creation of automated work environment, increasing collaboration among departments, and ushering in a shared service culture. Other findings noted the operation of some departments as silos, the persistence of a bribe-seeking culture and resistance by employees, clearing agents and other key stakeholders to some of the reforms.

Chapter Seven examined the extent to which the ICT-led changes resulted in the desired outcomes, which included improvements in performance, processes and image. Based on the findings, it was determined that the KRA's performance had improved during the RARMP implementation. For instance, revenue grew at an average of 11% per year between 2002 and 2012; the tax-to-GDP ratio averaged 21% per year, which was better than most developing countries; and the overall cost of collection was an impressive 1.7% of total revenue, which compared very well with the target of 2% set by statute. For process improvements, it was established that several processes at the KRA benefitted immensely from the RARMP, with significant outcomes including an improved work environment and ease of communication among the KRA departments.

One outcome that seems to have not been realized during the implementation of ICT-led reforms relates to the KRA's reputation. The study found that the culture of corruption and bribe seeking by tax officials still persists despite the reduced personal interaction between tax officials and taxpayers. The main reason cited for the lack of improvement in work ethics was that the problem of corruption is so deep rooted in the Kenya's value and belief system that ICT

or any one organization alone, such as the KRA, cannot address and eliminate the problem. Although the KRA seems to admit that this problem is beyond its control, the findings point to other problems that may have continued to enable corruption, including the continued use of some manual systems and a lack of effective communication among some operational departments.

### **8.3 Conclusion**

This study sought to determine and explain the nature of transformation that took place at the KRA under ICT reforms. The transformations that happened during the RARMP were significant and fundamental. Under that program, the KRA implemented a new structure that enabled ICT-led reforms to have their desired impact. The fact that these reforms were led by changes in organizational structure reinforces the argument that for ICT to enable an organization to achieve its full potential, significant and radical structural changes must first be implemented. Although the RARMP was ICT-driven, the KRA paved the way for reform by first changing its structures in several ways: merging revenue departments, creating new support departments to consolidate fragmented support functions and reorganizing taxpayers in simple categories to properly attend to their unique needs. In the process, several other structures, such as the Marketing Department, the Audit and Enforcement Department and the Integrity Division, were created to ensure that the organization shared a common vision and strategy, as well as to introduce operational efficiencies to drive up revenue collection. Each of the strategic goals pursued by the KRA during the period under study depended upon ICT, and structural realignment was essential to ensuring that the implementation of ICT could realize its full potential.

Over the study period (2002–2012), the KRA embraced and implemented several ICT systems. It is notable that most of the systems implemented were customer-centric and aimed at automating both back- and front-office operations that had previously been manual. The automation of most operations has, to some extent, transformed the work environment, enabling workers to be trained in ICT and be able to work in an automated environment. Automation has also meant a significant change in organizational behaviour and culture. For instance, the authority has introduced a 24/7 working culture in some departments, such as Customs' Data Processing Centre. Some of the departments are now conducting joint support functions, such as audit, enforcement and accounting, and the sharing of resources among departments under the Shared Service Initiatives is now common.

But although the KRA has made significant progress in transforming itself, the agency is not yet fully transformed. The changes experienced thus far are not of a sufficient extent to meet the threshold of what most would regard as true organizational transformation, which requires the discontinuation of existing structures and behaviours and the creation of new, radical changes in structure, behaviour and processes. Our findings show that, although there were some fundamental changes in the merging of departments, these departments in their merged form seem to have retained their structures, which has hindered full integration for some departments. In addition, the implementation of various ICT systems seems to have followed a gradual, incremental approach. Such an approach is usually preferred for most public organizations undergoing change but tends to automate and duplicate existing processes and more often leads to poor decisions.

Another factor that points to a lack of full transformation is the failure of the organization to significantly change its behaviour, particularly in the matters of sharing information and

eliminating corruption. Our findings clearly show that KRA employees have not fully embraced the idea of information sharing to ensure that the entire organization works toward a common goal and vision. It was also significant that employees still encourage corruption. At the outset of the reforms, it was anticipated that ICT would create an environment that minimizes contact between employees and taxpayers, and therefore reduce incidents of corruption. This result has not been achieved, as our findings show corruption to still be rampant. The fact that automation has had no effect in this area is interesting since it demonstrates that technology, by itself, cannot change organizational culture, especially if that culture is effectively institutionalized throughout the nation and accepted in the prevailing value and belief system.

One factor that played a key role in the implementation of the reforms was the involvement of a committed leadership. Our findings from the interviews and a review of several KRA documents showed that the leader who led the reform was unique from previous leaders in being committed to change and using a top-down approach to rally the KRA board, senior management and senior government officials in support of change. Although leadership of this kind is considered generally appropriate for transforming government, in the particular case of the KRA seems to have not worked effectively. It is probable that the top-down leadership approach in this instance may have caused the resistance from both internal stakeholders and led to poor sequencing of the reforms and a failure to employ necessary tools and techniques in support of change.

In summary, the KRA made some great strides in transforming itself into a modernized tax collection agency. However, still more needs to be done. Full integration of all the revenue departments, the use of ICT to eliminate discretion in the operations of the tax administration and

new ways of changing the culture — particularly with regard to corruption and other unethical practices — remain to be achieved.

#### **8.4 Contributions to Theoretical Knowledge**

This research was premised on a transformed KRA. Several reports and statements from the KRA and other commentators implied that the KRA had used ICT to transform itself into an effective and efficient tax administration agency. Based on our findings, the KRA is indeed making progress in transforming itself, but it has yet to achieve transformation as explained in our analytical framework. Yet while this study's findings cast some doubt on the transformative power of ICT, it does provide some empirical evidence that ICT can bring about effective change. As discussed in Chapter Two, these changes can either be radical or incremental. For a public organization such as the KRA, our findings suggest that the transformation process can be slow and thus better suited to incremental rather than radical or fundamental changes.

From a theoretical perspective, this research has examined an important and controversial aspect of e-government, namely, the internal transformative perspective of e-government. This area is rarely researched in e-government research (Heeks and Bailur, 2007; Yildiz, 2007), and these findings therefore make a contribution to shedding some light on e-government transformation. This study steered away from the more common descriptive research that has focused on website development and other external and superficial outcomes and turned instead to the more fundamental question of the effects of internal changes. By doing so, this research provides a deeper understanding of the dynamics of e-government transformation for a public organization. To do so, it employed two methods of data collection and construction, interviews

and document review to uncover explanations of why the KRA's e-government has or has not achieved the vision of transforming public administration.

Overall, this study has developed an improved analytical framework for understanding and explaining e-government transformation. Given the complexity of defining and explaining transformation, the analytical framework used to undertake this study provides another perspective and, with it, a newly available clarity with which to understand the subject of inquiry. This framework clearly delineates the key variables to assess and examine e-government transformation: the nature of the existing organization requiring change; the forms, scale and scope of ICT adopted by the organization; the new nature of the transformed organization in terms of its structure, behaviour and culture; and the possible outcomes from the transformation of the organization, such as improvements in overall performance, functional processes and public image or reputation.

## **8.5 Implications for the KRA**

This research has examined and highlighted areas of the KRA in which ICT has made progress, and it has also identified issues that are hindering the organization from achieving full transformation. The KRA can be seen to have taken several bold steps to automate its operations, and these initiatives have resulted in improved processes and performance. But a number of issues remain to be addressed if the KRA is to achieve full transformation. These issues include finding the best approach to transformation rather than relying on incremental changes; changing the behaviour and culture of employees; and determining better ways to lead effectively to bring the desired changes.

The simple automation of existing processes by way of making small incremental changes seldom makes an organization effective and efficient. The KRA must make a deliberate effort to review its existing processes and determine what types of ICT are especially appropriate for tax administration in the long term. Automating existing processes or continuing to use ineffective systems not only is expensive in the long run but also can become institutional impediments to transformation. For an organization desiring to transform, the KRA should be determined to make more radical and rapid changes of a kind that will ensure that old structures and processes are discontinued and new ones are implemented to bring about the expected changes. Such changes will allow KRA to review its past performance against best practices and be able to identify what works and what does not work and ultimately cultivate a culture and work ethics that will drive the agency towards achieving its vision of being a leading revenue authority in the world that is respected for professionalism, integrity and fairness.

The KRA must also deal with the issue of organizational behaviour and culture. Although changing the behaviour and culture of employees is always difficult, it is not impossible and the KRA must come up with strategies to bring about the desired changes of staff integrity, ethical behaviour and higher level of professionalism. KRA management must be prepared to take a more proactive role in ensuring that employees cultivate a common behaviour and culture, particularly as they relate to the sharing of information across departments. On the related issue of corruption, the KRA needs to identify ways of establishing acceptable work ethics that discourages bribe seeking. The belief held by KRA management that ICT by itself would reduce corruption (Njiraini, 2013) should be closely re-examined as technology can only provide a partial solution. More proactive approaches — such as employees' declaration of wealth,

effective investigation and enforcement, and zero tolerance for corruption and other ethical malpractices — should be introduced and strictly enforced across the entire organization.

One other issue that emerged during our research relates to the role of leadership in the reform process. Although organizational leadership tends to reflect the particular attitudes and practices of the CEO, the KRA should reassess its leadership style to determine what works and what does not. It is possible that some of the gains from the ICT-enabled reforms are attributable to strong the top-down leadership approach that was prevalent during the implementation of the RARMP. But, as discussed above, it is also possible that this same leadership style may have caused resistance to some reforms and even the direct undermining and sabotage of them. Perhaps the organization should find or develop some form of middle ground for the best leadership style to lead the reform process.

Related to the issue of leadership is the application of better project management techniques. It was noted that most reforms were not properly managed. Some issues that remain to be addressed include poor planning and sequencing of reforms, communication and change management. It is important that stakeholders, particularly KRA employees, own the process of change. This calls for collaboration, participation and effective communication and change management. Our research shows that these issues were not well incorporated in the reform process.

## **8.6 Limitations of the Study**

The main limitation of this study is that the research findings are based on a single case and, therefore, cannot be generalized. The findings do, however, provide us with a deeper understanding of the impact of e-government on a public organization. The KRA invested

heavily in ICT and made some significant progress in tax administration, some of which is clearly to be attributed to e-government. The particular case under study therefore provided favourable conditions in which to examine, explain and understand the transformative power of e-government to address the special needs of a developing country.

The scope of this study was limited to the internal environment of the KRA and did not take into consideration the wider institutional structures and forces that directly impact the KRA's operations and performance. The KRA is a semi-autonomous public organization and so is still part of the Government of Kenya framework, reporting directly to the Minister of Finance. Several other institutions also directly impact the operations of the KRA, including the Kenya Bureau of Registration, the Ministry of Lands and the Kenya Ports Authority.

Another limitation of this study relates to the study period. The study period was roughly the 10 years following the commencement of reforms (2003–2012). Although this length of time was assumed to be sufficient for the purpose of assessing the transformation of a public organization, it may not have given an adequate perspective in which to see the expected results, since much of the early years of reforms may well have been devoted to preparatory work, including pilot projects and the preliminary testing of several systems. Yet the findings can be accepted as reliable insofar as they strongly suggest that the KRA is on the path of transformation.

Although this study incorporated triangulation in the research approach to ensure the reliability and credibility of the findings, the scope of the interviewing was limited. Due to the practical constraints of time and resources, the interviews mainly targeted senior management and thus largely excluded middle management or ordinary staff, some of whom may well have had different perspectives on how ICT changed their work environment. In addition, the

organizational survey on those external agencies that provide information on the image and reputation of the KRA was limited to only two institutions, and, even then, only one individual was available for an interview. Accordingly, it is possible that the views obtained from these interviews are not truly representative. Nevertheless, the information gathered directly from these various sources was consistent, leading the researcher to believe that the findings were credible and reliable.

### **8.7 Implications for Further Research**

From the available literature, it is not clear how long an organization is expected to reach the desired “transformed” state after implementing ICT. The process of transformation necessarily takes time, and a study to assess the length and breadth of the paths taken by transformed organizations would provide helpful guidance on how long it takes for organizations implementing ICT to see tangible results. Similarly, future studies of the KRA’s continuing transformation will shed more light on this aspect of e-government.

Another area that will be useful for further research is that of the external aspects of transformation. As discussed in Section 2.3, transformation can occur internally and externally. For a public organization such as the KRA, ICT implementation directly affects several external stakeholders, including taxpayers of various kinds, other government agencies, trade associations and ICT providers. It is possible that the KRA’s interactions with these external stakeholders have themselves undergone some radical changes that will perhaps explain the nature and extent of the changes at the KRA. Further studies to examine and assess the nature of these external changes would clearly be most helpful in shedding more light on the transformative power of ICT within the KRA or other government agencies. In addition, a wider study to investigate and

determine the impact of these and other institutions on the KRA reform process would no doubt be helpful in shedding light on how the KRA has been transformed.

This research also assumed that a top-down leadership leads to a transformed government (Weerakkody et al., 2011). But this leadership style seems to have led to resistance and poor project management techniques. The other possible approach, from the bottom up, to the reform process requires the participation of both internal and external stakeholders (Parys, 2002; McCourt, 2013). The bottom-up approach is often heralded as more beneficial for reforms, since it increases employee commitment to change and to removing the barriers to change, motivates employee innovation and creativity, and serves as a control mechanism for organizational change (Parys, 2002). But it is unclear whether this approach can work for an organization such as the KRA in which employees are direct beneficiaries of an ineffective system that is in their self-interest to maintain (Serra, 2012). Further study of the various leadership approaches in transforming government will shed more light on which styles of leadership work in which situations.

Another possible avenue for further investigation will be to canvass the views of a wider pool of participants, particularly middle management and ordinary employees, who may be an untapped reservoir of useful ideas on how ICT can transform an organization.

Finally, the analytical framework used here can be adopted and applied in similar studies. Thus, a comparative study to assess the use of ICT in similar public sector organizations of other countries would — in addition to being useful in its own right — open up the possibility of identifying common factors, approaches and challenges in this area. For instance, the analytical framework could easily be applied to study the results obtained by other countries, such as Uganda, Tanzania, Rwanda and Ghana, that have implemented revenue authority models similar

to Kenya's Revenue Authority and are at different stages of implementing ICT in their organization and management.

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## Appendix 1: A Sample of KRA Transformative Strategies

Plan Period	Strategies – ICT Initiatives	Budget
Second Corporate Plan	<p><b><i>Develop and implement a function-based organization that will improve and integrate processes:</i></b></p> <ul style="list-style-type: none"> <li>• Integrate taxpayer recruitment, registration and service office</li> <li>• Integrate audit function</li> <li>• Integrate return processing and payments</li> <li>• Integrate debt management unit</li> <li>• Integrate enforcement</li> <li>• Enhance effectiveness of the preventive services through restructuring</li> </ul> <p><b><i>Make LTO more effective by making it a full service line</i></b></p> <p><b><i>Computerize by</i></b></p> <ul style="list-style-type: none"> <li>• increasing number of computers to number of staff from 1:5 to 1:2</li> <li>• increase IT-based solutions to improve decision making and efficiency</li> <li>• complete the implementation of interdepartmental and regional networking by the installation of local area network (LAN) and wide area network (WAN)</li> <li>• Implement the use of audit and computer based controls</li> <li>• Implement customs systems support</li> <li>• Interface customs systems with X-ray scanners, community-based system and other KRA systems</li> <li>• Implement domestic revenue systems</li> <li>• Implement a Road Transport System</li> </ul>	KES 6 billion
Third Corporate Plan	<p>Objective 1: Modernize IT Systems for an Improved Service and Enforcement –means and strategies</p> <ul style="list-style-type: none"> <li>• Integrated Tax Administrative System</li> <li>• Modernisation of RTD operations</li> <li>• Improvement of Simba 2005</li> <li>• Integrated System for Support Departments</li> <li>• Implement Data Warehouse, Business Intelligence Database and Performance Dashboard</li> <li>• Implement a Revenue Portal</li> <li>• Improve ICT Infrastructure</li> <li>• Implement IT service management</li> <li>• Implement Information Management</li> <li>• Implement a Disaster Recovery and Business Continuity Plan and Improve System Security</li> </ul> <p>Objective 2: Improve IT and Information Security in the Authority – means and strategies</p>	KES 4 billion

	<ul style="list-style-type: none"> <li>• Ensure secure work environment with at 98% system availability</li> <li>• Achieve 96% LAN/WAN coverage</li> </ul> <p>Objective 3: Modernize and improve business processes and infrastructure – means and strategies</p> <ul style="list-style-type: none"> <li>• Detailed process analysis and modeling before automation</li> <li>• Re-engineering processes</li> <li>• Minimizing direct contact with taxpayers</li> <li>• Adopt more efficient corporate structure and systems</li> </ul>	
Fourth Corporate Plan	<p>Internal Processes- Full automation of the Authority and ensuring IT systems are fully integrated</p> <p>Objective1: Enhance ICT services, information systems security and ICT governance</p> <ul style="list-style-type: none"> <li>• Develop and negotiate Service Level Agreements (SLAs)</li> <li>• Acquire security monitoring and control solutions for networks , applications and databases</li> <li>• Enhance information system security and availability</li> <li>• Develop and implement intrusion detection/prevention systems</li> </ul> <p>Objective2: Modernize, maintain and integrate IT systems</p> <ul style="list-style-type: none"> <li>• Integrated Tax Management System (ITMS) and Integrated RTD system</li> <li>• Integration of KRA systems</li> <li>• Database Warehouse, Business Intelligence and Performance Management system</li> <li>• Enhancement of RTD and CSD systems to incorporate registration of transit vehicles</li> <li>• Modernize support departments</li> <li>• Enhance functionality of other IT systems</li> </ul> <p>Objective3: Enhance and maintain ICT infrastructure</p> <ul style="list-style-type: none"> <li>• Improve and expand ICT infrastructure in the Authority</li> <li>• Implement commercial power back-ups</li> </ul>	KES 8.7 billion

## Appendix 2: KRA's Vision, Mission, Strategic Themes and Goals (2003–2015)

Planning Period	Vision	Mission	Strategic Theme	Goals
Second CP (2003–2006)	To be the leading Revenue Authority in the world respected for professionalism, integrity and fairness	To promote compliance 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	Enhance Revenue Collection through Enhanced Quality Service to stakeholders, <b><u>modernization of KRA internal</u></b> processes and revitalization of the workforce	<ul style="list-style-type: none"> <li>• Enhance revenue collection</li> <li>• Quality Service Delivery</li> <li>• Modernizing Internal Processes</li> <li>• Revitalization of Human Resources</li> </ul>
Third Corporate Plan (2006–2009)			Develop a dedicated professional team embracing <b><u>modern processes and technologies</u></b> to deliver customer focused services that enhance compliance and revenue collection	<ul style="list-style-type: none"> <li>• Develop a dedicated and professional team</li> <li>• Reengineer business processes and modernize technology</li> <li>• Improve and expand taxpayer service</li> <li>• Enhance revenue collection and strengthen enforcement</li> </ul>
Fourth Corporate Plan (2009–2012)			Attaining international best practice in revenue administration by investing in a professional team, <b><u>deepening reforms and quality service delivery</u></b> to enhance compliance	<ul style="list-style-type: none"> <li>• Develop a professional team that is well remunerated.</li> <li>• Creation of an enabling work environment.</li> <li>• Full automation of the Authority and ensuring that KRA IT is fully integrated allowing for a single view of the taxpayer and full utilization of IT to promote compliance.</li> <li>• Completion of the transition to a fully functional organisation.</li> <li>• Minimising customer</li> </ul>

Planning Period	Vision	Mission	Strategic Theme	Goals
				<p>compliance costs and enhancing customer service.</p> <ul style="list-style-type: none"> <li>• Achieving revenue targets by rolling over uncompleted revenue mobilisation</li> <li>• Initiatives, whilst pursuing new revenue and compliance.</li> </ul>
<p>Fifth Corporate Plan 2012/13– 2014/15</p>			<p>Achieving excellence in revenue administration through organizational renewal, innovation and staff capacity enhancement for better customer focus</p>	<ul style="list-style-type: none"> <li>• Creating a workforce that adheres to KRA Core Values and Vision,</li> <li>• Upgrading the work environment to enhance staff morale, efficiency and effectiveness,</li> <li>• Upgrading KRA’s ICT to facilitate achievement of international best practice, raise <i>performance standards and reduce operational costs</i>,</li> <li>• Implementation of new organizational structure for increased efficiency and <i>operational effectiveness</i>,</li> <li>• Improving customer service by benchmarking service delivery standards against <i>(upper) middle income country standards, expanding the scope of services where KRA meets international best</i></li> </ul>

Planning Period	Vision	Mission	Strategic Theme	Goals
				<p>practice and increasing service options to taxpayers, <i>and</i></p> <ul style="list-style-type: none"> <li>• Achieving the revenue targets through a revamped enforcement strategy, innovative <i>approaches to enhance collection in sectors with low tax compliance and scaling up taxation of SME sector.</i></li> </ul>

**Appendix 3: KRA Revenue (Target Versus Actual) (In KES Billions)**

<b>KRA Revenue Collected (KES Billions)</b>			
<b>FY1999/2000</b>	<b>Target (KES Billions)</b>	<b>Actual (KES Billions)</b>	<b>Rating %</b>
2000/01	184,187.00	182,742.00	99.2%
2001/02	200,799.00	187,963.00	93.6%
2002/03	208,083.00	201,763.00	97.0%
2003/04	220,800.00	229,277.00	103.8%
2004/05	240,914.00	274,252.00	113.8%
2005/06	301,069.00	297,699.00	98.9%
2006/07	356,086.00	360,191.00	101.2%
2007/08	424,671.00	433,915.00	102.2%
2008/09	493,035.00	480,569.00	97.5%
2009/10	545,228.00	534,403.00	98.0%
2010/11	641,212.00	634,903.00	99.0%
2011/12	658,640.00	635,971.00	96.6%

**Appendix 4: KRA Budget Summary (2002/03–2011/12)**

<b>KRA Budget (KES Million)</b>						
Financial Year	Total Budget (millions)	Recurrent Expenditure (Millions)	Development Expenditure (Millions)	Total Expenditure (Millions)	RARMP (special projects) (Millions)	RARMP/ Total Exp. %
2002/03	3,191.00	3,239.00	99.00	3,338.00	-	0.0%
2003/04	3,695.00	3,734.00	160.00	3,894.00	2,981.00	76.6%
2004/05	3,910.00	3,886.00	128.00	4,014.00	1,943.00	48.4%
2005/06	5,840.00	6,361.00	328.30	6,689.30	1,235.00	18.5%
2006/07	7,983.00	9,141.00	768.00	9,909.00	1,860.00	18.8%
2007/08	8,642.00	10,158.00	768.00	10,926.00	1,401.00	12.8%
2008/09	9,607.00	8,369.00	158.00	8,527.00	861.00	10.1%
2009/10	12,208.00	12,208.00	976.10	13,184.10	4,351.00	33.0%
2010/11	13,584.00	13,584.00	801.90	14,385.90	2,066.00	14.4%
2011/12	15,114.70	15,114.70	601.00	15,715.70	1,442.00	9.2%
Totals	83,774.70	85,794.70	4,788.30	90,583.00	18,140.00	20.0%

*(Source: KRA Second, Third and Fourth Corporate Plans - 2003/04 to 2011/12)*

*Appendix 5: Summary of Lessons Learned from KRA Reform Experience*

<b>Dimension</b>	<b>Lessons Learned</b>
Strategic and Organizational Issues	<ul style="list-style-type: none"> <li>● Formal corporate planning helps to provide guidance on short term objectives while still focusing on the bigger picture of reforms</li> <li>● Lack of staff buy-in</li> <li>● Reforms were rushed without first explaining and ensuring the employees understood the rationale behind the reforms</li> <li>● Both the Authority’s staff and external stakeholders were not adequately appraised on the reforms prior to their roll out</li> <li>● Ineffective communication on organizational restructuring caused phobia among employees</li> <li>● Employees employed tactics such as sabotage, go-slow and even strike to either delay or impede implementation of reform initiatives</li> <li>● KRA reforms programme rolled out initiatives in quick succession that often caught many members of staff unawares, yet they were primarily for their benefits (p. 102)</li> <li>● There was lack of change management initiatives during the prime time for implementing these reforms</li> <li>● Hence no initiatives to popularize reforms through change champions</li> <li>● There was no effort to actively engage external stakeholders</li> </ul>
Sequencing Issues	<ul style="list-style-type: none"> <li>● Sequencing also caused problems for using implemented systems – for instance, it appears that customs scanners were procured and installed without first training staff on how to use and manage the equipment</li> <li>● Some systems were implemented without first addressing the compatibility of these systems and their maintenance requirements</li> <li>● Integration of various departments under the Support Departments was not well received: <ul style="list-style-type: none"> <li>○ Was felt the integration was radical and unsystematic</li> <li>○ Roles and positions were not harmonized from the beginning</li> <li>○ Caused resentment, resistance, and sabotage as some staff were unwilling to let go</li> <li>○ Feeling that the first Commissioner from ITD will favour members from his department and therefore led to resentment by officers from Customs and VAT backgrounds</li> <li>○ Harmonization of titles across revenue and support departments was not well received by revenue officers who had a feeling of superiority over the rest of staff</li> </ul> </li> <li>● Was general perception that there were too many reform programmes that at times overwhelmed the institutional capacity</li> <li>● “Changes in organizational structure and functions of different</li> </ul>

Dimension	Lessons Learned
	<p>departments should be effected before IT solutions are rolled out. Uncertainties regarding departmental structures, roles and responsibilities make it difficult to prescribe appropriate IT solutions and organizational changes during systems development and can lead to considerable rework, higher costs and delays in implementation” (p.110)</p> <ul style="list-style-type: none"> <li>•</li> </ul>
Leadership	<ul style="list-style-type: none"> <li>• Visionary leadership to provide strategic direction on organizational path</li> <li>• Leader enjoyed security of tenure that enabled him to steer the reforms from start to finish</li> <li>• Unwavering project managers, project team, Commissioner General and the Board ensured reforms were implemented</li> </ul>
Political	<ul style="list-style-type: none"> <li>• Organized resistance from lobby groups and political quotas</li> <li>• The new generation reforms in KRA were largely successful due to the constant political support that was received from the Cabinet level and especially the Head of State</li> <li>•</li> </ul>
Professionalism	<ul style="list-style-type: none"> <li>• Reform process benefitted from the initiative to recruit top quality professionals from outside the organization</li> <li>• Political support required to counter organized resistance and also obtain necessary funding</li> <li>• KRA enjoyed constant political support especially at the cabinet level</li> <li>• The President also was instrumental in the success of KRA reforms through constant communication of expected changes during public forums</li> </ul>
Funding	<ul style="list-style-type: none"> <li>• There was lack of synchronization between project life cycles and cash flows from the Treasury and donor agencies, often leading to inability to absorb allocated projected funds within the set time frames</li> <li>• There were a number of incidents when KRA was unable to absorb donor funding due to elaborate procurement guidelines by the donors – that led to delays in project implementation, cost overruns and technological obsolescence (particularly for IT-related supplies) at the time of delivery</li> <li>• Lack of skills on procurements guidelines to ensure compliance with requirements for external financing - caused delays of key projects</li> <li>• Reports argues that there should be proper “planning, scheduling and budgeting for all procurement items within the confines of delivery, funding and procurement guidelines” (p.106)</li> <li>• Funding required was substantial and therefore needed political support</li> </ul>

<b>Dimension</b>	<b>Lessons Learned</b>
ICT	<ul style="list-style-type: none"> <li>• Was central to reforms</li> <li>• ICT is crucial in routine data processing functions – played a big role in registration of taxpayers, processing of returns and payments, maintenance of taxpayers ledgers, detection of non-filing, and non-payment of tax based on self-assessments</li> <li>• ICT has also enabled easy, fast routine correspondence with taxpayers</li> <li>• This has substantially reduced contact between taxpayer and tax officials thus minimizing opportunities for corruption (p. 109)</li> <li>• ICT has become part and parcel of the fabric of tax administration at KRA</li> </ul>

## **Appendix 6: Participants' Consent Form**

### **Title of the study**

**E-Government and the Transformation of Public Administration in Developing Countries:  
Case of the Kenya Revenue Authority**

### **Purpose of the Study**

The purpose of the study is to explain how the use of Information, Communication and Technologies (ICT) has transformed the Kenya Revenue Authority (KRA) from a moribund institution into an effective and efficient entity over a short period (2004-2010). In 2004, KRA embarked on a program of transformation through the use of ICT via the Revenue Administration Reform and Modernization Program (RARMP). Over the last several years, KRA has made some tremendous progress in terms of revenue improvements, customer satisfaction, and implementation of a number of online systems. This research seeks to explain from a theoretical perspective how these changes are linked to the use of ICT. More specifically, this study will attempt to answer the question whether or not it is justified to claim that these administrative reforms -- in tax administration, for instance -- are, to a great extent, a result of introduction of new technology? Or is it possible that these reforms are merely another example of using technology to improve efficiency in the context of already planned and controlled organizational changes? Primarily a theoretical endeavour, it will accomplish this by exploring the spread of ideas from different stakeholders mainly from KRA. This study is being conducted as part of my doctoral thesis.

### **Participation**

My participation will consist of being interviewed by the Principal Investigator. The interview will last for a period of an hour to an hour and a half. If I am willing, and it is deemed useful, an additional interview may be arranged. The interview will take place at a date, time and location that is of my choosing. The interview will consist of open-ended questions. If I am directly involved in the RARMP program, I will be asked about the process that decisions were made and factors that affected decisions, what changes have taken place and what my role was. If I was not directly involved in the RARMP program's decision-making process I will be asked about my view about the changes that have taken place in KRA since the introduction of RARMP program. The interviews will also give me an opportunity to share my views with regards to the use of technology in transforming public administration and or an organization such as KRA.

It is possible that some interviews will be audio recorded. Within one week of an interview I will receive a transcript of the interview in email form. The document will be password protected with a password that is mutually decided between myself and the Principal Investigator during the interview day. I will be given an opportunity to review the transcript and provide feedback, and/or request for modifications. I will be given three weeks from receipt of the transcript to respond with my comments. If I do not respond to the Principal Investigator within three weeks, it will be assumed that I am in agreement with the accuracy of the transcript. If the Principal Investigator is unable to get a hold of me after the interview, I consent that the interview details may be referenced in the final dissertation although no direct quotes will be used.

I have the option of deciding whether to be directly quoted in any research and or reports published, or not.

### **Risks**

My participation in this study is minimal risk. It will entail that I describe my views on the changes in public administration within the KRA. I am assured by the researcher that every effort will be made to minimize any unexpected risks that may arise through a process of communication and mutual agreement between myself and the Principal Investigator as necessary.

### **Benefits**

My participation in this study will contribute to public administration literature in the area of e-government or use of technology in the government. I will personally benefit by being able to share my input, and knowing that I have contributed to this advancement of knowledge.

### **Confidentiality and anonymity**

I have received assurance from the researcher that the information I will share will remain strictly confidential. I understand that the contents will be used only to meet the objectives of the research and that my confidentiality will be protected. My name will not be used in any reports and publications. With regards to anonymity, while I have the option to remain anonymous in the study, I have the option to consent to the use of my job-title and name of the organization/agency/department for which I work. I understand that I may be indirectly identified through this information if I consent to its use. Use of my job-title and/or name of organization/agency/department will aid the researcher in explaining the disaster relief decision-making process and the different factors that affect policy output.

### **Conservation of data**

The data collected, including audio-recordings of interviews and interview transcripts, and any other hard copy/or electronic data shared will be password-protected and secured in a locked office throughout the duration of the study. The conservation of data period will last for 5 years upon completion of the study. During this time all data will be stored in a locked office, in a locked cabinet, in the Supervisor's office at the University of Ottawa premises. All electronic data will be stored in a password-protected memory stick in the cabinet. Upon completion of the conservation of data period, electronic material will be secure-deleted, and hard-copy documents will be shredded.

### **Voluntary Participation**

I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will be secure-deleted (for electronic data), and/or shredded (for hard-copy data).

### **Acceptance**

I, (*Name of participant*), agree to participate in the above research study conducted by (researcher) of the Public Administration Department in the School of Political Studies at the University of Ottawa, whose research is under the supervision of the University Supervisor from the same department.

*(Please check all that apply)*

- I agree to be identified by my job-title in any reports and publications
- I agree for the name of the organization/agency/department that I work to be referenced in any reports and publications

or

- I choose to remain anonymous in any reports or publications, and any input I provide will be referenced in very broad terms such that I am not directly identifiable to the best of the Principal Investigator's ability.

*(Please select one)*

- I consent to statements from my interview being quoted in any reports and publication
- Statements from my interview will only be referenced and/or paraphrased in any report and publications, and will not be directly quoted.

### **Audio-recording**

The interview may be audio-corded if it is agreeable to you.

*(Please check all that apply)*

- I agree that the interview be audio-recorded
- I do not agree for the interview to be audio-recorded.

The data collected for this research will only be accessible to the Principal Investigator and the thesis Supervisor. If I have any questions about the study, I may contact the researcher or her supervisor.

**If I have any questions regarding the ethical conduct of this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, Tabaret Hall, 550 Cumberland Street, Room 154, Ottawa, ON K1N 6N5  
Tel.: 613-562-5387  
Email: [ethics@uottawa.ca](mailto:ethics@uottawa.ca)**

There are two copies of the consent form, one of which is mine to keep.

Participant's signature: \_\_\_\_\_ Date: (*Date*)

Researcher's signature: \_\_\_\_\_ Date: (*Date*)

## **Appendix 7: Sample Interview Guide**

### **E-GOVERNMENT AND THE TRANSFORMATION OF PUBLIC ADMINISTRATION: THE CASE OF KENYA REVENUE AUTHORITY**

#### **INTERVIEW GUIDE**

##### **The Interview Agenda Aim**

This interview guide will be used to collect primary data from the interviewees during the interviewing process using semi-structured questions. The questions will be explained to the interviewees by the researcher and then filled by the researcher to verify the accuracy and validity of answers.

##### **Purpose of the Interviews**

- To gather information on the use of Information, Communication and Technologies (ICT) has transformed KRA
- To identify the key organizational, process improvements, and behavioural changes that have taken place at KRA during the implementation of RARMP

##### **Questions for KRA Senior Employees**

###### **General Questions**

1. Why did your organization decide to make technology central in its modernization programme?
2. How has the use of technology transformed KRA?
3. What changes have you seen in the KRA that were made to accommodate / facilitate the use of technology?

###### **Organizational Restructuring**

1. What changes, in organizational structure, have taken place in the KRA in the last 10 years?
2. Do you think any organizational structure changes you have outlined above are the result of new technologies introduced in the organization? Please explain
3. What specific changes have you seen in Organizational arrangements?
4. How have these changes been facilitated by technology?
5. It is notable that the KRA has moved from a 'tax base' organization to a functional-base organization? In your opinion, how has ICT enabled these changes?
6. Do you think RARMP? has encouraged / fostered inter/cross -departmental cooperation

###### **Process Improvements**

1. In the 2007/08 Corporate Plan, it is stated that RARMP has enabled significant progress in areas of "process improvement, automation & revenue collection". Please clarify.

2. How has ICT encouraged the development of creative ideas, processes, or products that leverage ICT reforms?

### **Organizational Behaviour**

1. How have emerging technologies affected your professional life over the past 5 – 10 years
2. Do you think the use of technology at KRA has changed the perception of way of people work
3. What issues/concerns/questions do you have about new technologies?
4. How were these issues / concerns / questions addressed?
5. How do you think various external stakeholders (Tax payers, business associations) perceive the KRA as a tax collection agency?
6. Do you think the image of the KRA has changed in the past 5-10 years? Please explain.
7. How has ICT enabled the sharing of ideas within the KRA?

## Appendix 8: Sample of Documents Reviewed

Document selected	Authors	Year Published	Target Audience	Comment / Data Analyzed
Revenue Administrative Reforms in Kenya: Experience and Lessons	KRA Senior Management Staff	2010	Internal staff as a means of knowledge sharing and management	This book the most detailed historical account on the major tax administrative reforms in Kenya since independence in 1963. This research will analyse the insights provided on milestone reforms, challenges experienced during implementation and lesson learnt
KRA Corporate Plans: <ul style="list-style-type: none"> <li>• 2003/04–2005/06</li> <li>• 2006/07–2008/09</li> <li>• 2009/10–2011/12</li> <li>• 2012/13–2014/15</li> </ul>	KRA	Every three Years	KRA Employees	Chapter Two of each corporate plan that contains the evaluation of the previous two years
Organizational issues for Tax Agencies, Compliance and Taxpayer Relations Strategies	KRA Commissioner General	22-23 May 2008	Paper presented at the conference Revenue's Role in the Quest for Inclusive Development: What Works and What Can Work Better? South-South Sharing of Successful Tax Practices (S4TP) New York University 22-23 May 2008	The focus of the paper on how the KRA has implemented organisational reforms, enhanced revenue performance and improved taxpayer services
Press Statement Releases: 4 <sup>th</sup> Quarter 2008–09 4 <sup>th</sup> Quarter 2010–11 4 <sup>th</sup> Quarter 2011–12 2 <sup>nd</sup> Quarter 2012–13 First Half 2012–13	KRA Senior Management Staff	Various	Public	Key achievements, performance results, administrative measures and reforms update
Tax Policy and Tax Administration: Is there a Disconnect	KRA Commissioner General	26 <sup>th</sup> and 27 <sup>th</sup> February 2007	Conference on Tax and Investment Climate in Africa	Role of KRA and challenges to implement reforms
Lessons Learned from the Adoption of the Revenue Authority (RA) Model: The Kenyan Experience	KRA Commissioner General	10 <sup>th</sup> and 11 <sup>th</sup> December 2009	Revenue Organisation Conference	Kenyan experience in implementing reforms
Implementation Status of "The Revenue Modernization Programme" RARMP	KRA Commissioner General	15 <sup>th</sup> November 2011	Bachelor of Commerce students in Strathmore University, Kenya	Status before reforms, major reforms, achievements, challenges and lessons learnt
Implementation of the	KRA	17 <sup>th</sup> May	Ghana Revenue	Status of reforms before

Kenya Revenue Authority Reform Programme	Commissioner General	2012	Authority Senior Management Team	RARMP and after RARMP, review of outcomes, challenges and lessons learnt
Domestic Resource Mobilization for Poverty Reduction in East Africa	African Development Bank Group	November 2010	African Development Bank Group, The African Tax Administration Forum (ATAF)	Section devoted to KRA reforms experience
Domestic Resource Mobilization for Poverty Reduction in East Africa: Kenya Case Study	African Development Bank Group	November 2010	African Development Bank Group, The African Tax Administration Forum (ATAF)	Achievements and lessons of experience contained this case study
Improvement of the effectiveness of the tax administration through new organizational models	KRA	October 18-21, 2010	Paper presented at Inter-American Center of Tax Administrations (CIAT) Conference	Organizational changes at KRA

### Appendix 9: List of KRA Corporate Plans

CP #	Period	Theme	Strategic Goals / Pillars
First	2000/01– 2002/03	Revenue collection enhancement and quality service delivery	Revenue collection enhancement and quality service delivery
Second	2003/04– 2005/06	Enhanced Revenue Collection through Enhanced Quality Service to Stakeholders, Modernization of our Internal Processes and Revitalization of our Workforce	Revenue enhancement; quality service delivery; modernization of internal Processes; and revitalization of our workforce.
Third	2006/07– 2008/09	Develop a dedicated professional team embracing modern processes and technologies to deliver customer focused services that enhance compliance and revenue collection.	Develop a dedicated and professional team; Reengineer business processes and modernise technology; Improve and expand taxpayer service; and Enhance revenue collection and strengthen enforcement.
Fourth	2009/10– 2011/12	Attaining international best practice in revenue administration by investing in a professional team, deepening reforms and quality service delivery to enhance compliance”	Developing a professional team that is well remunerated; Creation of an enabling work environment; Full automation of the Authority and ensuring that KRA Information Technology (IT) is fully integrated allowing for a single view of the taxpayer and full utilisation of IT to promote compliance; Completion of the transition to a fully functional organisation; Minimising customer compliance costs and enhancing customer service; and achieving revenue targets by rolling over uncompleted revenue mobilisation initiatives, whilst pursuing new revenue and compliance initiatives to maturity.
Fifth	2012/13– 2014/15	Achieving excellence in revenue administration through organizational renewal, innovation and staff capacity enhancement for better customer focus	<ul style="list-style-type: none"> <li>• Creating a workforce that adheres to KRA Core Values and Vision;</li> <li>• Enhance staff morale, efficiency and effectiveness,</li> <li>• Upgrading ICT facilities to meet international best practice, raise performance standards and reduce operational costs;</li> <li>• Implementation of a new organizational structure to improve efficiency and operational effectiveness;</li> <li>• Improving customer service through benchmarking against service delivery standards of upper middle income economies, expanding the scope of services that meet international best practice and increasing service options to taxpayers;</li> </ul>

(Extracted from various KRA reports: 2001; 2003; 2006; 2009; 2012)

## Appendix 10: Summary Overview of Reforms Undertaken Under the RARMP

Year	Reform	ICT-Driven	Organization Structure Driven	Organizational Behaviour / Culture Driven
<b>Corporate-Wide ICT Reforms</b>				
2004/05	Definition of the Term Commissioner		✓	
2004	Creation of a Support Services Department		✓	
2003-2005	Establishment of an Investigations and Enforcement Department / Business Intelligence Office / Anti counterfeit and illicit Trade Office and Forensic and Prosecution Unit		✓	
1997/98	The Informer Reward Scheme			✓
2003	Establishment of Complaints and Information Center (CIC)			✓
2003/04	Alignment of Support Departments and Divisions Along Functional Lines		✓	
2003	Creation of Regional Structures			
2007	Formation of Marketing and Communications Department			✓
2003-On-going	Infrastructure Development	✓		
	Creation of Taxpayer Division to enhance public awareness tax compliance			✓
2003-on-going	Online Portal	✓		✓
2003	Introduction of Taxpayers' Week and Top Taxpayers' Award			✓
2005	Formation of the Integrity Division under Commissioner General to encourage a culture of integrity within the Authority		✓	✓
Unknown	Introduction of Asset Register			✓
2007	Implementation of a Quality Management System (QMS)			✓
2006-2009	Corporate Identity and Re-branding – Third Corporate Plan			✓
2004/05	Human Resource Revitalization - Harmonization of Job Titles Across Support and Operations Staff		✓	
2003	Human Resource Revitalization - Embracement of Performance Management – Balanced Score Card and Performance Appraisal tools and Performance Contracting			✓
2004	Human Resource Revitalization – Human Resource Policies			✓
2004	Human Resource Revitalization – Kenya Revenue Authority Training Institute (KRATI)			✓
	Knowledge Management System	✓		✓
	Enterprise Resource Planning (ERP) System	✓		
	Call Center	✓		
<b>Customs Administration Reforms</b>				

Year	Reform	ICT-Driven	Organization Structure Driven	Organizational Behaviour / Culture Driven
2004	Restructuring of Customs and Excise Department to form the Customs Services Department		✓	
2005	Implementation of the Simba 2005 System (S2005S)	✓		
2006	Document Processing Center	✓	✓	✓
2006	Orbus System – part of Simba 2005	✓		
	Cargo Management Information System (CAMIS)	✓		
	Implementation of Electronic Cargo System (ECTS)	✓		
	Customs Oil Stocks Information Systems (COSIS)	✓		
	Business Process Improvement – One-Stop Border Post (OSBP)		✓	✓
	Business Process Improvement – Centralization of the Management of Security Bonds		✓	✓
	Business Process Improvement – Post Clearance Audit (PCA)			✓
	Business Process Improvement - Revenue Authorities' Digital Data Exchange (RADDEX)	✓		✓
2005	Client Services – Takeover of Pre-Shipment Inspection Services (PSI)			✓
2008	Client Services – Authorized Economic Operator Scheme – for preferential treatments of reliable traders			✓
2005–Ongoing	Customs Enforcement – X-ray Scanners	✓		✓
2005	Customs Enforcement – Establishment of the Detector Dog Programme			✓
2007	Customs Enforcement – Revamping / Re-established of the Marine Unit		✓	
Unknown	Customs Enforcement – Customs Border Control Services			✓
<b>Domestic Taxes Administration Systems</b>				
2004	Integration of Domestic Taxes – Formation of Customs Taxes Department (DTD)		✓	
	Taxpayer Segmentation		✓	
2006	Formation of Taxpayer Office (LTO)		✓	
2003	Tax Programme Reforms – Electronic Tax Registers	✓		
2007	Broadening of Tax Base and Widening the Tax Net through various initiatives including Turnover Tax and Advance Tax on Public Service Vehicles			✓
	Integrated Tax Management System (I-Tax)	✓		
2008	Integrated Tax Management System (ITMS)	✓		
<b>Road Transport Department</b>				
2003	Vehicle Management System – VMS – automation of Motor Vehicle Registration	✓		
2007	Document Scanning and Imaging	✓		
2007	Cash Receipting System (CRS) – automating the revenue collection	✓		
2003	Introduction of Public Service Vehicle (PSV) badges, PSV Driver and Conductor Licenses			✓

<b>Year</b>	<b>Reform</b>	<b>ICT-Driven</b>	<b>Organization Structure Driven</b>	<b>Organizational Behaviour / Culture Driven</b>
	Driver's License Status Query	✓		
2007	On-line Motor Vehicle Registration	✓		
2006	Introduction of a New-Look Security Logbook with advanced security features			✓

*Adapted from KRA's Record of Reform Experience, 2010*

## Appendix 11: An Overview of KRA ICT Implementations (2003-2012)

Year	New Technology	Objective	Achievements
<i>Customs Administration Reforms</i>			
2005	Implementation of the Simba 2005 System (S2005S) <ul style="list-style-type: none"> <li>Document Processing Centre</li> </ul>	Modernize customs administration in accordance with internationally accepted conventional standards and best practice as outlined in World Trade organizations (WTO) agreements and the World Customs Organization (WCO) Revised Kyoto Convention on Simplification and Harmonization of Customs Procedures	<p>Internet-based Customs IT system to facilitate rapid cargo clearance and electronic exchange of data with the trading community. This system allows customers to lodge their import/export documents online at the comfort of their offices to KRA.</p> <p>This system has made easier for clearing agents to make customs declarations without coming to KRA offices.</p> <p>Interfacing the Simba 2005 System with the Road Transport Department (RTD) System. The interface allows seamless flow of motor vehicles details into the Vehicle Management System at RTD.</p> <p>Implementation of Direct Banking for all Customs Payments.</p> <p>Implementation of Direct Banking for all Customs Payments. System has eradicated revenue leakages arising from handling of cash and cheques (Waweru, 2006). In the words of Commissioner General, "Tax frauds involving revenue cheques are now a thing of the past" (P.2 )</p>
2006	Orbus System – part of Simba 2005	Enhance electronic payment of taxes and document collection as well as improve control and monitoring of business operations to boost efficiency	System allows importers and agents to lodge their pre-clearance documents online. The Applications are then processed online by the stakeholders.
	Cargo Management Information System (CAMIS) Implementation of Electronic Cargo System (ECTS)	The purpose of the system is to monitors trucks carrying transit /export cargo from Kilindini Port/factories to final destination on real-time basis. This system is managed from Control Room at KRA Headquarters (Times Tower). It is a requirement that trucks carrying transit cargo install the monitoring device.	This has minimized revenue loose; facilitated reconciliation of manifest and data entry; ensured easy identification of goods to be moved to the Customs warehouse; automated calculation of warehouse rent; reduced diversion and loss of cargo; and enabled real-time generation of management reports
	Customs Oil Stocks Information Systems (COSIS)	Web-based ICT system that monitors and reconciles oil stocks per oil marketer	Has greatly enhanced compliance and revenue collection from the sector. The system has also provided a stock

<b>Year</b>	<b>New Technology</b>	<b>Objective</b>	<b>Achievements</b>
			management system to the oil sector.
2005	Revenue Authorities' Digital Data Exchange (RADDEx)	An electronic communication channels develop to allow exchange of information between S2005S and the systems from other revenue authorities within the East African Community (EAC) region	This system has facilitated trade among the EAC countries – by reducing the time and cost of cargo clearance. The system also provides a secure means of confirming transit and export goods and entry details to forestall the risk of diversion to the local market
2005-2011	X-ray Cargo Scanners	Uses technology to monitor and inspect cargo containers that pose security threats at major ports. By mid-2012, KRA had acquired and fully operational 9 scanners	As a result of installing these X-ray scanners, over 2,000 cases of mis-declarations are detected annually
2005	Valuation Database System	Provide automatic valuation of goods to enhance revenue	This system has minimized incidents of undervaluation of goods and consequently increased revenue. As of 2011, the system enabled KRA to flash out a monthly of 2,700 cases of undervalued goods
<b><i>Domestic Taxes Administration Systems</i></b>			
2003- to-date	Integrated Tax Management System (I-Tax)	The objectives of the I-Tax is to provide efficient and effective services to taxpayers and public and reduce interaction with staff, facilitate seamless sharing of information across KRA and relevant 3rd parties for data-matching purposes in order to detect non-compliance and to facilitate combined enforcement actions and thus provide a single view of a taxpayer.	Online registration and filing modules have been completed  Several back Office operations have been automated.
2005	GPRS Electronic Tax Registers (ETR)	To promote VAT compliance through the creation of a clear invoice trail and improvement of record keeping for business transactions.	This initiative was implemented to enhance VAT compliance as most business lacked proper record keeping resulting growth in delinquent filers. This system enforces improved and secure receipting and record keeping methodologies.
<b><i>Road Transport Department</i></b>			
2007	Vehicle Management System (VMS)	Captures motor vehicle details into a database that is provide vital information into tax administration. The VMS is linked to Customs Simba System to communicate seamlessly. This system allows	Has enabled the scanning and imaging of documents and thereby facilitating electronic processing and retrieval of all documents easily.  Cash Receipt Systems - Automated the collection of revenue and thus enhancing revenue collection and

<b>Year</b>	<b>New Technology</b>	<b>Objective</b>	<b>Achievements</b>
		taxpayers /vehicle owners to pay and register imported vehicles at the port of entry	<p>accountability of staff</p> <p>Driver's Licence Status Query Links taxpayer's identification number to KRA systems to enhance revenue collection</p> <p>On-line Motor Vehicle Registration - Enabled registration of motor vehicles leaving the Container Freight Stations and hence facilitating faster collection of fees together with import/custom duties.</p>
<b>Corporate-Wide ICT Reforms</b>			
	Knowledge Management System	Develop a database for reference and information sharing among the employees of the Authority	<p>Developed a database for all rulings made in various operational areas</p> <p>Published a reform book to share experiences on reforms implemented to date</p>
	Free Open Source Software (FOSS) - Enterprise Resource Planning (ERP) System -	Automate support services	FOSS has merged several support functions to enable efficiency, effectiveness and transparency.
	Call Center	Provide a point of contact for customer queries	The center now processes up to 16,000 voice calls and over 9,000 emails from customers on a monthly basis

*Source: Kenya Revenue Authority's Reform Book, 2010*

## Appendix 12: Revenue Performance – Drivers (2003-2012)

Performance Driver / Factor	2003/04–2005/06	2006/07–2008/09	2009/10–2011/12
Broadened Tax Base	Increased taxpayers 33,923 (2003/04); 33,141 (2003/04); 40,537 (2005/06) – contributing additional revenue over KES 1.4 billion	Increased taxpayers – 84,269 (2006/07), 123,849 (2007/08), 64,251 (2008/09) – be Dec 08 – contributing additional revenue – KES 4 billion	Adoption of Personal Identification (PIN) as a common identifier, interface of ITMS to VMS, SIMBA and other platforms  X-ray Scanners and Valuation databases Further enhancement and implementation of Electronic Cargo Tracking System; using ETRs, using a Block Management System (BMS) to identify physical location of taxpayers, implementation of RADDEx and integration of KWATOS and KRA systems for data exchange eases and inspection were some of initiatives that improved revenue collection
Enhanced enforcement	Increased revenue by KES 410 million - through use of X-ray Scanners and establishment of an Intelligence Unit among other factors	Increased number of tools, deployed E-Cargo Tracking System, acquired additional X-ray scanners, among other factors	Adoption of PIN, harmonization of KRA taxpayer databases, interfacing of ITMS with VMS, SIMBA and other platforms, using print media, Short Messaging Services (SMS), use of BMS and RADDEx, integration of KWATOS and KRA systems, improving laboratory equipment – were steps undertaken to improve enforcement.
Improved compliance	Electronic Tax Registers (ETR), development of a Tax Procedure Code; a Withholding Tax System among other factors all contributing to additional revenue KES 6 billion (2003/04) and KES 14.6 billion (2004/05)	Improved over seven processes related to compliance	Other steps included establishment of a digital forensic laboratory, improved integrity testing , acquiring of digital surveillance gadgets – all improved enforcement and compliance
Improved tax audits	Used modern tools netting additional revenue KES 6.2 billion (2003/04); KES 5.6 billion (2004/05) and KES 2.9 billion (2005/06)	Improved processes	Further improvement of compliance processes including development of a compliance framework and training of staff Improved processes – such as operation of the MEGA Ports Simulator
Better debt management	A total of KES 19.1 billion (2003/04); KES 13.0 billion (2004/05); and KES 8.4 billion collected	Debt collections KES 9.8 billion (2006/07); KES 8.4 billion (2007/08); and KES 3.8 billion (2008/09 to Dec 08).	Achieved through categorization of debts by type, age, amounts – using system tools – enabled by better debt management.

### Appendix 13: Summary Overview of Process Improvements

Process	Description Systems Impacted	Level of Completion	Comment
Improved ICT Services, IS Security and ICT Governance	Service Level Agreements (SLAs) signed with several service providers and other partners	Incomplete	SLA between ICT and the business still pending
	Security Monitoring and Control Solution	0%	Yet to be acquired
	Disaster Recovery and Business Continuity (DRBCP)	Initial implementation completed	Full implementation hampered by lack of corporate policies and funding
	Intrusion Detection and Prevention System	95%	
	IT Service Management (ITMS) Necessary framework, process and procedure documentation completed	70%	ITMS tool yet to be procured
Modernize, Maintain and Integrate IT Systems	Integrated Tax Management System - Registration and recruitment of taxpayers - Returns processing	65%	Phase I completed Phase II still outstanding
	Modernization of RTD operations - Common Cash Receipting System - Digitalization of Records - Vehicle Management System - Driving License Management System (DLMS)	80%	Integrated Road Transport Management System (IRTMS) is yet to be implemented
	Customs – Simba 2005 System - COSIS - CAMIS - RADDex - KRAVS - Manifest Management System - ECTS 1 - Interfaced with other system (KWATOS, RADDex)	90%	Interface with CCRS ongoing  This system is being phased out and replaced with another system
	Modernisation of Business Operations in Support Department - WCO e-learning - Internal Audit Management System (Teamate) - KOHA Library Systems - Free Open Source Software (FOSS)ERP (various modules)	For ERP – 50% completed with usage standing at 21.37%	Usage of ERP is low because most modules are yet to be operational
	Data Warehousing, Business Intelligence and Performance Management System	10%	
	Revenue Portal	75%	
Enhancing and Maintaining ICT Infrastructure	Improving and expanding ICT Infrastructure – LAN and WAN, Data Capture Centre	60%	Implemented in phases and hence impacting availability
	Call Centre – full implementation	100%	
	Process and Information Management	10%	
	KRA-Wide Enterprise Information Architecture	0%	Still pending as 2012

## **Key Websites**

<https://www.cia.gov/library/publications/the-world-factbook/geos/ke.html>

[www.kra.go.ke](http://www.kra.go.ke)

<http://www.e-government.go.ke/>

<http://www.ict.go.ke/index.php/public-sector/technology/80-e-services/143-e-government->