

**FACTORS INFLUENCING THE IMPLEMENTATION OF INFORMATION
COMMUNICATION TECHNOLOGY PROGRAMMES IN ORGANISATIONS; A CASE
OF KENYA REVENUE AUTHORITY, MOMBASA BUREAU**

BY

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**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF ARTS
IN PROJECT PLANNING AND MANAGEMENT OF THE UNIVERSITY OF NAIROBI.**

2015

DECLARATION

I confirm that this research project report is my original work and has not been submitted for a degree in any other University.

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ACKNOWLEDGEMENT

There are a number of persons without whom this study might not have been done, and to whom I am greatly indebted.

Foremost, I am highly grateful to God for his blessings that continue to flow in my life.

My supervisor, Dr. Moses Otienowho was more than generous with his expertise and precious time.

The University of Nairobi, staff and classmates for the much needed support they offered.

I would also like to thank my family and friends, particularly Martin, Alex and Mellen for the sacrifices and invaluable encouragement they have offered me throughout the research process. I would specifically direct my gratitude to my caring mum, dad and colleagues who encouraged me throughout this research study.

DEDICATION

This study is dedicated to my wife Taato, son Ritei and daughter Teyian. My parents Joe and Betty, you have successfully made me the person I am becoming. My sisters, Siteiya and Ipaine, brothers, Saita, Kaipai, Ranka and Tompoi. You are very special.

ABSTRACT

Well-structured ICT strategy is the backbone that will enable organisations to deliver services effectively and efficiently, helping the organization reach more people and ultimately do more with their money. In this regard, organizations all over the world have realized the need to embrace strategic management that involves the employment of ICT to attain a competitive advantage in pursuit of set objectives. Due to this realisation, a number of parastatals in Kenya have adopted the use and implementation of ICT programmes in their departments. Though challenges have faced the implementation of this ICT programmes in the country for some times now and this is the issue the research has sought to address by concentrating on the factors influencing ICT projects implementation by KRA. The aim of the research therefore was to, investigate the factors influencing the implementation of information communication technology programmes in Kenya Revenue Authority; a case study of Kenya Revenue Authority, Mombasa bureau. The objectives of the study included: To establish the influence of financial resources in the implementation of Information Communication Technology programmes in KRA Mombasa branch, To establish the influence to which ICT infrastructure have on the implementation of Information Communication Technology programmes in KRA Mombasa branch, to establish the influence the management have on the implementation of Information Communication Technology programmes in KRA Mombasa branch, and, to establish the influence the organizational structure have on the implementation of Information Communication Technology programmes in KRA, Mombasa branch. The study employed a survey research design, since it was an in-depth investigation of an individual group of respondents. The questioners were used as the main source of gathering information from selected 68 respondents that cut a cross categories like top managers, middle managers and lower managers. Out the 68 questionnaires issued, 65 were returned and this is what made our study population. Data was interpreted and presented in the form of tables and frequency tables. From the responses in the field, the factors stated in the questionnaire as per the objectives had a significance influence in the implementation of the ICT projects. This was statistically proven to be true by the values of calculated Chi-square that were greater than the critical Chi-square value of 9.488 at 95% confidence level and 4 degrees of freedom. In the summary of findings and conclusions in chapter five, the research has had a number of scholars who were in agreement with the field findings that the stated factors in the objectives and questionnaire had an influence in the implementation of ICT projects. The researcher has included suggestions for further studies that include, investigating socio-economic factors influencing the implementation of ICT projects in Mombasa's KRA Branch.

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ABBREVIATION AND ACRONYMS

GOK	:	Government of Kenya
ICT	:	Information && Communications Technology
IS	:	Information System
IT	:	Information Technology
ITMS	:	Integrated Tax Management System
ITIL	:	Information Technology Infrastructure Library
MDG	:	Millennium Development Goals
PIN	:	Personal Identification Number
PMBO	:	Program Management & Business Office
KRA	:	Kenya Revenue Authority
UN	:	United Nation
UNDP	:	United Nations Development Programme
SPSS	:	Statistics Packages for Social Sciences

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

According to Czerniewicz and Brown (2012), ICT is no longer something that only appears on organizations' wish lists. Well-structured ICT strategy is the backbone that will enable organizations to deliver services effectively and efficiently, helping the organization reach more people and ultimately do more with their money. In this regard, organizations all over the world have realized the need to embrace strategic management that involves the employment of ICT to attain a competitive advantage in pursuit of set objectives. With globalization of more industries, strategic management is becoming an increasingly important way to track international developments and position of a company for long term advantage. According to Gallier and Leidner (2010), strategic management of data, information and knowledge and associated ICT represents a major strategic challenge and opportunities for organizations in the twentieth century.

In his book relating to the role of ICT and diffusion of technology in today's business world, Andreas(2011) argues that the ongoing diffusion of new Information Communication Technology and e-business technologies among firms is a current example of the dynamics of technological change and economic development. On the conceptual level, there exists a clear link between the adoption of new e-business technologies and firm's performance. To confront the demands of changing business environments, tax authority across the world- both in the DCs, LDCs and MDCs- are increasingly turning their attention to particular ICT system.

According to Hill & Jones (2010), the introduction of ICT such as integrated tax management systems (ITMS) has improved taxation administration efficiency in rendering services to taxpayers. Tax administration authorities are using the system to deliver a wide range of value added products and services to taxpayers (Kloppenburger&Laning, 2012). Successful development of ITMS is not guaranteed as failure can occur at various stages of ITMS development. Implementation is the final critical stage, and if not properly managed the entire efforts of ITMS development may fail and the system will not be delivered.

In the USA for example, after the government's realization of the greater number of immigrants who were repatriating huge sums of money to their country without having them taxed, the government introduced an integrated tax management information system that was being implemented at all the states and local authorities of this most developed continent in the world (Smithenry, 2010). In the years 1986 to 2001, the USA government was on toes towards investing up to 54% of its income in ICT for education, health, security, food production and control of uncounted for funds. This for example led to the country being rated as one of the most advanced technological economy in 1995 to 2001 compared to other G8 countries.

However, studies by The World Bank (2012) show that the \$180.89 million spent in modern weapons in 2001 lost meaning in the same year due to the effects brought up by the twin bombings masqueraded by Osama bin Laden and his great network of AlQaeda. When studying the role of ICT in Revenue Collection in India and the USA, Burke, Kenney & Pflueger (2011) argued that, Information and Communication Technology (ICT) is one of the contemporary themes affecting strategy development in a number of organizations in these two countries. Four themes namely internationalization, e-commerce, changing purposes and knowledge/learning as overreaching and impacting on many if not most organizations at the time were identified as major areas whereby technology could never be overlooked.

However, their study found out that unlike China, USA and India have been faced by up to 37% challenges while implementing their ICT projects in managing their revenue systems. In India for example, between the years 2003 and 2009 factors like deficiency of ICT experts, limited ICT budgets allocations, poor innovations, high cost of imported technology, poor projects planning and management strategies, political rivalries, cultural differences and views, poor ICT infrastructure and many more for a long time hindered fully the adoption of ICT for taxation process. In the USA, factors like poor tendering processes of ICT, poor perceptions about imported ICT especially that from China, global markets rivalry, terrorism, criminal acts like hacking and many more have for a long time up to present influenced the implementation of ICT projects in their integrated tax systems.

Studies carried out by Galliers&Leidner (2010) across Latin America and developing African states like SA, Ghana, Libya and Morocco looked at ICT for development in relation to The Strategic Information Management Theory. Strategic Information Management Theory (SIMT) is built on the management practice where managers perform activities to help an organization gain a competitive advantage. In relation to this theory, the choice of ICT strategy is now a reality in all firms and it has to be complimented with robust and effective implementation. Advances in information technology and the internet mean that organizations that deal with revenue in these developing countries have to embrace successful e-commerce and e-business strategies (Hill& Jones, 2010). The importance of ICT for revenue management firms in SA emerged in the last quarter of the century and is now defined by three key and intertwined features being informational, global and networked. A lot of corporations and private entities have over the past two decades embraced ICT strategy across the world in order to enhance operational efficiency and automate business processes but Africa in a way has been left behind by up to 60%.

A study by Baum& Oliver (2012) shows that, as much as the SA government has for a long time sung the song of integrating proper ICT programmes in its revenue management, the implementation of the strategies remains a challenge. Some of the cited factors that have for long hindered the process include: lack of sufficient financial resources, limited ICT experts, poor innovation strategies that are needed for the new technology, poor managers who for a longtime have never seen the importance of technology in services provision, corruption in implementing such Mega projects, opposition from the corrupt officials who have been used to evading tax for long, poor ICT infrastructure like electricity and many more. A study by the World Bank in Nigeria in 2012 on the hindrances of ICT4ED projects also cited similar issues like lack of proper ICT infrastructure like computer laboratories, and electricity, poor ICT management bodies, limited funds for ICT, poor community perceptions especially from the corrupt politicians and many more.

In Uganda for example, the implementation of proper Strategic Information Revenue Collection systems have failed up to the tune of 71%; the largest deviation in east Africa besides that of southern Sudan and Eretria (Bernelot, 2013). In his documented literature in Busoga University Uganda about ICT, Carvalho (2013) argues that, Technology is one of the principle drivers of

competition. It plays a key role in the industrial structural change as well as creating new opportunities and strategies. Therefore, the necessary steps in formulating and choosing strategy involves identification of the technologies and sub-technologies in the value chain, determination of the likely path of change of the technologies, determination of the technologies that are most significant for competitive advantage, assessment of the organization's relative capabilities in the technologies and making a choice of strategy that encompasses all the technologies that reinforce the organizations intended goals.

He further adds that, the ICT strategy is a plan which includes objectives, principles and tactics, relating to the use of the information and communication technologies within the organization. ICT strategy is a subset of information strategies which also includes the information service strategy and the change management strategy. It is usually derived from the primary business or support strategies of an organization (Gallier and Leidner, 2010). Information systems implementation processes involves a long range of planning for funds, human resources, services, and technical expertise, hardware and software capabilities needed to exploit information services opportunities which arise from time to time.

However, Carvalho (2013) found out that Uganda has failed to fully integrate customs ICT like it's Kenyan counterpart in the borders of Busia and Malaba due to factors like lack of extra funds required for the projects, poor linkage between the ministry of transport, trade, immigrations and the national government, corrupt officials who always felt that the Programme could deny them the opportunity to access the bribes they always achieved, poor legal procedures and political goodwill, poor ICT infrastructure, lack of qualified local technological innovations and experts among others. This has made the country being rated together with poor countries like Eretria, Lesotho and Mauritania in their revenue collection and sustainability.

In Kenya, ICT is looked at as an integral part by many scholars in the 21st development. Kagori (2010) for example defines the informational strategy as made up of information service strategy, informational technology strategy and change and implementation strategy. In this writing, he argues that Kenya has not adopted ICT as a project but as a strategy of spurring its economic growth and financial independence. He says that 'it is important to design

informational strategy with other functional strategies such as corporate, production, finance, marketing and human resource'. According to Kiliko, Atandi & Awino (2012) among the key objectives of implementing ICT strategies in Kenya is in data processing to improve operational efficiency by automating information based processes, using management information systems to increase management effectiveness by satisfying their information requirements for decision making and improve competitiveness by changing the nature or conduct of business. Kagori (2010) continues to argue that the factors that influence the choice and implementation of the ICT strategy in the country are both internal and external. Internal factors include an organization's capabilities such as financial strength, the prevailing business strategies, size, structure and previous legacy technology systems. External factors include changes in technology and trends, competition forces, strength of technology providers, compliance with requirements from other organizations and compliance with the legal framework within which the organization is domiciled.

Research done in 10 ministries in Kenya in 2003 to 2010 has shown that the implementation of information systems in organizations requires a focus on contextual variables such as organization power relations and organizations culture (Opoku-Mensah, 2011). Implementation of ICT strategies by the Kenya revenue sector just like with other strategies in the country has challenges. According to Owuor (2011), improving information services implementation continues to rank highly among the major issues facing management of user oriented IT services in public organizations. This is as a result of issues like budget constraints, resistance to change among internal and external stakeholders, poor planning, lack of skills, knowledge and technology penetration within an organization. Other factors include lack of communication and involvement by staff, lack of requisite infrastructure like power, networks and content, duplication of technology platform and over capacity in organization data centers. Access to mobile networks in telecommunication and use of broadband internet are central to the long-term economic development strategies in firms.

A report posted in the GOK's public service website shows that, Public organizations in Kenya have over the last three decades embraced strategic management practices through initiatives such as Structural Adjustment Programmes (SAP), Millennium Development Goals (MDGs) and

Vision 2030 that have put the ICT strategy as enabler of competitive advantage. Kenya Revenue Authority as an organization has since placed the ICT strategy at the heart of its strategic formulation and implementation in its corporate plans (Department of Science Information Technology, 2012).

According to Kenya Vision 2030 (2008), the vision is anchored on three pillars, political, social and economic with a strategic focus on reform in eight key sectors, among them science, technology and innovation (STI) in which ICT is a main component. Government agencies have now gone ahead adopting e-Government initiatives to enhance efficiency and effectiveness in government and promote information sharing and collaboration. The areas that have profited immensely from ICT are e-business and e-commerce. According to Kenya Revenue Authority (2013), technology developments particularly those based on advancing information are essential for organizational effectiveness and are powerful drivers of organizational change. This makes it necessary to plan and implement successfully. Some of the key initiatives being undertaken by the Kenyan government are the development of e-government initiatives and adoption of the government ICT strategy.

According to a bulletin from the website of the Kenya ICT board, E-government applications apply the judicious use of ICT to enable governments to improve their internal systems, deliver services more efficiently and effectively and make information more accessible to the citizens. According to the Kenya's National ICT policy (2006), the government endeavors to reduce waste and project failure and stimulate growth. It also aspires to create a common ICT infrastructure for government agencies, use ICT to deliver change and strengthen ICT governance. The ICT policy has since been strengthened by the launch of the National ICT Master plan 2017(2012) which whose pillars include use of ICT to enhance public value and quality of life, put focus on the development of ICT businesses, strengthening ICT as a driver of industry and creating an integrated ICT infrastructure and info-structure.

Narrowing down to the KRA situation, Kenya Revenue Authority (KRA) is a public sector organization that relies heavily on ICT in order to deliver on its core responsibility of collecting revenue on behalf of the Government of Kenya. According to the Kenya Revenue Authority

website (2013), KRA is a Semi-Autonomous Government Agency (SAGA) whose purpose is assessment, collection, administration and enforcement of laws relating to revenue and tax administration. It was established in 1st July 1995 by an Act of Parliament, Cap 469. There has been a deliberate policy to embrace ICT strategic initiatives as periodically set out in the KRA corporate plans. The KRA Second Corporate plan (2003/4 – 2005/6) set the stage for the Revenue Administration Reform and Modernization Programme (RARMP) to consolidate gains achieved in tax administration. The Third Corporate Plan 2006/7/ 9 (2008), ensured that KRA transformed itself into a modern, fully integrated and client focused organization.

In the KRA fourth corporate plan 2009/10/11/12 (2009), KRA entrenched reforms at the operational level to achieve operational efficiencies and enhance service delivery. The planning and formulation phase of ICT strategy was done in the Second KRA Corporate plan 2003/4 5/6 (2003). In the fourth corporate plan 2009/10/11/12 (2009), the prominence of implementation of ICT strategy came to the fore. The KRA fifth corporate plan (2012) is currently running from 2012/13 to 2015/16. KRA has a centralized Information Communication Technology (ICT) department that provides support services to the entire organization. KRA has had mixed success in its pursuit to automate business processes and perform support functions to achieve its goals for achieving increased revenue and facilitating voluntary compliance by taxpayers.

The success is demonstrated by the rise in the total taxes collected from just under two hundred billion Kenya shillings in 2001/02 to over eight hundred billion in the year 2012/13. According to the KRA portal (2013), the organization also has a lot more ICT penetration among staff than previous years. Not all ICT projects have been smooth as evidenced by incessant complaints about the delays occasioned by malfunctioning of the customs revenue collection system and failure to properly roll out key projects like the electronic cargo tracking system (ECTS) and enterprise resource planning system (ERP) among a host of others. This warrants the necessity to evaluate the implementation of ICT strategy projects since ICT is at the heart of the RARMP initiative that is the cornerstone of the business reengineering programme and as such ICT forms one of the key strategic pillars in each of the corporate plans developed over the last ten years.

In the Mombasa case, KRA has been operating for a long time and has over 50 both direct and indirect employees. The use of computers is evident in its offices with almost all the about 28 employees having personal computers. However challenges have been experienced in implementing powerful ICT strategy and Programme like that in the central office in Nairobi (GOK, 2012). The major cited challenges by the Kenya ICT Board includes: lack of sufficient infrastructure for ICT like extra rooms, electricity, local and national internet connection grids etc., lack of sufficient budgetary allocations for ICT, poor management support from both the regional and national managers, poor planning, corruption, lack of prevailing experts in the field among other (MLGI & Katiba Institute, 2013).

1.2 Statement of the Problem

Given the dynamics and variant forces at work where organizations operate, they have found it necessary to formulate strategies that assist them achieve intended goals and objectives. Once these strategies are formulated, choices are made from available alternatives. ICT has emerged as one of the key strategies embraced by organizations (Mutakha, K., 2011). According to Ochien'g (2012), a move towards the proactive use of ICT for competitive advantage emerged during the 1980s and 1990s. While the choice of ICT for development has been at the heart of organization's policy plans its implementation remains a challenge. A significant percentage of intended strategies are never realized because of challenges in the implementation process.

According to Galliers and Leidner (2010), the implementation process is very complex especially having the technology penetrate an organization's structure and culture. The implementation of ICT strategy in public corporations just like any other organization remains challenging. Kenya Revenue Authority is one such organization that relies heavily on ICT and the related ICT strategy in order to deliver on its core responsibility of collecting revenue on behalf of the Government of Kenya (GOK, 2012). The need to identify the challenges facing public organizations like KRA in the implementation of the ICT and measures of mitigating them, warrant the need to carry out this study.

A review of previous studies like those of Kenya Revenue Authority (2009) for implementing ICT strategy, Nyambene (1996) on factors limiting IT usage in publicly quoted companies in

Kenya, Abwao (2002) on IT applications in business in business management within Kenyan companies, Kariuki (2004) on IT strategy and organization structure relationship in companies listed on the NSE and Wanjiku (2008) on the extent and challenges of application of ICT in marketing in commercial banks in Kenya do relate the subject of strategic management and ICT on various other aspects but not directly linked to challenges in implementation of the ICT both in all public sectors in the KRA and specifically KRA. A number of studies that relate KRA to strategic management include that of responses to KRA on the challenges in the implementation of customs reform and modernization by Aliet (2008), challenges of strategy implementation at the KRA by Kimeli (2008), a model of costing in public organizations: a case study of KRA by Wafula (2012), and challenges of implementing strategic change at KRA by Njoki (2011). These studies however don't research on the challenges faced by KRA in the implementation of its ICT strategy/Programme. Worst has been found in the Mombasa Bureau unlike that at the headquarters in Nairobi.

According to the research of these projects, this exposes the gap of not enough case studies being undertaken on the subject of ICT as a Programme. Studies have not been conducted to identify the challenges of implementation of this core strategy not only in KRA but other public organizations in Mombasa county maybe due to the limited number of scholars ready to touch on this field. This is despite the fact that ICT now forms the backbone of main reform and reengineering processes in these organizations. Considering the studies undertaken it is necessary that a lot more needs to be done to relate ICT and strategy choice and implementation in public organizations. It is necessary to note that no specific study has been undertaken to relate strategy implementation and ICT strategy at KRA and these points to the need for carrying out the study. Therefore the research sought to address the challenges facing the implementation of ICT programmes/projects/strategy in KRA while focusing on the ICT projects implemented by KRA Mombasa Bureau.

1.3 Purpose of the Study

The purpose of the study was to examine the factors influencing the implementation of information communication technology programmes in organisations; a case of Kenya Revenue Authority, Mombasa Bureau.

1.4 Objectives of the Study

This study was guided by the following objectives:

- i. To establish the extent to which financial resources influence the implementation of Information Communication Technology programmes in KRA Mombasa branch.
- ii. To establish the extent to which ICT infrastructure influence the implementation of Information Communication Technology programmes in KRA Mombasa branch.
- iii. To find out the extent to which management influence the implementation of Information Communication Technology programmes in KRA Mombasa branch.
- iv. To examine the extent to which organizational structure influence the implementation of Information Communication Technology programmes in KRA Mombasa branch.

1.5 Research Questions

The study was guided by the following research questions:

- i. What influence do financial resources have on the implementation of Information Communication Technology programmes in KRA, Mombasa branch?
- ii. What influence do ICT infrastructures have on the implementation of Information Communication Technology programmes in KRA, Mombasa branch?
- iii. What influence does the management have on the implementation of Information Communication Technology programmes in KRA Mombasa branch?
- iv. What influence does the organizational structure have on the implementation of Information Communication Technology programmes in KRA, Mombasa branch?

1.6 Research Hypothesis

The study was guided by the following research hypothesis:

- i. **H₁**: Financial resources influence the implementation of Information Communication Technology programmes in KRA Mombasa branch.
- ii. **H₁**: ICT infrastructure has a significant influence in the implementation of Information Communication Technology programmes in KRA Mombasa branch.
- iii. **H₁**: Management influence the implementation of Information Communication Technology programmes in KRA Mombasa branch.

- iv. **H₁**:Organizational structure has significant influence in the implementation of Information Communication Technology programmes in KRA Mombasa branch.

1.7 Significance of the Study

Contemporary development across the globe involves extensive use of ICT for quick and effective communication which leads to improved operation. This study was aimed at demonstrating how the use of ICT in revenue collection can easily be achieved by looking at the resultant possible factors influencing the success.

The study is set to assist policy makers and other stakeholders identify with policies and strategies that are most effective and how they are implemented in the context of public organizations, which can assist in policy formulation. It will be important in policy development in organizations such as KRA and other public organizations as long stakeholders use the findings to understand specific needs, improve communication, dissemination and through proper and timely implementation of research findings.

The research is going to be a pool of knowledge that is applicable outside the research setting with implications for policy and management of ICT related tasks and projects. The Kenya Revenue Authority as well as other public corporations with similar work environment and settings is primed to benefit from the findings of this study.

Researchers interested in this area will obviously benefit from the study. They will get available information which they will utilize as they endeavour to further the study. It is worth noting that this study area has not been widely researched and therefore, the study is significant in that it will contribute to the literature.

1.8 Basic Assumptions of the Research

This study presumed that infrastructural facilities like electricity and computer laboratories and the computers themselves influenced the implementation of ICT programmes in KRA's Mombasa branch, a fact that held weight when the researcher went to the field.

It further presupposed that due to limited financial resources allocation for the ICT activities in the Bureau, there is going to be an influence in implementing major ICT related strategies and programmes. Besides, it had this assumption that the role of management and the structural organization like the centralization of ICT in the main offices in Nairobi is a significant factor to the ICT development at Mombasa branch level. This fact too held its truth when the researcher went to the field.

Finally it had the assumption that all the respondents were to truly fill the questionnaires without bias and subjectivity.

1.9 Limitations of the Study

Although the study was carefully done, there were some unavoidable limitations:

- i. The study was limited by time due to the distance of linking with the supervisor and other respondents in the field owing to the fact that the researcher operates from North Eastern. However this was overcome by creating time during the holidays and at times travelling the long distance late in the research period to link with the supervisor.
- ii. Majority of the respondents in the KRA offices were not freely willing to give sensitive information especially when it comes to finances and leadership/management and this could compromise the results. However, this was overcome by the respondents being assured of their confidentiality and having their names/details not disclosed.
- iii. Also the issue of finances for the research work, data conversion and SPSS analysis and those for taking the research instrument to the field was a challenge. However this was overcome by operating at minimal expenses as possible.

1.10 Delimitations of the Study

The study delimited itself by looking at the factors influencing the implementation of ICT programmes in KRA with specific emphasis on KRA's Mombasa bureau. It tied itself to only four objectives that relate to financial resources, management, organizational structure and ICT infrastructure.

The study also employed the use of questionnaires for data collection since they are most convenient and the researcher could even email them while the researcher was at his work place in North Eastern. The target population was only the KRA permanent and contract staff for the last 5 years.

1.11 Definitions of Significant Terms

ICT Infrastructure- Is the physical equipment/hardware and software that enables a network to function.

Information Communications Technologies - Includes technologies both traditional for example radio, television, print, video and newer technologies for example internet virtual reality, distance education, mobile phones etc. that are intended to fulfill information processing and communication.

Infrastructure Facilities- A set of interconnected structural elements that provide framework supporting an entire structure of development. Include buildings, laboratories and electrical connections.

Financial Resources- All the money, either liquid or solid that is needed to meet all the expenses that are geared towards seeing ICT projects become a reality.

Organizational structure-Refers to the channels laid down by a particular organization to be followed when undertaking a particular communication, action or executing a particular plan; the bureaucracy in an organization.

1.12 Organization of the Study

This proposal report is organized in five chapters. Chapter one is the introduction which includes the background of the study, statement of the problem, purpose of the study, objectives of the study, research questions, statement of the problem, purpose of the study, objectives of the study, research questions, research hypothesis, significance of the study, delimitations of the study, basic assumptions and the definition of significant terms. Chapter two of the study consists of the literature review with information from other articles which are relevant to the researcher. Chapter three contains the research design, target population, sampling procedures and sample

size, methods of data collection, data validity, data reliability, and data analysis techniques, ethical considerations and operational definition of variables. Chapter four is purely the conversion and interpretation of data accompanied by hypothesis testing. Chapter five gives summary of findings, discussions and the suggestions for future studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter deals with the available literature that has been reviewed for the study. It presents an overview of previous work on related topics that provide the necessary background for the purpose of this research. The research therefore outlines the challenges that are facing ICT projects implementation/ICT adoption strategy challenges in all the government parastatals with specific bias to Kenya Revenue Authority. This has been done in sub-headings relating to the objectives.

2.2 Financial Resources Challenges

Siroret al. (2010), ICT ideas diffusion and integration just like any other business undertaking in the world, whether developed or developing countries need efficient capital to function efficiently and grow. Increasing the ICT business' volume and services requires additional capital. Funding is needed to cater for meetings and feasibility studies, purchase of necessary facilities like the quality computers, hiring the required personnel for the new technology, installing and erecting new/relevant ICT enabling structures etc.

Carvalho (2013) argue that The Global Report on the Costs of IT 2013 indicates that the total money spent on IT worldwide has been most recently estimated as US \$3.5 trillion, and is currently growing at 5% p.a. This has been doubling every 15 years. IT costs, as a percentage of corporate revenue, have grown 50% since 2002, putting a strain on IT budgets. Today, when looking at companies' IT budgets, 75% are recurrent costs, used to "keep the lights on" in the IT department, and 25% are cost of new initiatives for technology development. The World Bank (2010) reports that the average IT budget has the following breakdown: 31% personnel costs (internal), 29% software costs (external/purchasing category), 26% hardware costs (external/purchasing category), and, 14% costs of external service providers (external/services). The recent reports therefore indicate that both the developed and developing countries are heavily investing in ICT as the major economic driving force.

According to Thompson, Arthur (2012), ICT for development in both the e-Governments and education across the developing countries in Asia like Indonesia, Malaysia, Pakistani and Thailand and Less developed countries in Africa like Angola, Lesotho, Botswana and Namibia in

2009, financial resources is a key determinant of ICT projects adoption, implementation and use in the various sectors of the economy for accelerated economic development and realization of the MDGs of ICT development for easy services delivery by 2015. According to him, planning and deployment of ICTs in today suffers from several major problems, for example, budgets only consider the immediate costs and seldom, if ever, consider the long term costs of purchasing, deploying and maintaining ICTs. For example, costs for replacements, disposal or even operating costs for refresher training, maintenance and technical support are often ignored. The sum of all this costs is called the TCO (Total Cost of Ownership) that is a challenge by 72% globally in developing countries, 91% in LFCs and 25% in developed countries.

In his comparative study on the challenges facing revenue collection and independence of mind from donors' dependence to self-sufficient/sustainable self-funding in China, Zajac and Westphal (2012) argued that, the country's first target was to come up with strategies that aimed at collecting at least a half US dollar from the about 500,123 million population that was active daily in the non-formal employment world between 1997 and 2009. The major way and strategy that was employed to come up with this way of revenue collection was the idea of adoption of the new technology that was developed by the Japanese and later on modify it to fit to the people of china. One year after 1998, China had achieved 72% of its technology related projects implemented that were applied in collecting tax.

However, the World Bank (2012) showed that China didn't only overspend in importing new technology importation but faced financial crisis in implementing the whole process since the process required trained ICT experts (majority of whom were sent to USA for integrated financial management and revenue collection), the process with it came new challenges of developing new structures like specific computerized systems of tax collection that never dependent on the formerly existing structures like the LAN and many more. However, China has been able to stand the minor challenges of some budgetary constraints and today it is the leading ICT exporter in the world and the number one fastest developing economy that has been loaning other countries in the world (Huiru, 2014).

However, in his research, Wafula (2012) argues that the same is not evident in developing countries, largely because the cost barriers to supplying ICT hardware, software and connectivity are very high thus posing a challenge. In developed countries there is a growing realization of

what in 1996 Oberlin called the ‘financial mythology of information technology’ which he described as follows: ‘While the per unit price of information technology is declining rapidly, the total cost of owning and maintaining systems is steadily rising, the falling prices mislead many to expect cost savings that will never materialize’ (Bernelot, 2013). This was largely because of consistent underestimation of the management, technical support, curriculum development and training expenditure that is essential to ensure sustainable ICT access and use in any sector of the economy. Given global enthusiasm for applying ICT in e-Governments, e-Learning, e-Medicare and many more, it is essential to put in place appropriate costing, financing and planning processes to aid budget allocation decisions. This therefore flows down to the parastatals like those in charge of revenue collection.

In developing countries that have to deal with constrained budgets, financial allocations to ICT must properly take into account the full costs of sustainable ICT systems as well as address the challenge of providing ICT on an equitable basis. The management and the government must investigate costs related to ICT so that key strategic questions around effectiveness, efficiency and sustainability can be better understood. Such an understanding is particularly important, given that sometimes wildly extravagant claims are made for ICT and its impact on revenue collection processes (World Bank, 2012).

In his study for example on the role of ICT in financial management and revenue collection in Malaysia, Nigeria, Ethiopia and Kenya, Davidson (2011) argues that Malaysia has been growing at a rate of 4.6 GPA against its counterparts like Nigeria and Kenya that were far ahead in their GPAs in the late 1970s and early 1980s. According to him, the country for example in 2009 spent approximately €337 million for erecting new structures that integrated new technology that was imported from Japan with the aim of streamlining its National Revenue Collection Authority. This has been missing in the African countries for long like Kenya, Ethiopia, Nigeria and many more that have been lacking enough financial resources in their budgets to invest in such importations.

A study by Malburg(2010) show that in Nigeria the impact of cost in ICT projects is considered a 21st century challenge by both the local and national government. Williams (2010) researched on ICT in education and revenue management in sub Saharan Africa and looked at countries like Ghana, Nigeria and many more, whereby the idea of financial resources were not left out.

According to the research, successful implementation of ICT requires strong support from government at national and local level by relevant institutions and education authorities. According to Odd-Helge Fjeldstad & Kari (2012), political strength of each nation affects the introduction of any new technology, be it in the national or local levels. They also explained that cost is an issue that defines and drives the adoption and growth of ICT especially in developing countries. Support mechanism in relation to ICT, it is needed to realize trainings and to promote gradual integration. In their research, the results for example from the Nigeria's Revenue Collection body showed that, out of the 283 respondents, in a research carried out to assess the major challenges of ICT for taxation enhancement, 188 argued that high cost of ICT infrastructure, computers, electricity and internet connectivity limited the adoption of the technology.

According to Kenya Revenue Authority (2010), Cost has been reported as one of the factors which influence provision and use of ICT services negatively in the government parastatals. The cost of computers is too high for the government to afford, to hire and maintain. Monthly Internet rates are exorbitant and the charges for satellite television are unaffordable for most Africa governments like Kenya that is still struggling with basic needs like food, shelter, education and Medicare providence to her people (Siror, 2010). Another study by Owuor, (2011) shows that the Kenyan government realized the need of introducing ICT in its corporate world in 2005 to 2009 and through this plan, the concept of Economic Stimulus Programme (ESP) came into existence and public limelight in the 2009 /10 Budget speeches to parliament. The government allocated a total budget of Kshs.22Billion for it with the aim of boost economic growth and led the Kenyan economy out of a recession situation brought about by economic slowdown. The key objectives of the economic stimulus included among others improving infrastructure and the quality of education and health care, improving self-budget sustainability by minimizing the loopholes of tax evasion, stimulating economic activity and creating employment opportunities. This led to part of the money being allocated in the giant body being in charge of revenue collection in Kenya-KRA (GoK, 2011).

However, a report by the KRA(2010) shows that financial constrains have been cited as a major hindrance to ICT projects implementation in Kenya and more specifically in the KRA main offices in Nairobi and other sub-branches across the country with the exception of the Eldoret and

Nakuru Bureau. Financial resources perform a major role of getting qualified manpower to champion ICT projects in the offices and field, build computer laboratories for specific specialized works, buy the hard and software of the computer required for the whole process of ICT for revenue collection, acquire the computer itself, cater for the computer maintenance and servicing expenses among others. According to Borura (2010), poor financial support to ICT projects demoralizes the willing parties especially the project implementers leading to a poor attitude and mentality towards the projects that eventually leads to the projects' collapse. This is the case that has been experienced in KRA for about one decade now since the major ICT adoption changes were proposed.

Another closely linked challenge to finances in Kenya that has made it hard for easy success of the ICT strategy adoption by KRA is the cost of computers in the country, more so, when they are imported through the government/parastatal procurement. According to World Bank (2012), computers are still expensive in Kenya, in a country with a GDP of \$1600, majority of the individuals and small firms cannot afford to buy a computer and consider it as a luxury item. This is argued in the sense that, 2nd hand computers cost as high as \$400 and branded new computers being sold at \$679 or higher; a factor that makes it hard for individuals to own computers that could give them a chance to practice the computer knowledge in their homes and later on pass the ideas to work place.

A report by the GOK (2010) shows that the economic stimulus programmes that were rolled out in various sectors of the economy faced delays in their implementation because the budgetary allocations were delayed or some couldn't actualize due to the financial limitations. The report says, lack of adequate financial resources has meant that some parastatals in the past have been pushed to the point of delaying applying for their ICT projects licenses. In relationship to the above, a study by Muathe, Wawire and Ofafa(2013) wrote on the challenges facing the implementation of ICT strategy in the SMEs in Mombasa and the straining factors of ICT taxation in KRA Mombasa branch. In their study, they argued that financial resources limited the number of computers owned by the almost 45 workers attached to KRA in Mombasa (whereby up to three workers shared a computer; leading to delayed operations), limited finances led to lack of enough ICT experts just from internet maintenance experts to the technicians who could handle basic problems facing the ICT sector to the point that they had to wait for experts from

the main offices in Nairobi once a machine broke down or the internet was low, lack of separate rooms/ computer laboratories that could help in the separation of activities and specialization. Due to the insurgency of such issues/challenges in the ICT department in the bureau, the research intends to focus on these challenges and give recommendations.

2.3 Information Communication Technology Infrastructure Challenge

The term IT infrastructure is defined in Information Technology Infrastructure Library (ITIL) v3 as a combined set of hardware, software, networks, facilities, etc. (including all of the information technology), in order to develop, test, deliver, monitor, control or support IT services. Associated people, processes and documentation are not part of IT Infrastructure. The Information Technology Infrastructure Library is a set of practices for IT service management (ITSM) that focuses on aligning IT services with the needs of business. In its current form (known as ITILv3 and ITIL 2011 edition)), ITIL is published in a series of five core publications, each of which covers an ITSM lifecycle stage (Bernelot, 2013).

Chen&Thurmaier (2011) define infrastructure in ICT as the computer and communication hardware, software, databases, people, structures and policies supporting an enterprise's information management functions. According to the World Bank Institute report of 2009, the backbone of ICT projects in revenue collection in the world ties itself to infrastructural facilities that range from hard infrastructure like: computer laboratories, computers, and electricity& computer hardware, to software infrastructure like local internet connection and computer software. Davidow&Uttal(2010) carried a survey report about ICT projects in education, financial management and e-migration management in most countries in six African countries in 2008/2009 that included Kenya, DRC, Angola, Eretria, Nigeria and Morocco. The report shows that 4 of the 6 countries surveyed have, or are in the process of, liberalising their telecommunications policies to enable more competition and diversity of service providers in the industry by trying to subsidized or eliminate the barriers tied to ICT infrastructure like frequent electrical power interruptions, poor network signals etc. The report continues to show that poor policies in the African countries have been a challenge whereby they have been having the effect of lowering the cost of access to information and telecommunication infrastructure, leading to the costs of connectivity being unaffordable for most parastatals and institutions.

Furthermore, studies by Grant (2010) on the common East Africa taxing system shows that the project is challenged specifically in Tanzania due to the fact that there is a difference in the level of ICT infrastructure between the country's towns and other town of the neighboring countries like Kenya, Uganda, Burundi and Rwanda. The study generalizes the IT infrastructure challenge in East Africa by saying that, there are huge gaps between urban and rural areas in terms of access to ICT infrastructure. Access to a reliable supply of electricity in Towns like Tabora (TRA-Terminus after Isibania Border), Arusha, Shinyanga and many more is a general problem but is particularly severe in rural areas because of the difficulty of connecting to national electrical grids. A similar study by Mutakha (2011) entitled 'Operationalization of devolution in the constitution of Kenya electronically,' shows that the county governments will be faced with a major problem of developing ICT that will help them be self-sufficient in revenue collection and projects execution. Quoting counties from North Eastern parts of Kenya for example, he argues that there is a general lack of human resource capacity to provide ICT training and equipment servicing, and there is also a lag between the availability of ICT infrastructure and the ability of developing a general standard ICT infrastructure that is reliable.

Studies across Africa by the world bank (2012) has shown that those countries that have fully bought the ICT MDG to be achieved by 2015 have heavily started by investing up to 52% of their revenue in IT infrastructure. Djibouti, for example, is at the forefront with a digital telecom network with two earth stations and the landing point for three undersea cables linking to Asia, the Middle East, and Europe (Lange and Peter. 2010). According to Broadley (2012), ICT projects implementation requires physical infrastructure that is not limited to power supply and structures like buildings, technical expertise and psychological readiness. ICT projects equally can only be managed and used by people with some level of technical skills. From this report, ICT projects in parastatals and schools are majorly depended on three infrastructural facilities that are not limited to; Electricity/power supply, Structures/Buildings like computer laboratories and Computers.

In his studies documented by the University of Nairobi, Sigey (2010) in his work entitled 'The Impact of Automation as a Structural Change Strategy on Customs Clearing Procedures at Kenya Revenue Authority,' argues that, the role of electricity in ICT projects implementation in KRA is

a challenge that if overlooked can kill up to 57% expectations of the ICT strategy implementation by the parastatal. He further suggested that the parameters to be looked into when accessing the ICT readiness for an institution include; infrastructural availability like electricity, access to infrastructure, manpower availability, policy and regulatory framework. In Kenya, one of the major cited hindrances to ICT integration and use in parastatals like the KRA, KPLC, KPC and many more is lack of electrical power (Kenya Revenue Authority, 2010). A report by the World Bank (2013) shows that almost 35% of KRA branches up to date are still not yet connected to continuous electricity flow. Those that have connected grids like the Mombasa bureau are served with electricity that is faced with regular power black outs causing effects of delayed performance, extra expenses of repairs when machines are electrocuted/short/destroyed due to power over supply, extra sources of power sourcing like generators that are expensive to maintain and many more. Kenya being a developing country, the government has not been able to connect all parts of the country to the national electricity grid. Consequently those offices that fall under such areas are left handicapped and may not be able to offer computer services nor are they in the position to adopt new ICT projects in play.

According to Ochien'g (2012), not even the public has been left out in this menace, as the report maintains that, with limited access to electricity, about 30 percent of the Kenyans are able to access computers with only 04 percent coming from the rural and remote area that are greatly and adversely affected by no electricity supply. He continues to argue that, frequent electricity interruption has been a hindrance factor in ICT projects in Nigeria and Sub-Saharan Africa where Kenya is included. Regular blackouts are very common in Mombasa for example, due to the fact that the electricity into the county is either imported from other counties or neighboring countries like Jinja in Uganda; who at times ration the power supply. In the same note, during the rainy seasons, Mombasa spends most of its time up to 3 days a week without power supply; leading to a bad effect to the operations of KRA.

Another study by Machuki & K'Obonyo (2011) shows that almost 54% of the major government run parastatals in Kenya are lacking a well-defined ICT laboratory for separate activities. In KRA for example, computers range from common computers that are shared among 3 employees- for the cases of Mombasa and Eldoret bureau, and one for the individuals who share common operations, that is only protected by a pass word and placed at the employee's desk;

making it hard for one to come up with creativity and focused production to the company. This lack of a separate computer for each individual worker, lack of computer laboratories for separated operations and low numbers of computer application programmes as opposed to paper work limits the lives of thinking of the employees and to a great extent a good number of them shy away from such working environments; making the ICT strategy implementation a challenge. The other challenge found to be hampering ICT projects implementation in by Kenya's giant tax collector KRA has been the perennial wars on the contractual procedures of acquiring new computers and technology(Sigey, 2010),corruption in acquiring the required qualities of the computer infrastructure Dong et al.(2010) and the challenges of financial infrastructure.

2.4 Administration Challenges in ICT Projects Implementation by KRA

In his recent research on the role of top management in ICT projects failure in Kenya and SA that interviewed 1867 respondents, Heeks (2011) shows that,from the interviews, 100% respondents agreed that it is vital for senior management to be supportive to a project and to provide the necessary resources to carry it out. However, inappropriate ICT knowledge, lack of familiarity, and background among the top management who were selected and decided on the project with the target technologies will cause inaccurate decision and eventually contribute to the project's failure. The study continued to show that the managers are the chief accounting officers in their parastatal branches and therefore are concerned in allocating budgets to various activities including implementation of ICT projects. According Siror (2010), implementation of ICT projects in any revenue collection point would be successful when branches leaders/managers supports, learns, provide up to-date infrastructure, adequate professional development and support staff during its implementation.

Revenue administration leaders and managers have the responsibility of bringing harmony whenever a new technology is adopted, identifying gaps, giving direction, identifying and providing resources besides implementing the various laid down policies and projects. According to Graham, M. and Waema (2014), a good and focused leadership gives a sense of direction to the employees of an organization through clear cut policies, well defined mission, vision and well directed course of action. It also encourages all the employees in an organization thus

challenging them to take new creative and innovative chores that will always bring an increment of revenue in any organization.

Studies by Chelimo (2010) on the role of technology in energy regulations shows that the responsibility of supervising and implementing ICT programs in the government sector remains in the hands of management. In the study for example, she cited that application of ICT in electricity bills collection at first faced acute opposition from the management, whereby the top managers especially those in the main offices in Nairobi were opposing the idea as they felt that it could deny them the chances of influencing the power rates, it could reduce the number of employees (some of whom have been their close relatives and friends), could deny them the powers of control and in many cases could require extra spending by hiring expertise or training the available ones on ICT issues.

More research by Kloppenburg & Laning (2012) support the idea that leadership behavior determines success or failure of parastatal plans to implement ICT in their activities. Therefore, parastatal managers' behaviors are important in implementation of ICT. According to Strickland, Thompson and Gamble (2004), leadership behavior of managers has a positive role in determining the process of ICT implementation in various sectors across the world. A positive behavior towards ICT would set clear visions and good conditions for its implementation. In Parastatals like KRA for example, positive behavior towards ICT would manifest itself by the way the managers use ICT and encouraging others to use it.

For efficient implementation of ICT in Parastatals in Kenya like KRA, the managers must address challenges of implementing new technologies, starting with their own challenges. However, due to many challenges in implementing ICT projects in major revenue collection agencies in sub-Saharan Africa, parastatal managers find themselves in a situation that requires them to understand and undertake some of these challenges. Failure to meet these challenges would mean many parastatals would not be able to effectively implement ICT in their daily revenue administration activities. This would mean further widening knowledge gap, deepening existing economic and social inequalities between those who have access to and control technology and those who do not.

Kenya Vision 2030 (GOK, 2007) implied that ICT could be used to propel the country to a middle level economy by improving security, lowering cost of doing business and providing Kenyans with a friendly working environment among others. Despite its importance and the strategies developed by the government on implementation of ICT Kenya, research by Borura (2010) has shown that up to 45% of the ICT related projects in the 4 major core arms of the country have been faced with challenges of implementation due to lack of top management support, poor budgetary allocations from the top management, resistance to change by top management and the poor knowledge of the top managers about ICT. Included in the list is the ministry of trade, roads and construction, the EPZ, the education sector and the water and sanitation body. Borura cited an example of the revenue collection situation in Kisumu and Busia terminus for example and argued that the managers were reluctant to implement the modern tax collection technology due to the fact that this could limit their normal catch they carry home through corrupt means, the managers had little knowledge about change and a good number of them feared change in the organisations.

Another similar study by Gichoya (2012) entitled ‘factors affecting the successful implementation of ICT projects in government,’ show that leadership should have clear visions and strategic plans for implementing ICT. Without clear vision and strategic plan by managers in implementation of ICT, it is likely that there would be poor coordination of activities and only enthusiast employees’ would battle to implement it while others will just give it a deaf ear. He continues to add that the major discouraging situation in Kenya is that, almost a decade down the line since ICT was proposed as the major driver for economic recovery and development especially in recovering our lost might in the revenue collection sector, the managers of major parastatals are still IT illiterate and cannot understand or see the importance of encouraging the implementation of the new idea that they rarely have knowledge about.

A study carried out by Gurr (2010) on the role of management and its challenges in implementing the ICT strategy in schools and some selected parastatals in Kenya shows that, ICT projects have failed up to the tune of 67% in areas like Nairobi, Nakuru, North Eastern and Southern Nyanza due to the basic lack of visionary managers who encouraged their staff, lack of managers who supported change and tool it positive, lack of support from the knowledgeable managers since they valued dominance than anything else etc. Managers who are visionary, imaginative and

inspirational help to develop same qualities to their staff in work place. Managers' visions of implementing ICT in various sectors are realized through incorporating, developing and supporting visions of other staff members. In order to effectively perform duties of parastatal management, parastatal leader's roles should be geared in using ICT in management. They should demonstrate skills of using ICT in their day to day activities in their operations. They should be prepared to learn how to use ICT, but as learners, their understanding and competence in ICT need not be so complicated. Basic skills in using ICT are desirable. However, Sigey (2010) found out that up to 56% of the managers in various government parastatals were old people and were not competent in basic ICT skills; a factor that has brought in resistance to ICT strategy implementation in several parastatals like KRA, KBC and many more.

2.5 Organizational Structure Challenge in ICT Projects Implementation

According to Muyaka (2012), successful ICT strategy implementation in any organization whether in the developed or developing country depends to a large extent on the organizationsstructure because it is the structure that identifies key activities within the organizationand the manner in which they will be coordinated to achieve the strategy formulated.Structure also influences how objectives and policies will be established, how resourceswill be allocated and the synergy across the departments. It is necessary for anorganization to rationalize its operational/management structures so as to streamline it tobe effective in strategy execution. This would include transfers, mergers, and creation ofnew departments and divisions for effective management. The organization structuretherefore should fit with the intended new projects strategies (Mwangi, 2013).

An organization should be structured in such a way that it can respond to pressure from the environment in order to change and pursue any appropriate opportunities which are spotted. Thompson and Strickland (2003) cited by Watson, S and Watson, W. R. (2011) notes that ICT projects implementation just like any other strategy in an organization involves working with and through other people and institutions of change. However, various studied by scholars like Dong et al (2010), Heeks(2011) and many more have shown that there is a significant challenge in almost 47 out of the 55 countries in Africa as it regards to organizational structure and ICT strategy adoption in all of their economic development structures.

In this note, it is important therefore that in designing the structure and making it operational, key aspects such as empowerment, employee motivation and reward should be considered. ICT strategies and projects for example in giant bodies like KRA are formulated and implemented by managers operating within the current structure. The structure of an organization is designed to breakdown how work is to be carried out in business units and functional departments. People work within these divisions and units and their actions take place within a defined framework of objectives, plans, and policies.

Machuki&Obonyo(2011) argue that without the right leadership; employees remain skeptical of the vision for strategy and distrustful of management. The management was likewise likely to be frustrated and stymied by employee resistance. One major task of the Manager is to implement strategy which entails overcoming resistance.

According to Sigey(2010), the reality of ongoing ICT strategy for example in KRA is not news for most leaders. Even so, few are prepared to lead in the context of significant, unrelenting strategy. Often, strategy sets up leaders to struggle between managing the business and addressing the needs of the people. Typically, it is the people side that loses out. If leaders don't establish an effective balance between business and people priorities they can destabilize the organizational culture and erode trust, generating fear and skepticism.

While doing a research on the role of organizational structure in ICT projects implementation in schools in Nyeri,Wanjohi(2011) wrote on the challenge of top management support. He argued that, the most important thing when implementing an ICT strategy is the top management's commitment to the strategic direction itself in terms of organizational structures adjustments. This is undoubtedly a prerequisite for strategy implementation. Therefore, top managers must demonstrate their willingness to give energy and loyalty to the implementation process. This demonstrable commitment becomes, at the same time, a positive signal for all the affected organizational members. To successfully improve the overall probability that the ICT strategy is implemented as intended, senior executives must abandon the notion that lower-level managers have the same perceptions of the strategy and its implementation, of its underlying rationale, and its urgency. Instead, they must believe the exact opposite. They must not spare any effort to persuade the employees of their ideas(Mutakha, 2011).

Another study by Grant(2010) shows that ICT projects/strategy adoption in Africa has been a challenge because most of the organisations have taken it to be the issue of the top managers and the communication/link structures between organisations discriminate and isolate the middle management of the organisations that does majority of the work in executing planned work/projects.Ochien'g (2012) argues that ICT strategy implementation is not a top-down-approach. He specifically criticizes the KRA and Kenya Pensions and retirement Authority for failing to devolve their operation and for having rigid organizational structures that have made it difficult for major projects like ICT strategy to be implemented. The success of any implementation effort depends on the level of involvement of middle managers, the channels of communication, bureaucratic procedures and set parameters of appreciations. To generate the required acceptance for the implementation as a whole, the affected middle managers' knowledge (which is often underestimated) must already be accounted for in the formulation of the any strategy including the ICT adoption for development in e-Governments. Then, by making sure that these managers are a part of the strategy process, their motivation towards the project will increase and they will see themselves as an important part in the process (Njiru, 2012).

Unfortunately, there lacks a proper link between the planers, managers and lower executers of the ICT projects in organisations like the KRA from the Nairobi central headquarters, down to all its branches in the country. Moreover, in practice, managers and supervisors at lower hierarchy levels who do have important and fertile knowledge are seldom involved in ICT strategy formulation in Kenya today. When they are, however, the probability for realizing a smooth targeted and accepted ICT strategy implementation process increases substantially. Research studies indicate that less than 5 percent of typical workforces understand their organization's structures in major parastatals in East Africa (Nyaga, 2011). This is a disturbing statistic as it is generally believed that, without understanding the general course of strategy, employees cannot effectively contribute to a strategy implementation.

To have an organizational strategy that brings all the employees of board in the implementation of ICT in Kenya, will steer the economic development by 6.75 GPA totaling to 23% economic development by 2018 (World Bank, 2014). According to Wanjala M. S, Elizabeth, N. K and Mukwa (2011), to involve employees is an important milestone to make strategy everyone's

everyday job. That is why the involvement of middle managers through rightful communicated channels and through proper guidelines is essential to increase the general awareness of the ICT strategy. The involvement of middle managers in the formulation, helps build consensus for the ICT strategy. A lack in strategic consensus can limit a company's ability to concentrate its efforts on achieving a unified set of goals as it is experienced in the KRA's Mombasa Bureau (Kenya Revenue Authority, 2013).

2.6 Conceptual Framework

The conceptual framework outlines the dependent, independent and intervening variables as discussed in the literature review and elaborated in the Figure 1 below. It helps one to understand the relationship between the variables of the study that aims at investigating the challenges facing the successful implementation of ICT projects by the KRA.

Independent Variables

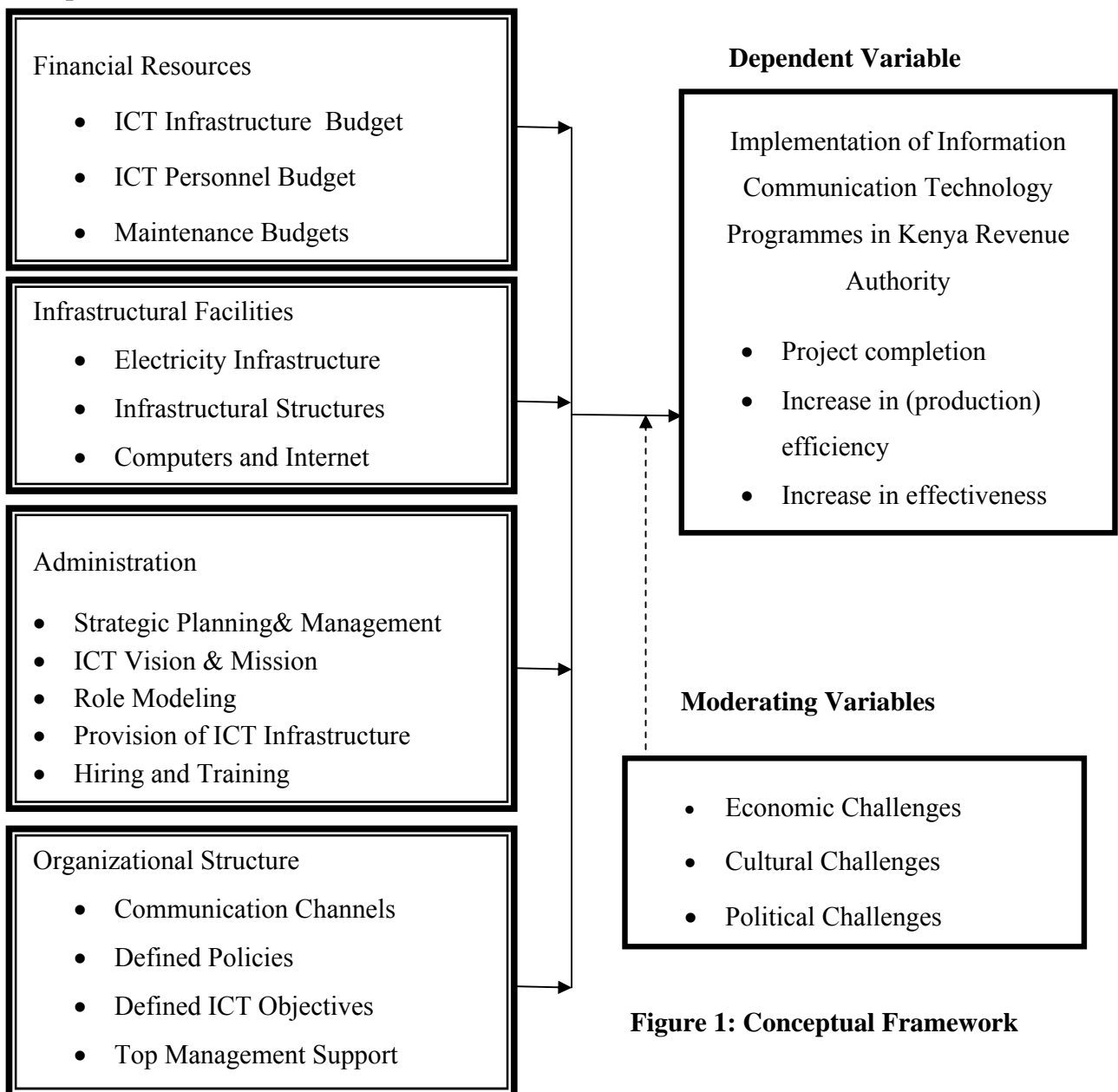


Figure 1: Conceptual Framework

In the above conceptual framework, the study has focused on the interaction between the variables that are a challenge towards successful implementation of ICT projects in KRA Mombasa branch. The independent variables are the variables the researcher cannot manipulate or change which include the ICT facilities and infrastructure, administration, organizational structures and financial resources. ICT programmes implementation is the dependent variable on the other hand, while Cultural factors, political factors and economic factors act as intervening variables as illustrated in the figure of conceptual framework. The ICT infrastructures include structures like computer laboratories, electrification and computers themselves. The kinds of infrastructure available in parastatals depend on the availability of financial resources which mainly determine the kind of infrastructural facilities to be given priority. For effective implementation of ICT projects, there has to be adequate and timely administrations' support.

Organizational structure should also be framed in a way that it formulates ICT policies and plans as well as set ICT budget that is coupled with proper prescribed channels of communication. Top management also plays a major role of providing financial, moral and leadership support that creates a favorable climate for ICT. The administration should give democratic leadership that warmly welcomes ICT in the learning environment and should not be seen as a threat. The relationship of the above is to have a harmonious ICT projects done.

2.7 Summary of Literature Review

Studies from various materials in the literature have shown that, developed countries and those having their budgets sustain their projects have for a long time now adopted strategies that have incorporated ICT thus ensuring a higher percentage of revenue collection that has a deviation of above 91% efficiency in countries like China, Sweden and many more. However, the literature has shown that almost 47 out of the 55 countries in Africa, there still exists a problem whereby the implementation of the revenue has not adopted the use of ICT fully for revenue collection. Kenya has tried to improve on this by implementing the economic stimulus that was unleashed by Hon.MwaiKibaki in 2009, but still needs to be done in KRA to adopt the ICT strategy. Challenges like non-support from managers, lack of enough ICT finances, infrastructure etc. have limited the strategy implementation.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology that was used to conduct the study, focusing on research design, study location, target population, sampling procedures and sample size, research instruments, questionnaires, pilot study, reliability, validity, data collection procedure and methods of data analysis.

3.2. Research Design

Research design refers to the procedures selected by a researcher for studying a particular set of questions or hypothesis; this includes the researcher's choice of quantitative or qualitative methodology, and how, if at all, causal relationships between variables or phenomena are to be explored (Orodho, 2009). This study employed the use of a descriptive survey research design. Kraemer (1993) describes a descriptive survey as a means of gathering information about the characteristics, actions or opinions of a large group of people. The Surveys are always favored for such a research that focuses on a group of people since they are capable of obtaining information from large samples of the population. Equally, surveys require minimal involvement to develop and administer and are quite easy for making generalizations (Mugenda and Mugenda, 2003).

3.3 Target Population

Target population is a set of people or objects the researcher wants to generalize the results of the research (Borg and Gall, 1989). The population consisted of 68 employees of Kenya Revenue Authority Mombasa bureau based in Mombasa and who are charged with the responsibility of applying ICT in their day to day operations. The research targeted them because they had the fast knowledge on the hindrance factors in ICT projects integration in their daily operations. The target comprised of the ICT experts who have been sent from the head office in Nairobi or any other branch for the last 5 years. The information of the target population was per the records in the KRA website (www.kra.go.ke).

Table 3.1 Target Population

IT Department	Total Number	Percentage
Top Management	8	11.76%
Middle Management	14	20.59%
Low Level Management	46	67.65
Total	68	100%

Source: www.kra.go.ke

3.4 Sample Size and Sampling Procedure

Since the sample size had far reaching implication on this study, the probability of getting a representation of the target population was of great significance. Participants to the study included key informants whom the researcher believed provided the needed data in relation to the challenges facing the implementation of ICT programmes in KRA. The sample included all the employees who were attached to the ICT department starting from the 8 top managers, followed by the 14 middle level managers and finally all the 46 low level managers were sampled. Stratified random sampling was used to allow full participation of each participant from the three target population categories. This represented 100% and it made 68 respondents.

3.5 Data Collection Instruments

Research instruments used were questionnaires with both open-ended and structured questions (Kombo and Tromp, 2006; Mugenda and Mugenda 2003). They were used because: there was low cost in administering them, free from bias of the interviewer; answers were in respondents' own words, respondents had adequate time to give well thought answers and large samples could be made use of and thus the results could be made more dependable and reliable (Kothari, 2004). The method that was used by the researcher was self-administration by researcher since he is an employee of the KRA.

3.6 Validity and Reliability of Research Instruments

Validity is a measure of how well a test measures what it is supposed to measure. It is the degree to which results obtained actually represent the phenomenon under investigation. Reliability is the measure of the degree to which a research instrument yields consistent results after a repeated trial (Mugenda and Mugenda, 1999).

3.6.1 Validity of the Research Instrument

Validity is defined as the accuracy and meaningfulness of inferences which are based on the research result (Mugenda and Mugenda, 1999). It is also the qualitative procedure of pre-testing or a prior attempt to ascertain that research instruments are accurate, correct, true, meaningful and right in eliciting the intended data for the study (Kasomo, 2006). To validate the research instruments the researcher checked whether there were any ambiguous or confusing terms so as to improve the content validity of the instruments. The instrument was also verified by the supervisor and other senior lecturers in the University.

3.6.2 Reliability of the Research Instrument

Mugenda (2003) says that reliability is concerned with estimates of the degree to which a research instrument yields consistent results after repeated trials. In this study, reliability was determined by a test-retest administered to 15 subjects not included in the sample. Input from invaluable sources was obtained during the study that was useful in modifying the questionnaire before a final set of questions was produced.

3.7 Data Collection Procedure

A questionnaire was used since it was the best tool for this study as it gave the specific information the researcher requires and minimized the biasness. The researcher visited the KRA offices in Mombasa branch after getting a letter of introduction from the University. E-mails were used for some questionnaire to some respondent who could be committed for one on one filling. Appointments to the sampled KRA employees were arranged prior to the visits to avoid any inconveniences to the respondents. The researcher emphasized that the information given was to

be specifically used for the study and it was to be private and confidential and that names were not necessary.

3.8 Data Analysis

Quantitative data obtained from the open ended questions were coded to facilitate quantitative analysis. The coded data was analyzed by use of descriptive statistics comprising of frequency tables. The hypothesis was tested by use of Chi Square. Data analysis was done by use of SPSS 20.0

3.9 Ethical Considerations

The researcher got permission from the relevant authorities like the ministry of science and technology, the University of Nairobi-Mombasa campus and the KRA authorities in Mombasa and notified them of the intended studies. Consent was sought from the respondents whose participation in this study was to be voluntary. The information they provided was treated with utmost confidentiality. Privacy and dignity of the respondents was considered during the research. Names of the respondents were not being exposed and codes were used instead.

3.10 Operational Definition of Variables

Table 3.2 Operationalization Table

Objective	Variable	Indicators	Measurement scale	Types of analysis
To establish the extent to which financial resources are a challenge to the implementation of Information Communication Technology programmes in KRA Mombasa branch.	Financial Resources	ICT Infrastructure Budget. ICT Personnel Budget. Maintenance Budgets.	Ordinal	Descriptive
To establish the extent to which ICT infrastructure is a challenge to the implementation of Information Communication Technology programmes in KRA Mombasa branch.	Infrastructural Facilities	Electricity Infrastructure. Infrastructural Structures. Computers and Internet.	Ordinal	Descriptive
To find out the extent to which management is a challenge to the implementation of Information Communication Technology programmes in KRA Mombasa branch.	Administration	Strategic Planning & Management. ICT Vision & Mission. Role Modeling. Provision of ICT Infrastructure. Hiring and Training.	Ordinal	Descriptive
To examine the extent to which organizational structure is a challenge to the implementation of Information Communication Technology programmes in KRA Mombasa branch.	Organizational Structure	Communication Channels Defined Policies. Defined ICT Objectives. Top Management Support	Ordinal	Descriptive

CHAPTER FOUR

DATA PRESENTATION AND INTERPRETATION

4.1 Introduction

The data collected was keyed and analyzed by simple descriptive analysis using Statistical Package for Social Scientists (SPSS) version 20.0 software. The data was then presented through frequency tables and narrative analysis. The chapter therefore presents data in different subsections with general information on category of gender, position, experience and level of education of the respondents coming first, and then followed by information as per the objectives that made the questionnaires.

4.2 Response Rate as per the Returned Questionnaires.

Questionnaires were administered to 68 respondents who made the target population, 65 were returned with the required information while 3 were returned half-filled, thus were not of use to the study. Therefore the useful response rate was 95.56% while non-useful were 4.44%.

4.3 Demographic Characteristics of Respondents

The study wanted to find out the general information of the respondents and results tabulated in the following table.

Table 4.1 Demographic Characteristics of Respondents

Category	Type	Frequency	Percentage
Gender	Female	20	30.77%
	Male	45	69.23%
Age Bracket in years	20-30	23	35.38%
	31-40	34	52.31%
	41-50	6	9.23%
	51-60	2	3.08%
Academic qualifications	Diploma	10	15.38%
	Bachelor's degree	50	76.92%
	Post graduate degree	5	7.70%
Work Experience	Less than 5 years	35	53.85%
	5-10 years	15	20.10%
	10-20 years	10	15.84%
	Over 21 years	5	10.21%
Valid Total		65	100%

In relation to gender, the female respondents were minimal at 30.77% representing 20 women while the male respondents dominated at 45 being taken by 69.23%. This is maybe attributed to the fact that male gender in Mombasa and its environs dominate jobs and businesses.

Similarly, in relation to ages, the table shows that majority of the population that participated in the study was between ages 31-40 years making 52.31%. Most probably this is because of the idea of young employees embracing technology. This was followed by 35.38% for ages 20-30 years, ages 41 - 50 years followed with 9.23 %, and those between 51-60 years, made the least with

3.08% response out the 100% respondents considered. Moreover, Respondents with a degree education were highest at 76.92%, they were followed by those with diploma at 15.38%, postgraduate degree at 7.7 % and finally with others were nil.

Finally, in relation to work experience, 53.85% of the respondents had less than 5 years of work experience, 5- 10 years had 20.10% of the respondents, 10-20 years had 15.84%, and above 21 years had 10.21% respondents.

4.4 Financial Resources Influence on ICT projects Implementation

Respondents were asked, whether they supported the idea that there was an influence posed by financial resources in ICT projects implementation by KRA and the following reached upon.

Table 4.2 Financial Resources

Response	Frequency	Percentage
YES	60	92.31%
NO	5	7.69%
Total	65	100%

From the responses, 60 of the respondents who represented 92.31% felt that financial resources as a factor influenced the implementation of the ICT at the KRA while the remaining 5 felt that this has no influence representing 7.69%. When asked to support their reasoning in the above answers, respondents who made 60 in numbers argued that finances were central in hiring qualified personnel, buying the required computers and general success of the project while the remaining argued that minus proper leadership, the funds could go into a waste as the projects were prone to fail.

4.4.1 Rating of Financial Resources in Relation to ICT Projects Implementation The respondents were asked in a Likert scale of 1-5, where: Not at all =1, Little extent =2, Moderate extent=3, Great extent =4, Very great extent =5, to indicate the extent to which the following factors have been an influence in ICT programmes implementation in KRA’s Mombasa branch and the responses are as follows:

Table.4.3 Degree of Support of Financial Resources Influence

Statement	1	2	3	4	5
Limited ICT Infrastructure Budget					5 7 10 20 23
Constrained ICT Personnel Budget	2	6	12	21	24
Constrained Maintenance Budgets					4 7 10 20 24

From the responses, 5 respondents felt that limited ICT infrastructure budget had not at all any influence in the implementation of ICT projects, 7 went for little extent, 10 supported the moderate extent response, 20 went for great extent, while the rest 23 went for very great extent. 2 respondents went for not at all on the idea that constrained ICT personnel budget influenced the projects implantation, 6 went for little extent, 12 supported the moderate extent response, 21 went for great extent, while the rest 24 went for very great extent. In relationship to the last statement that touched on constrained maintenance budgets, 4 respondents went for not at all response, 7 went for little extent, 10 supported the moderate extent response, and 20 went for great extent while the rest, 24 went for very great extent.

4.5 Infrastructural Facilities’ Influence on ICT projects Implementation

Respondents were asked whether they thought that ICT enabling infrastructure has been a factor influencing the implementation of the ICT strategy in the KRA and the responses were as follows:

Table 4.4 Infrastructural Facilities

Response	Frequency	Percentage
YES	35	53.85%
NO	20	30.78%
NOT SURE	10	15.37%
Total	65	100%

From the response, 53.85% of the respondents felt that the infrastructure as a factor has an influence in the implementation of ICT projects while the remaining 30.78% and 15.37% went for no and not sure respectively as per the responses found from the field. When asked randomly to support their reasoning from the above, 71% of the respondents said that infrastructure is the back bone where the ICT projects rides on while the remaining weakly argued that as much as ICT infrastructure had an influence in ICT projects implementation, a few can be achieved minus combining other factors like leadership and finances.

Table 4.5 Degree of Infrastructural Facilities Rating

Respondents asked a question that read, ‘How do you agree with the following factors in relation to infrastructural facilities and implementation of ICT programmes in KRA using a scale of 1-5 where **1= strongly disagree; 2 = Disagree; 3 =Not sure; 4 =Agree; 5 = strongly agree** and the following responses were arrived at as shown in the table:

Statement	1	2	3	4	5
Electricity Infrastructure has been a major factor in ICT implementation.	2	7	16	20	20
Infrastructural Structures have been a limiting factor in ICT adoption by KRA.	3	7	10	21	24
Computers and Internet supply have been a factor in ICT adoption.	4	6	12	20	23

From the table above, 2 respondents strongly disagreed with the idea that Electricity infrastructure has been a major factor in ICT implementation, 7 disagreed, 16 were not sure 20 agreed, while the remaining 20 strongly agreed. 3 respondents strongly disagreed with the idea that infrastructural structures have been a limiting factor in ICT adoption by KRA, 7 disagreed, 10 were not sure, 21 agreed and the last group of 24 respondents went for strongly agreed. Finally the idea that computers and internet supply have been a factor in ICT adoption attracted, 4 respondents who went for strongly disagree, 6 went for disagree, 12 went for not sure, 20 went for agree, while the remaining 23 went for strongly disagree.

4.6 Administration’s Influence in ICT Projects Implementation

The respondents were asked to give their position in relation to what extent they thought administration influenced ICT programmes adoption in Kenya’s KRA. Their responses were as follows in table 4.13 below.

Table 4.6 Influence of Administration

Rating	Frequency	Percentage
Not at all	02	3.08%
Little extent	05	7.69%
Moderate extent	07	10.80%
Great extent	21	32.32%
Very great extent	30	48.11%
Total	65	100%

From the responses, not at all, attracted 2 respondents; little extent, attracted 5 respondents; 7 attracted moderate extent, 21 went for great extent, while the remaining 30 went for very great extent.

4.7 Rating of Administration on a Scale

The research sought to seek the extent to which the respondents rated the influence of management in relation to ICT projects implementation on a scale and the responses below arrived at: A scale of 1-5 was used where **1= strongly disagree; 2 = Disagree; 3 =Not sure; 4 =Agree; 5 = strongly agree.**

Table:4.7 Rating of Administration

Statement	1	2	3	4	5
Strategic ICT Planning & Management is missing in KRA's management.	2	6	12	21	24
ICT Vision & Mission has not been fully adopted by KRA.	3	5	10	22	25
Role Modeling in ICT has not been achieved by managers.	4	6	12	20	23
Provision of ICT Infrastructure has been a challenge from managers.	2	7	16	20	20
Hiring and Training of ICT experts and personnel has been given a raw deal by the administration.	3	7	10	21	24

On the idea that, Strategic ICT Planning & Management is missing in KRA's management, 2 of them strongly disagreed, 6 disagreed, 12 weakly agreed, 21 agreed while the rest 24 strongly

agreed with the idea. In relation to the idea that read, ICT Vision & Mission has not been fully adopted by KRA, 3 strongly disagreed, 5 disagreed, 10 weakly agreed, 22 agreed while the remaining 25 strongly agreed. Role Modeling in ICT has not been achieved by managers' statement, attracted 4 who strongly disagreed, 6 disagreed, 12 weakly agreed, 20 agreed, and 23 strongly agreed. Provision of ICT Infrastructure has been a challenge from managers attracted 2 respondents who strongly disagreed, 7 who disagreed, 16 who weakly agreed, 20 who agreed, while the remaining 20 strongly agreed. Finally, the idea that hiring and Training of ICT experts and personnel has been given a raw deal by the administration attracted 3 respondents who strongly disagreed, 7 who disagreed, 10 who weakly agreed, 21 who agreed, while the remaining 24 strongly agreed with the idea.

4.8 Organizational Structure's Influence in ICT Projects Implementation

Respondents were asked to rate the extent to which the following factors influence the implementation of ICT programmes in KRA Mombasa bureau by using a scale of 1-5 where, **Not at all =1, little extent =2, Moderate extent=3, Great extent =4, Very great extent =5**

Table: 4.8 Responses on Organizational Structure.

Statement	1	2	3	4	5
Non-defined communication channels in the organization.	3	6	6	20	20
Poor ICT defined policies by KRA	4	6	17	20	21
Lack of achievable well defined ICT Objectives	2	5	18	20	20
Poor top management support for ICT projects	2	7	13	21	22

From the responses, on the question whether Non-defined communication channels in the organization influenced ICT projects in Mombasa branch, 3 went for Not at all, 6 for little extent, 6 for Moderate extent, and 20 for Great extent while 20 went for very great extent. On the Poor ICT defined policies by KRA, 4 went for Not at all, 6 for little extent, 17 for Moderate extent and 20 for Great extent while 21 went for Very great extent. Lack of achievable well defined ICT Objectives attracted, 2 respondents for Not at all, 5 for little extent, 18 for Moderate extent, 20 for Great extent, and 20 went for Very great extent. Finally, Poor top management

support for ICT projects attracted 2 for Not at all, 7 for little extent, 13 for Moderate extent, 21 for Great extent, and, 22 went for Very great extent.

4.9 Testing the First Hypothesis using Chi-Square Test

H₁: Financial resources influence the implementation of Information Communication Technology programmes in KRA Mombasa branch.

Table 4.9 Showing Observed and Expected Responses

Scale	Na	Le	Me	Ge	ve
Observed (O)	5	7	10	20	23
Expected (E)	13	13	13	13	13

Table 4.10 Showing Chi-Square Testing for the Hypothesis

O	E(O-E)	(O-E) ²	(O-E) ² /E	
5	13	-8	64	4.92
7	13	-6	36	2.77
10	13	-3	9	0.69
20	13	7	49	3.77
23	13	10	100	7.69
$\sum (O-E)^2/E = 19.84$				

$\chi^2_C = 19.84 > \chi^2_{0.05} = 9.488$: 4 degrees of freedom and 5% level of confidence.

Since the calculated chi-square value of 19.84 is greater than the critical chi-square value at 5% level of confidence, we accept the alternative hypothesis. Therefore, financial resources influence the implementation of Information Communication Technology programmes in KRA Mombasa branch.

4.10 Testing of the Second Hypothesis using Chi-Square Test

H_1 : ICT infrastructure has a significant influence in the implementation of Information Communication Technology programmes in KRA Mombasa branch.

Table 4.11 Showing Observed and Expected Responses

Scale	Sd	D	Ns	A	Sa
Observed (O)	3	7	10	21	24
Expected (E)	13	13	13	13	13

Table 4.12 Showing Chi-Square Testing for the Hypothesis

O	E(O-E)	(O-E) ²	(O-E) ² /E	
3	13	-10	100	7.69
7	13	-6	36	2.77
10	13	-3	9	0.69
21	13	8	64	4.92
24	13	11	121	9.30

$$\sum (O-E)^2/E = 25.37$$

$\chi^2_c = 25.37 > \chi^2_{0.05} =$ at 4 degrees of freedom and 5% level of confidence.

Since the calculated chi-square value of 25.37 is greater than the critical chi-square value at 5% level of confidence, we accept the alternative hypothesis. Therefore, ICT infrastructure has a significant influence in the implementation of Information Communication Technology programmes in KRA Mombasa branch.

4.11 Testing of the Third Hypothesis Using Chi-Square Test

H₁: Management influence the implementation of Information Communication Technology programmes in KRA Mombasa branch.

Table 4.13 Showing Observed and Expected Responses

Scale	Sd	D	Ns	A	Sa
Observed (O)	2	6	12	21	24
Expected (E)	13	13	13	13	13

Table 4.14 Showing Chi-Square Testing for the Hypothesis

O	E	(O-E)	(O-E) ²	(O-E) ² /E
2	13	-11	121	9.3
6	13	-7	49	3.77
12	13	-1	1	0.08
21	13	8	64	4.92
24	13	11	121	9.3

$$\sum (O-E)^2/E = 27.37$$

$\chi^2_c = 27.37 > \chi^2_{\alpha=0.05} =$ at 4 degrees of freedom and 5% level of confidence.

Since the calculated chi-square value of 27.37 is greater than the critical chi-square value at 5% level of confidence, we accept the alternative hypothesis. Therefore, Management influences the implementation of Information Communication Technology programmes in KRA Mombasa branch.

4.12 Testing Hypothesis using Chi-Square Test

H₁: Organizational structure has a significant influence in the implementation of Information Communication Technology programmes in KRA Mombasa branch.

Table 4.15 Showing Observed and Expected Responses on Parental Factors

Scale	Naa	Le	Me	GeVge
Observed (O)	27	13	21	22
Expected (E)	13	13	13	13

Table 4.16 Showing Chi-Square Testing for Hypothesis

O	E(O-E)	(O-E) ²	(O-E) ² /E	
2	13	-11	121	9.3
7	13	-6	36	2.77
13	13	-0	0	00
21	13	8	64	4.92
22	13	9	81	6.23

$$\sum (O-E)^2/E = 23.22$$

$\chi^2_c = 23.22 > \chi^2_{\alpha=0.05} = 9.488$ at 4 degrees of freedom and 5% level of confidence.

Since the calculated chi-square value of 23.22 is greater than the critical chi-square value at 5% level of confidence, we accept the alternative hypothesis. Therefore, organizational structure has a significant influence in the implementation of Information Communication Technology programmes in KRA Mombasa branch.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the study findings, discussions and recommendations of the research. The chapter also contains suggestions of related studies that may be carried out in the future.

5.2 Summary of Findings

The purpose of this study was to examine the factors influencing the implementation of Information Communication Technology programmes in Kenya Revenue Authority; a case study of Kenya Revenue Authority, Mombasa Branch. From an analysis and review of the research data and additional data gathered through questionnaires filled, a number of issues became apparent.

From the first objective that sought to establish the extent to which financial resources influence the implementation of Information Communication Technology programmes in KRA Mombasa branch, the following responses were reached upon as follows: From the responses, 60 of the respondents who represented 92.31% of the sample population felt that financial resources as a factor influenced the implementation of the ICT at the KRA while the remaining 5, felt that this has no influence representing 7.69%. When asked to support their reasoning in the above answers, respondents who were 60 in number argued that finances were central in hiring qualified personnel, buying the required computers and general success of the project while the remaining argued that minus proper leadership, the funds could go into a waste as the projects were prone to fail. Also, in a rating scale, 5 respondents felt that the limited ICT infrastructure budget had no influence in the implementation of ICT projects, 7 went for Little extent, 10 supported the Moderate extent response, 20 went for Great extent, while the rest, 23, went for Very great extent.

As per the second objective which sought to -establish the extent to which ICT infrastructure influence the implementation of Information Communication Technology programmes in KRA Mombasa branch,53.85% of the respondents felt that the infrastructure as a factor has an influence in the implementation of ICT projects while the remaining 30.78% and 15.37% went for No and Not sure respectively, as per the responses found from the field. Also, 2 respondents strongly disagreed with the idea that Electricity infrastructure has been a major factor in ICT implementation, 7 disagreed, 16 were not sure, 20 agreed, while the remaining 20 strongly agreed, 3 respondents strongly disagreed with the idea that infrastructural structures have been a limiting factor in ICT adoption by KRA, 7 disagreed, 10 were not sure,21 agreed and the last group of 24 respondents went for strongly agreed.

On the third objective that focused on the role of management as a factor, the idea of Strategic ICT Planning & Management is missing in KRA's management; 2 of them strongly disagreed, 6 disagreed, 12 weakly agreed, 21 agreed while the rest, 24, strongly agreed with the idea. In relation to the idea that read, ICT Vision & Mission has not been fully adopted by KRA, 3 strongly disagreed, 5 disagreed, 10 weakly agreed, 22 agreed while the remaining 25, strongly agreed. Role Modeling in ICT has not been achieved by managers statement, attracted 4 who strongly disagreed, 6 disagreed, 12 weakly agreed, 20 agreed, and 23 strongly agreed. Provision of ICT Infrastructure has been a challenge from managers; attracted 2 respondents who strongly disagreed, 7 who disagreed, 16 who weakly agreed, 20 who agreed, while the remaining 20 strongly agreed.

On the final objective that sought to examine the extent to which organizational structure influence the implementation of Information Communication Technology programmes in KRA Mombasa branch, had responses on the question whether non-defined communication channels in the organization influenced ICT projects in Mombasa branch being: 3 who went for Not at all, 6 for Little extent, 6 for Moderate extent, and 20 for Great extent, while 20 went for Very great extent. On the Poor ICT defined policies by KRAs' influence: 4 went for Not at all, 6 for Little extent, 17 for Moderate extent, 20 for Great extent while 21 went for Very great extent. Lack of achievable well defined ICT Objectives attracted: 2 respondents for Not at all, 5 for Little extent, 18 for Moderate extent, 20 for Great extent, and 20 went for very great extent. Finally,

poor top management support for ICT projects attracted: 2 for not at all, 7 for little extent, 13 for moderate extent, 21 for great extent, and, 22 went for very great extent.

5.3 Discussion of Findings

The study has shown that there is a great influence of the said factors in the objects on the rate of implementation of ICT projects in the Mombasa County's KRA branch. This has been discussed in the episodes following.

From the first objective that sought to establish the extent to financial resources influence the implementation of Information Communication Technology programmes in KRA Mombasa branch, the following responses were reached upon as follows: From the responses, 60 of the respondents who represented 92.31% felt that financial resources as a factor influenced the implementation of the ICT at the KRA, while the remaining 5 felt that this has no influence representing 7.69%. In a rating scale, 5 respondents felt that limited ICT infrastructure budget had not at all any influence in the implementation of ICT projects, 7 went for little extent, 10 supported the moderate extent response, 20 went for great extent, while the rest 23, went for very great extent etc. From the literature reviewed, a number of scholars have agreed with this. For example, Siror, et al. (2010), ICT ideas diffusion and integration just like any other business undertaking in the world, whether developed or developing countries need efficient capital to function efficiently and grow. Increasing the ICT business' volume and services requires additional capital. Funding is needed to cater for meetings and feasibility studies, purchase of necessary facilities like the quality computers and accessories, hiring the required personnel for the new technology, installing and erecting new/relevant ICT enabling structures etc.

Also, other scholars have agreed with this. Carvalho, (2013) for example argue that The Global Report on the Costs of IT 2013 indicates that the total money spent on IT worldwide has been most recently estimated as US \$3.5 trillion, and is currently growing at 5% p.a. This has been doubling every 15 years. IT costs, as a percentage of corporate revenue, have grown 50% since 2002, putting a strain on IT budgets and organizational budgets as a whole. Today, when looking at companies' IT budgets, 75% are recurrent costs, used to "keep the lights on" in the IT

department, and 25% are cost of new initiatives for technology development. The World Bank (2010) reports that the average IT budget has the following breakdown: 31% personnel costs (internal), 29% software costs (external/purchasing category), 26% hardware costs (external/purchasing category), and, 14% costs of external service providers (external/services). The recent reports therefore indicate that both the developed and developing countries are heavily investing in ICT as the major economic driving force.

As per the second objective which sought to establish the extent to which ICT infrastructure influence the implementation of Information Communication Technology programmes in KRA Mombasa branch, 53.85% of the respondents felt that the infrastructure as a factor has an influence in the implementation of ICT projects. Also, 3 respondents strongly disagreed with the idea that infrastructural structures have been a limiting factor in ICT adoption by KRA, 7 disagreed, 10 were not sure, 21 agreed and the last group of 24 respondents went for strongly agreed. This has been shown by scholars from our literature. Machuki & K'Obonyo (2011) for example shows that almost 54% of the major government run parastatals in Kenya are lacking a well-defined ICT laboratory for separate activities. In KRA for example, computers range from common computers that are shared among 3 employees- for the cases of Mombasa and Eldoret bureau, and one for the individuals who share common operations, that is only protected by a pass word and placed at the employee's desk; making it hard for one to come up with creativity and focused production to the company. The lack of a separate computer for each individual worker, lack of computer laboratories for separated operations and low numbers of computer application programmes as opposed to paper work limits the creativity of the employees and to a great extent a good number of them shy away from such working environments; making the ICT strategy implementation a challenge.

On the third objective that focused on the role of management as a factor, the idea of Strategic ICT Planning & Management is missing in KRA's management: 2 of them strongly disagreed, 6 disagreed, 12 weakly agreed, 21 agreed while the rest, 24 strongly agreed with the idea. In relation to the idea that read, ICT Vision & Mission has not been fully adopted by KRA: 3 strongly disagreed, 5 disagreed, 10 weakly agreed, 22 agreed while the remaining, 25 strongly agreed. From the literature for example, In his recent research on the role of top management in ICT projects failure in Kenya and SA that interviewed 1867 respondents, Heeks (2011) shows

that, from the interviews, 100% respondents agreed that it is vital for senior management to be supportive to a project and to provide the necessary resources to carry it out. However, inappropriate ICT knowledge, lack of familiarity, and background among the top management who were selected and decided on the project with the target technologies will cause inaccurate decision and eventually contribute to the project's failure. The study continued to show that the managers are the chief accounting officers in their parastatal branches and therefore are concerned in allocating budgets to various activities including implementation of ICT projects.

On the final objective that sought to examine the extent to which organizational structure influence the implementation of Information Communication Technology programmes in KRA Mombasa branch, had responses on the question whether non-defined communication channels in the organization influenced ICT projects in Mombasa branch being: 3 who went for not at all, 6 for little extent, 6 for moderate extent, and 20 for great extent while 20 went for very great extent. On the Poor ICT defined policies by KRAs' influence, 4 went for Not at all, 6 for little extent, 17 for Moderate extent, and 20 for Great extent while 21 went for Very great extent. From the literature, Muyaka (2012) shows that successful ICT strategy implementation in any organization whether in the developed or developing country depends to a large extent on the organizations structure because it is the structure that identifies key activities within the organization and the manner in which they will be coordinated to achieve the strategy formulated. Structure also influences how objectives and policies will be established, how resources will be allocated and the synergy across the departments. It is necessary for an organization to rationalize its operational/management structures so as to streamline it to be effective in strategy execution. This would include transfers, mergers, and creation of new departments and divisions for effective management. The organization structure therefore should fit with the intended new projects strategies (Mwangi, 2013).

5.4 Conclusion

From the literature reviewed, the information gotten from the field and the values computed by in chapter four, the researcher concludes that: insufficiency of financial resources has negatively influenced the success of the implementation of ICT project in KRA. Also, the researcher recommends that ICT infrastructure has been an influence in the implementation of the said ICT projects in the KRA branch to the negative deviation by far. On the idea of management, the

researcher concludes that the management isn't doing enough in ICT projects implementation and this has limited its success. Finally, the researcher concludes that the organisational structures in KRA's Mombasa branch are not enabling and this has limited the rate of success of ICT projects.

5.5 Recommendations

Based on the findings of the study, the researcher recommends, financial resources should be set aside and doubled in the ICT sector in order to increase the integration and implementation of ICT projects in the KRA parastatal.

The study also recommends that the management should heavily take up the ICT initiative, have better perception towards ICT and start campaigning for the ICT strategy initiatives integration in KRA.

It also recommends that the ICT infrastructure should be up to date, electricity be sourced and alternative sources of power be put in place. Also, the management should come up with measures aimed at building equipped laboratories, increasing the number and capacity of computers and finally connect them with unlimited internet.

Finally, the researcher recommends that the organisational structure needs to be framed in a way that well stated ICT policies are developed, stated, attached to rewards and seen as an integral part in the parastatal's rules. Also, laws being broken in relation to ICT, penalties should be attached.

5.6 Suggestions for Further Research

This study was carried out in KRA branch and the researcher thus recommends that a similar study can be done in other branches in the country.

Another study can also be done to focus on the role of organisational structure in the success of the ICT strategy in the KRA's Mombasa branch.

Finally, a research can be done to investigate the socio-economic factors influencing the implementation of ICT projects in Mombasa's KRA branch or any other branch in the country.

REFERENCES

- Andreas, R. (2011). *“Strategy implementation – an insurmountable obstacle?”* Emerald Group Publishing Limited.
- Baum, H & Oliver, J. (2012). *From blaming the middle to harnessing its potential: creating change intermediaries*, British Journal of Management, Vol. 14 pp.69- 83.
- Bernelot, R. M. (2013). *Revenue Diversification for Museums: Exploring the Revenue Strategies of the Rijksmuseum and the Van Gogh Museum in the Quest for Financial Stability*. Erasmus University Rotterdam.
- Borura, C.M. (2010). *Information systems implementation in state corporations; A critical evaluation of the process and challenges in Kenyan parastatals*. African Journal of Business and Management. 1, 1-23. Retrieved from <http://www.aibuma.org/journal/index.htm>.
- Bugh in, J., & Chui, M. (2010, December). *The rise of the networked enterprise: Web 2.0 finds its payday*. McKinsey Quarterly. Retrieved from <http://www.mckinseyquarterly.com>
- Burke, R., Kenney, B., & Pflueger, K. (2011). *Success or failure of human factors in implementing new systems. E-business and e-commerce management*. Harlow: FT Prentice Hall.
- Carvalho, C. K. (2013). *Trends in the Contracting out of Local Government Services*. University of South Florida, USA.
- Chelimo, F.K. (2010). *Strategic responses to challenges of energy regulation in Kenya by the energy regulatory commission*
- Chen, Y., & Thurmaier, K. (2011). *Interlocal Agreements as Collaborations: An Empirical Investigation of impetuses, norms, and success*. American Review of Public Administration, 39(5), 536-552.

- Czerniewicz L. and Brown C. (2012). *The habitus of digital 'strangers in higher education*
British Journal of Educational Technology
- Davidow, H &Uttal, N. B. (2010), *The nature and use of formal control systems for
management control and strategy implementation*, Journal of Management, Vol. 10
pp.43-66.
- Davidson, S. (2011). *Seizing the competitive advantage*, *Community Banker*, Vol. 10 No.8,
pp.32-4.
- Department of Science, Information Technology (2012), *Innovation and the Arts*.Queensland
Government ICT strategy 2013-17.Retrieved from <http://www.gld.gov.au>.
- Dong, W.,Guangum, L., Kaifang, P., Huanye, S. &Siror, J.K. (2010), *Impact of RFID
Technology on Tracking of Export Goods in Kenya*, Journal of Convergence Information
Technology Volume 5, Number 9.
- Galliers, R.D. &Leidner, D.E. (2010).*Strategic information management challenges and
strategies in managing information systems*. Oxon: Routledge.
- Gichoya,D. (2012). *Factors affecting the successful implementation of ICT projects in
government*.Electronic journal of e-govenement, 3(4), 1 – 10.Retrieved from
<http://www.ejeg.com>.
- Graham, M. and Waema, T.M. (2014). Kenya B PO and ITES *Policy Brief*, March 2014,
<http://geospace.co.uk/files/policybrief.pdf> [Accessed 12th March, 2014
- Grant, R. M., (2010). *The Resource-based Theory of Competitive Advantage: Implications for
Strategy Formulation*, California.
- Hill W.L.C and Jones G.R. (2010), *Cases in Strategic Management: An Integrated Approach*, 9th
edition, South Western Educational Publishing
- Hill, C.W., & Jones, G.R. (2010).*Strategic management: An integrated approach*. South
Western: Cengage Learning.

- Huiru, D. (2014).:A case study of The importance of strategic management H&M. (Business Administration Bachelor's Thesis, Savonia University of Applied Science, Kuopio).
- Kagori, J. N. (2010). *Challenges of Strategic Planning in Public Organizations in Kenya* Kenya National Bureau of Statistics (online). Available at <http://www.knbs.or.ke/Population%20by%20Religious%20Affiliation%20and%20Province.php> Accessed on 6th November, 2013
- Kenya Revenue Authority (2010), *Fourth Corporate Plan*, Retrieved from: http://www.revenue.go.ke/publications/Corporate_plan_final_combined.pdf
- Kenya Revenue Authority (2013).*About Kenya Revenue Authority*.Retrieved from <http://www.revenue.go.ke>.
- Kiliko, J. Atandi, B. &Awino, Z. PhD. (2012) *Strategic planning in turbulent environment: A Conceptual View*.DBA Africa Management ReviewVol 3 No 1
- Kloppenborg, J.T. &Laning, J.L. (2012).*Strategic Leadership of Portfolio and Project Management*,USA:Business Expert Press
- Machuki, V. &K'Obonyo, P. (2011), *Organizational Strategic Behaviour and Performance of Publicly Quoted Companies in Kenya, Business Administration and Management (BAM)* Vol. 1(7), pp. 219-232.
- Malburg, C. (2010). *Competing on costs, Industry Week*, Vol. 249 No.17, pp.31.
- Martinez-Vazquez, J. & Sepulveda, C. (2012).*Toward a More General Theory of Revenue Assignments*. International Center for Public Policy Working Paper 12- 31 October.
- Ministry of Information and Communication (2010).*National information and communication technology policy*. Retrieved from <http://www.ist-africa.org>
- MLGI &Katiba Institute (2013). *Kenya – South Africa Conference on Devolution* held on 14th and 15th August 2013, Nairobi.

- Muathe, S.M., Wawire, N.W., and Ofafa, G. (2013). *An empirical study on the relationship adoption of ICT among health related SMEs in Nairobi Kenya*. International Journal of Arts and Commerce. 2(3), 3 – 20. Retrieved from <http://www.ijac.org.uk>.
- Mugenda and Mugenda, A (1999; 2003). *Research Methods. Qualitative and Quantitative Approaches*. Nairobi: acts press.
- Mutakha, K. (2011). *Operationalization of devolution in the constitution of Kenya*. Paper presented At a workshop held at Strathmore Business School on the 22nd March.
- Muyaka, J. (2012). *Implementation of Government Policies on Information and Communication Technology in Teaching and Learning in Primary Teacher Training Colleges in Kenya: A Comparative Perspective*. Unpublished M.Ed Project. Kenyatta University
- Mwangi, T. M. (2013). *Issues and Challenges in the Implementation of Computer Studies Curriculum in Public Secondary Schools in Murang'a County*. Unpublished M.Ed Project. Kenyatta University.
- Njiru, R. W. (2012). *Secondary Schools Preparedness for the Use of Information and Communication Technology in Teaching and Learning in Thika West District*. Unpublished M.Ed Project. Kenyatta University
- Nyaga, J. S. (2011). *Comparison of Computer Assisted Instruction and Conventional Instructional Techniques in Science Among Selected Secondary Schools in Embu District*. Unpublished Masters Thesis. Kenyatta University
- Odd-Helge Fjeldstad & Kari Heggstad (2012). *Local government revenue mobilisation in Anglophone Africa*. CHR Michelsen Institute.
- Ochien'g W. K. (2012). *Devolution in Kenya as a means of endangering public participation in governance*. Catholic University of Central Africa, Yaounde, Cameroon.
- Opoku-Mensah, A. (2011). *The role of science and technology in the knowledge economy: the role of the African private sector support for investment in ICT R & D*. UN Economic Commission for Africa (UNECA) .Retrieved October 2nd 2013 from <http://http://www.congovision.com/science/ICT-Challenges.pdf>

- Orodho, J.A. (2009). *Essentials of Education and Social Science Research Methods*. 2nd Ed Kanezja Publisher, Maseno, Kenya.
- Orodho.J.A. (2009).*Techniques of Writing Research Proposal and Reports in Education and Social Sciences*.Kanezja ,Maseno, Kenya.
- Owuor, G.O. (2011) *Stakeholder involvement in strategy formulation in Kenyan state corporations*.Nairobi, Kenya.
- R. Heeks. (2011). *Failure, Success and Improvisation of Information Systems Projects in Developing Countries*. Available: http://www.sed.manchester.ac.uk/idpm/publications/wp/di/di_wp11.pdf
- Sigey, K.J. (2010), *The Impact of Automation as a Structural Change Strategy on Customs Clearing Procedures at Kenya Revenue Authority, Unpublished MBA thesis*, University of Nairobi, Nairobi, Kenya.
- Siror, J.K. (2010), *Automating Customs Verification Process Using RFID Technology, IEEE Conference Publications*, 6th International Conference on Digital Content, Multimedia Technology and its Applications (IDC).
- Siror, J.K., Huanye, S., Dong, W. &Jie, W. (2010), *Application of RFID Technology to Curb Diversion of Transit Goods in Kenya*, IEEE Conference Publications, Fifth International Joint Conference on INC, IMS and IDC
- Smithenry, D. W. (2010). *Teaching with crystal structures*. The Science Teacher, 76(6), 52-57.
- Strickland A.J., Thompson A.A.Gamble J (2004), *Crafting and Executing Strategy*. Irwin
- The World Bank (2012), “*Project appraisal document on a proposed loan in the amount of US\$ 180.2 million to Banobras, S.N.C. with the guarantee of the United Mexican States for a higher education financing project*”, report no. 17174-ME, The World Bank, Washington, D.C.
- Thompson, Arthur A. (2012). *Crafting and executing strategy : the quest for competitive advantage : concepts and cases*. (18th ed.). New York, McGraw-Hill/Irwin.

- Wafula, Y.O. (2012). *A model for information technology in public organizations: A case study of the Kenya Revenue Authority*. (Information technology master's thesis, Strathmore University. Nairobi).
- Wanjala M. S, Elizabeth, N. K and Mukwa, C. (2011). *Significant Factors in Professional Staff Development for the Implementation of Information and Communication Technology Education in Secondary Schools: A Case of Schools in Bungoma District*. Moi University. Eldoret.
- Wanjohi, T. G. (2011). *The Influence of Information and Communication Technology on the Service Delivery of Teachers in Public Secondary Schools- Nyeri County*. Unpublished M.Ed Project, Kenyatta University
- Watson, S and Watson, W. R. (2011). *The Role of Technology and Computer-Based Instruction in a Disadvantaged Alternative Schools Culture of Learning Computers in the schools* 28(1), 39-55
- World Bank (2010). *Global E-Government Development Report*. <http://unpan3.un.org/egovkb/> [Accessed 25th Feb 2014].
- World Bank.(2013; 2014). *ICT Funding in Developing Countries*. ESRC, UK.
- Zajac E. J and Westphal J.D.(2012). "Intraorganizational Economics." *In Companion to Organizations*.(J.A.C. Baum, ed.), pp. 233-255.

APPENDICES

APPENDIX 1:

Letter of transmittal

Roimen J.N. Sukantet

P.O Box 90287-80100

Mombasa.

Tel: 0725936159

Email: sroimen@yahoo.com

Dear participant,

My name is Roimen J.N. Sukantet and I am a student undertaking a Master of Arts Degree in Project Planning and Management at the University of Nairobi, Mombasa Campus. To fulfill the completion of this course, I am carrying out a study on the challenges facing the implementation of information communication technology programmes in Kenya Revenue Authority; a case study of Kenya revenue authority Mombasa bureau y. Since the matter affects the whole community, I am inviting you to participate in this research study by completing the attached questionnaire.

If you choose to participate in this research, please answer all questions as honestly as possible. Participation is strictly voluntary and you may decline to participate at any time. In order to ensure that all the information will remain confidential, you do not have to include your name. The data collected will be for academic purposes only.

Thank you.

Yours faithfully

.....

Roimen J.N.

APPENDIX 2:

Research Questionnaire

Section A: Basic Information

1. Your gender: Male [] Female []

2. Your age bracket

20-30yrs [] 31 - 40 Years [] 41 - 50 years [] 51 - 60 years [] Over- 61 years []

3. Highest education level?

Diploma/certificate [] Bachelors' degree [] Postgraduate degree [] Others-specify.....

4. Working Experience.

a) Less than 5 years () b) 5-10 years c) 10-20 years () d) 21 years and above ()

Section B: Objectives Presentation

Item Touching on Financial Resources

5. Do you support the idea that there is an influence posed by financial resources in ICT projects implementation by KRA?

Yes () No ()

6. Support your answer in 5 above by giving reasons with relevant examples

7. In a Likert scale of 1-5, where: Not at all =1, Little extent =2, Moderate extent=3, Great extent =4, Very great extent =5, indicate the extent to which the following factors have been an influence to ICT programmes implementation in KRA's Mombasa branch.

Factor	1	2	3	4	5
Limited ICT Infrastructure Budget.					
Constrained ICT Personnel Budget.					
Constrained Maintenance Budgets.					

Item on Infrastructural Facilities

8. Do you think that ICT enabling infrastructure has been a factor in implementing the ICT strategy in the KRA?

Yes () No () Not sure ()

9. Briefly give reasons for your answer in 8 above-----

10. How do you agree with the following factors in relation to infrastructural facilities and implementation of ICT programmes in KRA? Use a scale of 1-5 where

1= strongly disagree; 2 = Disagree; 3 =Not sure; 4 =Agree; 5 = strongly agree.

Factor	1	2	3	4	5
Electricity Infrastructure has been a major challenge to ICT implementation.					
Infrastructural Structures have been a limiting factor in ICT adoption by KRA.					
Computers and Internet supply have been a challenge in ICT adoption.					

Item on Administration

11. To what extent do you think administration has been a factor in the ICT programmes adoption in Kenya's KRA?

Very great extent [] Great extent [] Moderate extent [] Little extent [] Not at all []

12. To what extent do you agree or disagree with the following statements? Use a scale of 1-5 where **1= strongly disagree; 2 = Disagree; 3 =Not sure; 4 =Agree; 5 = strongly agree.**

Statement	1	2	3	4	5
Strategic ICT Planning & Management is missing in KRA's management.					
ICT Vision & Mission has not been fully adopted by KRA.					
Role Modeling in ICT has not been achieved by managers.					
Provision of ICT Infrastructure has been a challenge from managers.					
Hiring and Training of ICT experts and personnel has been given a low deal by the administration.					

Item on Organizational Structure

13. Rate the extent to which the following factors influence the implementation of ICT programmes in KRA Mombasa bureau. Use a scale of 1-5 where, **Not at all =1, little extent =2, Moderate extent=3, Great extent =4, Very great extent =5**

Factor	1	2	3	4	5
Non-defined communication channels in the organization.					
Poor ICT defined policies by KRA.					
Lack of achievable well defined ICT Objectives					
Poor top management support for ICT projects					

