INFORMATION SYSTEMS AND THE PERFORMANCE OF GOVERNMENT AGENCIESIN UGANDA: A CASE OF UGANDA REVENUE AUTHORITY

BY

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DECLARATION

I, Julie Kalirebwami**,** do here declare that this research report entitled *"Information Systems on Performance of Government Agencies in Uganda; A case of Uganda Revenue Authority"* is my original work as a result of my personal effort and has never been submitted to any university or any other institution for any kind of award. Due acknowledgement has been done for other people's work that has been referred to.

Signed……………………….........

Date………………………………….

APPROVAL

This research report has been approved for submission as partial fulfilment for the award of a Masters' Degree in Public Administration and Management of Uganda Management Institute with our approval.

I certify that Julie Kalirebwami has done this work under our guidance and supervision.

Name Dr**. Micheal Kiwanuka**

Signed ……………………………….

Date   …………………………………

Name **Dr. Christopher Mayanja**

Signed……………………………….

Date   …………………………………

DEDICATION

This book is dedicated to my dear husband Erisa Nabangi, my daughter Jerushah and my son Jephthah. Thank you for your tireless support and encouragement throughout my study. This work is also dedicated to my father Wilson Kalirebwami and my mother Monica Kalirebwami who laid a strong academic foundation that has propelled me to this academic level.

God bless you all.

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LIST OF ABBREVIATIONS AND ACRONYMS

URA : Uganda Revenue Authority

IT : Information Technology

ASYCUDA : Automated Systems Customs Data

ICT : Information and Communication Technology

AIS : Accounting Information Systems

ABSTRACT

The topic of study was Information Systems on the Performance of Government Agencies in Uganda a case of Uganda Revenue Authority. The study assessed the effect of information systems software, systems infrastructure, user knowledge and skills on performance of URA. The study adopted a cross-sectional survey research design because of the nature of the variables that were at hand; the study also used qualitative and quantitative methodologies for data analysis. Study Population, the entity comprises of 239 employees from which a sample size of 181 respondents was drawn. 100 prominent tax payers were also engaged in the study. According to the results, there is a positive and significant relationship between information systems software and performance at URA. This finding therefore shows that the existence of information systems software has an influence on the performance of URA as an organization. Findings further indicate that there is a significant relationship between information systems infrastructure and performance of URA. The results further conclude that information systems infrastructure is essential in enhancing the performance of URA. The results of the study also show that there is a significant relationship between user knowledge and skills and performance. The study recommends that URA should organize special seminars across the country to train tax payers on how to use information systems software like help tools and ASYCUDA world. The study further recommends that URA should purchase better internet services from service providers who can provide reliable internet to help improve on the systems infrastructure of the organization. URA should design soft ware's which are easy to use so that even the illiterate tax payers can be in position to pay taxes.

INTRODUCTION

1.1Introduction

Governments across the world are investing heavily into the Information systems to enable better financial performance, increased customer satisfaction and growth of government organizations (Asongu& Le Roux, 2017). The UK government for example spent 124.8 billion US dollars from 2008 to 2017 to develop the Information systems to enable them serve their customers timely and efficiently thereby maximizing on their performance (Asongu & Le Roux, 2017). However, there is limited empirical research to describe the effect of Information systems on organizational performance in developing countries like Uganda.

The study investigated the effect of information systems on the performance of government agencies in Uganda, taking a case of Uganda Revenue Authority (URA). In this study, information systems were the independent variable and performance was the dependent variable. The key dimensions for information systems were; Information systems software, information systems infrastructure and user knowledge and skills. While performance was measured inform of financial performance, customer satisfaction and growth.

This chapter presents the background of the study, the problem statement, purpose, objectives of the study, research questions, study scope, justification of the study, significance, hypotheses, conceptual framework, as well as operational definition of key terms and concepts.

1.2 Background of the study

The section presents, historical background, theoretical, contextual background, conceptual background.

1.2.1 Historical Background

The evolution of information systems has a long history however, can be specifically traced from the invention of Herman Hollerith's census tabulator which was invented to process the 1890 U.S. census. This brought the first step in automation and development of the information systems era. According to Pearlson et al., (2016)the UNIVAC I, was the first computer installed at the U.S. Bureau of the Census in 1951 which helped in administrative duties, while in general electric, the computers were installed for commercial purposes in 1954.This later paved way for the full scale adoption of personal computers globally in 1970s.

Information systems have progressed through personal computer era to client server era and currently to enterprise internet. This has been spearheaded by the United States military department since 1945 whose main goal has been to eliminate communication barriers and enable better performance; however, this technological advancement has been adopted by most governments across the globe to help in the improvement of performance (Kim et al., 2009).

According to Ricci et al., (2015) the adoption of internet can be traced back with the invention of the World Wide Web in 1991.This gave way to the adoption of internet in government sectors like in health, education and administration globally.

Adoption of computers in Africa can be traced in 1960 with the introduction of the first IBM 1401 data processing system in Johannesburg South Africa which was installed in the IBM Service Bureau and was first unveiled in October 1959 (Dwivedi et al., 2015).

Other African countries started using computers after South Africa especially by the late 1990s, most of the government across the sub-Saharan Africa started adopting information systems in the running of the daily activities and as of 2017. Africa had more than 450 million internet users with specific countries like Nigeria individually having 98 million users and Egypt having

49.23 million. This has been spearheaded by countries to enhance better performance (Ziemba, 2017).

Toots, M (2016) asserts that the use of information systems by the government has been adopted by countries in East Africa like Kenyain key sectors like education, health, revenue collection and management of water resources to improve on the efficiency of the government key agencies (Cirera, Lage, & Sabetti, 2016).

The adoption of information systems in Uganda can be traced from the introduction of the first computer ever in Uganda in 1967 in Ministry of Finance and in 1968, the second mainframe arrived at Makerere University, however, it was not until June 2006 that the Government of Uganda created a Ministry of ICT to enhance the adoption of information systems in the government agencies in Uganda (Ramadani, 2017).

According to URA report, (2015) URA has made great strides in improving service delivery through the adoption of information systems. This has been through introduction of electronic methods like electronic declaration of customs transactions, electronic registration, online payment. In addition to that, in 2010, to offer personalised services to taxpayers, the organization created taxpayer-centric Portal to enable the provision of services without hindrance, and electronic service delivery, anytime, anywhere with quick & high quality hence greater degree of transparency to taxpayers.

Secondly, with the adoption of information systems, most of the borders like Malaba, provide 24/7 services, as well as other places like Entebbe airport. This has reduced in service turnaround time with little interaction with the Department and reduction in taxpayer's visit to URA. Different electronic payment methods have been adopted such as Mobile money, Airtel money, Ezee pay and Pay Way.

Since the establishment of URA in 1991, there have been many challenges related to revenue collection and the accessibility of its services by tax payers, and as of 2003, URA adopted ASYCUDA ++ to enable easier collection of taxes and management. However, realization of the weaknesses of ASYCUDA ++, URA adopted ASYCUDA world in 2011 to enhance better performance within the organization and reduce on unnecessary costs. According to Observer, Ssempogo, (2013) indicates that in 2011 URA decided to upgrade from ASYCUDA++ to ASYCUDA World in order to respond to the ever-changing business needs. ASYCUDA World is more robust and flexible and therefore, able to adapt to the different settings. It also provides an easier channel for interconnectivity with other systems.

1.2.2 Theoretical background

According to Diffusion of Innovation Theory by (Rogers in 1962), diffusion is governed by four elements including the innovation itself, communication channels, time and social systems. The four elements explain the process of change as determined by employees and the whole organization.

Diffusion assumes that the propensity to adopt an innovation is primarily a function of the availability of information. It also assumes that in the dissemination of information particularly at the local scale, personal contacts are of much greater significance than the mass media (Deligiannaki & Ali, 2011).

Diffusion of innovations theory is often simplified to concentrate solely on a product or innovation. Little attention has been paid on the complex cultural, economic, technology and other factors that determine organizational performance (Green et al., 2009). This theory therefore describes the adoption of information systems at URA as a product of availability of information to the management of the organization.

1.2.3 Conceptual background

Information Systems (IS) is the study of complementary networks of hardware and software that people and organizations use to collect, filter, process, create and distribute data. According to Jessup and Valacich (2008), Information Systems encompasses a variety of disciplines such as: the analysis and design of systems, computer networking, information security, database management, and decision support systems.

Valacich & Schneider (2015) indicates that Information Systems is an organized combination of people, hard ware, software, communication network, and data resources, policies and procedures to form the activities that store, retrieve, transform data resources into information. Information systems are interrelated components working together to collect, process, store, and disseminate information to support decision making, coordination, control, analysis, and visualization in an organization.

Takieddine & Sun, (2015) indicates that computer software, or simply software, is a collection of data or computer instructions that tell the computer how to work, in contrast to the physical hardware from which the system is built, that actually performs the work. Computer software includes; computer programs, libraries and related non-executable data, such as online documentation or digital media. Computer hardware and software require each other and neither can be realistically used on its own.

An information system Infrastructure is the foundation or framework that supports a system or organization. Gilmour et al., (2015) indicates that in computing, information technology infrastructure is composed of physical and virtual resources that support the flow, storage, processing and analysis of data. Infrastructure may be centralized within a data centre, or it may be decentralized and spread across several data centres that are either controlled by the organization or by a third party, such as a collocation facility or cloud provider.

According to Kroenke & Boyle (2015) the data centre hardware infrastructure usually involves servers, storage subsystems, networking devices, like switches, routers and physical cabling; and dedicated network appliances, such as network firewalls.

Systems Infrastructure includes; software, hardware, firmware, networks and websites that is used by an organization to facilitate communication (Ajuwon, 2015). In this study, systems infrastructure is taken to mean all the necessary systems facilities like the computers, internet, software, hardware, websites and networks (intra and extra connection) that are used by an organization to facilitate better performance.

User knowledge and skills is defined as the ability of an individual to have the required knowledge to operate the computer systems (Brabham & Guth, 2017). In this study, user knowledge and skills mean the ability of the organizational employees and the clients to interact using computers, internet and all other online services. This will specifically be measured in terms of computer literacy, user competence and education level.

According to Kaplan (2012), performance is a way an organization measures its achievement in line to its strategy and objectives. In this study, performance means the ability of an organization to achieve its targets. Performance is a dependent variable and it has been interpreted to represent financial performance, customer satisfaction and growth.

Performance of the organization is measured in different dynamics mainly through the ability of the organization to achieve its strategic goals and visions. Kaplan (2015) further states that the balanced scorecard is set to align business activities to the vision and strategy of the business, improve internal and external communications, and monitor business performance against strategic goals.

In this study, performance is measured in three key dimensions; Financial performance which involves the organizational ability to meet the shareholders' expectation and perception.

When the business is able to meet the shareholders' expectation and perception, we say the organization has performed well.

According to Carvanna, (2003) Customer satisfaction is defined as a result of comparison between what one customer expects about services provided by a service provider and what customer receives as actual services by a service provider.

Customer satisfaction is customer evaluation of service provider whether it has met their needs and expectations (Zeithaml & Bitner 1998). Anderson & fornnel, (1995) suggested they were two concepts of customer satisfaction.

In this study, the growth of the organization is measured by its ability to meet its targets and exceed them. If the organization is able to meet its targets, it has growth while if it fails to meet its target, we say it's not growing.

Growth of an organization is usually expanded into three sub categories, that is to say; to make profits to continue in existence (survival). Growth is the ultimate measure of success of a business. Without growth then obviously there will be no fulfilment of other objectives.

According to (Cole, 2016) the use of information systems in an organization has been linked to improvement in employee productivity, easier communication, timely response to customer orders, wider coverage and general customer satisfaction, Parasuraman, (2017) further notes that improvement in productivity of employees in an organization as a result of the use of information systems helps in enhancing better performance of the organization.

On the same note Kaplan, (2015) indicates that information systems adoption in organizations especially in Japanese automobile industries have brought in numerous benefits which has greatly improved on the performance of the automotive sector in Japan.

1.2.4 Contextual Background

To meet the main objective of Uganda Revenue Authority, it sets monthly and yearly revenue collection targets to its employees. These targets are a result of a strict enforcement of carrying out URA business by employees through emphasizing strict verification by URA staff on implementing information systems like E-TIN registration, e-payments, e-taxation, e-registration and e-motor vehicle registration (Turyakira, 2011).

Table below showing the deficits and target of Uganda Revenue Authority

Year	Target (in billions of UGX)	Revenue (in billions of UGX)	Deficit (in UGX billions)
2017/2018	15,062	14,460	602
2016/2017	13,177.15	12,719.63	458
2015/2016	11,634.87	11,230.87	404
2014/2015	1,265.152,	1,287.454	139 (Surplus)
2013/2014	8,534.03	8,031.03	503

Source: URA Report (2017).

Uganda Revenue Authority adopted Information systems to enable it in the management of the revenue collection however, it has been facing deficits in its collection as indicated in the table above. Uganda Revenue Authority has employed Information systems in the collection of taxes to ensure that there is compliance among the tax payers because of the user-friendly systems like E-registration, e-taxation, e-Tin registration, and e-payments to reduce on the collection deficits (Kabafuzaki, 2010). Uganda Revenue Authority has continued to receive budget deficits which has been shown by the financial years 2015/2016 and 2016/2017. It has accumulated total deficits of 862 billion Ugandan shilling from 2015 to 2017 despite implementing information systems for the last five years.

1.3 Problem statement

Information systems are believed to have a significant boost on the performance of organizations worldwide as they grapple with new ways to generate revenue, engage customers and streamline time-consuming tasks. URA adopted Information systems in 2003 into the domestic taxes department to increase revenue collection, improve quality of administration, reduce costs of compliance and provide services to the tax payers all the time from anywhere (Kangave et al., 2016).

Despite the adoption of information systems by URA in 2010, it is still faced with numerous challenges like poor customers' service, deficit in revenue collection and low productivity of the internal staff which has led to poor performance of the organization. Gaalya (2017) further reports that poor revenue collection has led to the failure by Uganda Revenue Authority in meeting the revenue collection target as shown by the increased deficits. In 2016/17, URA collected Shs12.7 trillion about 14 per cent of Gross Domestic Product against a target of Shs13.1 trillion, more to that, URA also made revenue loss of Shs404billion in the financial year 2015/2016and a deficit of 2.6 trillion in financial year 2017/2018. In addition to the above, the ASYCUDA world has been reported to be complicated by the users therefore with the rising deficits in revenue collections departments at URA, the organization may fail to hit its revenue target in the coming financial years leading to a total organizational failure as whole. These challenges faced by URA therefore warranted examining the effect of information systems on performance of government agencies in Uganda with specific reference to Uganda Revenue Authority.

1.4 Purpose of the study

The study sought to establish the effect of Information systems on performance of URA.

1.5 Objectives of the study

i.   To assess the effect of Information systems software on the performance of URA.

ii.   To establish the effect of systems infrastructure on the performance of URA.

iii. To examine the influence of user knowledge and skills on the performance of URA.

1.6 Research questions

i.   What is the effect of Information systems software on the performance of URA?

ii.   What is the effect of systems infrastructure on the performance of URA?

iii. What is the influence of user knowledge and skills on the performance of URA?

1.7 Hypotheses

H_1 Information systems software significantly affects the performance of URA.

H_2 There is a significant positive effect of system infrastructure on the performance of URA.

H_3 User knowledge and skills does not affect the performance of URA.

1.8 Conceptual framework

Information systems have become the centre of all developments in any economy. It has thus become inevitable to embrace computer use in any work. The government of Uganda designed a strategy aiming at changing the operational design and culture of the public sector to better improve on performance of its agencies.

Information system: The implementation of any information system requires advance technology infrastructure like for web-based application that requires dedicated server and user-friendly web interface. Below presented is the conceptual framework showing how Information systems relates to performance of government agencies.

Independent Variable   *Dependent Variable*

Information systems   **Performance**

Independent Variable	Dependent Variable
1. Systems software • Application software • Operating software **2. Information systems infrastructure** • Internet connection • Computers and laptops • Intra-net connection **3. User knowledge and skills** • Computer literacy • User competence • Education level	**Financial performance** • Shareholders expectation • Shareholder perception **Customer satisfaction** • Customer perception • Customer expectation • Customer interaction **Growth** • Exceeding targets • Achieving targets

Figure 1: conceptual framework

Source: Kaplan (2012)

According to the figure illustration above, Information systems was the independent variable influencing organizational performance. Information system was looked at in aspects of systems software, the infrastructure used, and user knowledge and skills which mainly related to the competence of the employees in an organization to improve on performance.

Kaplan (2012) in the industrial age, enterprises used to evaluate their performance on financial scores only. However, in the modern era with adoption of Information systems, performance now is measured in terms of growth, customer satisfaction and financial performance.

Kaplan, (2012) further states that managers and constituents of non-profits are increasingly concerned about measuring and managing organizational performance. Financial measures

alone, or even supplemented with a collection of ad hoc nonfinancial measures, are not sufficient to motivate and evaluate mission accomplishments.

1.9 Significance of the study

The study would be of great significance to the policy makers, key stake holders, both in URA and other government agencies like government parastatals and public service.

The study would help the management of URA understand the problems of poor information systems in the organization and how best improvements can be made to achieve better performance in the organizations.

The study would help policy makers understand the causes of poor performance in their different organizations and how to overcome them using application and operating software.

The study would provide relevant information to the key stake holders in different government agencies on the different ways of using information systems to achieve better performance.

The study would highlight the relevance of user knowledge and skills on information systems to the achievement of better performance in the organization.

The study may provide information to the future academicians on the influence of systems software like application and operating software and their relevance on the achievement of better performance in the organization.

1.10   Justification of the study

The study was carried out because of the following reasons; In spite of the benefits of Information systems like improved communication, increased transparency, and access to information for citizens, digital diffusion of information is often achieved at high cost by government agencies (Kaplan, 2012). Ugandan government also adopted Information systems practices with the view of enhancing better organizational performance in its key departments.

However, the government agencies in Uganda have experienced numerous challenges of poor performance.

This therefore, prompted the researcher to investigate into the effect of information systems on performance of government agencies in Uganda.

1.11 Scope of the study

1.11.1 Content scope

The content scope of the study concentrated on Information Systems and performance of government agencies. It further expounded on the effect of Systems Software, Systems infrastructure and user knowledge and skills. The performance of government agency has the dimensions of; financial performance, which was measured in terms of Shareholders expectation and Shareholder perception while Customer satisfaction was also measured in terms of Customer perception, Customer expectation and Customer interaction and lastly Growth which included; exceeding targets and achieving targets.

1.11.2 The geographical scope

The study was carried out from Uganda Revenue Authority (URA) which is under the Ministry of finance. Uganda Revenue Authority is located at plot 95 Kampala road, Nakawa Industrial Area, Kampala, Uganda. URA 4 miles), by road, east of the city centre, off the Kampala-Jinja Highway.

1.11.3 Time scope

The period of data considered from Uganda Revenue Authority was from 2010 to 2018. This was the period Uganda Revenue Authority adopted Information systems like ASYCUDA world to enhance better performance in revenue collection (Sanya, 2015, 2nd November).

1.12 Operational definition of key terms

Information systems: This refers to the use of electronic systems like the computers and mobile phones to transfer information from one person to another to facilitate business transaction.

Systems software: This refers to the computer programs which are used to enable the organization manage its activities like Microsoft, excel, power point and Tally. There are both application and operating software.

Systems infrastructure: This refers to the different hard ware and software systems required for a computer program to run and to enable the organization or an individual to be able to accomplish their need in computer, such include; monitors, hard disks, modems, laptops, desktops, floppy disks, flash and memory card.

User knowledge and skills: Refers to the technical expertise required for an individual to use computer applications.

Performance: This refers to the level at which the organization can effectively utilize the resources at its disposal.

Customer satisfaction: This refers to the ability of an organization to serve the customer the right product, of the right quality, at the right price, in the right time.

Growth: This refers to the increase in an organization's revenue as compared to expenditure and other fixed costs.

Financial performance: This refers to the ability of the organization to manage its costs and enable it grow to achieve sustainability.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The study established the effect of Information systems on performance of government agencies in Uganda, taking a case of URA. This chapter presents the review of theoretical and related literature to the study. It involves theoretical review, actual literature review, and a summary of literature review. The actual literature was reviewed objective by objective, and the sources of literature reviewed include; secondary sources especially text books, journals, newspapers, research dissertations, government reports and publications, and primary source, especially pilot study that was carried out.

2.2 Theoretical review

The study was guided by Diffusion of Innovation Theory by Rogers in (1962). The Diffusion of Innovation Theory states that diffusion is governed by four main interacting elements; the innovation itself, communication channels, time and social systems. These four components explain the process of change as determined by individuals and the whole organization (Deligiannaki & Ali, 2011).

Using this theory, the innovation of Information systems at URA was numerous, these included; adoption of modern website systems and the use of software in most of its operations. URA adopted these innovations to enable the organization to eliminate the key challenges. Diffusion assumes that the propensity to adopt an innovation is primarily a function of the availability of information. The Information systems at URA was adopted to enhance better performance.

2.3 Related Review

2.3.1 The effect of information systems software and the organizational performance Information systems software covers vast areas of technologies such as mobile and wireless technology, telecommunications, software development, security, intelligent systems etc. Information system has a huge impact on industries, the community in general and our daily lives. Information systems software can be applied to many fields. One of the emerging applications in recent years is in most of the organizations to enhance better performance (Kwok Hung Lau &Haibo Huang 2012). Information systems software is fast becoming one of the main drivers of change, posing new strategic challenges (Lee & Kim, 2016). The business environment today has been undergoing unprecedented change and many companies are seeking new ways to stand out from the competition by sustaining their competitive advantage. In today's highly competitive global marketplace, the pressure on organization is to find new ways of creating and delivering value to customers in growing stronger.

Technology can be thought of as the application of scientific knowledge for practical purposes. From the invention of the wheel to the harnessing of electricity for artificial lighting, technology is a part of our lives in so many ways that we tend to take it for granted (Laudon& Laudon, 2016).

Pearlson, Saunders, and Galletta, (2016) emphasizes that the need for Information systems development cannot be understood unless one also understands the use of software in the organization and unless the software can be applied to the organization to enhance its better performance. The integration of Information Technology and business processes has irrevocably changed the way in which modern organisations operate. The majority of medium-to-large organisations invest significant amounts of time, money and effort on Information systems (IS); which combine hardware, software and networking capacity to enhance the

efficiency and effectiveness of their business processes (Grant & Meadows, 2016). In some circumstances the IS/IT that supports a business process becomes so integral that it can be very difficult to differentiate between them. The way in which organisational accounting processes have become embedded and reliant upon Accounting Information Systems (AIS) is an apt example of this phenomenon.

Information systems software works hand in hand with the hardware to enable the organization be in position to achieve its goals and objectives. Computers, keyboards, disk drives, iPads, and flash drives are all examples of information systems hardware (Pinedo, 2016).

Software is not tangible, it cannot be touched. When programmers create software programs, what they are really doing is simply typing the list of the organization's instructions that tell the hardware what to do. There are several categories of software, with the two main categories being operating-system software, which makes the hardware usable, and application software, which does something useful. Examples of operating systems include Microsoft Windows on a personal computer and Google's Android on a mobile phone. Examples of application software are Microsoft, Excel and Angry Birds (Chen et al., 2016).

According to Huang et al., (2013), Governments around the world are under the pressure from citizens and business to be more open and transparent in managing public funds, deliver quality public services as per needs of citizens. Therefore, in the last quarter of 2017, the world wide expenditure on software development was 480 billion dollars (Hughes et al., 2017).This expenditure was in information systems software to enable better service delivery and improve on general public sector performance.

Clearly, Internet and intranet technology has practical integrative applications for organizations. In addition to the practical use of IT as an integrative mechanism, the management of technology also has increased. Andrade &Doolin (2016) makes a strong

argument that companies use IT to structure organizations. In addition, he argues that he and many others consider the management of IT as the biggest challenge. The research from this thesis addresses both of these two issues, namely; the use of IT for integration and the implications associated with the management of Information Technology itself.

According to Rana et al., (2017) Information systems initiatives in India was first started in 1990 with a minimal financial investment into National Informatics Centre to enable computerization of operations and automation of the pension fund. This was to eliminate the several challenges with the mismanagement and poor record keeping of the files of the pensioners.

Krecie (2016) reports that the government of Philippines invested around 8-10% of its GDP on Information systems to enable integrating the operations of government agencies and also on improving transparency in public sector. These financial investments in Information systems by different public sector organizations across the globe, is a manifestation of the long-term benefits of the service in enhancing better organizational performance.

Aisara and Pather (2011), in line with world trends, the government of South Africa has over the last decade, recognized the importance of Information and Communications Technology (ICT) and more recently Information systems in improving the standards of service quality and increasing the overall efficiencies of government. Asa result, the government has provided systems software to different public institution amounting to over R14 billion during2015/2016 financial year.

Abdullahi (2014), reports that the government of Nigeria in an effort to eliminate inefficiencies in service delivery and improve general performance, invested 32 billion dollars in 2015 to improve on the network systems and elimination of inefficiencies in the Information systems performance.

Karim, 2015 reports that Nigeria has some of the worst public sector delivery systems in the world characterised by corruption and delays in delivery of public services.

2.3.2 The Information Systems infrastructure and organizational performance

Wachira (2015) the use of computer systems in the organization improves performance in a number of ways. Firstly, the computers improve the level of coordination between different departments in a public sector. This has enabled the government across the globe to improve on public service delivery effectiveness and general better organizational performance of the government agencies.

Wachira (2015) further contends that Information systems infrastructure also improves on speed and reliability of organizational transfer and processing of information among members in the organization. This helps the different departments in the organization to send and receive information in a short time which leads to improved performance and better competitive strength of the organization. There is a delay of government services in reaching the people that need it. In Ethiopia, some of the departments that people delay in accessing services include the pension (Lavers & Hickey, 2016).

The use of internet services as an effective Information systems infrastructure in Nigeria has been adopted by the government to eliminate unnecessary government costs incurred as a result of paper work and enhance performance of public sector agencies in the country (Ukachi, 2015).

Rotich (2015) also believes that the adoption of computers in the organization is to provide better and an effective communication between different departments in the organization and also between the organization and the outside world. The government's effort to use computers in the monitoring of public agencies is to ensure that business between the government and the citizens is effective and fast.

Wilson et al., (2015) states that the use of websites is to enable long-term relationship between the organization and the customers. He further asserts that websites are where customers keep checking on the major changes in the organizational products. The public sector websites provide information to the customers about the products the organization has.

Government across Sub-Saharan Africa have acquired advanced software in key government agencies like Taxation and water management systems; this is to enable government manage public utilities better.

Paul and Pascale (2013) the government of Ghana was able to realize an increase in revenue collection due to the use of advanced software and internet services. Using this system, the public could pay for their taxes online. With the use of systems infrastructural facilities, Ghana was able to realize an increase in revenue collection by 22% in 2017. This was estimated at GH¢13.2 billion against the target of GH¢12.8 billion.

Ronald and Nazarius (2011) Uganda Revenue Authority has been experiencing a failure to meet its targets which has been a challenge to the organizational top management despite the adoption of ASYCUDA world software. Ghmire, (2014) indicates that taxation software enhances efficiency in revenue collection and reduces costs.

2.3.3 User knowledge and skills on organizational performance.

Knowledge has become one of the most highly valued commodities in the modern economy. Further, knowledge is considered the principal tool of competitiveness and innovation in the composition of commodity chain to the broader processes of regional and national economic development (Ajuwon, 2015). The new paradigm is that, within the organization, knowledge must be shared in order for it to grow thus sharing knowledge among its management and staff grows stronger and becomes more competitive (Tarhini et al., 2015).

Some of the most significant changes are the growing importance of knowledge as a catalyst of economic growth within the global economy, the revolution of information and

communication technology (ICT), the integration of the global labour market and worldwide socio-political transformations (Lwoga et al., 2016).

Lwoga et al., (2016) further notes that access to and production of knowledge are essential prerequisite for participation in the global economy; this is witnessed by the fact that information and communication technologies have significantly increased the speed of production, use and distribution of knowledge, thus making a country's economic and social wellbeing dependant on how quickly it can adjust its capacity to share and generate knowledge.

Komba et al., (2016) transformations brought to different firms as a result of Information systems offer many potential opportunities for both developed and developing nations. However, on the negative side, they also pose serious threats, and especially for developing nations. There is ample evidence that processes of globalization and the ascent of Manuel Castell's 'Information Society' have given rise to new problems, such as the growing knowledge gap and digital divide between the information rich and the information poor among and within nations.

According to Meeker, (2015) the concept of Knowledge Management (KM) has attracted the attention of researchers over the last decade since it is considered an important tool to achieve innovation and sustainable competitive advantage. Takieddine & Sun (2015) noted that in highly unstable economies the only sure source of lasting competitive advantage is knowledge. Bayero, (2015) notes that firms that adopt knowledge management practices perform better than competing firms that do not. On the same line of thought, Ukachi, (2015) further asserts that knowledge management practices have been implemented in different industries both service and manufacturing to enhance better performance and increased output.

According to Ludeman& Erlanson, (2013) the late 1980's saw a growing shift towards computer integration which emphasized the use of computers in most of the government's daily

work like the preparation of reports, accountability and monitoring of government projects which changed from manual to automated.

The 1990's saw a heightened focus on increasing the use of computer technology in Education, Health and Defence departments of most governments across the globe. Busagala (2013) notes that there is growing attention and pressure to implement technology in education, one of the most significant features of the technological or digital era of much relevance to education is the Internet.

2. 4 Summary of related literature

The literature reviewed indicated that systems software has different roles on the effectiveness of Information systems on performance of a government agency. Some of the roles include ensuring that there is transparency in management of public funds. The use of Information systems also enables the government to have better ways of record keeping, achieve improved standards of service quality and increase the overall efficiencies of government.

The study indicated that Information systems infrastructure had an influence on performance of government agencies like the use of computer systems in the organization improves performance. Internet services as an effective systems infrastructure enables URA to eliminate unnecessary costs incurred as a result of paper work and enhance performance. The adoption of computers in the organization is to provide better and an effective communication between different departments in the organization and also between the organization and the outside world.

The literature indicated that user knowledge and skills have an influence on organizational performance since knowledge is believed to be the principal tool of competitiveness which enhances innovation in the organization.

The literature does not indicate how Information system influences financial performance in an organization since it's difficult to measure performance. Most organizations have different ways of measuring performance because of their different goals, for example, profit making organization may assume that profitability is the key determinant of performance while government organization which are not profit making may use another parameter in determining performance. In addition, organizations with long term ambition prefer to use customer growth as a measure of performance.

Though a number of studies were carried out on performance in relation to government agencies, those addressing performance are still limited. Even those existing, were done in a different geographical setting other than Uganda Revenue Authority, at different time and using different methods.

In addition to that the performance of Uganda Revenue Authority since the financial years 2015/2016 and 2016/2017 there is an accumulated total deficit of 862 billion Ugandan shilling from 2015 to 2017 despite implementing information systems for the last five years. This study therefore was carried out to address the knowledge gap existing as far as Information systems and performance is concerned in Uganda Revenue Authority.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The study aimed at investigating the effect of Information systems on performance of government agencies in Uganda. This chapter presents the research methods that were used to carry out the study. It covered the research design, area of study, target population, sample design, sample size, research instrument, measurement of variables, data collection procedure, data analysis and ethical considerations of the study.

3.2 Research Design

The study used a cross-sectional research design. This design was used because the researcher was able to collect data from across all corners of the population of interest in the study. This design was adopted because it was cheap in terms of time and cost as observed by (Mugenda, 2003, Sekaran, 2004). Both quantitative and qualitative research approaches for data collection and analysis was used in this study. According to Mugenda (2003), the two approaches supplement each other, and they help to reduce bias in each approach. Amin (2005) argues that triangulation enables the researcher to have a deeper analysis using the inductive and deductive approaches through qualitative and quantitative perspectives, which enable the researcher to analyse data from all angles, and give a more concrete and realistic description of the findings. Qualitative approach helps in interpreting peoples' opinions, perceptions, and attitudes to give a deeper understanding into the problem under investigation.

3.3 Study Population

The study population was generated from URA and comprised of 239 employees, 1 Executive Director,12 management staff, 40 Division Heads, 5 Regional Heads, and 181 staff members

at URA whose duties influencedthe effect of Information systems on performance of government agencies.

3.4 Determination of the sample size

Using Krejcie and Morgan's (1970) table for sample size determination approach, a sample size of 181 was determined from the total population of 239 employees and 100 prominent tax payers.

Table 3.1: Showing Population and Sample size of respondents

Category	Population size	Sample size	Sampling Technique
Executive Director	1	1	Purposive sampling
Managers	12	12	Purposive sampling
Division Heads	40	38	Purposive sampling
Regional Heads	5	5	Purposive sampling
Staff Members	181	93	Simple Random sampling
Tax payers	100	32	Simple Random sampling
Total	**339**	**181**	

Source: URA Employee List, (2013)

3.5 Sampling techniques and procedure

This study used both probability and non-probability sampling techniques. In probability sampling, simple random sampling was used, while purposive sampling was used for non-probability sampling.

3.5.1 Simple random sampling

In this sampling technique every element/member in the population had equal chances of being selected to participate in the study. This technique was used because it avoids bias, and is easy to use. Neuman (2006). It was used to select staff members and tax payers.

3.5.2 Purposive sampling

Purposive sampling strategy was used in this study because it enabled the researcher to use cases in the population that have the required information, as argued by (Mugenda 2003; Neuman 2006). In purposive sampling the researcher approached those respondents that were more knowledgeable about the problem under investigation thus enabling her not to waste time and resources on respondents with less/no information on the problem. It was used to select Executive Director, Managers, Division Heads and Regional Heads.

3.6 Data collection methods

The section presents data collection methods which include; questionnaire survey, interview and documentary review.

3.6.1Questionnaire Survey

Questionnaire Survey method was used to obtain the opinion of the respondents regarding the topic under study. According to (Onen & onen, 2013) questionnaires are important in research because the respondents are given time to think and they don't feel intimidated. Questionnaire gives the respondents ample time to respond to the questions when ready and they can be kept for future references. This method was deployed to capture information from Staff Members, Regional Heads, Division Heads and tax payers.

3.6.2   Interview

Interviews are an effective qualitative method for getting people to talk about their feelings, opinions and experiences. They are also an opportunity for us to gain insight into how people interpret Information systems on the performance of government agencies. The views of the respondents were a personal reflection of their personal experience relating to the study topic. Open ended questions allowed ease of expression and capture of vast information from study participants. This method was deployed to capture information from the Executive Director and managers. Appendix III presents the interview guide.

3.6.3   Documentary review

The researcher analysed the documents and publications related to the study topic. Documents that were reviewed include; URA reports, Journals, research publications, magazines, text books and Newspapers.

3.7 Data collection instruments

For each deployed data collection method, there is a corresponding data collection instrument that was used. The study used Questionnaire Guides, Interview Guide and Document review checklist as described in the sub-sections below.

3.7.1   Self-administered Questionnaire

The questionnaire was designed in a manner that motivates respondents with simple structured questions with the option of providing any addition information to the structured questionnaire as an option to obtain relevant data from them. The questionnaire was structured with both close-ended and open-ended questions. It had a Likert scale 1-5 indicating the level of a respondents' agreement or disagreement, where 1 represents Strongly Disagree and 5 Strongly agree. The questionnaire is attached in Appendix I and II.

3.7.2   Interview Guide

Unstructured interview guide was designed and used by the researcher to collect qualitative data from key informants in Uganda Revenue Authority. It had key items/questions that were asked to key respondents and then it was filled by the researcher while conducting a face to face interview. This instrument according to Sekaran (2004) enabled the researcher to collect rich and detailed data, get more clarifications, and it enabled her to establish rapport and motivate respondents to answer questions. Yuko & Onen (2009) argue that this instrument enables the researcher to collect data that can't be written, and to capture meaning beyond words, and it yields a high response rate. The researcher used the interview guide as seen in (appendix III) to supplement data got from questionnaire and get more clarification on variables under the study especially Information systems on the performance in Uganda Revenue Authority.

3.7.3 Document Review Checklist

The researcher used this instrument in order to capture secondary data and first-hand information relevant to the study. These documents helped the researcher by revealing the level of Information systems and performance of URA. This was achieved through a review of the analysis reports, journals and newspapers.

3.8 Data quality control of instruments

The data collection tools were pre-tested on a smaller number of respondents from each category of the population to ensure that the questions were accurate.

3.8.1 Validity

Validity is defined as the extent to which results can be accurately interpreted and generalized to other populations (Oso & Onen, 2008). While Borg & Gall, 1989 as cited in Onyinkwa, (2013) validity is defined as the degree to which results obtained by the research instrument

correctly represented to the phenomenon understudy. Mugenda & Mugenda, (1999) defines it as the accuracy and meaningfulness of inferences which are based on the research results.

The formula for Content Validity Index was;

$$CVI = \frac{n}{N}$$

Where CVI = content validity

n= number of items indicated relevant.

N = total no. of items in the instrument.

In this study, validity was achieved by establishing content validity. The researcher achieved content validity by using the experts to assess the validity of the research instrument. The experts especially research supervisors and consultants from UMI were given data collection tools to assess whether the items in the instruments were valid in relation to research topic, objectives, and questions. From the instruments, they declared some items valid and others invalid. Those declared invalid were dropped, others adjusted, while the valid ones were maintained. Then content validity index (CVI) was computed by dividing the number of items declared valid by total number of items/questions in the data collection instrument.

Table 3.2 Shows the content validity index (CVI) of the research instruments

Variables	Total items	Valid items	CVI
Systems software	9	7	.77
Systems infrastructure	9	8	.88
User knowledge and skills	11	8	.72
Financial performance	3	3	1.00
Customer satisfaction	4	3	.75
Growth	5	4	.8
Total	**46**	**36**	**Average=0.82**

Source: primary data

Therefore, CVI =0.763(76.3%).

From table 3.2, CVI was 0.82 (82%), and this was very good. According to Waner (2005), as cited in Barifaijo, Basheka and Oonyu (2010), if the CVI is greater than 0.7, then the instrument is said to have a high content validity. The researcher analysed the data collected and where need arose, the instruments were re-adjusted and re-designed to improve reliability and validity. To improve face validity a pilot study was carried out at URA.

3.8.2 Reliability

According to Mugenda and Mugenda, (2003) reliability is the measure of the extent to which research instruments are able to provide the same results upon being tested repeatedly. Crobach's coefficient alpha (a) as recommended by Amin, (2005, P.302) was used to test the reliability of the research instrument. The instrument is deemed reliable if reliability of 0.7 and above is obtained and therefore, it was adopted for use in the data collection.

Formula for reliability is

$$\propto = \frac{K}{K-1} \quad \left(\frac{\in SD^2 I}{SD^2 t}\right)$$

Where $\propto$ = alpha reliability co efficiency.

K=Number of items included in the questionnaire

$\in SD^2 I$ = sum of variance of individual items

$SD^2 t$ = variance of all items in the instrument.

To ensure credibility and trust worthiness of qualitative data the researcher ensured that only the officials who were employees of URA were interviewed.

The coefficient ranges between a=0.00 for no reliability, a =1.00 for perfect reliability. The closer alpha gets to 1.0 the better. If the study findings result to Cronbanch's Alpha of 0.7 and

above, this signified that the research instrument was good enough for the study. According to Amin (2005), all the measurements in the instrument that show adequate levels of internal consistency of Cronbach's alpha of 0.77 and above are accepted as reliable.

Table 3.3: Shows Reliability of research instruments

Variables	Alpha	Number of Items
Systems software	.808	9
Systems infrastructure	.673	9
User knowledge and skills	.840	11
Financial performance	.670	3
Customer satisfaction	.77	4
Growth	.86	5
Average	**.77**	**41**

Source: primary SPSS data

Overall reliability= 4.621/6 =0.77 (**77%**)

The table 3.3 shows reliability of instruments on different variable, with an average Alpha of 0.77(77%), and this was good enough for the study according to Mugenda &Mugenda (1999) and Amin, (2003).

3.9 Procedure of data collection

The researcher obtained an introductory letter from Uganda management institute to seek permission and enable easy access of information by the researcher from URA. After the permission was granted from

URA, the researcher went ahead and administered questionnaires and interviewed selected respondents. However, the consent of the respondents was sought before being given questionnaire and the respondents were informed that the study was strictly for academics.

3.10 Data analysis

The study used both quantitative and qualitative data analysis methods

3.10.1 Quantitative Data Analysis

Data processing was done by entering the data into a statistics package for social sciences (SPSS) version 24.0 in line with the research questions. Data analysis was done by also using this statistics package for social sciences (SPSS) to formulate frequency tables where the percentages, frequency, mean, variance and standard deviation were obtained.

The quantitative analysis process included; editing, classification, coding and presentation. Data was summarized in frequency tables; percentage and it was analysed with the use of statistical package for social scientist (SPSS). Quantitative data was collected through structured questionnaires and it was entered into a computer, tabulated and analysed.

Spearman's correlation coefficient and regression analysis is recommended by Amin (2005, P.378) was used during data analysis in order to test the strength, degree and direction of the effect of Information systems on performance of government agencies. The formula was used for this study because it was compatible with SPSS program in addition to being appreciated in analysing data under which it was arranged.

3.10.2 Qualitative Analysis

Qualitative data was analysed using content analysis. It involved gathering and analysing data based on the content, where by the raw data collected from the field was read through to enable the researcher to get familiar with the data. At this process, the study used noted cards to organise the available data to accelerate further analysis. Data was then evaluated and analysed

to determine its accuracy, credibility, usefulness and consistency which aided acceptance of the study.

3.11 Measurements of variables

A five-point Likert ordinal scales ranging from; strongly agree which was assigned 5, 4 agree, Not Sure assigned 3, Disagree allocated 2 and strongly disagree allotted 1 to obtain responses on the variables. The Likert ordinal scale has been used by numerous scholars who have conducted similar studies such as Bowling, (1997).

The structured questions were measured using the following variables;

- Information systems software

- Information systems infrastructure

- User knowledge and skills

3.12 Ethical considerations

The researcher ensured that before giving questionnaires to the respondents their consent was sought and when they accepted to participate in the study, they were given questionnaires.

Confidentiality of the respondents' information was assured and the researcher also informed them that the study was strictly for academic purposes and therefore, they should not fear giving information.

Only respondents who were selected were given questionnaires and only those meant to be interviewed were actually interviewed.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

4.1 Introduction

The study was set to examine the effect of Information systems on performance of government agencies in Uganda, a case of Uganda Revenue Authority. This chapter presents, analyses and interprets findings according to the study objectives. It contains the response rate, demographic information of respondents, findings according to objectives of the study and research hypotheses. Results on objectives and hypotheses are presented using descriptive and inferential statistics.

4.2 Response Rate

One hundred and sixty-eight (168) questionnaires were distributed to respondents and thirteen (13) interviewees were targeted. Out of the 168 questionnaires, one hundred fifty-five (155) were returned fully completed, giving a response rate of 92%. While there was 100% response rate in the interviews. The details are shown in the table 4.2.

Table 4.1: Response Rate

Instrument	Target Response	Actual Response	Response Rate
Questionnaires	168	155	92
Interview Guide	13	13	100
Total			

Source: Primary Data 2018

The findings from the table above indicate that the percentage of the returned questionnaires was 92%. This finding therefore according to Amin, (2005) indicate that the response rate was

good and therefore the study could be conducted since the response rate was above 70%, while

the response rate for interview respondents was 100%.

4.2.1 Position of the respondents

The section presents findings on the position of respondents who included both employees in

different departments and Tax payers; one (1) executive director, twelve (12) managers, thirty-

two, (32) Division heads, four (4) regional heads, eighty-seven (87) staff members and thirty-

two (32) Tax payers.

Table 4.2:Position of the respondents

Category	Population size	Sample size	Actual number of respondents	Percentage response rate	Sampling Technique
Executive Director	1	1	1	100	Purposive sampling
Managers	12	12	12	100	Purposive sampling
Division Heads	40	38	32	84	Purposive sampling
Regional Heads	5	5	4	80	Purposive sampling
Staff Members	181	93	87	93	Simple Random sampling
Tax payers	100	32	32	100	Simple Random sampling
Total	**339**	**181**	**168**	**92.8**	

Source: Primary Data 2018

Table 4.3 shows that, a good response was achieved by the researcher from respondents in the

field. According to Amin (2005) a response rate above 70% is good enough for the study, and

the average response rate for this study was 92.8% which implies that the findings of this study

are reliable and could be generalized to other similar situations.

4.3 Demographic Information of Respondents

The researcher sought out to collect demographic information about the respondents. This information was about gender, age, department of employee, education level, duration one worked and the time the tax payers have been paying taxes for their specific business.

4.3.1 Gender of respondents

The researcher requested the respondents to indicate their gender, and this was intended to find out whether the sample size was a fair representation of the population. The response was presented in Table 4.3

Table 4.3: gender of respondents

	Frequency	Percentage
Male	95	61.3
Female	60	38.7
Total	155	100

Source: Primary Data 2018

Table 4.4 above indicates that the majority of respondents in the study were males constituting 95(61.3%), females on the other hand, were constituted 60 (38.7%) of the respondents. The implication of this finding was that no matter the disparity in percentage of males and females who attended the study, at least views of both males and females were captured which was too vital in making a critical analysis in the performance of an organization. This made the study findings representative and therefore, enabled generalizations.

4.3.2 Findings on the age category of respondents

Age of the respondents was stratified into three strata, that is: 20-30years, 31-40, 41 and above years. This was aimed at ensuring that all age groups are represented in the sample, and to find out how age influence variables under investigation and the results were presented in Table 4.4.

Table 4.4: Findings on the age category of respondents

Age category of respondents	Frequency	Percentage
20-30 years	53	34
31-40 years	73	47
41 and above	29	19
Total	155	100

Source: primary data 2018

Table: shows the age of respondents (both employees and Tax payers) in years

Table 4.5 shows that majority of respondents (47%) were aged between 31-40 years, followed by those aged between 20-30 years, at 34%, and those 41 and above years were (19%). The findings reveal that all age groups in the population were fairly represented, thus the sample was a fair representation of the population.

Table 4.5: Educational level of Respondents

Findings from the table below shows the education level of respondents

Figure 4.1: Educational level of respondents
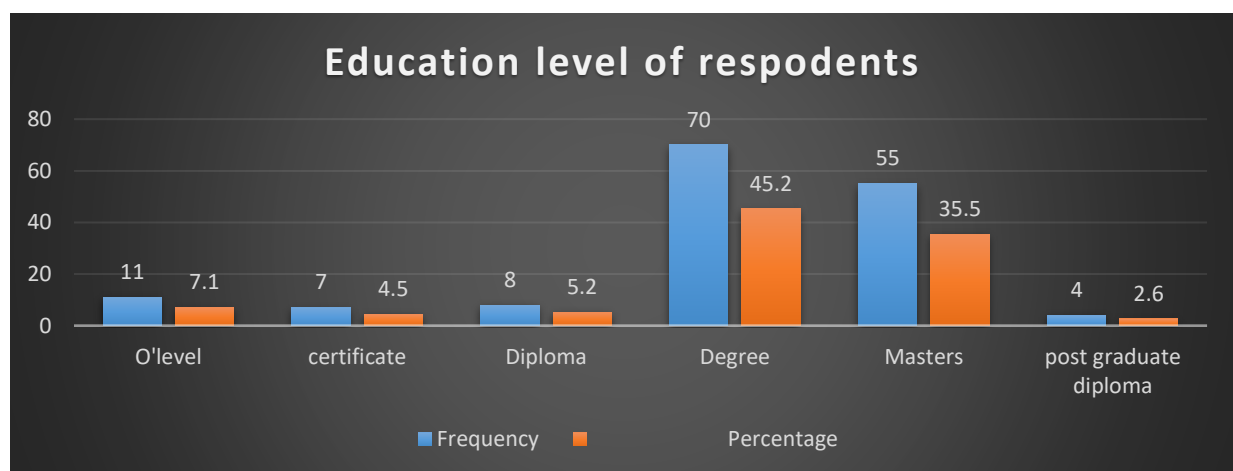
Source: Primary Data 2018

Figure 4.1 shows respondents' level of education.

Figure 4.1 shows that majority of the respondents (45.2%) were graduates, 35.5% were master's degree holders,5.2 were diploma holders, 4.5 were certificate holders, 7.1 were O'level certificate holders and the remaining 2.6% were post graduate degree holders. From the above findings, it was observed that all respondents were literate, and able to read and write implying that they were able to understand and give their view and opinions on variables under this study.

4.3.4 Duration of employment

Respondents were asked to reveal their job category, and this was intended to find out whether the sample was a fair representation of the population. Findings were as in figure 4.2

Figure 4.2: Duration of employment
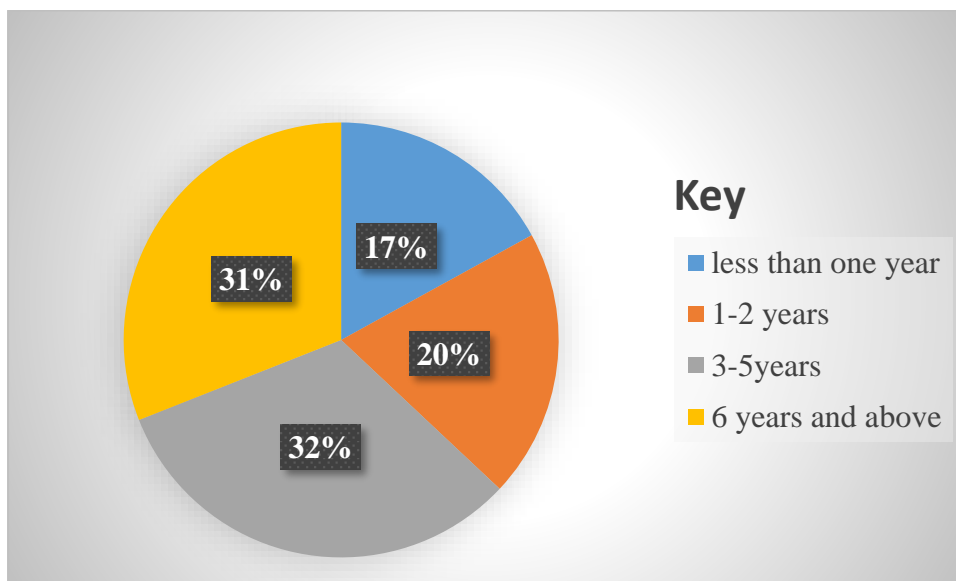
Source: Primary Data 2018

The results in the study further indicates that majority 32% of the respondents had worked at URA for 3-5years this indicates that majority of the respondents had relevant information regarding the topic understudy. The 31% of the respondents had worked with URA for more than 6 years, 20% of the respondents had worked for 1-2 years and only 17% had worked for less than one year. These results all further show that information got from the field could be

relied upon because the respondents were mature and well informed on the variables understudy.

4.4 Empirical Findings

This section analyses and presents information based on objectives of the study.

Empirical findings as per objectives of the study were presented in tables 4.7, 4.8, 4.9. Respondents were presented with items and requested to either agree or disagree basing on a five Likert scale of; Strongly Agree (SA), Agree(A), Neutral (N), Disagree(D), Strongly Disagree (SD).

SA+A= Agree, SD+D= Disagree, N=Undecided/neutral. The study grouped SA and A to mean agreed, SD and D to mean disagree, and N to mean respondents who were undecided. Percentages, mean and standard deviation were used to interpret empirical results. The mean above 3 implied that majority agreed, and that below 3 means disagreed while 3 imply undecided/neutral. Also Pearson correlation was used in establishing the relationship between the independent variables and dependent variables, and regressions (model summary) were run to establish the variance (contribution) of the IV on the DV.

4.4.1 To assess the effect of Information systems software on the performance of URA

The first objective of the study was to assess the effect of Information systems software on performance of URA. Eight items were administered to respondents and their responses are summarized in the table 4.6.

The results are presented in the table below in line with the responses from the questionnaires administered to the employees of URA.

Table 4.6: Descriptive Statistics on Information systems software and the performance.

	Percentage response						
	SD (1)	D (2)	N (3)	A (4)	SA (5)	Mean	Std. Deviation
Software of the organization is usable	3.3%	1.6%	13.8%	45.5%	35.8%	4.09	.923
All employees can use the software	8.1%	13.8%	16.3%	24.4%	37.4%	3.69	1.319
The systems of the organization has all that is needed	4.9%	10.6%	18.7%	29.3%	36.6%	3.82	1.181
software are fast	4.1%	10.6%	9.8%	43.9%	31.7%	3.89	1.095
All employees can use the website	4.9%	10.6%	9.8%	27.6%	47.2%	4.02	1.201
The website has all the information needed	2.4%	10.6%	18.7%	26.0%	42.3%	3.95	1.122
The software is user friendly	2.4%	4.9%	17.1%	43.9%	31.7%	3.98	.954
Customers can easily use the website	28.5%	30.1%	12.2%	8.1%	21.1%	3.00	1.321
Websites are complicated to use	15.4%	18.7%	16.3%	26.8%	22.8%	3.10	1.381
computers are used to manage the data of the organization	6.5%	-	-	23.6%	69.9%	4.63	.604

Source: Primary Data 2018

The response on the Item "Software of the organization is usable" included; majority 45.5% agreed, 35.8% strongly agreed, 3.3% strongly disagreed, 1.6% disagreed and only 13.8% were not sure. This result was also further supported by the mean value 4.09 showing that majority

of the respondents agreed that the Software of the organization is usable. This finding therefore, shows that majority of the respondents hold the view that URA has a good software that can be used to manage taxation activities.

This finding was also supported by the response from the interview by one of the managers who stated, "The soft wares of URA are always checked every three months by the service providers and every day the IT department checks on the systems to ensure that the system is in order". In line to the above response another manager also stated, "In case of any challenge with the software the service providers and the IT department of URA are able to fix so as to ensure business continuity".

In line to these findings the manager further stated, "URA software like Help tools are used by the employees and can be easily accessed by the customers from any part of the East African region, this is because they are web-based software".

From the above findings therefore, it is evident that the software of URA is usable and therefore the employees are able to perform their duties.

The results in the study indicates that 8.1% of the respondents strongly disagreed, 13.8% disagreed and only 16.3% were not sure while 24.4% agreed and only 37.4% strongly agreed. These findings therefore indicate that majority of the respondents agreed that all employees in URA can use the software. This is also further represented by the mean value of 3.69 indicating that this finding shows that indeed employees of URA know how to use computers.

This finding is also in line with one of the managers who stated, "All our employees know how to use computers only sometimes for new staff who have to be trained on our systems like ASYCUDA world and help tools to enable them be in position to provide the clients with necessary help they need".

The results further show that in line to the statement, "The systems of the organization have all that is needed". The results show that; majority 36.6% of the respondents strongly agreed,

29.3% of the respondents agreed, 4.9% strongly disagreed, 10.6% disagreed. These results further show that the employees believe that the systems of URA have all that the Tax payers use. This is further supported by the mean value 3.82 indicating that majority of the respondents agreed that the systems of the organization have all that is needed.

This was also further supported by one of the respondents during the interview who stated, "The systems software like the Help tool facilitates clients basing on their different needs and at the time they need especially during weekend and the peak time like from 8:00 am to 2:00pm, it can also facilitate clients and agents of URA who are in the other East African countries because of the East African integration". The findings from the above response further shows that the software of URA has all that is needed by the clients and employees of the organization. The results show that; majority 31.7% of the respondents strongly agreed, 43.9% of the respondents agreed, 4.1% strongly disagreed, 10.6% disagreed.

The findings in the study further shows that majority of the respondents assert that software is as fast as indicated by the mean value of 3.89. These results further indicate that some respondents rejected. It is therefore evident that the soft wares of URA are not so fast as expected.

The results in the study was also supported by one of managers who stated, "The software we use at URA are provided by some of the best software developers therefore, they are fast because they work hand in hand with the internet, of which our service providers like MTN has good internet which facilitates the performance of the software".

The results in the study further indicates that majority 47.2% of the respondents assert that all employees can use the website. This finding is also further supported by the mean value 4.02 which indicates that majority of the employees agreed that employees of URA can use website.

The results in the study was further supported by one of the managers who stated, "All our employees are trained on how to use the website this is because we do not recruit employees who do not know how to use computers".

The results in the study further indicates that majority 42.3% of the respondents strongly agreed that the website of URA has all the information needed. This result also indicates that the website of URA has most of the information needed by the tax payers and therefore the employees of URA find it easy to interact with the tax payers of URA. The results in the study further shows that 2.4% of the respondents strongly disagreed.

The results in the study indicate that majority 43.9% of the respondents assert that the software is user friendly. Only 4.9% of the respondents disagreed and 2.4% strongly disagreed; this is supported by the mean value 3.98 which indicates that though most of the respondents agreed some other disagreed.

According to the findings in the study majority 28.5% of the respondents strongly disagreed that customers can easily use the website while 30.1% of the respondents disagreed while 8.1% of the respondents strongly agreed. This finding is also in line with the mean value 3.10 which indicates that though some of the respondents agreed, majority of the respondents disagreed. This therefore shows that many customers find it hard to use the website of the organization.

This finding was also supported by one of the managers during the interview who stated, "the number of customers who visit the URA website keeps on fluctuating however, many customers visit the website during the festive season and around 9:00 to 2:00 pm per day and on average URA has around 1500 users registered". The manager further said, "Interaction between customers and URA online services depends on parameter like availability of work and the internet speed, however, URA online systems like Help tools help customers to have an active interaction with the employees."

While another manager stated," URA website is the most visited website in Uganda and more to that URA website is busy because the East African integration means that URA has agents in all the East African countries where all most of these clients use online services."

In addition to the above another manager stated, "URA website is visited many times because the organization receives daily payments from clients"

The results in the study indicates that the mean value of 3.10 shows that majority of the respondents agreed that websites are complicated to use and some of the respondents were not sure. This finding therefore shows that websites of URA are hard for customers to use. This finding is also supported by the fact that majority 26.8% of the respondents agreed and 28(22.8%) strongly agreed while only 15.4% of the respondents strongly disagreed.

This finding was also further supported by one of the managers during interviews who stated, "ASYCUDA world systems software needs training because an ordinary person may find it difficult to use. However, after training ASYCUDA world software and help tool can easily be used since they are web-based software but for customers to be able to access help tool, they have to register, receive an address, password and then login".

However, another manager contradicts with these findings, "URA web based softwares are easy to use because they have pictorials which enable the clients to easily interpret. Some of them include pictures of cars and motorcycles. This helps the clients in understanding what they need though the pictures used in the website are not straightforward."

In addition to the above, one of the other managers said, "The website is not suitable for the illiterate population that is why some clients find it not straight forward".

Apart from that, one of the managers said," The systems depend on what a client is doing, for example, when a client is paying taxes, uses a different interface from that of filing for returns."

According to the findings in the study, majority 69.9% of the respondents strongly agreed that computers are used to manage the data of the organization while only 6.5% of the respondents

strongly disagreed. This finding is also supported with high mean value of 4.63 which indicates that majority of the respondents strongly agreed. These results also further show that URA uses computers to manage the data of the organizations.

4.4.1.2 Correlation between information systems software and the performance

A correlation analysis was run and interpreted to establish whether a relationship existed between information systems software and performance in URA. The results were presented in table 4.7.

Table 4.7: Correlation between information systems software and the performance

		Information systems	Performance of the organization
Information Systems	Pearson Correlation	1	.340[**]
	Sig. (2-tailed)		.000
	N	123	123
Performance Of The Organization	Pearson Correlation	.340[**]	1
	Sig. (2-tailed)	.000	
	N	123	123
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: primary data 2018

According to the results in the table above the findings show that P-Value =.000 which is less than 0.05. This shows that there is a positive and significant relationship between Information systems software and performance at URA. This finding therefore shows that the existence of Information systems software has an influence on the performance of URA as an organization.

4.4.1.3 Regression analysis of information systems software on the performance of URA

A regression analysis was run to establish the variance (contribution) of Information systems software on performance of URA and the results are presented in the Table 4.8 below.

Table 4.8: Regression analysis of information systems software on the performance of URA

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.340[a]	.115	.109	2.645
a. Predictors: (Constant), Information systems				

Source: Primary Data 2018

According to the findings in the study above, the results indicate that Adjusted R square =0.109 which indicates that 10.9% of the changes in performance at URA is affected by information systems software. This factor further shows that there are other factors that affect performance of URA and not only Information systems.

4.4.1.4 Findings on the ANOVA of information systems and the performance

The researcher tested the hypothesis using ANOVA statistical technique which established the difference between the samples mean. The study had the level of significance at $\alpha=0.05$, as shown in table 4.9.

Table 4.9: ANOVA of information systems and the performance

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	129.501	1	129.501	18.516	.000[b]
	Residual	993.138	142	6.994		
	Total	1122.639	143			
a. Dependent Variable: PERFORMANCE OF THE ORGANIZATION						
b. Predictors: (Constant), INFORMATION SYSTEMS						

Source: Primary Data 2018

According to the table 4.9 above the P-value=0.000 this shows that there is a significant relationship between information systems software and performance of URA. According to this finding therefore information systems software has an influence on performance of employees at URA however there are other factors that determine organizational performance.

4.4.1.5 Hypothesis testing

The study tested the hypothesis which stated that Information systems software affects performance of government agencies in URA.

The researcher tested the hypothesis using ANOVA statistical technique which established the difference between the samples mean. The study had the level of significance at $\alpha=0.05$, as shown in table. These results therefore implied that there is a significant relationship between information systems software and performance of government agency.

4.4.1.6 Analysis of tax payers' response on effect of information systems software and the performance of URA

The table 4.10 below presents analysis of tax payers' response on effect of information systems software on performance of URA.

Table 4.10: Descriptive statistics on the taxpayers' response on information systems software and the performance

	SD	D	NS	A	SA	Mean	Std. Deviation
All software of the organization is usable	6.3%	37.5%	-	43.8%	12.8%	3.63	.793
URA web services are easily usable	-	87.5%	-	12.5%		2.13	.336
It is easy to get the information one needs from URA website	-	87.5%	12.5%	-	-	2.25	.672
Web services are fast	3.1%	53.1%	12.5%	31.5%	-	2.72	.958
I can easily pay my taxes online	3.1%	81.3%	-	15.6%	-	4.13	.554
Valid N (listwise)							

Source: Primary Data 2018

According to response on "All software of the organization is usable", the results indicated that majority 43.8% of the respondents agreed, 12.8% strongly agreed and 37.5% disagreed and only 6.3% strongly agreed. This finding is further in line with the results of the mean value of 3.63 indicates that most of the respondents agreed.

The results in the study show that majority 87.5% of the respondents disagreed that URA web services are easily usable and only 12.5% of the respondents agreed this results further

illustrates that clients find it difficult to use the URA web services this results is also supported by the mean value 2.13 which indicates that most of the tax payers disagreed with the fact that URA web services are easily usable, these results therefore indicate that Taxpayers view URA websites as difficult to use.

However, this result is in line with the response with one of the managers who said that; "For someone to be able to use ASYCUDA world he has to be trained not everybody can use it but once you are trained you can access it because it is web based".

From these results therefore this shows that URA web services cannot be easily used by the clients therefore this affects URA customers.

According to the results in the study, the mean value 2.75 indicates that most of the respondents disagreed, this is also supported by the fact that 87.5% of the respondents disagreed, and 12.5% of the respondents were neutral and none of the agreed or strongly agreed that it is easy to get the information one needs from URA website. This result further shows that it's not easy to information one needs from the website as reported by the tax payers.

The mean value 2.75 indicates that most of the respondents disagreed with the fact that Web services are fast, this results therefore indicates that websites of URA are slow therefore the management of URA have to work towards improving on the speed of their web services, this finding is also further supported by the fact that 53.1% disagreed, 12.5% agreed and 31.5% strongly agreed.

The findings from the study indicate that the mean value of 4.13 shows that majority of the respondents agreed that they can pay their taxes online. This finding therefore demonstrates the fact that majority of the respondents hold the view that they can easily pay their taxes.

This finding is also supposed with the finding from the documentary review which revealed that more than 99% of the URA tax collection is done online.

4.4.1.7 Analysis of tax payers' response on the correlation between systems software and the performance of URA.

A correlation analysis was run and interpreted on Tax payers' response to establish whether a relationship existed between information systems software and performance in URA. The results were presented in table 4.11.

Table 4.11: Analysis of tax payers' response on the correlation between systems software and the performance

Correlations			
		SYSTEMS SOFTWARE	PERFORMANCE
Systems Software	Pearson Correlation	1	.470**
	Sig. (2-tailed)		.007
	N	32	32
Performance	Pearson Correlation	.470**	1
	Sig. (2-tailed)	.007	
	N	32	32
**. Correlation is significant at the 0.01 level (2-tailed).			

Source: Primary Data 2018

The correlation analysis on tax payers' response indicates that Pearson correlation analysis is 0.470** which shows that there is a weak positive correlation between systems software and performance of the organization.

The results further show that P-Value 0.007 which is less than 0.05 thus indicating that there is a significant relationship between systems software and performance of an organization like URA.

4.4.1.8Analysis of tax payers' response on regression analysis of systems software on the performance

A regression analysis was run to establish the variance (contribution) of information systems software on performance of URA as per Tax payers' response and the results are presented in the Table 4.12 below.

Table 4.12: Regression analysis for independent variables against performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.360[a]	.129	.107	2.669
a. Predictors: (Constant), USER KNOWLEDGE AND SKILLS, INFORMATION SYSTEMS SOFTWARE, INFORMATION SYSTEMS INFRASTRUCTURE				

Source: Primary Data 2018

According to the table above Adjusted R square is 0.107. The findings indicate that the independent variables user knowledge and skills, information systems software and information systems infrastructure affect performance by 10.7%. These results further show that though these independent variables affect performance, there are also other factors.

Table 13: Analysis of variables between performance of the organization and independent variable

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	125.871	3	41.957	5.892	.001[b]
	Residual	847.397	119	7.121		
	Total	973.268	122			
a. Dependent variable: performance of the organization						
b. Predictors: (constant), user knowledge and skills, information systems software, information systems infrastructure						

Source: Primary Data 2018

According to the findings in the study the P-value =0.001 indicating that the independent variables of user knowledge and skills, information systems software, information systems infrastructure have a significant influence on the performance of URA.

4.4.2 Findings on the Employees' response on the effect of information systems infrastructure on the performance of URA

The results are presented in the table below in line with the responses from the questionnaires administered to the employees of URA.

Table 4.14: Descriptive Statistics on Systems infrastructure and the Performance

	Frequency and percentage response						
	SD(1)	D(2)	N(3)	A(4)	SA(5)	Mean	Std. Deviation
soft wares are used to calculate taxes customers are supposed to pay	-	7.3%	13.0%	29.3%	50.4%	4.23	.939
URA has a website which gives customers information regarding taxation policies	-	-	5.7%	35.0%	59.3%	4.54	.605
Most of URA Taxes are paid online	1.6%	8.1%	13.0%	26.0%	51.2%	4.17	1.046
Clients can easily access information about URA using the internet	-	13.0%	7.3%	30.9%	48.8%	4.15	1.033
ASYCUDA world has helped URA in providing timely services to customers	1.6%	-	20.3%	36.6%	41.5%	4.16	.862
All departments in URA use computers to communicate to one another	3.3%	-	4.1%	34.1%	58.5%	4.48	.728
All the employees in URA use email for communication	1.6%	-	10.6%	33.3%	54.5%	4.39	.806
clients can easily interact with URA using email	8.1%	9.8%	13.0%	30.1%	39.0%	3.82	1.274
All the employees know how to use computers	1.6%	2.4%	7.3%	31.7%	56.9%	4.40	.856

Source: Primary Data 2018

The findings in the study indicates that majority 50.4% of the respondents stated that "software's are used to calculate taxes customers are supposed to pay" while only 7.3% of the respondents disagreed this is also supported by a High mean value of 4.23. Therefore, these findings show that the taxes the tax payers are supposed to pay to URA is calculated using computers.

This finding is similar to a response from one of the managers during the interviews who stated that; "In URA all the work is done electronically in the taxation department this was adopted because when we use soft wares to calculate taxes, we reduce time this has improved on our services to the customers".

The results in the study indicates that majority 59.3% of the respondents stated that "URA has a website which gives customers information regarding taxation policies" while 35.0% of the respondents agreed, none of the respondents disagreed, this result is also supported by a mean value of 4.54, showing most of the respondents held the same view. Therefore, according to the findings URA has a website which gives customers information regarding taxation policies. This finding was further highlighted by one of the respondents who stated that; "The web-based software like ASYCUDA world helps to give customers and agents both with in Uganda and outside the country information regarding URA's taxes".

The findings in the study indicates that majority 51.2% of the respondents strongly agreed that "Most of URA Taxes are paid online". This finding therefore indicates that most of the URA taxes are paid online 26.0% of the respondents agreed and only 8.1% disagreed and the remaining 1.6% strongly disagreed this is also supported by a mean value of 4.17 indicating that most of the respondents.

This result was also in line with the findings of one of the respondents who stated that; "Customers do not need to come to URA because everything is available online and we receive

collection on a daily basis therefore we have to be online daily and a customer cannot pay without visiting URA web portal".

The findings in the study indicates that majority 48.8% of the respondents assert that clients can easily access information about URA using the internet 30.9% of the respondents agreed and only 13.0% of the respondents disagreed. This finding is also supported by the mean value of 4.15. Therefore, according to the results it is evident that clients can easily access URA information in the internet. This result is also in line with the findings of one of the respondents who stated that; "Customers can visit the web portal and search the service catalogue, Service catalogue can show you what you need to do, frequently asked questions, how to make payments and we put it in pictorial form this place has all the information regarding the services URA offers online".

This was also further highlighted by one of the managers who stated that; "URA has 5 internet service providers taking care of the internet like MTN, AIRTELL, UTL"

Findings from the study shows that majority 41.5% of the respondents held the view that ASYCUDA world has helped URA in providing timely services to customers, 36.6% of the respondents agreed and only 1.6% of the respondents disagreed. This finding is supported by the mean value of 4.16.

This finding was also supported by one of the respondents during the interview who stated that; "With the help of ASYCUDA world software the customers is able to use URA services at any time and from anywhere this has significantly helped customers to save costs and time and improve on their convenience, for example customers can pay taxes using their android phones".

The results in the study further show that 58.5% of the respondent state that all departments in URA use computers to communicate to one another. This finding also indicates that URA uses computers to communicate this is also supported by the mean value of 4.48. This finding was

also supported by the results from documentary review which showed that URA has corporate strategy which ensures that the ratio for employee to computer is one to one.

This was also supported by one of the managers during the interview who stated that; "All of us communicate through email and every employee has an email address".

The results in the study further show that majority 54.5% of the respondents strongly agreed, 33.3% agreed and only 1.6% strongly disagreed that all the employees in URA use email for communication. This finding therefore indicates that, the employees of URA use email as a form of communication. These results further show that majority of the respondents hold the same view.

The results in the study indicates that 39.0% of the respondents strongly agreed, 37(30.1%) of the respondents agreed that clients can easily interact with URA using email. This results further shows that URA uses email systems to interact with clients this is also supported by a mean value of 3.82 indicating that majority of the respondents agreed while only 10 (8.1%) strongly disagreed and 9.8% of the respondents disagreed.

This is also further supported by one of the managers during the interviews who stated that; "By use of specific software like Help tools customers can easily send in their complaints and its worked on, we also have toll free lines were customers can call though at the moment the organization is findings the toll free line very busy and we are working on expanding the capacity and more to that we also use service desk (email for customers)".

The findings in the study further shows that 56.9% of the respondents strongly agreed that all the employees know how to use computers 31.7% of the respondents agreed while 1.6% of the respondents strongly disagreed and only 2.4% of the respondents disagreed. These results further show that only 2.4% of the respondents disagreed this is also supported by a mean value of 4.40 indicating that majority of the respondents agreed.

The results from the interview guide also supported by this finding as one of the managers stated that; "for any employee to work with URA computer competency is one of the main requirements, therefore we don't recruit staff who do not know how to use computers".

More to that another manager stated that; "Employees are given refresher courses on new programs and URA has a corporate strategy of one to one computer employee ratio."

This was supported by one of the managers who stated that; "All employees are conversant with using computers even our drivers and security staff use computers for appraisal".

These results therefore show that all the employees in URA know how to use computers.

4.4.2.1 Correlation analysis of the effect of systems infrastructure on the performance

A correlation analysis was run to establish the effect of systems infrastructure on performance of URA as presented on Table 4.14 basing on employees' response in the questionnaire.

Table 4.15: Correlation analysis of systems infrastructure on the performance

		performance of the URA	information systems infrastructure
Performance of the organization	Pearson Correlation	1	.352[**]
	Sig. (2-tailed)		.000
	N	144	144
Information systems infrastructure	Pearson Correlation	.352[**]	1
	Sig. (2-tailed)	.000	
	N	144	144

Source: Primary Data 2018

Findings from the table above indicates that the P-Value 0.000 indicates that there is a significant relationship between information systems infrastructure and performance of URA. The results further indicate that there is a positive correlation between information systems infrastructure and organizational performance this is indicated by the fact that the Pearson correlation coefficient 0.352^{**}.

4.4.2.2 Findings on Employees' response on the ANOVA of systems infrastructure on the performance

The Table 4.16 below indicates that ANOVA findings on the effect of systems infrastructure on performance of URA basing on the response from the employees.

Table 4.16: Findings on the ANOVA of systems infrastructure on the performance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	138.983	1	138.983	20.064	.000^b
	Residual	983.655	142	6.927		
	Total	1122.639	143			
a. Dependent Variable: PERFORMANCE OF THE ORGANIZATION						
b. Predictors: (Constant), INFORMATION SYSTEMS INFRASTRUCTURE						

Source : Primary data 2018

According to the ANOVA the P-value =0.000 which is less than 0.05 indicating that there is a strong relationship between information systems infrastructure and performance of the organization

4.4.2.3 Tax payers' response on the systems infrastructure on the performance

The table 4.17 below indicates the tax prayers' response on the effect of systems infrastructure on performance of URA.

Table 4.17: Descriptive statistics of tax payers' response on systems infrastructure on the performance

	SD	D	NS	A	SA	Mean	Std. Deviation
URA has a website which gives customers information regarding taxation policies	21.9%	68.8%	-	9.4%	-	3.88	.609
URA uses software to calculate taxes to be paid by client	28.1%	56.3%	-	15.6%	-	4.00	.440
Clients can easily access information about URA using the internet	-	71.9%	15.6%	12.5%	-	2.41	.712
Clients can easily interact with URA staff using Email	-	93.8%	-	6.2%	-	2.06	.246
I can easily down load URA payments	6.3%	37.5%	-	43.8%	12.8%	3.63	.793

Source: Primary Data 2018

The results in the further shows that on the response of "URA has a website which gives customers information regarding taxation policies", majority 68.8% disagreed, and the remaining 21.9% strongly disagreed , none of the respondents agreed or strongly agreed this findings in the study is also in line with the mean value of 3.88 indicating that majority of the

respondents disagreed with the fact that URA has a website which gives customers information regarding taxation policies.

The findings in the study further show that in response to "URA uses software to calculate taxes to be paid by client" the results indicate that; majority 56.3% disagreed, 15.6% agreed and the remaining 28.1% strongly disagreed. These results further show that the tax payers are not aware if URA uses computers to calculate taxes to be paid. This is also in line with the response from one of the managers who stated that; "The corporate clients are satisfied; middle class is also appreciating the online systems of URA while the down town clients "kikubo" because of getting information from the third party are biased towards URA online services".

This was also further in line with one of the managers who stated that; "When a client has the capacity to read and write he can be able to use our online services".

This result further indicates that though URA has online services majority of its clients especially the illiterates are not aware of the online services that URA has.

The findings in the study indicates that majority of the respondents disagreed with the fact that Clients can easily access information about URA using the internet this is indicated by the mean value of 2.41 which further shows that majority of the respondents strongly disagreed.

The mean value of 2.65 shows that majority of the respondents disagreed that Clients can easily interact with URA staff using Email. This finding therefore indicates that most of the clients cannot easily interact with the URA staff on email.

The findings in the study further demonstrates that majority of the respondents disagreed with the fact that they can easily down load URA payments. This results further shows that majority of the respondents hold the view that down loading URA payments online is difficult this was also supported by a mean value of 2.63.

4.4.2.4 Analysis of tax payers' response on information systems infrastructure and the performance

The Table 4.18 shows the analysis of tax payers' response on influence of information systems infrastructure on organization.

Table 4.18: Analysis of tax payers' response on information systems infrastructure and the performance

Correlations			
		Systems Infrastructure	Performance
Systems Infrastructure	Pearson Correlation	1	-.180
	Sig. (2-tailed)		.324
	N	32	32
Performance	Pearson Correlation	-.180	1
	Sig. (2-tailed)	.324	
	N	32	32

Source: Primary Data 2018

The results from the table above indicates that according to the tax payer's response Pearson correlation = -.180 which indicates that there is a negative and weak correlation between information systems infrastructure and URA performance.

According to the Employees' response the study tested the alternative hypothesis which stated that there is positive effect of system infrastructure on performance of government agencies in Uganda. This is indicated by the Pearson correlation coefficient of 0.352[**] showing that there

is a significant positive correlation while the P-Value =0.000 shows that according to Employees' response, there is a significant relationship between information systems infrastructure and employee performance.

The results from the table above indicates that according to the tax payer's response Pearson correlation = -.180 indicates that there is a negative and weak correlation between information systems infrastructure and organizational performance, this results therefore indicates that the Tax payers do not know the effect of information systems infrastructure on employee performance.

On the side of Tax payer's response P-Value 0.000 indicates that there is a significant relationship between information systems infrastructure and performance of URA. The results further indicate that there is a positive correlation between information systems infrastructure and organizational performance this is indicated by the fact that the Pearson correlation coefficient

The researcher tested the hypothesis using ANOVA statistical technique which established the difference between the samples mean. The study had the level of significance at α=0.00, as shown in table.

This finding therefore indicates that there is a positive effect of systems infrastructure on performance of government agencies as a result of employee's response.

4.4.3 User knowledge and skills and the performance

The table 4.19 below indicates Employees response on the influence of user knowledge and skills on performance of URA

Table 4.19: Descriptive statistics on user knowledge and skills and the performance

	Frequency and percentage response					Mean	Std. Deviation
	SD(1)	D (2)	N (3)	A (4)	SA (5)		
Before a new program is introduced employees are trained on how to use it		3.3%	13.0%	36.6%	47.2%	4.28	.813
All employees in taxation department can interpret website information	1.6%	4.1%	26.8%	41.5%	26.0%	3.86	.908
Employees are conversant with the systems	6.5%	9.8%	19.5%	26.0%	38.2%	3.80	1.234
customers can easily use computers	24.4%	22.8%	24.4%	11.4%	17.1%	3.13	1.267
Most URA customers are conversant with the internet	22.8%	29.3%	11.4%	18.7%	17.9%	3.02	1.258
URA meets all its customers online	24.4%	33.3%	-	21.1%	21.1%	3.09	1.261
Customers lack information on the services rendered by URA because it's on the website	4.9%	26.0%	25.2%	21.1%	22.8%	2.95	1.158
Website is difficult to interpret by customers	9.8%	10.6%	23.6%	24.4%	31.7%	3.31	1.222

Source: Primary Data 2018

According to the table 4.19 above, majority of the respondents 47.2% strongly agreed that "Before a new program is introduced employees are trained on how to use it", 36.6% of the respondents agreed while only 3.3% of the respondents disagreed this results therefore shows that before a new program is introduced employees are trained.

This finding is supported by one of the managers during the interview who asserted that; "URA gives employees continuous training on new computer programs to enable them adjust to the changing computer systems.

This finding therefore shows that URA employees are given continuous computer training to enhance their performance.

The results in the study shows that majority 41.5% agreed stated that "all employees in taxation department can interpret website information", 26.0% of the respondents strongly agreed indicating that "all the employees of URA know how to interpret the website information". This result is also further supported by the mean value of 3.86.

In the interview one of the managers agrees with this statement as he states that; "All the employees understand the information on the website because there is quarterly training on website information given to employees on top of that knowledge of computer is given much priority when recruiting new staff".

These results therefore show that all the employees in URA can interpret website information.

The study shows that majority 38.2% of the respondents strongly agreed that "Employees are conversant with the systems", 26.0% of the respondents agreed while 12 (9.8%) of the respondents disagreed and 6.5% of the respondents strongly agreed. This finding therefore indicates that employees are conversant with the systems at URA.

According to the table above the mean value 3.13 shows that most of the respondents were not sure if the customers can easily use computers, this is further supported by 22.8% of the

respondent disagreed and 24.4% of the respondents strongly disagreed. The finding further show that some customers do not know how to use computers and therefore they may not be able to access URA services online.

This result is further high lightened by one of the managers during the interview that; "To those who cannot read and write but creative can access URA online services while those who cannot read and write and not creative cannot access for example a baby of one year can operate his parent's smart phone with games".

In line with the statement "Most URA customers are conversant with the internet"29.3% of the respondents disagreed, 22.8% of the respondents strongly disagreed these findings therefore indicate that most URA customers are not conversant with the internet this is also represented by a low mean value of 3.02 which shows that majority of the respondents disagreed with the findings.

This is in line with one of the manager's response during the interview that; "Most of the down town customers are not conversant with our online services sometimes also its because of the gadgets the customers use like the modem, wireless free internet and smart phones which may be because of poor service providers affecting customers".

The findings in the study indicates that majority 33.3% of the respondents disagreed that URA meets all its customers online, 24.4% strongly disagreed while 21.1% of the respondents agreed. This result therefore shows that URA doesn't meet all its customers online.

This finding is also in line with the response from the interviews which was spoken by one of the managers who stated that; "It's hard for URA to meet all its customers online because there are many customers and the system cannot serve all customers at once for example at peak time like from 9:00 am to 2:00pm and during festive seasons like charismas we have over 15000 customers online".

This result was further supported by the results from the documentary review which indicated that URA meets more than 10,000 tax payers daily across the East African region.

The results in the study further shows that the mean value 2.95 indicates that most of the respondents disagreed to the statement" customers lack information regarding URA because it's on the website" as presented by 26.0% of the respondents disagreeing, 4.9% strongly disagreed, while 21.1% agreed and 22.8% strongly agreed this finding therefore shows that sometimes some of the customers are illiterate and sometimes some of the customers lack information because of the network challenge.

This was further highlighted by one of the managers who stated that; "network is a big challenge and doesn't affect URA customers only but also employees". This result indicates that customers lack information because of lack of knowledge on the website therefore URA should train more customers how to access its website.

In response to the statement "Website is difficult to interpret by customers" majority 31.7% of the respondents strongly agreed, 24.4% agreed and only 10.6% disagreed, 9.8% strongly disagreed. This result further indicates that customers lack knowledge on how to use the URA website. This finding is also in line with response during the interview with one of the managers; "ASYCUDA World web-based software needs training because it is complicated but when your trained your trained it becomes easier to access".

While another manager stated that; "Illiterate customers find it hard to use the URA website". In relation to this response during the interview one of the managers stated that; "URA assumes that all customers are computer literate and the ever-changing systems of URA affects customers' ability to interpret the website".

4.4.3.1 Correlation analysis on the user knowledge and skills and the performance

The table 4.20 below presents employee's response on the relationship between user knowledge and skill on the performance of URA.

Table 4.20: Correlation coefficient on the Employees' response on user knowledge and skills on the performance

		Performance of the Organization	User Knowledge and Skills
performance of the organization	Pearson Correlation	1	.182[*]
	Sig. (2-tailed)		.029
	N	123	123
user knowledge and skills	Pearson Correlation	.182[*]	1
	Sig. (2-tailed)	.029	
	N	123	123
*. Correlation is significant at the 0.05 level (2-tailed).			

Source: Primary Data 2018

Findings from the study indicates that P=0.029 which is less than 0.05 which shows that there is a significant relationship between performance of the organization and user knowledge and skills. The results further show that correlation coefficient 0.182[*] shows that there is a positive and significant correlation between performance of the organization and user knowledge and skills.

4.4.3.3 Findings on Employees' response as presented in ANOVA on user knowledge and skills and the performance

The Table 4.22 below presents the ANOVA on influence of user knowledge and skills on performance of URA in line with Employees' response

Table 4.21: Analysis of variable of user knowledge and skills and the performance

		ANOVA[a]				
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	37.083	1	37.083	4.851	.029[b]
	Residual	1085.555	142	7.645		
	Total	1122.639	143			
a. Dependent Variable: Performance of the organization						
b. Predictors: (Constant), User knowledge and skills						

Source: Primary Data 2018

The results from the ANOVA table 4.22 above shows that P-Value =0.029 indicating that there is a significant relationship between user knowledge and skills and performance of the URA.

4.4.3.4 Hypothesis testing

The study tested the null hypothesis which stated that User knowledge and skills does not affect performance of government agencies in Uganda.

The findings from ANOVA table P-Value=0.029 indicates that there is a significant relationship between user knowledge and skills and performance of government agencies of Uganda. This results therefore rejects the null hypothesis which states that user knowledge and skills does not affect performance of URA therefore accepts alternative hypothesis that user knowledge and skills affects performance of URA. This finding therefore shows that user knowledge and skills influence performance of URA according to employees' response.

4.4.3.4 Taxpayers' response on user knowledge and skills and the performance

The table 4.23 below presents tax payers response on influence of user knowledge and skills on performance of URA.

Table 4.22: Descriptive statistics on tax payers' response on user knowledge and skills and the performance

	SD	D	N	A	SA	Mean	Std. Deviation
Before a new program is introduced URA informs the taxpayers of the changes	-	87.5%	12.5%	-	-	2.13	.336
URA online transactions are not complicated		87.5%		12.5%		2.25	.672
Clients do not need guidance on the URA services	3.1%	53.1%	12.5%	31.3%		2.72	.958
Customers can easily use computers	81.3%		15.1%	3.1%		3.78	.491
Most URA customers are conversant with the internet			9.4%	68.8%	21.9%	4.13	.554
URA meets all its customers' needs online	62.5%		25.0%		12.5%	3.88	.609

Source: Primary Data 2018

In response to the statement "Before a new program is introduced URA informs the taxpayers of the changes" majority 87.5% of the respondents disagreed the remaining 12.5% of the respondents were not sure. This result indicates that URA does not inform the tax payers when a new program is introduced.

The findings in the study further shows that majority 87.5% of the respondents disagreed with the statement that "URA online transactions are not complicated" only 12.5% agreed these results further indicates that tax payers view URA online services as complicated.

The findings in the study further shows that in response to the statement "Clients do not need guidance on the URA services" majority 53.1% of the respondents disagreed, 12.5% were neutral, and 81.3% agreed this result further shows that most of the respondents hold the view that clients need guidance while on the URA online services.

The findings in the study further shows that in response to the statement "Customers can easily use computers" majority 81.3% strongly disagreed and only 3.1% disagreed. These results therefore show that customers cannot easily use computer services.

In response to the statement "Most URA customers are conversant with the internet", majority 68.8% of the respondents agreed, 21.9% strongly agreed and 9.4% of the respondents were neutral. These results further show that URA customers understand how to use the internet.

The findings in the study further indicates that majority 62.5% of the taxpayers disagreed and 25.0% were not sure with the statement "URA meets all its customers' needs online" these results therefore shows that URA has still not been able to meet all its customers' needs online.

4.4.3.5 Correlation analysis of tax payers' response of user knowledge and skills and the performance

		KNOWLEDGE AND SKILLS	FINANCIAL PERFORMANCE
KNOWLEDGE AND SKILLS	Pearson Correlation	1	.281
	Sig. (2-tailed)		.119
	N	32	32
PERFORMANCE	Pearson Correlation	.281	1
	Sig. (2-tailed)	.119	
	N	32	32

Source: Primary Data 2018

The study results indicate that according to the tax payers' response there is a weak positive correlation between user knowledge and skills on organizational performance this is indicated by the Pearson correlation coefficient of .281. The findings also further indicate that the relationship between User knowledge and skills is statically insignificant because the P-Value =0.119.

These results therefore further indicate that according to the Tax payer's response though user knowledge and skills are important on the performance of the organization there are other factors that determine organizational performance.

4.4.3.6 Analysis of tax payers' response on the model summary of User knowledge and skills and the performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.281ᵃ	.079	.048	.874
a. Predictors: (Constant), KNOWLEDGE AND SKILLS				

Source: Primary data 2018

The results in the study further indicates that according to the tax payer's response the adjusted R-square value is 0.048 indicating that 4.8% of the factors that affect performance of the organization is user knowledge and skills this results further indicates that though user knowledge and skills are essential in the performance of the organization other factors affect the performance of the organization.

4.4.3.7 Analysis of variables of tax payers' response on user knowledge and skills and the performance.

		Sum of Squares	Df	Mean Square	F	Sig.
			ANOVA[a]			
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.962	1	1.962	2.569	.119[b]
	Residual	22.913	30	.764		
	Total	24.875	31			
a. Dependent Variable: Performance						
b. Predictors: (Constant), Knowledge and skills						

Source: Primary Data 2018

The results in the study further shows that the P-Value 0.119 shows that the relationship between user knowledge and skills on performance is insignificant these findings further shows that there are many other factors that affects the performance of the organization and not only user knowledge and skills.

4.4.4 Findings on dependent variables

This section introduces the employees' response on the dependent variable performance of URA.

4.4.4.1 Performance of URA

The table 4.24 below presents employee's response on performance of URA.

Table 4.23: Descriptive statistics on the Performance of URA

	Frequency and percentage response					Mean	Std. Deviation
	SD(1)	D (2)	N (3)	A (4)	SA (5)		
URA meets its target annually	30.1%	26.0%	14.6%	16.3%	13.0%	3.24	1.451
Since the adoption of the use of computers URA has been receiving more revenues	-	8.1%	16.3%	22.0%	53.7%	4.21	.994
The use of internet has improved on the performance of URA	2.4%	6.5%	14.6%	26.0%	50.4%	4.15	1.056
Customers are satisfied with URA online services	47.2%	21.1%	25.2%	2.4%	4.1%	3.80	.902

Source: Primary Data2018

The results in the study indicates that majority 30.1% of the respondents strongly disagreed that URA meets its target annually 26.0% of the respondents disagreed and only 13.0% of the respondents strongly agreed. This result is also supported by a mean value of 3.24 which

indicates that most of the respondents disagreed this finding therefore shows that URA doesn't meet its target annually.

This finding is also in line with one of the responses from the interviews were the manager stated that; "URA sometimes does not meet its target annually because the target is most cases set so high by the government". While another manager stated that; "We do not hit the target but we improve each financial year". On the same note the other manager stated that; "We do not hit our target every year but sometimes we hit our monthly target for example this year our Executive director has sent us messages thanking us for hitting 73 billion above our Octobers' target. "Sometimes we do not hit the target because it is high but consistently our collections are quite good". "Though we do not hit our target yearly our key stake holders are happy because of the increase in revenue collection this can be observed by the renewal of our commissioner general's contract".

These results further show that URA does not meet its target annually.

The results in the study further show that majority 53.7% of the respondents 'strongly agreed that since the adoption of the use of computers URA has been receiving more revenues. This result is also supported by a mean value of 4.21 indicating that majority of the respondents agreed. This was also in line with one of the manager's response who stated that; "the adoption of computers has increased staff productivity and increased revenue collection". This result was also in line with another manager who stated that; Use of computers has increased revenue, ease of business, increased compliance of staff".

The findings in the study indicates that majority 50.4% of the respondents strongly agreed that the use of internet has improved on the performance of URA, 26.0% of the respondents agreed while 6.5% of the respondents disagreed and 2.4% of the respondents strongly disagreed this is also supported by the mean value 4.15 showing that majority of the respondents agreed.

This was also in line with one of the managers who stated that; "Internet use has eased work, eliminated human interference, eliminated corruption, turnaround time has been eliminated and 24/7 availability of system".

While another manager stated that; "The use on internet has provided timely records with penalties for delays". Another manager supported that; "Internet has made 99% of URA services both internally and externally to be online". "The use of internet has also made collection more efficient because clients do not have to travel to access services".

This was further stated by another manager that; "With internet analysing information is easier".

The results in the study indicates that majority 47.2% of the respondents strongly disagreed that customers are satisfied with URA online services while 21.1% of the respondents disagreed. This finding shows that 4.1% of the respondents strongly agreed and 2.4% of the respondents agreed these results further shows that customers are not satisfied with URA services this is further supported by the mean value 3.80.

This was also in line with one of the managers' responses who stated that; "Corporate companies are satisfied, middle class satisfied, down town clients unsatisfied and biased".

On contrary, one of the managers' reported that; "The impression for customers is good because we use time frame to respond to them". The manager further stated that; "They are satisfied because they do not need visiting URA offices since the internet is quick and fast".

While another manager asserted that; "Relatively customers are satisfied but they request for improvement".

4.4.4.2 Customer satisfaction

Results from table 4.26 below shows the employees' response on customer satisfaction.

Table 4.24: Descriptive statistics on Customer satisfaction on URA

	SD	D	NS	A	SA	Mean	Std. Deviation
Customers are satisfied with URA online services	2.4%	4.1%	25.2%	47.2%	21.1%	3.80	.902
Customers can easily access URA online services	2.4%	9.8%	4.1%	51.2%	32.5%	4.02	.992
URA online services are reliable		3.3%	22.8%	51.2%	22.8%	3.93	.765
URA online services are affordable		13.8%	14.6%	41.5%	30.1%	3.88	.997

Source: Primary data 2018

In response to the statement "customers are satisfied with URA on line services" The results in table 4.26 above indicates that majority 47.2% of the respondents agreed, 21.2% strongly agreed, 4.1% disagreed and remaining 2.4%. These results further indicate that majority of the respondents hold the view that customers are satisfied with URA online services.

The findings in table 4.26 above indicates that in line with the statement "Customers can easily access URA online services" 51.3% of the respondents agreed, 32.2% strongly agreed, and 9.8% disagreed while only 2.4% strongly disagreed. These results therefore show that according to the employees of URA customers can easily access URA online services.

In line with the statement "URA online services are reliable", "51.2% agreed, 22.8% strongly agreed and the remaining 3.3% disagreed. These results therefore indicate that URA online services are reliable; these results were also in line with the mean value of 3.93.

The findings in the study further indicates that in line with the statement online services are affordable"41.5% agreed, 30.1% strongly agreed, 13.8% disagreed. This results therefore shows that URA online services are affordable.

4.4.4.3 Growth of URA

Table 4.26 below shows findings on employees' response on growth.

Table 4.25: Descriptive statistics on employees' response on Growth of URA

	Percentage Response (%)					Mean	Std. Deviation
	SD (1)	D (2)	N (3)	A (4)	SA (5)		
There is an increase in the number of people paying taxes to URA	2.4%	7.3%	9.8%	28.5%	52.0%	4.20	1.048
URA can easily track tax defaulters	9.8%	9.8%	21.1%	23.6%	35.8%	3.66	1.317
All taxes are collected timely	4.9%	29.3%	21.1%	40.7%	4.1%	3.10	1.028
URA taxes with minimal costs	2.4%	14.6%	22.8%	44.7%	15.4%	3.56	1.001

Source: Primary Data 2018

According to the findings in the study majority 52.0% of the respondents' strongly agreed that there is an increase in the number of people paying taxes to URA, 28.5% of the respondents agreed while only 2.4% of the respondents strongly disagreed, this is also supported by a mean value of 4.20.

This was further stated by one of the managers during the interview that; "Since we started using automated systems the level of collection has increased".

These results indicate that the use of computers has improved on the level of collection at URA.

The results in the study further indicates that majority 35.8% of the respondents strongly agreed URA can easily track tax defaulters, 23.6% of the respondents agreed and 9.8% of the respondents strongly disagreed. "Though tax defaulters still exist the automated systems gives monthly reports therefore we can track them and give them penalties".

These results further indicate that with the use of information systems URA can easily track tax defaulters.

The findings in the study indicates that majority 27.6% of the respondents disagreed, 26.0% agreed, while 29.3% disagreed and 4.9% of the respondents strongly disagreed, this results further indicates that taxes are collected timely. "Since taxation has been automated, we collect taxes online and automatically through mobile phones and Banks this enables us to get taxes on time from tax payers". While another manager stated that; "we collect taxes on a daily basis for example OTT".

According to the findings in the study majority 44.7% of the respondents indicated that URA collects taxes with minimal costs while 15.4% of the respondents agreed however 14.6% of the respondents disagreed and only 2.4% of the respondents strongly disagreed.

This was further stated by one of the managers who stated; "The cost of tax collection has reduced significantly than previously were most of the work was done manually".

Another manager noted that; "with the use of computer systems turnaround time has improved and there is cost savings for both URA and clients".

CHAPTER FIVE

SUMMARY, DISCUSSION OF FINDINGS, CONCLUSIONS AND RECOMMENDATION

5.1 Introduction

This chapter comprises of summary of the study findings, discussion of findings, conclusions and recommendations.

5.2 Summary of the findings

The section presents the summary of findings according to the study objective.

5.2.1 Information systems software and the performance of government agencies.

According to the results in the study the findings indicates that the independent variables user knowledge and skills, information systems software and information systems infrastructure affect performance by 10.7%. These results further show that though these independent variables affect performance there are also other factors. This factors further shows that URA needs to put emphasis on upgrading its information systems.

According to the results P-Value =.000 which is less than 0.05 shows that there is a positive and significant relationship between information systems software and performance at URA. This finding therefore shows that the existence of information systems software has an influence on the performance of URA as an organization.

According to the results from the interview the managers stated that URA uses software's like help tools and ASYCUDA world to connect to customers so as to ensure timely and efficient response to customer needs. In addition to above the use of systems software's enable URA to serve large numbers of customers in a short time. This finding therefore shows that the existence of Information systems software has an influence on the performance of URA.

5.2.2 Systems infrastructure and the performance of government agencies.

The results further indicate that there was a positive relationship between Information systems infrastructure and organizational performance. This indicates that there are many other factors that affect the performance of URA other than Information systems infrastructure only. On the same note, the ANOVA the P-value =0.000 which is less than 0.05 indicates that there is a strong relationship between Information systems infrastructure and performance of the organization.

There results from the study further indicate that URA gives all its employees computers and laptops to ensure that they are able to carry on their work. This is to enable the organization enhance productivity. Findings further shows that URA faces a challenge of poor internet service which does not provide reliable internet service this affects the productivity of employees at URA.

5.2.3 User knowledge and skills and the performance of government agencies.

The results also revealed that there was a positive and significant relationship between user knowledge and skills and performance of URA. This implies that performance is affected by user knowledge and skills hence poor fit. This finding therefore indicates that there are many other factors that affect performance other than user knowledge and skills.

According to the findings of the study, most of the clients of URA are not able to use the websites to access the necessary information of URA because of its complicated nature and lack of information given to clients on how to access URA services online.

5.3 Discussion of Findings

This section presents the discussion of the study findings as per objectives in relation to the findings in chapter four**.**

5.3.1 Information systems software and the performance of government agencies.

The results in the study indicate that software of the URA is usable. This finding therefore shows that majority of the respondents hold the view that URA has a good software that can be used to manage taxation activities. These results are in line with Kwok Hung Lau & Haibo Huang (2012) who asserts that Information systems have improved on the performance of the organizations in many aspects. The author further asserts that when an organization uses software systems to manage its operations, its able to save time, cost and improves productivity of employees. On the same note Lee & Kim, (2016) further assert that software covers different areas of technologies like mobile and wireless technology, telecommunications, software development, and security and Intelligent systems. Information systems software is fast becoming one of the main drivers of change enabling business to provide good customer care. The results indicate that some of the software used by URA like ASYCUDA world is web based and requires knowledge. According to the findings, employees are trained and given refresher courses on the software so as to improve on their performance. This view is in line with Laudon & Laudon, (2016) who indicates that technology can be thought of as the application of scientific knowledge for practical purposes. However, for an organization to benefit from technology, it must have well trained staff to enable it achieve the benefits of technology.

According to the findings, tax payers cannot easily use URA web services. This shows that tax payers lack knowledge on how to use the URA web-based services. This view contradicts Laudon & Laudon, (2016) who states that it is necessary to train people on how to use technology so as to achieve better performance.

The results in the study indicate that the systems of the organization have all that is needed. This finding therefore showed that the management of URA has invested in the management of the systems of the organization. This is also in line with Pearlson, Saunders, & Galletta,

(2016) emphasizes that the need for Information systems development cannot be understood unless one also understands the use of software in the organization and unless the software can be applied to the organization to enhance its better performance and enable the organization achieve its goals and objectives.

The results from tax payers further indicate that they find it difficult to access URA information because of the complexity of the system. This shows that tax payers lack knowledge on how to use URA systems. This results further contradicts with Pearlson, Saunders, & Galletta, (2016) who emphasizes that the need for Information systems development cannot be understood unless one has enough training and knowledge on the software systems.

The findings in the study further shows that majority of the respondents assert that software is fast. This is also in line with Pinedo, (2016) who indicates that Information systems software works hand in hand with the hardware to enable the organization be in position to achieve its goals and objectives, the author further asserts that Computers, keyboards, disk drives, iPads, and flash drives are all examples of information systems hardware which enables the organization to achieve fast and accuracy in the management of its data and achievement of its goals.

Contrary to the above, the tax payers disagreed that the software and web services of URA are fast indicating that tax payers find challenges in accessing the URA web services because of lack of proper gadgets like modem, Mifis, and poor smart phones which affects the tax payers' ability to access information.

Majority of the respondents' assert that all employees can use the website. This shows that since URA trains its employees to use website like the ASYCUDA world this enables the organization to have employees who can manage the information systems of the organization. In line with the findings website of URA has all the information needed. This result also indicates that the website of URA has most of the information needed by the tax payers and

therefore the employees of URA find it easy to deliver services to Tax payers. These results are also in line with Huang et al., (2013) who states that governments around the world are under pressure from citizens and business to be more open and transparent in managing public funds, deliver quality public services as per needs of citizens therefore, in the last quarter of 2017, the world-wide expenditure on software development was 480 billion dollars. This is also in line with Hughes et al., (2017) who indicates that expenditure on information systems software helps to enhance transparency in the organizational data.

5.3.2 Information Systems infrastructure and the performance of government agencies

The results in the study further indicate that software is used to calculate taxes customers are supposed to pay in URA. The results further revealed that the use of computers eliminates corruption in the tax collection because of the transparency and reduction of physical contact between URA employees and the tax payers. This finding shows that the taxes the tax payers are supposed to pay to URA is calculated using computers. This is in line with wachira (2015) who states that the use of computer systems in the organization improves performance in a number of ways. Firstly, the computers improve the level of coordination between different departments in a public sector; this has enabled the government across the globe to improve on public service delivery effectiveness and general better organizational performance of the government agencies.

The study indicates that most of URA Taxes are paid online. This is also in line with Paul & Pascale (2013) who indicates that the government of Ghana was able to realize an increase in revenue collection due to the use of advanced software and internet services. Using this system, the public could pay for its taxes online.

The results in the study indicate that clients can easily access information about URA using the internet. This is in line with Ronald & Nazarius (2011) who indicates that Uganda Revenue Authority has been experiencing a failure to meet its targets which has been a challenge to the

organizational top management despite the adoption of ASYCUDA world software while Ghmire, (2014) indicates that taxation software enhances efficiency in revenue collection and reduces costs.

According to the results in the study, ASYCUDA world has helped URA in providing timely services to customers. This result is in line with Wachira (2015) who contends that Information systems infrastructure also improves on speed and reliability of organizational transfer and processing of information among members in the organization. This helps the different departments in the organization to send and receive information in a short time which leads to improved performance and better competitive strength of the organization.

The results in the study further shows that URA uses computers to enhance communication among employees in the department. This is also in line with Ukachi, (2015) who indicates that computers are used to communicate to one another in order to enable the organization to reduce costs and enhance efficiency that enables the organization to meet its target. In addition to that Lavers &Hickey (2016) further states that the use of internet services is an effective Information systems infrastructure in Nigeria that has been adopted by the government to eliminate unnecessary government costs incurred as a result of paper work and enhance performance of public sector agencies in the country.

According to the results in the study all the employees in URA use email for communication this is also in line with Rotich, (2015) also believes that the adoption of computers in the organization is to provide better and an effective communication between different departments in the organization and also between the organization and the outside world. The government's effort to use computers in the monitoring of public agencies is to ensure that business between the government and the citizens is effective and fast.

The results in the study indicates that clients can easily interact with URA using email. this view is also in line with wilson et al., (2015) who states that the use of websites is to enable

long-term relationship between the organization and the customers, he further asserts that websites is where customers keep checking on the major changes in the organizational products. The public sector websites provide information to the customers about the products the organization has. However, the tax payers contradicted this finding and asserted that interaction with the URA employees on E-mail is challenging because they delay to give feedback due to slow internet and sometimes the internet is off in addition to the above the toll free line sometimes is too busy.

5.3.3 User knowledge and skills and the performance of government agencies

The study indicates that employees know how to use computers because they are trained on how to use software like "ASYCUDA world" and "Help tools" and in case of new programs, they are given refresher courses and more to that, computer knowledge is one of the requirements of employee recruitment in URA. This is in line with Ajuwon, (2015) who indicates that knowledge has become one of the most highly valued commodities in the modern economy. Further, knowledge is considered the principal tool of competitiveness and innovation in the composition of commodity chain to the broader processes of regional and national economic development. On the same note, Tarhini et al., (2015) further indicates that the new paradigm is that, within the organization, knowledge must be shared in order for it to grow thus sharing knowledge among its management and staff grows stronger and becomes more competitive. On contrary to tax payers' views, before a new program is introduced at URA, they are not informed. This indicates that URA does not inform the general public about the new changes in the online systems which makes it difficult for the tax payers to easily use the systems adopted by URA.

The results in the study further shows that majority of the respondents' assert that Before a new program is introduced employees are trained on how to use it. This is in line with Lwoga et al., (2016) who notes that access to and production of knowledge are essential prerequisite for

participation in the global economy. This is witnessed by the fact that information and communication technologies have significantly increased the speed of production, use and distribution of knowledge, thus making a country's economic and social wellbeing dependant on how quickly it can adjust its capacity to share and generate knowledge.

Majority of the respondents stated that all employees in taxation department can interpret website information. This finding is in line with Komba et al., (2016) who stated that transformations brought to different firms as a result of information systems offer many potential opportunities for both developed and developing nations. The author further stated that organization must train their employees to be in position to understand the information system so that they can enhance their productivity.

According to the findings Employees are conversant with the systems. This is in line with Meeker, (2015) who asserts that the concept of Knowledge Management (KM) has attracted the attention of researchers over the last decade since it is considered an important tool to achieve innovation and sustainable competitive advantages. Bayero, (2015) notes that firms that adopt knowledge management practices perform better than competing firms that do not, on the same line of thought Ukachi, (2015) further asserts that knowledge management practices have been implemented in different industries both service and manufacturing to enhance better performance and increased output.

5.4 Conclusion of the study

The study was set out to examine the effect of information systems on performance of government agencies in Uganda, a case of Uganda Revenue Authority. Conclusions of the study were made based on the study findings from respondents, documents reviewed, interviews, and questionnaires. Conclusions are presented below according to objectives of the study.

5.4.1 Information systems software and the performance of government agencies.

Findings from the study indicate that the use of information systems software in URA is essential for interaction between Tax payers and URA employees. And the use of software like Help tool helps customers to raise them complaints to the employees of URA which helps to save time and enhance organizational productivity.

However, the results show that the software is complicated and only few clients are able to use it this therefore prevents URA from have a wide reach to all its clients and therefore affecting the performance of URA,

The findings further revealed that AASYCUDA world website is complicated for the tax payers to use and therefore they find difficulty in paying their taxes online this affects the performance of URA as an organization.

In addition to that most of the Tax payers are not aware of the existence of the URA software like help tools and ASYCUDA world this has affected the ability of URA to be in position to serve all its customers thus affecting the performance of URA.

 In conclusion therefore, there is a knowledge gap among the users who remain fully or partially unaware about technological advances undertaken by URA to improve their service.

5.4.2 Systems infrastructure and the performance of government agencies

According to the findings from the study the employees of URA are provided with the laptops and some with desktop to ensure that they can meet Tax payers need in time, however the Tax payers face challenge with accessing URA website because of poor information systems infrastructure like poor internet, slow smart phones, network challenges from service providers like MTN and airtel this prevents Tax payers from getting information from URA website.

In addition to the above the URA employees also complain of the slow internet and sometimes the internet is not available the whole day which affects their ability to serve tax payers on time this is one the main challenges to the productivity of URA.

Information gathered during the study indicates that internet challenges in URA are beyond the capacity of the organization to improve therefore it is left for the service providers who assume to have provided the best service to the organization.

In conclusion therefore, information systems infrastructure must be worked upon to improve the performance of URA employees and improving service delivery to their customers.

5.4.3 User knowledge and skills and the performance of government agencies

The findings show that the URA website is complicated for the Tax payers to use and therefore this has made it difficult to the tax payers to conveniently access URA services like TIN registration and filling company returns this affects revenue collection thereby preventing the organization from hitting its target. In addition to that the ASYCUDA world web-based software is complicated for the employees to use this has thus increased the Training cost for URA.

URA assumes that the public is computer literate; this affects the ability of the organization to reach   all tax payers especially the illiterate tax payers are left behind.

Findings from the interview indicates that accessing URA online services like Help tool software   and ASYCUDA world does not require any education level but it's based on Tax payer's creativity. In conclusion therefore, user knowledge and skills in IT will enhance performance of government agencies.

5.5 Recommendations

On the basis of the analysis of the study, the researcher made the following recommendations, as per each objectives of the study.

5.5.1 Information systems software and the performance of government agencies

The study recommends that URA should train some of the customers on how to use its websites. This should be done in special seminar and programs on radio and television in every district to provide information to the grass root levels to enable the tax payers have knowledge on how to use online services of URA. Thus, enabling URA increase its revenue collection there by achieving its target.

The study further recommends that URA should organize special seminars across the country to train tax payers on how to use information systems software like help tools and ASYCUDA world.

5.5.2 Systems infrastructure and the performance of government agencies

The study also recommends that URA should design straight forward websites that can be easily used by customers so that clients can be able to pay their taxes easily online for example TIN form registration is too long and complicated, filling returns have many procedures, navigation is not obvious, not easy for users its hidden. The website of URA should also be designed with a speaking cartoon form and pictorial images illustrating procedures on how to access the different services offered.

The study further recommends that URA should purchase better internet services from service providers who can provide reliable internet to help improve on the systems infrastructure of the organization.

5.5.3 To examine the influence of user knowledge and skills on performance of URA.

URA should improve on its toll-free line services (contact centre) because it is too busy especially during peak seasons like charismas, Easter and week days like from 9:00 am to 2:00 pm in order to interact with tax payers needs and increase revenue collection.

URA should extend its branches from district level to sub county level and with agents helping illiterate tax payers access their services. URA should design soft ware's which are easy to use so that even the illiterate tax payers can be in position to pay taxes.

5.6 Limitations

The study focused on information systems and performance of government agencies in Uganda, but a big proportion of respondents had less knowledge on variable of information systems specifically systems software and systems infrastructure. This could have compromised the quality of the study.

URA is unique and different from other government agencies in Uganda, therefore the study findings may not easily be generalized to other government agencies in the country, as they may not be similar to URA in terms of activities and structure.

Some respondents were not willing to participate in the study (answer questionnaires and be interviewed), but the researcher had to politely request and motivate them to participate in the study. Even those who participated some never returned the questionnaires, however the researcher had distributed more questionnaires to respondents than the sample size.

The case study that is URA which is too busy and therefore the researcher had a challenge with fixing appointment in meeting the managers for interviews and other employees for questionnaire, this was specifically expensive in terms of transport from UMI to URA.

Lastly the study did not address the moderator and intervening variables which could have had an influence on performance of URA.

5.7 Contributions

The study offers original information and adds to the body of knowledge in this area of information systems and performance of government agencies.

The study has made contributions in making recommendations for subsequent scholarly research effort aimed at information systems and the performance.

The study has tried to make various recommendations that are significant in policy formulation, information systems and theoretical implications to policy makers and implementers.

The study further established that system software, systems infrastructure and user knowledge and skill have a positive significant relationship with performance of an organization. This is likely to help URA and central government to improve on performance of URA and other government agencies in Uganda.

5.8 Areas of further research

The study recommends the following areas of further research;

The study focused on information systems on performance of a government agency in URA. The researcher recommends similar studies to be done focusing service delivery, transparency and organizational productivity.

Future studies on information systems in URA should focus on revenue utilization, information systems security and efficiency of URA in service provision because most of Tax payers agreed that URA services are still not effective.

Future studies similar to this one should try to look at moderating and intervening variables, and how they influence performance in URA, and where possible use different methodologies than the ones used in this study.

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APPENDICES

APPENDIX 1: QUESTIONNAIRE FOR RESPONDENTS

I am a student of Uganda Management Institute pursuing a Master's degree in public administration and management.

I am conducting a study on "**the effect of information systems on performance of government agencies"**, a case of Uganda Revenue Authority. This questionnaire has been designed purposely for data collection on E-government and performance. You have been carefully identified as a potential person who can provide useful and reliable data that will help policy makers and implementers to improve on "**information systems on performance of government agencies"**, a case of Uganda Revenue Authority. The information generated will be handled with utmost confidentiality and will be used for academic purposes.

Thank you in advance for your co-operation by giving your valuable time and effort to fill the questionnaire.

Yours faithfully,

Julie Kalirebwami

 (STUDENT)

Dear Respondent,

I am a student of Uganda Management Institute pursuing a Master's degree in public administration and management.

This questionnaire has been designed purposely for data collection on information systems and performance of government agencies. You have been carefully identified as a potential person who can provide useful and reliable data that will help policy makers and implementers to improve on Information systems on performance of Uganda Revenue Authority. The information generated will be handled with utmost confidentiality and will be used for academic purposes.

Julie Kalirebwami

Section A: Back ground information of the respondent

Please tick the most appropriate answer in the corresponding box

1. Gender**:** a) Male ☐   b) Female ☐

2. Age**:**   a) 20-30 years ☐   b) 31-40 years ☐   c) 41+ years and above ☐

3. What is your highest level of education?

   a) Primary Level ☐   b) "O" level ☐   c) Certificate ☐   d) Diploma Level ☐

   e) Degree Level ☐   f) Master's Degree ☐   g) Post Graduate Diploma ☐

4.   How long have you worked for the URA?

   a) Less than 1-year ☐   b) 1-2 years ☐   c) 3-5 years ☐   d) 6+ years ☐

5.   What is your designation in URA?

   a) Accounting ☐   b) Manager ☐

   c) Division Head ☐   d) staff member ☐

Section B: Systems software

Please, use the scale below to answer the questions that follow by ticking the number that corresponds to your opinion.

5	4	3	2	1
Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)	Strongly disagree (SD)

I. Systems software

		5	4	3	2	1
6.	All software of the organizations is usable					
7.	All employees can use the software					
8.	The systems of the organization have all that is needed					
9.	Software are fast					
10.	All employees can use the website					
11.	The website has all the information needed					
12.	The software is user friendly					
13.	Customers can easily use the website					
14.	Website are complicated to use					

II. Systems infrastructure

15.	Computers are used to manage the data of the organization					
16.	Soft wares are used to calculate taxes customers are supposed to pay					
17.	URA has a website which gives customers information regarding taxation policies					
18.	Most of URA taxes are paid online					
19.	URA uses software to calculate taxes to be paid by client					
20.	Clients can easily access information about URA using the internet					
21.	ASYCUDA world software has helped URA in providing timely services to customers					
22.	All Departments in URA use computers to communicate to one another					
23.	All the employees in URA use email for communication					
24.	Clients can easily interact with URA staff using Email					

III. User knowledge and skills

		5	4	3	2	1
25.	All the employees know how to use computers					
26.	Before a new program is introduced employees are trained on how to use it					
27.	All employees in the taxation department can interpret website information					
28.	Employees are conversant with the system					
29.	Customers can easily use computers					
30.	Most URA customers are conversant with the internet					
31.	URA meets all its customers online					

32.	Information on the website can easily be interpreted by the customers					
33.	Customers lack information on the services rendered by URA because it is on the website					
34.	Website information is difficult to interpret by customers					
35.	All URA services is on the website					

IV. Performance of government agencies

	Financial performance					
36.	URA meets its targets annually					
37.	Since the adoption of the use of computers URA has been receiving more revenues					
38.	The use of internet has improved on the performance of URA					
	Customer satisfaction					
39.	Customers are satisfied with URA services					
40.	Customers can easily access URA services					
41.	URA online services are reliable					
42.	URA online services are affordable					
	Growth					
43.	There is an increase in the number of people paying taxes to URA					
44.	URA can easily track tax defaulters					
45.	It is hard to evade taxes					
46.	All taxes are collected timely					
54.	URA collects taxes with minimal costs	5	4	3	2	1

APPENDICES

APPENDIX 11: QUESTIONNAIRE FOR TAX PAYERS

I am a student of Uganda Management Institute pursuing a Master's degree in public administration and management.

I am conducting a study on "**the effect of information systems on performance of government agencies**", a case of Uganda Revenue Authority. This questionnaire has been designed purposely for data collection on E-government and performance. You have been carefully identified as a potential person who can provide useful and reliable data that will help policy makers and implementers to improve on "**information systems on performance of government agencies**", a case of Uganda Revenue Authority. The information generated will be handled with utmost confidentiality and will be used for academic purposes.

Thank you in advance for your co-operation by giving your valuable time and effort to fill the questionnaire.

Yours faithfully,

Julie Kalirebwami

 (STUDENT)

Dear Respondent,

I am a student of Uganda Management Institute pursuing a Master's degree in public administration and management.

This questionnaire has been designed purposely for data collection on information systems and performance of government agencies. You have been carefully identified as a potential person who can provide useful and reliable data that will help policy makers and implementers to improve on Information systems on performance of Uganda Revenue Authority. The information generated will be handled with utmost confidentiality and will be used for academic purposes.

Julie Kalirebwami

Section A: Back ground information of the respondent

Please tick the most appropriate answer in the corresponding box

5.   Gender**:** a) Male ☐   b) Female ☐

6.   Age**:**   a) 20-30 years ☐   b) 31-40 years ☐   c) 41+ years and above ☐

7.   What is your highest level of education?

   b) Primary Level ☐   b) "O" level ☐   c) Certificate ☐   d) Diploma Level ☐

   e) Degree Level ☐   f) Master's Degree ☐   g) Post Graduate Diploma ☐

8.   How long have you used URA services?

   a) Less than 1-year ☐   b) 1-2 years ☐   c) 3-5 years ☐   d) 6+ years ☐

Section B: Systems software

Please, use the scale below to answer the questions that follow by ticking the number that corresponds to your opinion.

5	4	3	2	1
Strongly Agree (SA)	Agree (A)	Neutral (N)	Disagree (D)	Strongly disagree (SD)

I. Systems software

		5	4	3	2	1
6.	All software of the organizations is usable					
7.	URA web services are easily usable					
8.	It is easy to get the information one needs from URA website					
9.	Web services are fast					
10.	All employees can use the website					

II. Systems infrastructure

15.	I can easily pay my taxes online					
16.	I can keep track of URA services on my phone					
17.	URA has a website which gives customers information regarding taxation policies					
18.	Most of URA taxes are paid online					
19.	URA uses software to calculate taxes to be paid by client					
20.	Clients can easily access information about URA using the internet					
21.	ASYCUDA world software has helped URA in providing timely services to customers					
22.	All Departments in URA use computers to communicate to one another					
24.	Clients can easily interact with URA staff using Email					

III. User knowledge and skills

25.	I can easily down load URA payments	5	4	3	2	1
26.	Before a new program is introduced URA informs the taxpayers of the changes					
27.	URA online transactions are not complicated					
28.	Clients do not need guidance on the URA services					
29.	Customers can easily use computers					
30.	Most URA customers are conversant with the internet					
31.	URA meets all its customers' needs online					
32.	Information on the website can easily be interpreted by the customers					
33.	Customers lack information on the services rendered by URA because it is on the website					
34.	Website information is difficult to interpret by customers					
35.	All URA services is on the website					

IV. Performance of government agencies

	Financial performance					
36.	URA meets its targets annually					
37.	Since the adoption of the use of computers URA has been receiving more revenues					
38.	The use of internet has improved on the performance of URA					
	Customer satisfaction					
39.	Customers are satisfied with URA services					
40.	Customers can easily access URA services					
41.	Customers find it easier to use URA services					
42.	Customers can access URA services conveniently					
	Growth					
43.	There is an increase in the number of people paying taxes to URA					
44.	URA can easily track tax defaulters					
45.	It is hard to evade taxes					
46.	Using the internet i pay taxes with minimal costs					

APPENDIX III: Interview guide

The effect of e-government on performance of government agencies

1. **Systems software**

- How do clients find interaction with URA website?

- How is the frequency of clients' use of the website?

- How effective is the URA website in enabling the clients achieve their goals?

2. **Systems infrastructure**

- How often does URA ensure that the system is user friendly?

- How often does URA carry out maintenance on its Internet connectivity?

- How does URA ensure that all employees have computers and laptops?

- How stable is the internet connection of URA for both employees and customers to enable them access the services?

3. **User knowledge and skills**

- How easy is it for URA customers to use its online services?

- How conversant are URA employees with computer and internet operations?

- What education level is required for a customer to independently access URA online services?

4. **Financial performance**

- How satisfied are URA top management with the current financial performance?

- How do the key stake holders perceive the current financial performance of URA?

5. **Customer satisfaction**

- How do customers perceive URA online taxation services?

- What are the complaints that customers have with URA online taxation services?

- How does URA interact with its customers frequently?

6. Growth

- How has the use of internet and computer services enabled URA to achieve its targets?

- What impact has URA realised as a result of the use of computers and internet services?

APPENDIX IV: Document Review Checklist

a) System software

-Availability of funds for online services at URA.

-Amount of funds invested at URA for internet services

b) Systems infrastructure

- The level of internet connection at URA?

-computer usage at URA.

-Intra-net connection at URA.

c) User knowledge and skills.

- Computer literacy among employees of URA?

- User competence in use of computers?

- Educational level of employees?

d) Financial performance.

- Targets of revenue collections set by URA. - The level of deficit faced by URA.

e) Customer Satisfaction

-Complaints of URA online services by the clients.

-clients' perception of URA online services.

f) Growth

- Documents related to URA targets

-Revenue collections of URA

-Budget allocations of URA.

APPENDIX IV: Work Plan (Time Frame)

MONTH	FEB 2018	MARCH 2018	APRIL 2018	MAY 2018	JUNE 2018	JULY 2018	AUGST 2018	SEPT2018	OCT 2018	NOV 2018
Approval of research topic	■									
Proposal writing		■	■							
Submission of research proposal				■	■					
Data collection						■	■			
Data analysis										
Report writing								■	■	
Submission of research report										■

APPENDIX V: BUDGET ESTIMATES

Serial No.	Item	Quantity	Unit cost (Shs)	Total cost (Shs)
1	**Stationary:**			
1.1	Ream of papers	2	20000	40,000
1.2	Flash Disc	2GB	30000	30000
1.3	Pens	5	500	2500
1.4	Pencils	5	200	1000
1.5	Rubber	1	1000	1000
1.6	Ruler	1	1000	1000
1.7	Calculator	1	25000	25000
2	Secretarial services Typing			
2.1	Printing	8copies	1000	91,000
2.2	Photocopying	8copies	20000	80000
2.3	Binding	8copies	10,000	80,000
2.4		8copies	8000	32000
3	Statistician			500,000
3	Editor			300,000
4	Transport			30000
5	Lunch	3	2000	42000
6	Airtime			20000
Grand Total				1,275,500

KRECIE & MORGAN TABLE FOR SAMPLE SIZE DETERMINATION

Table 3.1									
Table for Determining Sample Size of a Known Population									
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

Note: N is Population Size; S is Sample Size   *Source: Krejcie & Morgan, 1970*

INTRODUCTORY LETTER

URA LETTER