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Information and Communication Technology Usage and student administration in Universities in Uganda: A case Study of Kyambogo University

By

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DECLARATION

I, Anyeko Christine Reg 12/MMSPAM/29/006, hereby declare that this dissertation titled "Information and Communication Technology Usage and student Administration in Universities in Uganda": A case study of Academic Registrars' Department Kyambogo University is my Original work and has never been presented to any other institution of Higher learning for any academic award.

Signature: ……...

Date: ……

APPROVAL

This dissertation entitled" Information Communication Technology Usage and student Administration in Universities in Uganda: A case study of Academic Registrar's department Kyambogo University" is the original work of Ms. Anyeko Christine and has been submitted with our approval as supervisors

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Mrs Pross Nagita Oluka

Signature Date……

Ms Jennifer Rose Aduwo

DEDICATION

This research is dedicated to my dear parents Mr and Mrs Tanga and Family

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LIST OF ACRONYMS AND ABBREVITAIONS

AR	Academic Registrar
BED	Bachelor of Education
EE	Effort Efficiency
ICT	Information and Communication Technology
KyU	Kyambogo University
MOEs	Ministry of Education and Sports
NTC	National Teacher's College
PE	Performance Efficiency
PEOU	Perceived Ease of Use
PTC	Primary Teachers College
SI	Social Influence
TAM	Technology Acceptance Model
UTAUT	Unified Theory of Acceptance
WWW	World Wide Web

ABSTRACT

This study established the relationship between Information and Communication Technology Usage and student administration in Academic Registrar's department of Kyambogo University. The study examined the dimensions of ICT usage as performance expectancy, effort efficiency, simplicity concept and social influence while student administration was conceptualized as admissions, examinations and certification processes.

This study involved a case study cross sectional survey research design. The sample involved a total 113 respondents comprising of members from academic registrar's Department and BED students who were selected through purposive techniques and simple random sampling techniques respectively. Qualitative data were collected using a set of self- structured questionnaires and structured interview guides while quantitative data were analyzed using SPSS specifically using descriptive and correlation coefficient statistics of the software.

The study established that performance expectancy, simplicity concept, social influence and effort efficiency of ICT usage were necessary in Student Administration process in Academic Registrar's department at Kyambogo University the study concluded that it was necessary for management of KyU to improve service delivery through use of ICT in students' administration in Academic Registrar's department at the University. The study recommends that both staff and students should be trained on how to use ICT since this was a relatively new innovation at Kyambogo University, there was need to buy more ICT equipment, recruit more permanent staff who would be trained on ICT usage, budget for ICT equipment and provide security for the ICT system and put in place firewalls as security measure.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This study aimed at establishing the relationship between Information and Communication Technology (ICT) usage and student administration: A case study of Academic Registrar's Department,Kyambogo University Uganda. Rapid change has been happening at an uneven pace in most growth-oriented sectors. The university education sector is no exception (Kasozi, 2008). Tremendous growth in the field of university education has made administration and management of universities in developing countries such as Uganda a very complex task. The 21st century has witnessed great advancements in ICT which has resulted to development in the Administrative and Management System of most Institutions.

ICT usage is viewed as a viable means through which individuals and organisations keep pace with the highly competitive global knowledge-based economy. To this end, countries the world over like Uganda have embraced the use of ICT in service delivery in sectors such as education (Aguti and Fraser, 2006). The demand brought by globalization and knowledge acquisition has resulted to a rush for ICT usage. In university operations, ICT usage can go a long way to improve efficiency and effectiveness in university service delivery. It is imperative to note that university education is crucial for socio-economic development of any nation.

However, many universities that are providing university education in Uganda are facing numerous challenges which has grossly impaired efficiency and effectiveness of Ugandan public universities. It is believed that the integration of ICT into university operations is one of the measures that can address some of the challenges impairing service delivery, in the Academic Registrar's (AR) department in Kyambogo University. This chapter presents: the background to the study; statement of the problem; purpose of the study, objectives of the study;

research questions; hypotheses; conceptual framework; significance of the study; justification of the study; and scope of the study.

1.1 Background to the Study

Historical Background of ICT

There are four major phases in the history of using computers in education. The phases are: Late 1970's – early 1980's: programming, drill and practice II; Late 1980's – early 1990's: computer based training (CBT) with multimedia; Early 1990's: Internet-based training (IBT); and Late 1990's – early 2000: e-Learning. For example, in the 1970's – early 1980's, Gibson and Molan, (1974) introduced six evolutionary stages of ICT that focused on infancy to maturation of the central management information system within the organisation. The foregoing authors acknowledged that for better performance and service delivery in organisations, there was need for the ICT system to go through the stages of incitation, continuity, control, data administration and maturity. In pursuit of these guidelines, this has resulted in the development of ICT systems that perform multipurpose work that has resulted into improved service delivery in many organisations, especially in the developed countries in Europe and America.

The last two decades has witnessed a revolution caused by the development of ICT. This has changed the dynamics of various labour sectors including education and this has influenced the way people interact and work in the society (UNESCO, 2002; Bhattacharya and Sharma, 2007; Chandra and Patkar, 2007). Consequently, many African countries have fully embraced the usage of ICT. For example in Uganda, there is the Ministry of Information and Communication Technology whose Mission statement is to provide and improve ICT usage. Uganda developed its initial ICT national policy in 2003. The policy framework document recognised that Uganda would need to embrace the goal of "lifelong education for all." Objective 2 of the policy

addresses literacy improvement and human resource capacity-building with strategies that include: integrating ICT into mainstream educational curricula as well as other literacy programmes to provide for equitable access for all students regardless of level, developing and managing ICT centres of excellence to provide basic and advanced ICT training; setting up mechanisms that promote collaboration between industry and training institutions to build appropriate human resources capacity; as well as promoting training institutions in Uganda to enhance skills improvement. The Uganda ICT national policy caters for universities in Uganda with the goal of creating linkages with the outside world thereby improving university education and service delivery.

1.1.2 Theoretical Background

The theory that guided this study was the Unified Theory of Acceptance use of Technology (UTAUT) as modified by (Venkateshetal , 2003) supplemented by Technology Acceptance Model (TAM) (Davis, 1989) and the Theory of Reasoned action as advanced by Fishbain, (1975). The theory illustrates to a user how an ICT system works and subsequent user behaviour. The theory indicates that ICT can only be effective basing on one's behaviour and attitude towards a system. Odera and Madon (1993) concurs that ICT plays a major role in reducing operational inefficiency and ineffectiveness and improves decision-making in many areas of institutional administration and management, especially in the areas of: student administration, staff administration and general administration.

The foregoing authors acknowledged that ICT provides several facilities and possibilities for university managers and administrators to carry out their tasks effectively and efficiently. They were in agreement that ICT systems have changed the nature of higher education, allowing information to be transferred, stored, retrieved, and processed by those who work, study or interact with a given institution (Zainally, 2008) Agreed that various research studies that were conducted to evaluate the extent of usage of ICT in the field of higher education revealed that

heads of departments/faculties utilised technology in planning, and to a large extent in the supervision and evaluation of academic affairs, student affairs, financial affairs and administrative affairs. He concluded that the usage of ICT contributed to the realisation of efficiency and effectiveness in management of institutions.

Kumar and Kumar, (2005) highlighted the importance of ICT as a modern day techno-management tool that would benefit institutions of higher education in both developed and developing countries such as Uganda. Leach (2005) concurs that most higher education institutions in developed countries are considered effective and efficient due to the development and usage of new Information and Communication Technologies. Universities in Uganda should follow in their footsteps in their quest to purse quality service delivery. Kyambogo University the central focus can thrive in this knowledge explosion and globalisation era. ICT enhances day-to-day management of institutions of higher education in various functional areas such as: timetabling, student admission and tracking, financial management, medical services, procurement and store management and data distribution and management (Aguti and Fraser, 2006).

1.1.3 Conceptual Background

In this study, ICT (independent variable) was operationalized as Performance expectancy, Effort Expectancy concept and Social Influence concept while the Dependent variable was operationalized as Admission process, examination process and certification process.

ICT is about how people communicate, inquire, make decisions and solve problems electronically. ICT involves use of specialised techniques for: gathering and identifying information; classifying and organizing; summarizing and synthesizing; analysing and evaluating; and speculating and predicting data. ICT consist of the hardware, software, networks, and media for collection, storage, processing, transmission and presentation of information (voice, data, text, images), as well as related services. ICT can be divided into two components,

Information and Communication Infrastructure (ICI) which is physical telecommunications systems and networks (cellular, broadcast, cable, satellite, postal) and the services that utilize those (Internet, voice, mail, radio, and television), put differently, Information Technology (IT) refers to the hardware and software of information collection, storage, processing, and presentation (Odera & Madon, 1993).

Student administration (independent variable) in this study, involves various activities in the academic registrar's department beginning from admission process, sitting for examinations to issuance of certificates and transcripts after successful completion of studies. The variables that were identified in student administration process included: admission process, examination process and certification process. The admission process involves inviting applications from prospective students, selecting qualifying students and registering admitted students. Examination process involves issuance of examination timetable, administration of examinations and dissemination of examination results while, certification process involves organising graduation ceremonies for successful students and issuing of academic transcripts and certificates.

From the conceptual perspective, the key variables were adopted from the Unified Theory of Acceptance Use of Technology theory of ICT. Performance expectancy as an element of UTAUT Model of ICT is defined as the degree to which an individual believes that using a particular system would improve the performance of an organisation further still, performance expectancy was measured by the time staff in the academic registrar's department and students at Kyambogo University spend while using ICT when executing university student administration activities.

This study was rooted in the Effort Expectancy concept. According to the UTAUT Model of ICT as advanced by Venkatesh et al (2003) this concept indicates the degree of simplicity associated with the use of a particular ICT system this concept concurs that ICT needs to be

easy to learn by the user and the organization. With this theory, there is no need of developing a complicated ICT system. Effort expectancy as a another model of ICT involves equipment ,facilities like computers and printers and access to electronic information so as to enable effective implementation of ICT at any institution with the view of improving service delivery.

In addition, the study was guided by Social Influence concept.(Venkatesh et al.,)This concept indicates the ability of an organization or a person to believe that others believe that they should use a specific ICT system. The concept showed that an ICT model being introduced in an organization should have a positive impact on the organization with the view of improving service delivery.

1.1.4 Contextual Background

Given the ever growing demand for university education in Uganda, there is need to use ICT in improving service delivery in the various university academic and administrative department/units/sections. However, the use of ICT in the operations of both Public and Private Universities is fairly low (Kasozi, 2008). Yet University education is the driving force of economic and social development in any country (Cholin, 2005; Mehta and Kalra, 2006). Considering this, it is necessary to find ways to make university education of good quality, accessible and affordable to all, using the latest technology available.

Kyambogo University the focus of this study is the second largest public university in Uganda (MOES Report, 2001) and was established by the Minister of Education and Sports under Statutory Instrument 22 of the Principal Act of 2001. The University was formed in 2001 after the merger of three Institutions i.e. Uganda Polytechnic Kyambogo (UPK), Uganda National Institute for Special Needs (UNISE) & Institute of Teacher Education Kyambogo (ITEK). The University has a number of affiliated colleges that include all the Primary Teachers Colleges (PTC's) and all National Teachers Colleges(NTC's). The University has seven Faculties

namely: Arts and Social Science; Special Needs and Rehabilitation; Vocational Studies; School of Management and Entrepreneurship; Engineering; Science; and Graduate School.

Since its inception, Kyambogo University student enrolment has more than tripled (2009 Graduation). This has caused numerous student administrative challenges and problems This requires a systematic, efficient and effective approach to deal with some of the student administrative tasks such as: admissions, registration, examinations, and issuance of transcripts and certificates among other things. In view of the foregoing, this study seeks to make a contribution towards the realisation of effective and efficient university education service delivery by establishing the relation between ICT and student administration in Ugandan public service universities-A case study of Kyambogo University.

1.1.5 Statement of the Problem

With the increasing number of students enrolling for university education in Uganda, provision of high quality student administrative services is on demand. The administration process of students at Kyambogo University covers various activities beginning with admission process, preparation for examinations and compilation of examination results. There is a general public outcry concerning the unnecessary delay of: student admission; release of examination results; and issuance of transcripts and certificates in Kyambogo University. This more often has led to students' dissatisfaction and at times culminating into student strikes for example, on the 16th February 2014, students who were to graduate on the 20th February 2014 went on strike because their names were either deleted or omitted from the graduation list. This was attributed to low usage of ICT and manual keeping of students' fees and examination records . Management of Kyambogo University has often received letters from the Ministry of Education Science ICT and sports directing them to ensure that students receive their transcripts in time. This and other complaints have been raised by students and are common in the press for example, a letter

dated 5/8/2010 from IGG's office to the Academic Registrar concerning the delay of issuing transcripts for Diploma in Primary Education students.(Management KyU)

The University was still using manual means to carry out most of the student administrative activities such as: admission, registration, release of examination results, and certification. This has caused a lot of dissatisfaction and frustration among students who expect high quality services at the University especially in the admissions, examination and certification processes. It was against this background that this study set out to find out the extent to which ICT usage is being applied by Academic Registrars' Department when dealing with student Administration process and to examine ways of integrating ICT in University operations to ensure effective and efficient student administration in Kyambogo University.

1.1.6 Purpose of the Study

The purpose of this study was to establish the relationship between ICT usage and student administration in public universities in Uganda: a case of Kyambogo University.

1.1.7 Objectives of the Study

The study sought to achieve the following objectives:

(i) To establish the relationship between Performance Expectancy concept in ICT usage and student admission process at Kyambogo University.

(ii) To investigate the relationship between Simplicity concept in ICT usage and student examination process at Kyambogo University.

(iii) To identify the relationship between ICT Social influence usage and student certification process at Kyambogo University.

1.1.8 Research Questions

This study sought to answer the following questions:

(i) What is the relationship between Performance Expectancy in ICT usage and student admission process at Kyambogo University?

(ii) What is the relationship between Simplity Concept in ICT usage and student examination process at Kyambogo University?

(iii) What is the relationship between Social Concept in ICT usage and student certification process at Kyambogo University?

1.1.9 Research Hypotheses

The study sought to test the following hypotheses:

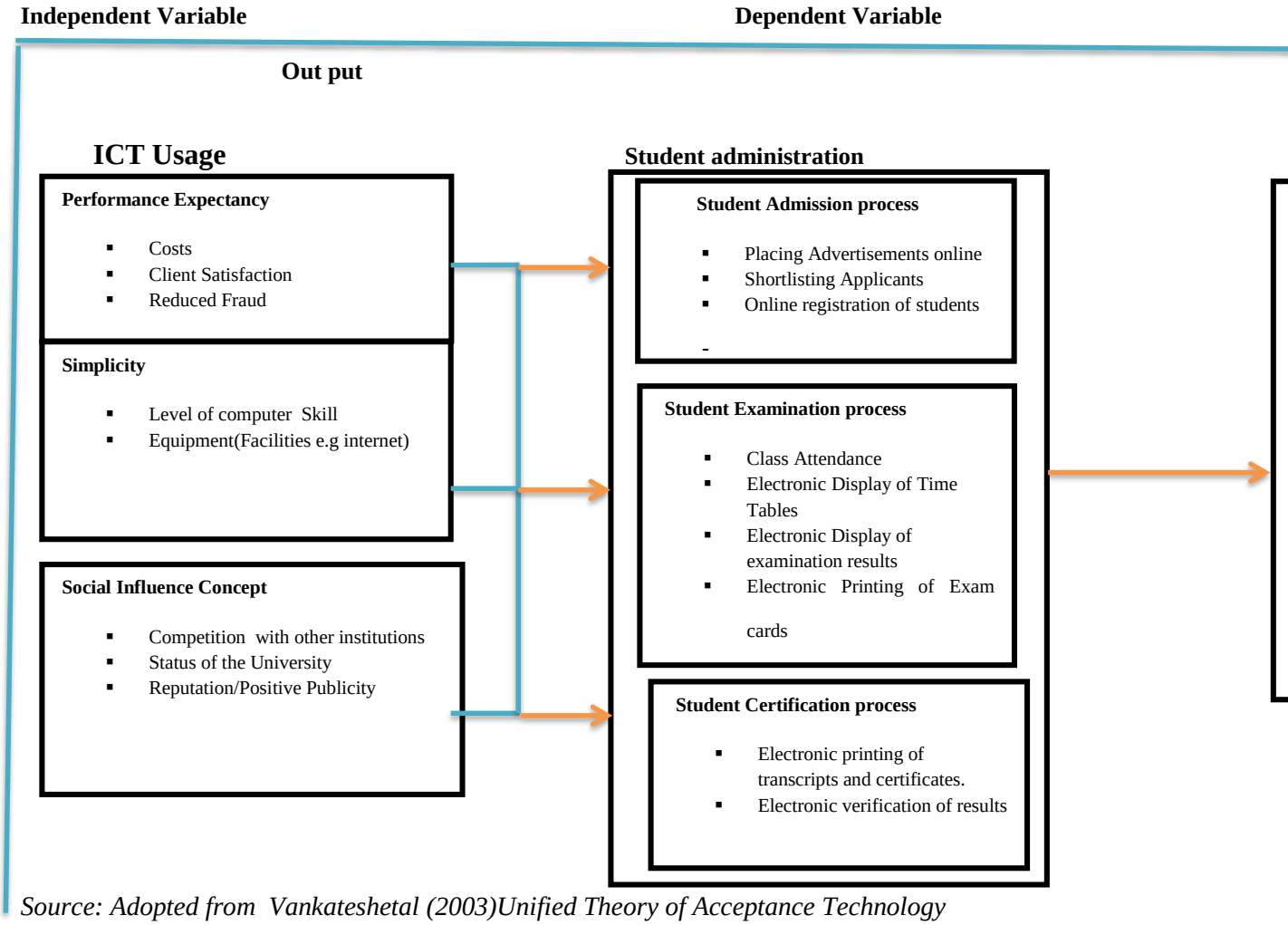
(i) There is no significant relationship between Performance Expectancy in ICT usage and student admission process.

(ii) There is no significant relationship between Simplity concept in ICT usage and student examination process.

(iii) There is no significant relationship between Social influence in ICT usage and student certification process.

1.10 Conceptual Framework

Figure 1: The Relationship between ICT usage and student administration



Source: Adopted from Vankateshetal (2003)Unified Theory of Acceptance Technology

The conceptual model in Figure 1 indicates that there is a direct relationship between ICT usage and student administration. The independent variable students Administration constitutes of activities such as admission, release of examination results and certification of Academic Transcripts and Certificates. It is from the conceptual model that using ICT in the student admission process can go a long way in addressing problems that accrue from using manual admission activities. The model also indicates that using ICT in the student examination process is crucial in addressing problems and challenges associated with using manual examination activities. Further still, the model indicates that using ICT in the student certification process was considered very useful in addressing problems that accrue from using manual certification activities. The model shows that effective use of ICT is critical in this knowledge explosion era if desired student administration is to be attained in any given university whether public or private in Uganda.

1.10.1 Significance of the Study

The study findings will contribute to the knowledge base in the area of ICT usage and student administration in Kyambogo university the findings would help in reduction of challenges associated with low ICT usage and manual handling and processing student admission, examination and certification. Furthermore, the study would propel efficient and effective student administration so that unnecessary delays and inconveniences in the admission, examination and certification processes are addressed. Put differently, given the numerous complaints concerning service delivery at Kyambogo University especially the Academic Registrars' Department, the study would enlighten management of Kyambogo University regarding how the use of ICT in student administrative activities can go a long in ensuring that the university realises its vision and mission. It is also hoped that this study would form a basis for other studies regarding how integration and use of ICT in university operations could improve service delivery in Kyambogo University.

1.10.2 Justification of the Study

As a result of the increasing demand of high quality university education in Uganda, this study sought to add to the knowledge and understanding of how ICT usage could improve student administration in Kyambogo University especially with regards to Performance effiency and effective service delivery. The study's findings are vital in offering solutions to the challenges associated with manual handling of student admission, examination and certification at Kyambogo University.

1.10.3 Scope of the Study

1.10.4 Geographical Scope

Geographically, the research was carried out at Kyambogo University located 7km on the Kampala – Jinja Highway, Nakawa Division (Kampala District).

1.10.5 Content Scope

The study concentrated on exploring the relationship between ICT usage and student administration at Kyambogo University. The study was limited to the ICT usage mainly in areas of online information access, information capture and processing, information storage, information retrieval and dissemination of data with regards to student administration, the study covered areas of admission, examination and certification processes.

1.10.6 Time Scope

The study was carried out between February 2013 to October 2015. This period of the year enabled the researcher to thoroughly interact with the staff and students of Kyambogo University. Thus, enabling the research collect data regarding the relationship between ICT usage and student administration at Kyambogo University.

1.11.0 Operational Definitions

Operational definitions is used to define a variable that is used to determine the existence of a study(Percy Bridgeman) Muganda & Mugenda 2003 defined operations definitions as a term used to explain key variables used in the study.

ICT Information and communication Technology is the hardware and software used for capturing, storing, presentation and analysis of data.

PE: Performance effiency refers to the degree to which an individual believes that using a particular ICT system would improve the performance of an organization**.**

Simplicity is the ease with which ICT can be made user friendly to the end user.

EE Effort Effiency is the simplity associated with use of an ICT system.

SI Social Influence concept is defined as the ability of an organization or person to believe that others believe that you should use a particular ICT system.

A Anxiety as an ICT concept is the degree of emotion associated with the use of an ICT system.

SD Service delivery is the about effiency, effectiveness and client satisfaction.

CHAPTER TWO

LITERATURE REVIEW

1.0 Introduction

This chapter presents the theoretical review, conceptual review, related literature to the study and the summary of literature review. The literature is presented in relation to the study objectives. The sources of literature review sources included journals, reports, and the internet and text books.

2.1 Theoretical Review

The study was guided by the Unified Theory of Acceptance that indicates that for successful implementation of ICT there are four areas that need to be considered namely performance expectancy of the ICT system, effort expectancy, social influence and self effiency of an ICT System.

Performance Expectancy (PE) as a UTAUT Model of ICT is the degree to which an individual believes that using a particular system would improve the performance of a person/organization and to know why they are using ICT .for this study, the Performance Expectancy was measured by the Time the client and staff spend while using Information Communication Technology and the impact the system would have in an organization the interpretation is that ICT should only be used in an organization for a specific purpose.

Effort Expectancy (EE) according to the UTAUT Model of ICT as advanced by Venkatesh.et al, is the degree of simplicity associated with the use of particular system. The model acknowledges that ICT needs to be easy to learn by the user and the organization according to the theory, there is no need of developing a complicated ICT system. In this study, effort effiency involves equipment, facilities like computers and printers and access to electronic information(Internet) so as to enable effective implementation of ICT at any institution with the view of improving service delivery.

Self effiency (Rogers 1995) is the ability for a person/organization to be able to acknowledge the need to improve services at the organization in this study; management should be innovative and develop an ICT unit for training for staff with the view of equipping them with necessary skills to improve service delivery. Alain Sandoz (1989) acknowledges that there is need for organizations to be split into departments so as to measure output therefore creating room for improvement in specific sections.

Social influence (SI) as an ICT model in this study is defined as the ability of an organization or a person to believe that others believe that they should use a specific information Technology system. This model of ICT assumes that an ICT model being introduced to an organization should have a positive impact on the organization with the view of improving service delivery.

Anxiety as an ICT concept is the degree of anxiousness or emotional reactions associated with the use of a particular system. In this study, anxiety will be measured by good customer satisfaction. Service Delivery is a broad concept it covers effiency, effectiveness and client satisfaction Heider (1958) is one of the Scholars who carried out research on Service delivery and its benefits to organizations. The dependent variable in this study is service delivery and was measured by the degree of client satisfaction for example an organization can be able to identify the major complaints by clients,cost effectiveness in this regard ICT will save a company from losses especially if an organization has items that need to be paid for ,timely delivery of services and reduced fraud. An organization that provides good services will always have good reputation and in the Business world a company that invests in the ICT will always expand consequently resulting into a big number of loyal customers.

It is believed that the use of ICT in university education increases access to learning opportunities. It would enhance the quality of university education with advanced teaching methods, improve learning environment and enable reform and better management of education systems. ICT has given rise to new modes of organising the educational environment in educational institutions and new concepts in the teaching process as well as the remodelling of the roles played by the participants in the educational process.

Through the use of ICT, students can apply online,registartion is carried out online, payment of tuition is done on line resulting to client satisfaction Cox Webb (2004) however, he cautioned

that there should be ICT facilities to enable successful implementation of ICT in an organization.

Administration is the heart of work at universities(Shaik and Khoja(2003) there is need for manangemt of universities to put in place good policies of ICT the foregoing author noted that ICT in the long run reduces fraud and reduces on the voluminous amount of work resulting to client satisfaction.

Kumar and Kumar (2005) states that the current information revolution and increasing impact of ICT has modernised the process, learning and research in most universities. To this end, Odera and Madon (1993) acknowledged there is need for governments/institutions to put in place a National Body that is concerned with implementation of ICT in various Public Institutions. The forgoing authors further sighted Singapore and Malaysia as once among the developing countries but since they aggressively embraced ICT,they have been able to train their Human Resource in ICT thereby improving service delivery.

Ugandan government and Kyambogo University should without a doubt follow suit if service delivery is to be improved.Skyrme (2004) pointed out that ICT supports knowledge processes and workers through providing ready access to organised information, improved communications and interaction with fellow knowledge workers (either individually or in groups), and group decision support systems that facilitate learning and decision making processes. Dougherty (1999) further argues that ICT should be seen as a tool to assist the process of service delivery in organisations. It is worth noting for example, that the use of the Internet and the World Wide Web has been expanding rapidly in higher education and a number of web-based technologies have been making significant impact on people's social, professional and academic lives because of their capabilities to support knowledge exchanges,

sharing and collaboration between various parts of an organization or distinct organizations (Holsapple and Whinston, 1996).

The emergence of ICT forces universities and colleges to respond to the transition of knowledge economy(Mohammed Othaman 2009) the fore going author acknowledges that ICT enables management save resources through use of ICT he further acknowledged that with the use of ICT,there are many new learning opportunities therefore resulting to new knoelege acquisition that will result to improved client satisfaction.

2.2 Conceptual Review

From the conceptual framework, the key independent variables of the study were conceptualised as performance effiency, simplity, social influence from UTAUT Model of ICT Venkatah(2003) while the dependent variable were conceptualised as Students Admission process that involves online application and online registration of students, ICT usage in Student Examination process covered online access and submission of assignments, examination timetables,venues,regulations and , ICT usage in Student Certification process covered online application of transcripts and certificates and verification of results.

Bemah (2002) stated that the exponential growth in information and knowledge and the corresponding increase in user needs have stipulated a greater degree of technological inventions and strategies towards the management, transmission/dissemination, organisation and the use of information. Higher education in Uganda has been expanding rapidly to meet increasing demand (Kasozi, 2008). In 1986, Uganda had only one public University with a small population of students but today there are approximately 28 public and private Universities with a population of around 84000 students.

There are currently some 127 non-university tertiary institutions with a total enrolment of about 45000 students (Kasozi, 2008). This development coupled with the advent of the ICT era and the potential of the Internet to enhance learning and the learning process are resulting into new emerging challenges in university education service that must be addressed. Tusubira et al. (2007).The introduction and use of computers, internet, intranet, and instructional software applications in higher education have brought many changes in the way academic services and learning activities are currently delivered Furthermore, the huge amount of information and knowledge that exists in form of digital contents and online resources; the changes in the teaching methods; the nature of curriculum; the size and composition of the student population; and the impact of ICT across every face of higher education are challenging the historic models of what higher education

2.3 Performance Expectancy in ICT usage and Student Admission Process

Introducing ICT as a tool to support the education sector has initiated substantial discussions since the late 1990s. A decade ago the emphasis was on Technical and Vocational Education and Training and training teachers. During the last few years an increasing number of international development agencies have embraced ICT to support the education sector. UNESCO report (2000) has played a major role in spearheading the Education for All initiative to harness the potential of ICT. The widely subscribed Dakar (2002) Framework for Action recognizes that, 'these technologies (ICTs) have great potential for knowledge dissemination, effective learning and the development of more efficient education services'.

Krishnaveni & Meenakumari(2010) showed that ICT has become a necessary tool for accomplishing tasks with ease which is in line with this study especially with regards to students administration. for example, through use of ICT,applicants would save money especially those who travel long distances to buy application forms they would apply online further still management would also save on costs on stationery.

ICT is a potentially powerful tool for extending educational opportunities, both formal and non-formal, to previously underserved constituencies- scattered and rural populations, groups traditionally excluded from education due to cultural or social reasons such as ethnic minorities, girls and women, persons with disabilities, and the elderly, as well as all others who for reasons of cost or because of time constraints are unable to enrol on campus. In support to the foregoing observation, Ehikhamenor (2002) asserts that ICT is changing the ways in which people in the education field seek information and communicate with each other. This points to the fact that ICT is very important for effective and efficient execution of all university activities for example, in areas like the library, the university would save on costs like buying books as a result of using ICT,the student community would be able to acesss reading material online resulting into not only knowledge acquisition but client satisfaction (Ben-Zion Barta ET.AL 1995). ICT reduced the barriers to entry to the university education.

Similarly, Kumar and Kumar (2005) acknowledges that ICT can significantly speed up the process of doing business therefore saving time on both the customer and the organisation. In regard to service delivery in universities particularly the Academic Registrars department at Rajeev Sing(2008) agrees that ICT has played a major role reducing ineffiency and has improved decision making in higher institutions of learning this further supports the study in that client satisfaction in student management at KyU can be acheivevd through ICT Usage.ICT enables processing of voluminous records(Thomas Kwaku Obeng 2014) Most universities have large numbers of students that requires easy and secure means of data storage with the use of ICT there is reduced fraud during the admission, examination and certification processes.

2.4 Social influence in ICT usage and Student Examination process

Ojedokun and Owolabi (2003) teachers at any educational level have to acquire ICT skills if they are to provide quality education. This is in line Leach (2005) line of thinking that there is

need to embrace the use of ICT in the execution of organisation activities so as to improve the quality of service delivery. since we live in competitive world, we need to mind about our reputation. In line with this study, ICT facilities should be made adequately available by university administration so that lecturers can utilise them while lecturing .This is necessary because ICT is regarded as an integral part of teaching and research in universities. If this is done, service delivery in institutions such as Kyambogo University would improve because the staff understand the impact the ICT system has on service delivery like easy access, processing, storage, and retrieval of information by use of internet and other computer programmes, Kyambogo University would be in position to provide services to clients like issuance of admission letters, registration cards, examination cards, academic transcripts and certificate effectively and efficiently.

ICT can be introduced to universities though use of email, creation of student class websites (Caroline Salereno 2009) ICT has played a major role in reducing ineffiency and improves decision making by management Rajeev Sing(2008)

Integrating ICT in teaching and learning is high on the educational reform agenda in higher education. Often ICT is seen as indispensable tool to fully participate in the knowledge society. ICTs need to be seen as "an essential aspect of teaching's cultural toolkit in the twenty-first century, affording new and transformative models of development that extend the nature and reach of teacher learning wherever it takes place" (Leach, 2005). For developing countries like Uganda, ICT links them with the Global world through the use of internet therefore enabling easy access to teaching materials and methodologies. The innovation lies not per se in the introduction and use of ICT, but in its role as a contributor towards a student-centred form of teaching and e- learning.

2.4 Simplicity in ICT usage and Student Certification process

ICT has two major functions i.e. processing large amounts of information this is epitomised by the high speed computer and the application of mathematical programming that involves statistical and mathematical methods that are used in decision making. These functions are greatly needed if student examination process is to be effective and efficient. ICT is about the new ways in which people can communicate, inquire, make decisions and solve problems. It is the processes, tools and techniques for: gathering and identifying information; classifying and organizing; summarizing and synthesizing; analysing and evaluating ; and speculating and predicting.

ICT use in the developing world has many challenges (Menzie.ad. Chinin 2004) the foregoing author noted that the third world had no capital for installing ICT, the level of ICT skill was still low this is inline with the study in that before management introduces ICT usage,there should be equipment like computers and internet to enable ease and timely delivery of services.

Enhancing and upgrading the quality of education and instruction is a vital concern, predominantly at the time of the spreading out and development of education. ICT can improve the quality of education in a number of ways: By augmenting student enthusiasm and commitment, by making possible the acquirement of fundamental skills and by improving teacher training. ICTs are also tools which enable and bring about transformation that when used properly, can encourage the shift of environment which is learner-centred.

Skyrme (2004), advances that it is important for organisations to embrace the use of ICT if they are remain relevant as well as meeting the demands of clients in this highly competitive global knowledge-based economy. There is therefore need for Kyambogo University to put in place modalities of enabling staff acquire ICT skills through training and using ICT in its operations without any delay if the institution is to thrive and not merely struggle to survive in this competitive global economy. Caroline Salerno(2009) agrees that for successful use of ICT in

student administration, there should facilities like internet so that students can create class e-mail for effective communication there by improving service delivery.

Davis (1989) cautioned that implementation of ICT usage should be backed up with security he foresaw that systems can easily be hacked into by Systems analysts resulting into the loss of data (Magni 2009) concurs that ICT usage addresses issues like timely sending of circulas to students on a lagre scale.

2.5 Summary of the Literature Review

From the reviewed literature, various scholars acknowledged that the use of ICT improves service delivery in organisations. Through the use of ICT, it is easy for clients to access, process, store as well as retrieve information on the goods and services an organisation provides. ICT in organisation operations greatly saves the client's time, eliminates unnecessary delays and queues which may be a source of customer/client frustration and dissatisfaction. In the 21st century, players in the field of Education, Business are brainstorming over adoption and use of ICT. Their suggestion will soon see new innovations and changes in the process of planning and mode of delivery of education. (UN Report 2001).

Integration and use of ICT in university education is inevitable for there is a very high demand for university education service. ICT in the form of Management Information Systems should be embraced by universities whether public or private. The literature reviewed, therefore made it possible for the researcher to explore the relationship between ICT usage and student administration in public universities in Uganda: a case of Kyambogo University from an informed point of view.

In conclusion, a review of literature began with identifying studies that were relevant to this particular study and addressed factors associated with ICT usage .The literature review further exposed key areas that need to be addressed before an ICT system is put in place. For example

there was need to have a secure ICT system, users needed to be trained, there should be equipment and facilities for smooth management of ICT.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the methodology that was used in the study this included: research design, study population, sampling techniques, data collection methods and instruments, sources of data, administration of instruments, data processing, presentation and analysis and measurement of variables.

3.1 Research Design

The study employed a case study design because this type of study is suitable for real life situations and it enables the researcher carry out an intensive analysis of a subject at hand. A case study enables the researcher carry a study in an area she /he is knowledgeable in. A cross

sectional survey research design that includes both quantitative and qualitative approaches was used in this study. Amin (2005) and Neuman (2006) in their line of thought concured that a case study examines in-depth many features of one or few cases over a period of time and data is usually more varied detailed and extensive. This design has been considered appropriate because it was more applicable in evaluating and assessing performance of a given phenomenon.

3.2 Study Population

The study population consisted of (23) staff in Kyambogo University working in the academic registrar's Department and (100 BED) students. These categories of participants were considered appropriate for the study because the staff in the academic registrar's department are the ones responsible for handling admission, examination and certification process at the University. While, Bachelor of Education students have gone through all the student administrative process of admission, examination and certification process during their study at diploma level therefore, they were in position to provide useful information regarding the relation between ICT usage and student administration, especially when it comes to admission, examination and certification exercises.

3.3 Sampling size and selection procedure

Table 1: Population, Sample and Sampling Techniques

CATEGORY	POPULATION	SAMPLE	SAMPLING STRATEGY
Academic Registrar	1	1	Purposive
Deputy Registrars	4	4	Purposive
Senior Assistant Registrars	5	5	Purposive
Assistant Registrars	5	5	Purposive

ICT Unit Staff	2	2	Purposive
Administrative Assistants	12	6	Simple Random
Students(BED)	200	100	Purposive
TOTAL	**229**	**123**	

Source: Kyambogo University Directorate of Human Resource 2013

The sample consisted of the staff in Academic Registrar's Department in the following category one (1) Academic Registrar ,four(4) Deputy Registrars, five(5) Senior Assistant Registrars,five(5)(Assistant Registrars) Twelve (12 Administrative Assistants (2) Two ICT staff and one hundred (100) BED Students of which 90 were randomly selected in this study. (Table I) Krejcie & Morgan sample size was used to determine the selected respondents.

3.4 Sampling Techniques

The study employed simple random sampling and purposive sampling techniques to select respondents. The two sampling techniques were considered appropriate for the study because the former is a fundamental sampling technique where a sample is selected in such a way that all the participants in the sampled population have the same probability of being selected. Thus, reducing bias while selecting respondents for the study. On the other hand, the latter is one of the common non-probability sampling techniques where the researcher is able to select a sample basing on personal knowledge and experience of the group to be sampled.This is based on the assumption that the respondents have the information one requires as advanced by Amin (2005).

3.5 Data Collection Methods

3.5.1 Source of Data

3.5.2 Primary Data Collection

Primary Data in this study was collected from the respondents through interviews and questionnaires. Questionnaires are suitable for educated respondents and they provide confidentiality of the respondents thereby enabling the respondents to provide information

without bias while the interview guide in this study was designed for the staff in the Academic Registrars' department because they have useful information regarding students administration.

3.5.3 Secondary Data Collection

Secondary data was obtained from various documents such as Journal articles, Book chapters, strategic plan of Kyambogo university and the ICT policy and operation documents regarding student administration. This information was used to gain deeper understanding of the variables under investigation.

Data Collection Instruments

3.6 Questionnaire

The study used questionnaire as the main tools for collecting data. Semi ended questionnaire was used because it allowed collection of data from many respondents within a short period of time. In this data collection technique, as Neuman (2003) advances, the researcher conceptualizes and operationalizes variables involved in the study and sets questions.

The type of questions in the questionnaires were both close and open ended so as to capture quantitative and qualitative data (See Appendix A). The selection of this instrument is underpinned by the nature of data to be collected, the time available as well as the objectives of the study. The respondents were required to give their perception, opinions, views and feelings regarding the relationship between ICT usage and student administration at Kyambogo University.

This instrument has been considered appropriate for the study because according to Neuman (2003) and Amin (2005) the instrument as a tool for data collection is less expensive to administer compared to other instruments. In addition, the questionnaire as a data collection tool was commonly used in research because it was found to be more appropriate in collecting information regarding surveys that deal with the perception of the variables, as the respondents are able to read and answer questions without being influenced by the researcher. And as such,

the respondents could respond whenever it was convenient without any influence from the researcher. Furthermore, the researcher was able to personally administer the questionnaire to a large number of participants for the study in a short period of time.

3.7 Interview Guide

Structured interviews were used to collect qualitative data from Key informants because they are involved in the technical and day to day running of Business in Academic Registrar's Department .

3.8 Documentary Review Guide

Under this method the literature reviewed enabled the researcher forcus on related studies and findings that were found relevant to the study for example Harrison(1997),concurred with Armstrong(2003) that polices in organizations should be developed to enable effective decision making.

3.9 Validity and Reliability of Data Collection Instruments

3.10 Validity – After discussing with my supervisor I took the questions to a data analyst who found out that out of the 13 items in the questionire,10 were relevant to the study This was measured by using the Content Validity Index (CVI).This is measured by the extent to which the content of instrument corresponds to the content of the Conceptual Framework and the content in the questionnaire. The researcher declared the instruments as being valid for it had an average index of 0.7 or above therefore the questionnaire had face value (Amin, 2005)

3.11 Reliability- In the study, the reliability of instruments was pretested by carrying out a pilot study and Cronbach alpha coefficient was computed and this showed the instrument was reliable in the data collected since all were above 0.5. De Vellis(1991) reliability is tested so as to get a confident vaule that is accepted in study.

3.12 Procedure of Data Collection

A letter of introduction was obtained from Uganda Management Institute that granted the researcher permission to collect data while permission to give Bachelor of Education students the questionnaires was obtained from the Academic Registrar. This enabled the researcher to observe all the required ethical considerations in the course of data collection

3.13 Data Analysis

3.13.1 Analysis of Quantitative Data

Quantitative data was analysed using the Statistical Package for Social Science Research (SPSS) Computer Programme. The researcher used the percentage distribution to analyse the characteristics of respondents. Descriptive statistics (means and standard deviations) to establish the degree to which the respondents agree or disagree with the assumptions presented regarding how ICT usage can improve student administration in Kyambogo University. The descriptive statistics was summarized by use of frequencies, percentages, means, and standard deviations (Amin, 2005). While Pearson Product-Moment Correlation Index was used to establish the relationship between ICT usage and student administration at Kyambogo University. To obtain the correlation results, the independent variable questions were transformed into computable variables in their respective categories and then each independent variable i.e. use of ICT in admission process, use of ICT in examination process and use of ICT in certification process was correlated and later was transformed and computed with the dependent variable questions (Effective student administration process) (Amin, 2005).

3.14 Analysis of Qualitative Data

The qualitative data obtained from the open ended questions of the questionnaire was edited, coded, and presented according to theme and study objectives. Thereafter, descriptively analysed to determine the extent of agreement or disagreement of the respondents regarding the relationship between ICT usage and student administration in public universities in Uganda, specifically at Kyambogo University.

3.15 Measurement of Variables

3.15.1 Likert Scale

ICT usage was measured using 5 point likert scale the scores ranged from 1 to 5 with 1 representing the weakest score (strongly disagree) and 5 representing the highest score (strongly agree). This made it possible to determine the extent of disagreement or agreement regarding the relationship between ICT usage and student administration in Kyambogo University.

3.16 Regression Analysis

As a mathematical method of measuring the relationship among variables, the Anova regression analysis method was used this enabled the researcher establish whether there are some other factors that contributes to ICT usage in this study factors like Low government funding, inadequate space contribute to poor service delivery .--

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

4.0 Introduction

In this chapter, the results are presented; analysed and interpreted .the chapter indicates the response rates, demographic characteristics of respondents and the findings of the study according to the objectives of the study. The data was analysed using SPPS Statistical package. The data collected is presented using distribution, pie charts, frequency tables and figures while interview data is presented verbatim.

4.1 Response Rate

Table 2: Indicating the response rate for questionnaire and in depth interviews

Category	**Target Sample Size**	**Actual Sample Size**	**% of Response Rate**

Academic Registrar	1	1	100
Deputy A/R	4	4	100
Senior A/R	5	5	100
Assistant Registrar	5	5	100
ICT Staff	2	2	100
Administrative Assistants	6	6	100
Students(BED)	90	90	100
Total	113	113	100%

Source: Primary Data

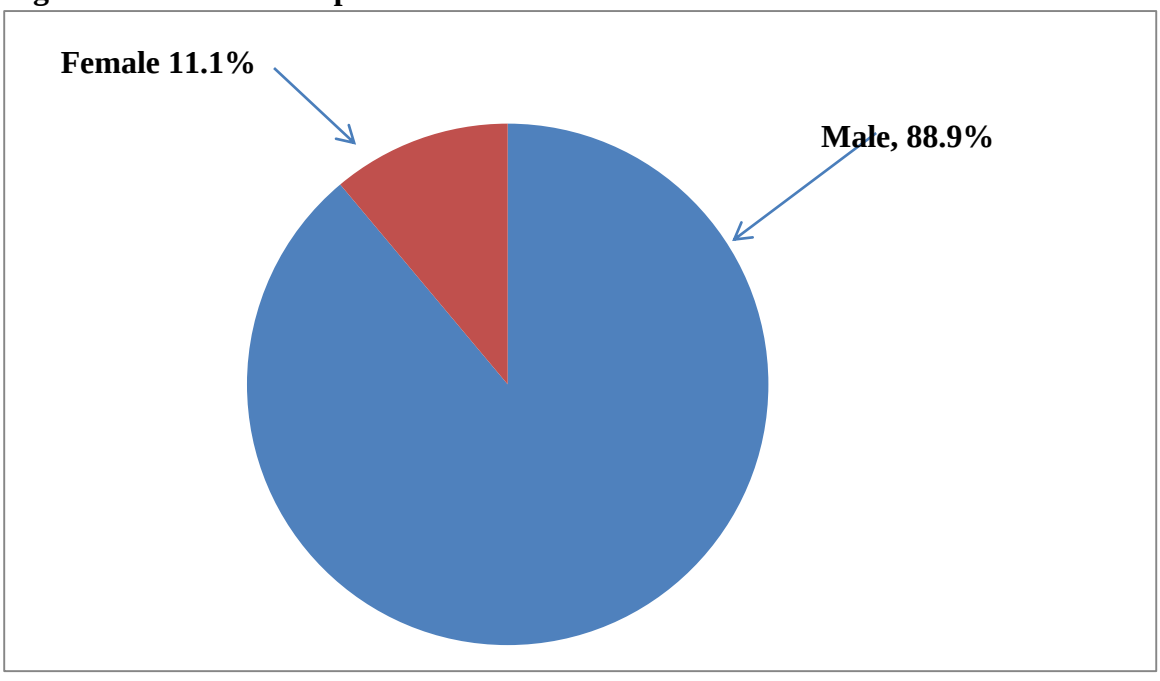
This study had a study population of 130 sample; a sample of 113 respondents were selected for the study of the sampled respondents 90 returned complete questionnaires giving a response rate of 90% and 23 returned interview guides giving a response rate of 100%

23 staff in the Academic registrars' department responded to the questions in the interview guide because this study was under their docket.

4.2 Demographic Characteristics of Respondents

The background characteristics of the respondents in the study consisted of Gender and Age

Figure 2: Gender of Respondents



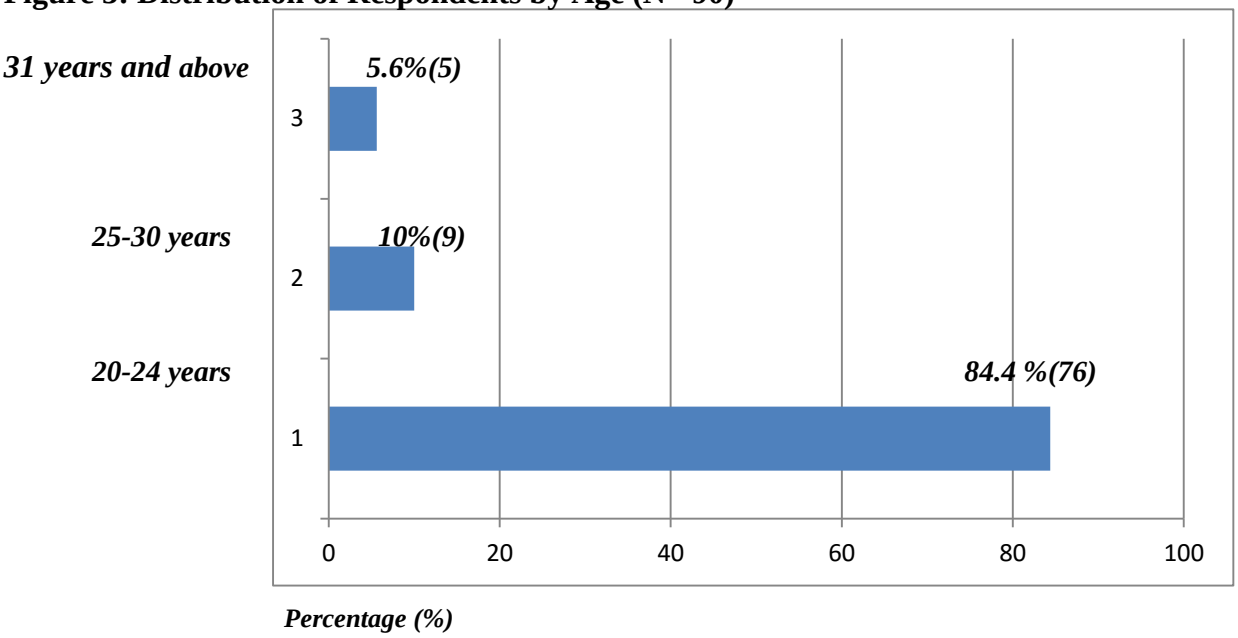
Source Primary Data

Table 2 reveals that 88.9% of the respondents who participated in the study were males while 11% of the respondents were female implying that despite female emancipation, the males are still dominating education sector.

4.3 Age of Respondents

This section looked at the age bracket of respondents which were categorised as below 20-24 years,25-30 years and 31 years and above .the results were analysed using descriptive statistics and presented as follows:

Figure 3: Distribution of Respondents by Age (N =90)



Source: Primary Data

Figure 3 indicates that 76 (84%) of the respondents were with in the age bracket of 20-24 years of age,10% of the respondents followed with 25-30 years of age while 5.6% of the respondents were 31 years and above implying that this is a young and productive generation who can easily embrace ICT usage since they are in the era of ICT.

4.4 Study Findings

In this study, ICT usage was considered the independent variable with four dimensions of ICT concepts of simplicity,performance performance,social concept and effort effiency while the

dependent variable consisted of Student Administration, Admission ,Certification and Examination process .

4.5 Table 3: Responses on Performance Expectancy in ICT usage in Student Admission process at Kyambogo University(N=90)

Item	Mean	**Std Deviation**	**Disagree**	**Not Sure**	**Agree**
KyU handles students' applications electronically	2.3	1.1	14(16%)	7(8%)	69(77%)
KyU issues students' admission letters electronically	2.7	1.1	41(46%)	16(18%)	33(37%)
KyU registers students electronically	3.5	1.0	12(13%)	10(11.1%)	65(72%)

Source :(Primary Data)

When the respondents were asked whether KyU handles students applications electrically, 77% (69) of the respondents agreed that KyU handles students application electronically 16%(14) of the respondents disagreed that applications were being handled electronically while 8%(7) (of the respondents were not sure with the statement implying that there were some students who were still struggling while applying on line.

Still with a mean of 3.7 and standard deviation of 1.1 this meant that majority of the respondents agreed with the statement since the mean was above 3.0

On whether KyU issues students admission letters electronically,37% (33) of the respondents agreed,46% (41) of the respondents disagreed,18% (16) while (20) 22% of the respondents were not sure whether KyU issues students 'admission letters electronically from this analysis,

this was an indication that students were still picking their admission letters from the faculties with a mean of 2.5 and standard deviation of 1.3 this means that majority of the respondents disagreed with the statement since the mean is below 3.0

When the respondents were asked whether KyU registers students electronically,72% (65)of the respondents agreed,13% (12) disagreed, while 7% (7) were not sure, from the responses, this implied that registration of students was still being handled manually the average response score was 3.8 with a SD of 1.1 this implies that on average, respondents agreed that ICT is used in KyU Admissions process.

An interview with staff from Academic Registrar's department on Performance effiency revealed that management acknowledges the benefits of ICT usage and how it can improve students administration they were aware that areas like transcripts and certificate needed to use ICT for purposes of client satisfaction and simplifying management of students records.

4.6 Table 4. Correlation of Performance Expectancy in ICT Usage and Admission Process

		ICT Usage	Admission process
Performance Expectancy	Pearson Correlation	1	.293
	Sig. (2-tailed)		.005
	N	90	90
Admission process	Pearson Correlation	.293	1
	Sig. (2-tailed)	.005	
	N	90	90

- Correlation is significant at the 0.05 level(2-tailed)

The correlation results in table 3.1 shows that there is a positive relationship between performance expectancy in ICT usage and Students Admission process the study portrays that correlation of .223 is significant at 0.05 level (2-tailed) (r=0.293 p = 0.05) the study rejected the hypothesis that there is no relationship between performance expectancy in ICT usage and Admission process.

4.7 Table 5 Regression Analysis of Performance in Students Administration

b

4.7 Table 5 ANOVA

Model	Sum of squares	df	Mean Square	F	Sig.
Regression	8.502	2	4.251	3.706	a .0.29
Residual	96.349	90	1.147		
Total	104.851	90	.		

a.Predictors(Constant),Admission process

b.Dependent Variable: Performance expectancy in ICT usage

From the above table, it can be concluded from the correlation results that performance expectancy in ICT usage has significant influence in Admission process, it further portrays that correlation of .293 is significant at 0.01 level (2 –tailed) .

4.8 Table 6: Response on Effort Effiency in ICT usage and Student Examination process at Kyambogo University N=(90)

Item	Mean	**Std Deviation**	**Disagree**	**Not Sure**	**Agree**
KyU handles students' course work submission electronically	2.0	1.1	65(72%)	11(12%)	14(16%)
KyU issues students examination timetables electronically	2.3	1.18	55(61%)	10(11%)	22(24%)
KyU releases students' examination results electronically	3.0	1.1	37(12%)	9(10%)	46(51%)
Electronic admission process would save me from unnecessary queues and inconveniences during the admission process at KyU	3.7	1.1	06(7%)	20(22%)	20(22%)

Electronic examination process would save me from unnecessary queues and inconveniences during the examination process at KyU	3.3	1.0	17(19%)	34(38%)	31(34%)
Electronic certification process would save me from unnecessary queues and inconveniences during the certification process at KyU	3.5	1.0	10(11%)	8(9%)	63(70%)

Source: Primary Data

When respondents were asked whether KyU handles students coursework electronically, 72% (65) of the respondents disagreed,10%(11) of the respondents were not sure while 22 (24%),agreed that KyU handles students application electronically on whether KyU issues examination timetables electronically,51% of the respondents agreed,12% disagreed,10% were not sure, implying that students receive copies of their timetables by checking on the notice boards respondents agreed with the statement since the mean was 2.0 and standard deviation 1.1 When the respondents were asked whether electronic admission process would save the student from unnecessary queues and inconvenience 34%(31) of the respondents agreed,26%(23) disagreed,4% 38% were not sure,1%(1) disagreed,5%(5) strongly disagreed with the study implying that ICT usage saves time for the students the average response score was 4.3 with a SD of 1.05 this implies that on average, respondents agreed that ICT would save time students spend in long queues.

When the respondents were asked whether Electronic examination process would save the student from unnecessary queues and inconveniences during the examination process at KyU 34%(31) of the respondents strongly agreed,29%(26) agreed,9%(8) were not sure,9%(8) disagreed while 9%(8) strongly disagreed implying that despite the usage of ICT,some students still had doubts in that ICT usage would save them queues during examination period. the

average response score was 3.7 with a SD of 1.3 this implies that on average, respondents agreed that ICT would save time students spend in long queues.

On whether Electronic certification process would save me from unnecessary queues and inconveniences during the certification process at KyU 5%(5) of the respondents strongly disagreed with the study,5% (5)disagreed with the study,9% (8) were not sure,30%(27) agreed, 40%(36) strongly agreed implying that some students still doubted that ICT usage would reduce queues. the average response score was 4.0 with a SD of 1.16 this implies that on average, respondents agreed that ICT would save time students spend in long queues

Interview results from the staff of Acdeamic registrsts's department on Social influence of ICT usage and students examination management at Kyambogo University indicated that members of registrars' department acknowledged that the timetable, examinations and course work were still being handled manually, they agreed that in satisfying the demands of the students, it was time management took into consideration the competition that was in the academic field currently in Uganda they further noted that there were many universities in the country that offered the same services lke KyU therefore it was important to protect the image of the university.

4.9 Table 7 **Correlation of Effort Efficiency in ICT usage and Examination process**

		ICT Usage	Examination process
Administration	Pearson Correlation	1.00	.514**
	Sig. (2-tailed)		.005
	N	90	90
Examination process	Pearson Correlation	.514**	1.000
	Sig. (2-tailed)	.005	
	N	90	90

The correlation results in table 5 reveals that effort effiency in ICT usage has a positive significant relationship with Examination process it portrays that the correlation ..514** is significant at 0.01.this implies that when ICT is used in Examination process, students would

be able to electronically access their results. The study portrays that (r= .514 p = 0.05) therefore the study rejected the hypothesis that there is no relationship between effort effiency and CT usage in examinations process.

4.10 Table 8 Regression analysis on of Effort Efficiency in ICT usage and Examination process

b

ANOVA

Model	Sum of squares	df	Mean Square	F	Sig.
Regression	32.875	2	16.438	14.5111	a .000
Residual	94.020	85	1.133		
Total	126.895	90			

a.Predictors(Constant),Examination process

b.Dependent Variable: Effort Effiency in ICT usage in Kyambogo University

Source: Primary Data

From the above table, it can be concluded from the regression that Examination process has significant contribution to ICT usage at F .14.511(.000[a]).since significance calculated .000[a]

And is higher than 0.05,the study rejected the hypothesis that''there is no relationship between ICT usage and student examination process''

4.11 Table 9 Responses on Social infulence concept in ICT usage and student Administration process at Kyambogo University

Item	Mean	**Std Deviation**	**Disagree**	**Not Sure**	**Agree**

I am proud to be a student of the KyU university because I receive responses from management on my email on any complaints at the university.	1.4	.794	80(89%)	05(1%)	5.5(26%)
Management of the university ensures that any negative information about the university in the press is addressed.	2.1	1.15	72(67%)	14(16%)	11(12%)
Management is concerned about the reputation of the university therefore; they use ICT to address students complaints like missing marks.	1.0	1.7	75(83%)	13(14%)	02(8.8%)

When the respondents were asked whether they were proud to be KyU students because of receiving feedback from management, 89%(80) of the respondents disagreed,1%(05) were not sure,1% while (26%) agreed, with the study implying that students were no receiving any feedback regarding events at the University on whether the university ensured that any negative information in the press was addressed, 67%(72) of the respondents disagreed,16%(14) were not sure,1% while 12%(11) of the respondents agreed, with the study implying that most

respondents did not find feel that management was addressing any negative information regarding the university in the press.

4.12 Table 10 Correlation of Social concept in ICT usage and Student Administration

		ICT Usage	Examination process
Simplity Concept	Pearson Correlation	1.00	.452**
	Sig. (2-tailed)		.005
	N	90	90
Student Administration	Pearson Correlation	.452**	1.000
	Sig. (2-tailed)	.005	
	N	90	90

The correlation results in table 6 reveals that simplity concept in ICT usage has a positive significant relationship with Student Administration it portrays that the correlation ..452** is significant at 0.00.this implies that when ICT is used in by management,, students would be able to electronically receive instant feedback . The study portrays that (r= .452 p = 0.05) therefore the study rejected the hypothesis that there is no relationship between Social concept in ICT usage and student Administration.

4.13 Table 11 Regression analysis of Social concept in ICT usage and Student Administration

b

ANOVA

Model	Sum of squares	df	Mean Square	F	Sig.
Regression	32.875	2	16.438	14.5111	a .000
Residual	94.020	85	1.133		
Total	126.895	90			

a.Predictors(Constant),Social concept

b.Dependent Variable: Student Administration in Kyambogo University

Source: Primary Data

From the above table, it can be concluded from the regression that Social concept in has a significant contribution to ICT usage at F .14.511(.000[a]).since significance calculated .000[a]

And is higher than 0.05,the study rejected the hypothesis that''there is no relationship between Social concept in ICT usage and student administration .

Interview results from the staff in Academic Registrar's department on Social Influence concept in ICT revealed that management was concerned about repetition and the poor services which was exhibited by complaints and long queues they further revealed that management had adopted the E campus system to address some of these challenges.

4.14 Table 12: 4.8 Responses on Simplity concept in ICT usage and student Administration process at Kyambogo University

Item	Mean	**Std Deviation**	**Strongly Disagree**	**Not Sure**	**Agree**
There is enough internet coverage at the university	1.4	.736	71(79%)	28(31%)	07(8%)
The university has enough computers to enable students register on line.	1.6	1.0	76(88.4%)	09(10%)	05(6%)
The university has enough computer to cater for the big student population.	1.5	.87	70(77%)	16(18%)	04(4%)

In year one of our studies there is compulsory ICT training for all students.	2.2	1.3			

When the respondents were asked whether there was enough internet coverage at the university, 79%(71) of the respondents disagreed,31%(28) were not sure, while 8% (07) agreed, with the study implying there were not enough internet facilities at the university.

on whether the university has enough computers to enable students register on line, 88%(72) of the respondents disagreed,10%(09) were not sure, while 16%(05) of the respondents agreed, with the study implying that most respondents would to access computers because there were few. on whether the university has enough computers to enable students register on line, 88%(72) of the respondents disagreed,10%(09) were not sure, while 16%(05) of the respondents agreed, with the study implying that most respondents would to access computers because there were few.

Interview results from the staff in Academic Registrar's department on Simplity concept in ICT revealed that management was in the process of connecting internet all over the university, staff were being trained on how to use computers so as to to ebanle reduction of fraud, accountability and timely delivery of services.

4.15 Table 13 **Correlation of Simplity Concept in ICT usage and student Administration**

		Simplity in ICT Usage	Student Administration
Social Concept	Pearson Correlation	1.00	.626**
	Sig. (2-tailed)		.000
	N	90	90
Student Administration	Pearson Correlation	.626**	1.000
	Sig. (2-tailed)	.000	
	N	90	90

The correlation results in table 5 reveals that simplity concept in ICT usage has significant relationship with student administration it portrays that the correlation.626 is significant at 0.00.this implies that when management purchases more equipment for ICT during student administration services would improve.

4.16 Table 14 Regression analyses on Simplity Concept in ICT usage and student Administration

b

ANOVA

Model	Sum of squares	df	Mean Square	F	Sig.
Regression	32.875	2	16.438	14.5111	a .000
Residual	94.020	85	1.133		
Total	126.895	90			

a.Predictors(Constant),Administration process

b.Dependent Variable: Simplity l Concept in ICT and Student Administration Process in Kyambogo University.

Source: Primary Data

From the above table, it can be concluded from the regression that Examination process has significant contribution to ICT usage at F .14.511(.000[a]).since significance calculated .000[a]

And is higher than 0.05,the study rejected the hypothesis that''there is no relationship between ICT usage and student examination process''

CHAPTER FIVE

DISCUSSION OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

The study established the relationship between ICT usage and student admission process and administration in the Academic Registrar's Department at Kyambogo University. This chapter presents discussion, conclusions and recommendations of the findings

5.1 Summary of Key Findings

The summary of the study findings is presented objective by objective

5.1.1 Performance expectancy concept in ICT usage and student admission process at Kyambogo University.

The findings of the study indicated that there was a positive significant relationship between performance expectancy in ICT usage and Admission process. The performance expectancy features included client satisfaction, reduced costs and reduced fraud during admission process. ICT usage was found to have a Pearson correlation of .293* and significant of .005 the study also indicated that ICT influences Admission process in Kyambogo University by 69%.This implies that when ICT is used in Admission process, students save a lot of time while paying for Application fees and during Registration .

5.1.2 Simplicity concept in ICT usage and student examination process at Kyambogo University?

The findings of the study indicated that there was a positive significant relationship between ICT usage and Examination process. the simplicity concept features included level of computer skill, availability of ICT equipment that influences the smooth running of examination process. ICT usage was found to have a Pearson correlation of ..626* and significant of .005 the study also indicated that ICT influences examination process in KyU

by 90%. The study rejected the stated hypothesis that there was ''No relationship between ICT usage and Examination process''

5.1.3 Social influence concept of ICT usage and student certification process at Kyambogo University

The findings of the study indicated that there is a negative relationship between ICT usage and certification process. the social influence concept features included reputation of the university, status of the university and completion with other universities ICT usage was found to have a Pearson correlation of .452* and significant of .0.05 the study also indicated that ICT influences certification process in KyU by 55%.the study acepted the stated hypothesis that there was ''No relationship between ICT usage and certification process''

5.2 Discussion of the Findings

5.2.1 Performance expectancy concept in ICT usage and student admission process at Kyambogo University.

The study findings revealed that during Admission process,there were still delays in timely release of admission letters and there were long queues while students are applying for various programmes offered at the university this relates to Heider(1958) who concurs that service delivery is when an organization provides services for purposes of client satisfaction this is in line with Alain Sandoz(1989),who acknowledges that organizations should be split into departments so that measurement of output in specific sectors is identified therefore creating room for improvement in specific areas. The findings concurs with the foregoing observations that by management adopting ICT usage, this was an effort to improve service delivery.

The Study emphasized the significance of the mission of the organization which in this research is knowledge and skills for study in relation to this study, Caudle(1987),urged public educators to focus on basic areas that support the mission/goals of the agency for example what type of reports are needed in an organization? He concluded that ICT usage was good for formulating policies which adds value to an organisation's development.

The study indicated that students are interested in studying in an atmosphere that is hustle free the findings of the study is in agreement with Wesely(1996),who acknowledged that automation of systems had significantly sped up the process of carrying out business therefore saving time on both the customer and company. In line with this study both the students and staff agreed that use of ICT would save them time that they would have spent in long queues while applying for transcripts ,registration and buying application forms.

5.2.2 Simplicity concept in ICT usage and student examination process at Kyambogo University.

The findings from the study indicated that most of the students were not sure of whether Kyambogo University had the capacity to electronically display examination results, examination timetable, electronically sent coursework to students because the impact of the usage of ICT in this area was not felt this was attributed perhaps to the low ICT skill of personnel, poor availability of equipment like computers and internet facilities. Harrison (1997), Armstrong (2003) suggests that an organization should develop policies and equip personnel with facilities that enable effective decision making C.S French(1980) agrees that ICT should be designed for a specific purpose in line with this study there was fear by management on whether the ICT system that was put in place was secure enough Bradley,(1996) postulated that the ICT that any institution puts in place should have security measures like Pass words and secret pin codes therefore allaying the concerns and fears of management.

5.2.3 Social influence concept of ICT usage and student certification process at Kyambogo University

The study revealed that most students disagreed with the study on whether they electronically receive information on their e-mail, when asked whether management conducts training for all first year students, most of the respondents disagreed with the study. When asked whether

management responds to the negative press about the university, the respondents disagreed with the study with this concept it assumes that management should develop an attitude of competition and aggressiveness because there are many academic institutions that provide the same services. Lee, (1990) and Caillou(1990) invented the world wide web with the aim of enabling effective communication to a large number of people across the world. Their goal is in line with the study whose aim was to enable management improve service delivery at the university with the usage of ICT relatedly, Wagner,(2003) agrees that there are four areas that need to be improved to enable effective ICT usage in any organization these include the use of the websites, use of email ,use of software that is secure and easy to learn.

5.3 Conclusions

On the basis of the study findings, a number of conclusions were made;

5.3.1 Performance expectancy in ICT usage and Student Admission

The Study concluded that performance expectancy in ICT usage was influential in improvement of services in the Academic Registrar's department this was reflected when most respondents agreed that ICT usage would save time as opposed to long queues while picking admission letters and while paying tuition.

The study concluded that usage of ICT was still at a low level because there were inadequate internet facilities at the university.

5.3.2 Simplicity Concept in ICT usage and Student Examination Process

The Study concluded that simplicity concept in ICT usage was influential in improvement of services in the AR's department however there was no impact of ICT usage in AR's in Examinations department. For example when students were asked whether KyU had the capacity to release examination results and timbale electronically most of the respondents disagreed implying that there was still challenges like low level of computer skills.

The study concluded that usage of ICT was still at a low level.

5.3.3 Social influence Concept in ICT usage and Student certification process

The study concluded that social influence concept in ICT usage was influential in improvement of services in the AR's Department in Kyambogo University. with the social influence we live in a competitive world and KyU provides the same services like other Universities therefore there was need for management to improve its image and publicity by averting situations that easily calumniate to strikes like few computers, manual preparation of transcripts. The study concluded that usage of ICT would avert strikes and complaints that tint the image of the university.

6.0 Recommendations

Based on the study conclusions, several recommendations were made;

6.1 Simplicity in ICT Usage and Student Admission process

The study recommended that the University should sensitize students on ICT usage ,They should also use both manual and ICT concurrently to cater for the gradual shift of technology and adaption to new technology ,Organize workshops to sensitize the staff and students, create more computer laboratories so that there is less congestion, create a directorate of ICT with permanent staff and the need for management to have a budget for ICT.

6.2 Performance expectancy and social concept in ICT usage and Student Examination Process

The study recommends that the University should train staff ,put in place secure systems to save data from loss it was further recommended that ICT staff should be supervised by a technical ICT manager for purposes of accountability and control, Management was requested to invest in networking so as to expand the internet bandwidth and install hard and software to improve internet coverage further more management was requested to improve on its public relations image and there was need for management to have a budget for ICT because it is a very expensive venture.

7.0 Limitations of the Study

The study focused on Bachelor of Education Students and stakeholders like parents,organizations were not involved in the study there by limiting the area of study.

8.0 Areas of Further Research

The research provided insight on ICT usage and student administration: A case study of Kyambogo University but more research should be carried out on:

1. Which ICT system or structure suits Kyambogo University?
2. ICT usage and student administration in all Public Universities.
3. ICT usage and student administration in all Public Universities.

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APPENDIX A

INTERVIEW GUIDE FOR STAFF IN ACADEMIC REGISTRAR'S DEPARTMENT AT KYAMBOGO UNIVERSITY

Dear respondent,

I am a student of Uganda Management Institute Pursuing a Master's Degree in Management Studies (PAM) carrying out research entitled: ICT usage and student administration: a case of Kyambogo University. I hereby humbly request you to participate and contribute to this study. The study is purely for academic purposes and be rest assured that all the information given will be handed with utmost confidentiality and anonymity.

APPENDIX: B

INTERVIEW GUIDE

Interview Guide for Top Management at Kyambogo University

Simplicity

1. Are there enough facilities for ICT at the University?
2. Are staff all trained in the ICT area?
3. Is the policy on ICT at the University adequate?

Performance Expectancy (PE)

4. Does management know the importance of ICT usage to the University?
5. Is Management planning to improve services at the University by introducing the use of ICT at the University?
6. Are all the sensitive offices like Transcripts, Finance been fully computerised?

Social Influence (SI)

7. Is management concerned with the poor service delivery at the University?
8. What has management done to improve Service delivery?
9. Doesn't Management Feel concerned about the various complaints concerning service delivery at the University?
10. Does management reprimand those who have poor working relations with the Public?

APPENDIX C

QUESTIONNAIRE FOR STUDENTS AT KYAMBOGO UNIVERSITY

Dear respondent,

I am a student of Uganda Management Institute Pursuing a Master's Degree in Management Studies (PAM) carrying out research entitled: ICT usage and student administration: a case of Kyambogo University. I hereby humbly request you to participate and contribute to this study. The study is purely for academic purposes and be rest assured that all the information given will be handed with utmost confidentiality and anonymity.

Instruction: please tick the box that best represents your view and fill in where it is necessary.

Section A: Respondent Background Information

1. Gender: Male ☐ Female ☐

2. Age bracket: 20 - 24 yrs. ☐

25- 30 yrs. ☐

31 yrs. And above ☐

Please refer to the scale given below and tick the extent you agree or disagree with the statements regarding the ICT usage and student administration at Kyambogo University.

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	2	3	4	5

		1	2	3	4	5
	Section B: Using ICT usage in Student Admission process (Performance Expectancy)	1	2	3	4	5
3	KyU handles students' applications electronically	1	2	3	4	5
4	KyU issues students' admission letters electronically	1	2	3	4	5
5	KyU registers students electronically	1	2	3	4	5
		1	2	3	4	5
	Section C: ICT usage in Student Examination process	1	2	3	4	5
6	KyU handles students' course work submission electronically	1	2	3	4	5
7	KyU issues students examination timetables electronically	1	2	3	4	5
8	KyU releases students' examination results electronically	1	2	3	4	5
	Section D: ICT usage in Student Certification process (Effort Effiency)	1	2	3	4	5
9	KyU students' have their transcripts and certificates printed electronically	1	2	3	4	5
10	KyU handles students' payment of transcripts and certificates applications electronically	1	2	3	4	5
11	KyU inform students to pick their transcripts and certificates on line through their email address	1	2	3	4	5

	Section E: Student Administration	1	2	3	4	5
12	Electronic admission process would save me from unnecessary queues and inconveniences during the admission process at KyU	1	2	3	4	5
13	Electronic examination process would save me from unnecessary queues and inconveniences during the examination process at KyU	1	2	3	4	5
14	Electronic certification process would save me from unnecessary queues and inconveniences during the certification process at KyU	1	2	3	4	5
	Section F: Social Influence Concept	1	2	3	4	5
15	I am proud to be a student of the KyU university because I receive responses from management on my email on any complaints at the university.	1	2	3	4	5
16	Management of the university ensures that any negative information about the university in the press is addressed.	1	2	3	4	5
17	Management is concerned about the reputation of the university therefore; they use ICT to address students complaints like missing marks.	1	2	3	4	5
	Section F: Simplicity Concept	1	2	3	4	5
18	There is enough internet coverage at the university	1	2	3	4	5
19	The university has enough computers to enable students register on line.	1	2	3	4	5
20	The university has enough computer to cater for the big student population.	1	2	3	4	5
21	In year one of our studies there is compulsory ICT training for all students.	1	2	3	4	5

22. In your view, what do you think are the key challenges Kyambogo University is likely to face, if it is to handle the admission, examination and certification processes electronically?

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……..

23. In your opinion, what do you think Kyambogo University can do, to address the challenges you have pointed out above?

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……..

Thank you so much for accepting to contribute to this study