

**INFORMATION TECHNOLOGY INNOVATION AND SERVICE DELIVERY:
CASE OF UNIVERSITY OF NAIROBI STUDENT MANAGEMENT
INFORMATION SYSTEM**

**BY
EUNICE WAMBUI KIRII
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DECLARATION

This management research project is my original work and has not been submitted for a degree in any other university.

Signature: Date:

EUNICE WAMBUI KIRII

D61/78038/2015

SUPERVISOR

This management research project has been submitted for examination with my approval as the supervisor.

Signature: Date:

DR. MURANGA NJIHIA

Department of Management Science, University of Nairobi

DEDICATION

I dedicate this project to my dear parents Regina and Bernard Kirii for their commitment to education, learning new skills and acquiring knowledge.

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The successful completion of this research study would not have been possible without the valuable support of a number of people to whom I am very grateful to.

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LIST OF ABBREVIATIONS AND ACRONYMS

IT-Information Technology

IS-Information System

ICT-Information Communication and Technology

UON-University of Nairobi

SMIS-Student Management Information System

ERP-Enterprise Resource Planning

MBA-Master of Business Administration

IEBC-Independent, Electoral and Boundaries Commission

IFMIS-Integrated Financial Management Information System

ABSTRACT

The unprecedented rapid growth in technology has seen organizations make drastic changes to the way they operate and do business, this cap abled with the upheaval of innovation, in order to remain relevant and competitive and give clients and customers value for money, many organizations are looking out for new ways and methods of doing their core business and operations. This research study sort to answer the question of how the University of Nairobi has used IT innovation for better service delivery using the student management system, with the following objectives; to document IT innovation journey as evidenced by the SMIS, to establish how the University of Nairobi has used IT innovation for better service delivery using the student management system and the challenges of using IT innovation for service delivery. The research design was longitudinal case study with the University of Nairobi, student management information system as the choice of case study. The researcher utilized interview guides with a view of getting in-depth knowledge and understanding of the research objectives. The study followed through the continuous improvement journey of the SMIS from 2002 to 2016 and noted the milestones and how service delivery had improved throughout this period. The study established that the SMIS has changed operations at the University of Nairobi to be more effective and efficient by offering quality services. One key unique finding that the study deduced was that the SMIS is an inborn and in house developed system; this enables the system to be customized to meet users' requirements thus giving the university a niche over other institutions, the quality of service, information produced, system responsiveness and the usefulness contributed to the overall net benefit of the system. The research findings collaborated well with the IS theories of diffusion of innovation theory and the information systems success model. The study further noted useful factors to consider when introducing and adopting IT innovation to the organization for service delivery so as to cope with challenges of introducing innovation in an organization.

CHAPTER ONE: INTRODUCTION

1.1 Background of Study

Attaran (2003) defines Information technology (IT) as capacity and competence offered to organizations by digital tools such as laptops and desktops, computer programs, and communications in technology to distribute data, information, and expertise to people and processes. IT is considered a subset of information and communications technology (ICT). Information technology therefore forms a major and pervasive part of modern life, we converse, Instagram, and whatsApp on mobile phones; work, do shopping, and watch entertainment over the internet; and wait in earnest for the next big bang, whether hardware or software that will emerge from the creative minds of developers and inventors globally.

Innovation is viewed as a fundamental component in bolstering international competitiveness spurring institutional growth. Global competitiveness is partly sustained by Innovation which fuels organizational development and it is a vehicle that enables businesses to support their stability in the global frugality (Gaynor, 2002). The demand for quality and innovation in service firms is becoming increasingly significant to their business dominance and the need to remain relevant by embellishing their competitive advantage (Bon & Mustafa, 2013). It is worth noting that using technology and digital tools to provide and facilitate the delivery of services is advantageous to the customer, organization and other players in the value chain, and therefore information technology is viewed as an enabler of innovation. Lovelock and Wright (2002) posits that innovations

in the delivery of services may be viewed as new method of delivery that gives customers' greater accessibility and improves a firm's competitive positioning. One such Innovative IT platform is the Student Management Information System (SMIS) of the University of Nairobi an online web based application which has revolutionized operations at the university. This study will endeavor to understand the system in details and its use as a service delivery platform.

This research report sort to understand the relationship between IT innovation and its effect on delivery of services using the Diffusion of Innovation Theory by Rogers (1983), Technology Acceptance Model (TAM) by Davis (1989) and Information Systems Success Model by DeLone & McLean (1992).

1.1.1 Innovation

Crossan and Apaydin (2010) posits that innovation is the creation of goods or results, acceptance, absorption and taking advantage of a new idea that adds value in financial and social setting; recurrence and expansion of goods, services and industries ; development of novel means of production; and creation of new systems such as management information systems. Innovation therefore is both a process and an end product. Innovation is further described as a novel design or concept, tool or procedure. Innovation can also be viewed as the use of better solutions that meet changing requirements, unarticulated needs or market demands through the use of effective methods, goods and technological tools (Merriam-webster, 2016). In an organizational scenario, innovation has been linked to beneficial changes in efficiency, effectiveness, competitiveness and market share. A key distinguishing feature of an innovation is its

newness of ideas, device or method. According to Damanpour (1992) innovation is the use and acceptance of an idea, tools, and mechanisms of doing work processes, services and products that is new to the organization. Innovation falls into two categories namely technological organizational innovation (Philips, 1997). From the foregoing technological innovation consists of product and process innovation where product innovation is then viewed as the introduction of products or services that are unique and novel or have undergone improvement with regards to requirements and how they are being put to use.

1.1.2 Information Technology Innovation

IT innovation endeavors a more efficient and effective organization and improved alignment between technology initiatives and business goals through the use of computers, systems, networks and technologies. As noted by Tushman and Nadler (2006), Information Technology (IT) Innovation is viewed as the ingenious novel mechanism by which new methods, goods and services are created for a given organization. In addition Swanson (1994) observes that that IT innovation involves digital tools in its applications.

Lyytinen and Rose (2003) identified four categories of Information Technology Innovations as: system development enhancement, which involves adjustment in the development team and innovative programming methodologies; products and services that emanate from the development process, which involves uses of the digital tools and services to back the day to day running of the organization; IT base innovations, this is new computing and technology capacity; Integration of interdepartmental processes which includes integration of IT processes and functions across departments.

1.1.3 Service Delivery

A service is a beneficial activity done to meet a certain requirements. Service delivery defines the interaction between providers and clients, where the provider offers services as part of the providers' core business goal, services can be information or a task. Good service delivery provides clients, users or customers with value. Additionally, Service delivery describes an organizations ability to produce goods and distribute quality services and products to the clients (Zeithaml et al., 1990).

According to Zeithaml, Berry, and Parasuraman (1990) service delivery is the giving of goods and services to a customer or client. It concerns the location and means by which a service or product is delivered to the customer. (Chen et al, 2009). It is therefore worth noting that technology enabled means of providing services can be advantageous to the whole organizational structure.(Bitner et al, 2000) Customers can be offered quality, timely and efficient services without having to visit the service organization. Correspondingly, management can benefit from greater differentiation of their services in the market place, improve effectiveness and efficiency of their operations, improve resource utilization, continuous improvement and increase competitiveness. The potential benefits and gains are accompanied by probable risks, such as impaired customer access and depersonalizing the service delivery encounter.

1.1.4 SERVQUAL MODEL

SERVQUAL is a quality management framework. It was developed by three American authors, Parasuraman, Zeithaml and Berry in 1988. The framework had ten elements of describing the quality of services, after numerous research the ten elements were reduced

to five namely; reliability, assurance, tangibles, empathy and responsiveness, Abbreviated as -RATER.

Reliability; is the ability of an organization or firm to deliver on its “promises” such as services, which can be relied on, Assurance; is the expertise that employees have, Tangibles; this include the physical appearance of amenities of the organization, Empathy; involves giving personalized attention to customers. Responsiveness; involves the enthusiasm that the organization and its employees have to assist clients and provide them with timely up to the minute services.

The SERVQUAL model applies to this study by examining the quality, responsiveness and reliability of service offered by the student management information system which is an innovative application that provides and delivers services to the students of the University of Nairobi.

1.1.4 Student Management Information System (SMIS) of the University of Nairobi

The University Of Nairobi (UON), one of the largest universities in Kenya established by an Act of Parliament Cap 210 of the Laws of Kenya is the pioneer institution of university education in Kenya. The University has seven campuses and six colleges. The colleges include, College of Agriculture & Veterinary Sciences situated at Upper Kabete, College of Architecture & Engineering situated at the Main Campus, College of Biological & Physical Sciences situated at Chiromo Campus, College of Education & External Studies situated at Kikuyu Campus, College of Health Sciences situated at the Kenyatta National Hospital, College of Humanities and Social sciences situated at the

Main Campus which is constituted of Faculty of Arts ; Faculty of Law; and School of Business. Currently the university has a student population of 84,000. Over 2000 academic staff, more than 5,000 administrative and technical staff and 184,000 alumni. (www.uonbi.ac.ke, August 2016).

Until the year 2001 the university was using standalone systems in handling all processes concerning students, this led to long queues of students especially during admission and delays in operations such as fee payment, course registration and release of academic results. There was a clear need for an innovative solution that would help address this problem. In the year 2002 an in house Student Management Information System (SMIS) was developed. The main aim was to improve on efficiencies and effectiveness of student management processes in the university. The system was further revamped in the year 2008/2009 at cost of Kenya shillings 25 million to improve on security and enhance integrity of the system. The university in addition to the SMIS system has other innovative systems such as staff appraisal management information system, Library Management Information system, and Hostel Management Information system, Multimedia portal, E-Learning Portal, Staff portal and the Journals and Publication portal.

The SMIS initially started as a project of a student at the school of computing and informatics, consequently it was adopted by the university as an innovative IT solution and has undergone many changes and versions and currently it is a web based application thus allowing online processing of various functions. The SMIS consists of the following modules; Registration and Admission Module which enables the automatic allocation of

student registration numbers; course registration module, which allows students to select and register for courses in their respective schools, it has sub modules such as fee statements, credit transfers and import and export utilities; Examination processing and results module which displays results.

1.2 Research Problem

Many organizations are adopting information technology as an approach to gaining leverage and a key enabler for effective service delivery. Innovation seeks to take advantage of new concepts effectively in an effort of enhancing strategic positioning within an industry. Danjum and Rasli (2012) in their writing note that competition leads to service innovation, which could lead to exceptional customer satisfaction. On the other hand Mick and Fournier (1998) note that the impact of technology on delivery of services has its merits and demerits as it can be both beneficial and detrimental.

Service delivery is considered a continuous ongoing process; the case of University of Nairobi SMIS is a good example of continuous IT innovation for service delivery. The study uses the student management information system as a case study of how IT has been used innovatively to improve effectiveness and impact on the achievement of strategic goals of the university; the SMIS is of significance as it is a good example of best practice as compared to other management information systems in the public sector which have had their fair share of challenges such as IFMIS (Integrated Financial Management Information System) a flagship of the government of Kenya for public financial management which consists of reporting expenditure, fiscal planning, financial management, audit and control However according to Diamond and Khemani (2008)

effectiveness problems have been cited particularly on the users front with studies showing problems with some of the IFMIS features like controls, security and integrity. Similarly the IEBC (Independent Electoral and Boundaries Commission) electoral system experienced technical problems during the 2013 general election in the republic of Kenya. This study sort to understand how UON has managed to use IT innovation effectively for service delivery, considering that it is a large public institution and the challenges associated with implementing and adoption of systems in public organizations.

Rhett walker et al (2002) notes that technology triggered innovation has the potential to impact delivery of services and increase operational competitive advantage. Further, service delivery impacts a firm's performance, allowing an organization to differentiate itself and better satisfy customer needs (Chen et al, 2009). A case study conducted by Wietze and Elfring (2002).on *Hertz*, a Dutch service firm, a key player in the car rental industry showed that *Hertz* has successfully utilized and adopted technological tools to improve efficiency and effectiveness in its back end processes and services by introducing an Innovative IT platform on the clients card which contained digital information of their clients and automation of driving directions.

Further research by Oredo and Njihia (2014) suggest a framework for the adoption of an innovative IT platform that takes into consideration how much and of what value is the innovation. Organizations hoping to adopt an innovative web based applications need a standard framework that will inform their decision on the possibility of adopting the innovation. Research by Udechukwu Ojiako, (2012), emphasizes on the role of

technology of improving service delivery, services that are technologically enabled in the global competitive village and illustrates the “efficiency/inefficiency paradox of technology” whereby technology may result to more time and effort learning and utilizing the technology and in another situation saving on time and automation of the particular service. In some scenarios’, organizations may encounter resistance to technology innovation and this affects customer satisfaction (Ryding, 2010).

Broadly, this study seeks to answer the question; how has the University of Nairobi managed to use IT innovation for service delivery through the student management information system?

1.3 Research Objectives

The overall objective of this study is to increase understanding of IT innovation and service delivery and the benefit of using an innovative IT platform to deliver services to clients of a given organization in this case, University of Nairobi. To realize the main objective this study is guided by the following objectives;

- (i) To document IT innovation as evidenced in the SMIS.
- (ii) To establish how the UON has used IT innovation for better service delivery.
- (iii) To understand the challenges of using IT innovation for service delivery.

1.4 Value of the Study

Many organizations whose mandate is to provide and deliver services as one of its key business goals will benefit from having more insight on how IT innovation can be used as a strategic tool.

Researchers, IT practitioners and customer service professionals will benefit as they seek to further clarify the productivity gains from IT innovations and how to use IT effectively

for service delivery. This study also has the potential to bring to the fore the concept of IT innovation, service delivery and how they relate to a system like the SMIS.

This study will be used as a basis for further research by researchers and academia on benefits of IT innovation on delivering of services. Additionally the study will add to the theoretical research on the role of IT innovation on the delivery of quality services.

The study will be of interest to policy makers such as the government, commission of higher education, and other institutions of higher learning on how IT can spur innovation in undertaking core business mandate of delivering quality services.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter focuses on reviewing current knowledge and studies involving Information Technology innovation, service delivery and student management information system, review theoretical perspectives in information systems (IS) that increase the understanding of these concepts. A summary of the review clearly brings out the research gap.

2.2 Information Technology Innovation and Service Delivery

IT innovations result from expanding growth in computing power as evidenced by Moore law, computing power doubles every so often. Additionally data warehousing and data mining capabilities have led to enhanced functionality in processing, storage, knowledge transfer and presentation of information thus allowing for better decision making and use of the information. Accordingly, most IT innovations are intrinsically associated to a continuously improvement in the computing capability and power. Most basic IT innovations involve digital tools such as software applications, hardware and telecommunication that are new to the particular organization and take new design in the work flow processes, structures, services and products (Lyytinen & Rose 2003). Specific IT innovations involve digital tools, computing power capabilities and new data storage capabilities and this consequently affect capacity and extent of IT innovation mechanism within an organization. (Swanson, 1994).

As IT becomes a more critical component for organizations, the ensuing transformation of systems, processes and practices become an integral part of their success. The use,

widespread adoption and assimilation of information technology has had an impact on many service organizations. Organizations are able to take advantage of new IT opportunities to improve on their internal and external processes on delivery of quality services. Wietze & Elfring (2002). Additionally technological tools provide better exchange of goods and services and especially in cases where geographical barrier is a limitation or the nearness of the service provider to another provider or client. Freeman & Soete (1997).

Providing services using technological means have the potential to benefit internal staff, clients and top executives (Bitner et al., 2000). It is worth noting that technology provides organizations with opportunities, effectiveness and efficiency. A number of service organizations have experienced exponential expansion growth this being attributed to Innovation while at the same time providing them with the opportunity of broadening their business sphere, which in turn has increased their economic portfolio; hence innovations provide platforms to increase the efficiency, effectiveness and quality of the services (Wietze & Elfring 2002).

2.3 Information Technology Innovation in Organizations and Service Delivery

Most organizations are faced with the question of if they should innovate and the means by which to innovate as noted by Swanson & Ramiller (2004), some organizations join the “me to band wagon” of information technology practices as noted by Abrahamson (1991). Institutional factors that come into play as to whether an organization should use IT innovation for service delivery include; the innovation itself, how easy is it to use the innovation itself i.e. usability and purpose of the innovation; individual, does the

innovation solve an individual's problem or task; environmental, in this case the technology itself; organizational, management hierarchy and social relationships.

Abrahamson and Fairchild (1999), suggest that some organizations adopt innovative platforms with a view of joining the innovation façade or “band wagon” without mindfully investigating the innovation and the potential benefits to the organization and whether it is the right innovation for the organization, An example would be adopting an ERP application (Enterprise resource planning), without doing a cost benefit analysis and the risks inherent with the adoption of the application. Consequently service innovation has the ability to provide organization with sustainable competitive advantage, giving the organization leverage over other competing companies. Organizations that harness the potential of information technology innovation on their services benefit from returns such as time efficiency and cost effectiveness. Adopting the SERVQUAL model ensures that an organization delivers quality services which is key for sustainable competitive advantage.

2.4 Challenges of using IT Innovation for service delivery

There are some challenges of using IT innovation for service delivery in organizations; one of them is innovation orientation which is the organization culture as envisioned in its vision, mission and core values of adoption of innovativeness and embracing new technologies. This not only applies to the organization but employees and customers as well. Hurley and Hult (1998) examined the impact of innovation orientation and deduced that culture of the organization determines innovation uptake in organizations. They also noted that innovation orientation is key in ensuring that an organization successfully

implements new applications, information systems, products and services, IT capability and infrastructure is another challenge of using IT innovation for service delivery, IT capability in this case include, infrastructure, human IT resources, knowledge tools, customer focus and teamwork. Chen (2009) notes that firms with stronger technological capabilities will facilitate service delivery in a better way and delivery service innovation. Resistance to change among staff in the organization is another challenge of using IT innovation for service delivery.

2.5 Theoretical Foundation

To inform this study and increase understanding of IT innovation, service delivery and the student management information system of the University of Nairobi, the study draws from the following theories Diffusion of Innovation, Technology Acceptance Model (TAM) and Information System Success Model.

2.5.1 Diffusion of Innovation Theory

Diffusion of Innovation is the process by which a novel idea is communicated or introduced through certain channels to members of the social system (Rogers, 2003). There are four components that impact the spread of new ideas namely: the innovation itself, communication channels, time and a social system. It is important to note that innovations must be accepted extensively in order to be sustainable. The adoption of an innovation takes the shape of an S curve when mapped over a long period of time. (Fisher,1971). The curve starts with the innovators, early adopters, early majority, late majority and laggards.

The success of an innovation is largely dependent on decisions made within the social system as they adopt five steps namely: Knowledge: i.e. knowing about the innovation and continuous learning on the same; Persuasion i.e. being keen to learn more detail about the innovation; Decision i.e. weights up the merits and demerits of the innovation and makes a decision whether to embrace the innovations; Implementation i.e. employs and examines the usefulness of innovations and confirmation i.e. finalize decision to continue using the innovation.

New ideas that make operations effortless have a high chance of been embraced as noted by Dobbins, Cockerill, Barnsley, (2001); probable adopters therefore appraise a new idea on its competitive positioning. (The anticipated gains provided by the innovation in comparison to the methods and mechanism currently in use).

2.5.2 Technology Acceptance Model (TAM)

The technology acceptance model (TAM) is an information system theory that seeks to explain using a model, the acceptance and use of a technology by users' (Davis, 1989). TAM is used to explain the acceptance of a new technology in the work place and which users are likely to embrace the new technology. Two major factors inform the user's decision on the use of the new technology and this include; perceived usefulness, this is the extent to which an individual believes that using a particular system would complement their job performance and perceived ease of use, which is the extent to which an individual believes that using a particular system would be effortless.

Continuous studies on the model have resulted in new versions such as the unified theory of acceptance and use of technology (UTAUT) and TAM 2 (Venkatesh & Davis 2000 &

Venkatesh 2000). TAM has been useful in explaining various system use such as online system which include electronic Learning systems, information management systems and web based applications as noted by (Fathema, Sutton, 2013, Fathema, Shannon, Ross, 2015, Fathema, Ross, Witte, 2014).

2.5.3 Information Systems Success Model

This is an information system (IS) model developed by Delone and Mclean which seeks to present a clear view of the success of a given information system by examining the six critical dimensions of success for information systems. (Delone&Mclean, 2003) The six dimensions include:

Information Quality: This is the usefulness of the knowledge that a particular system is able to generate and deliver. For the information to be of quality it has to be up to date, clearly and effectively presented.

System Quality: is the ease of use, responsiveness, integrity plus security of a given system.it translates to the following characteristics importance, response time, availability, portability, integration and adaptability.

Service Quality: This is the prompt responsiveness of the service that a particular system offers; service is deemed to be of quality if it conforms to the customer requirements and meets their needs. The user is satisfied with quality services and this have an impact on the overall system benefits both to the customer and organization.

System use/usage intentions: this refers to the actual usage of the system that is what is the purpose of the information system?

User satisfaction: indicates how a user is satisfied with performance of the system, which should be a seamless and enjoyable experience; user satisfaction is influenced by usage.

Net system benefits: These impact the organization and individuals using the system, Net system benefits can be classified as positive and negative. Positive include enhanced learning and empowerment in the organization while negative include quality concerns and technology dependence.

For the purposes of this research study, the information system model is appropriate for measuring the net system benefits which is a construct of all the five components that result in information system success. Rai et al (2002) did an experimental test concerning a student information system; the student information system was used to provide online access to the students' personal and academic performance information. The finding of the empirical study supported the six constructs of the information system success model.

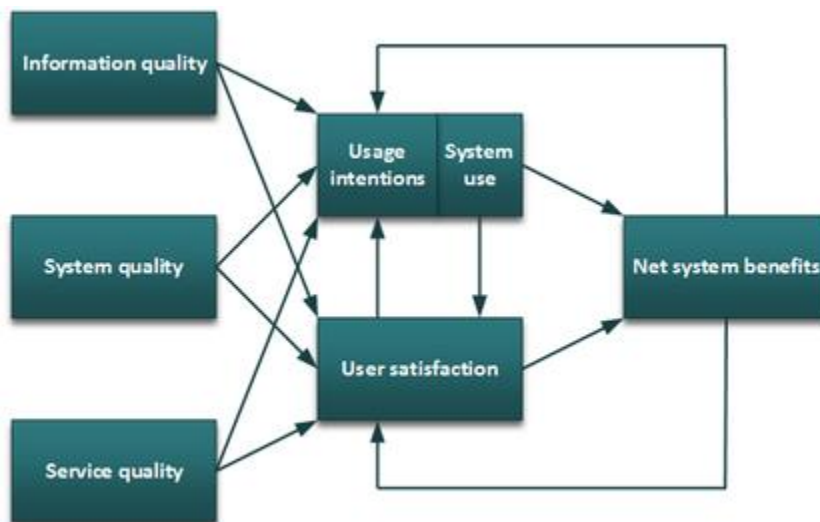


Fig 1: Information System Success model by DeLone & McLean

*Source : DeLone, W.H., and McLean, E.R. *The DeLone and McLean Model of Information Systems Success: A TenYear Update. Journal of Management Information Systems*, 19, 4, (2003), 9-30

2.6 Empirical Review

A review of some related literature reveals that IT has been and can be used as an enabler for competitiveness and achieving organizational goals. Globalization and increasing cutthroat competition in industries have forced businesses to think innovativeness in their day to day activities to gain and retain superior advantage. Firms now compete on the provision of quality services as opposed to tangible items such as goods.(Kandampully, 2002).

Chen et al.(2009), established that service delivery impacts a firms performance allowing an organization to differentiate itself and better satisfy customer needs accordingly, innovations in the delivery of services may be viewed as a unique system of delivery that gives clients greater convenience (Lovelock&Wright2002). Further Chen (2009) proposes that technological knowhow and ability have made it possible for commercial institutions to bolster services and provide new systems; examples include mobile money, electronic banking and leading. (Kumar & van Hillegersberg, 2004).

Chen et al.(2009) further notes that Innovation orientation and capability in information technology have clear decisive effects on innovations in service delivery; IT has becomes a critical element in creating more extra and acceptable service delivery means for customers. Other past studies show that IT facilitates better service delivery in organizations (Valacich,Paranka, George & Nunamaker, 1993;).According to the SAP white paper on *service delivery innovation*; Enabling technology which is innovative is a significant facilitator of service delivery as noted by 93% of the professional service

firms surveyed. The paper also notes that continuous improvement of service delivery is an ongoing process and must be ingrained into the way an organization operates and designs new services; Initiatives such as implementing global systems, collaborating with clients and creating an interlinked organization are examples of continuous service delivery improvement.

Additionally Carroll (2016) investigated the impact of IT innovation in a service environment and found out that Technology is embraced with a sense of suspicion but actors presume it will improve service efficiency and performance (i.e. a perceived relationship between technology and progress); the research also found out that Outsourcing technological service capabilities and accountability is viewed as offloading accountability or 'blame' for service failures in public service.

2.7 Literature Review Summary and Research Gap

From the aforementioned the researcher has examined the academic and practitioner definition of IT innovation, service delivery and management information system and current knowledge of IT innovation and how it has impacted on service delivery, together with the theoretical perspective that increase insight into these concepts. The literature strongly suggest that IT innovation plays a major role on service delivery effectiveness and that of firms performance (Chen et al, 2009).It also emerged from the literature that is still insufficient understanding of service delivery and IT innovation.

This study therefore seeks to fill the research gap by seeking to empirically better understand IT innovation and service delivery, and how UON has managed to use IT

innovation for service delivery through the student management information system. Service delivery being a core mandate of the UON as stipulated in the universities' service charter.

This study will make use of Information System Success Model and the Diffusion of Innovation Theory to address the research gap using the key components of the two information system theories, which entails the innovation journey and the success of the management information system as a tool for service delivery.

2.8 Conceptual Framework

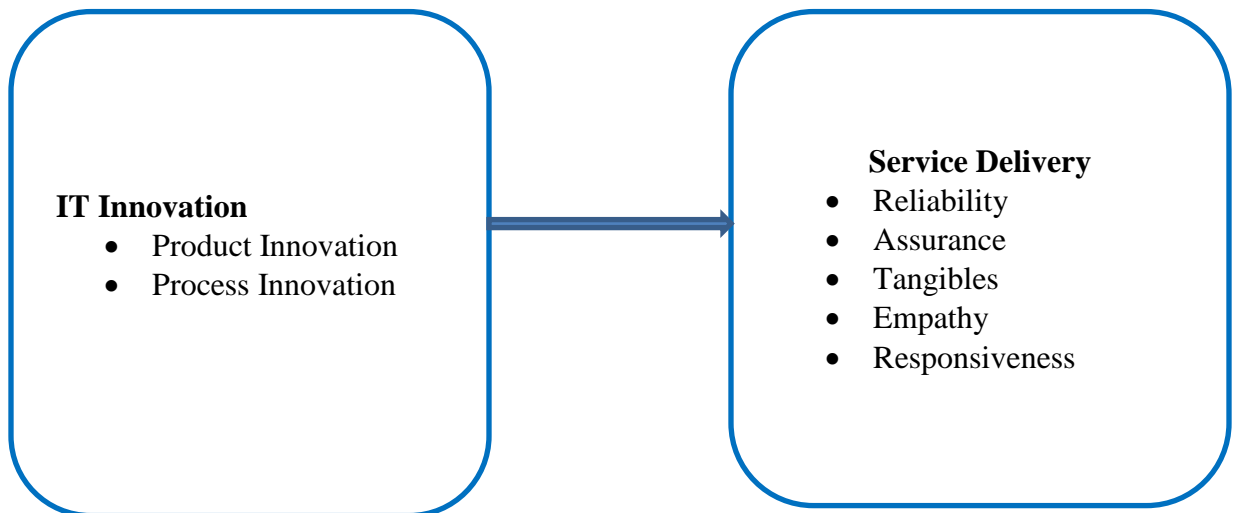


Fig 2: Conceptual Framework

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the research approach that was used to carry out the study and describe the research design, data collection approaches and data analysis techniques.

3.2 Research Design

Longitudinal case study was used in this research study. Yin (2003) posits that a case study is an experimental query that examines a present day aspect within its every day situation; whereas the borderline between aspect and situation are not distinct and where numerous supply points of information are availed. Case study design is used when the focus is to answer the method and cause questions, when the conduct of those involved in the research study cannot be altered or influenced, and when it is necessary to cover contextual conditions believed to be important to the circumstances.

The longitudinal case study provides a methodical way of taking into account the events, gathering data, evaluating the facts, and presenting the results to depict the extended timeframe. It provides suitable chance to critically review continuous processes in the current situation and to draw in the importance of various dependent levels of research. The information gathered gives guidance to methods and effects. Longitudinal researches provide causality which explains the why and how things happen, also referred to as the cause and effect relationship. (Kuula & Putkiranta, 2012).

3.3 Case Selection

In order to increase understanding of how organizations can use IT innovations effectively for service delivery, the study took the case of SMIS of the University of

Nairobi and sort to understand how the SMIS has transformed service delivery, which is a core mandate of the University of Nairobi. The SMIS also provides a good case study to examine how the UON being a large public institution has used IT effectively for its operations. The SMIS provides a good platform for lessons learnt for continuous improvement on using IT to effectively innovate and improve on service delivery.

3.4 Data Collection

The study utilized primary data collected using in-depth interviews and unstructured questions with interview guide, this being the best way of getting in-depth knowledge. The respondents to be interviewed were those involved in the use and development of the system and they included Heads of various departments, Deans of various schools, Project leader SMIS, ICT director, Administrators such as MBA coordinator and administrator, SMIS developers and Students, undergraduate, Post Graduate, former and current student of UON. The study made use of secondary data from relevant documents for the purposes of understanding the history of the student management information system. The research study studied and reviewed available documentation on the SMIS.

3.5 Data Analysis

Data analysis involves categorizing, ordering, manipulating and summarizing the collected data with a view of communicating the findings in a coherent and systematic manner. Data analysis for this research was done using qualitative technique, the study utilized content analysis.

A content analysis technique was used to generate and categorize items for comparison with the interview results from the respondents. Content analysis is a systematic detailed description done in a qualitative way of the documents and objects in a given research, with the goal of valid and trustworthy inferences. (Hsieh & Shannon, 2005).

CHAPTER FOUR: DATA ANALYSIS, RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

The research objective was to establish how the University of Nairobi has used IT innovation for better service delivery using the student management information system. This chapter presents the data analysis and research findings with regards to the theme objectives and discussion of the same.

4.2 Research Conduct

The researcher used interview guides to get in-depth information from the respondents who included those who had interacted with the SMIS, namely ten students, three administrators, two Deans, ICT director, Project Head SMIS and two developers. The researcher managed to interview all the targeted respondents. The collected data was analyzed using content analysis in thematic areas namely; IT innovation journey of the SMIS, IT innovation influence on service delivery and challenges of using IT innovation for service delivery.

4.3 The Student Management Information System (SMIS)

This is a web based application that runs on oracle relational database model, PHP (Hypertext preprocessor), a server scripting programming language and macromedia. The student portal is online which means that it can be accessed from anywhere as long as there is internet connectivity. The SMIS runs the following functionalities; admissions module, course registration module, class and examination timetables module, Results and transcript module, Fees management and identification card processing module. The

main users of the system are the students, administrators, examination officers and departmental heads such as deans.

4.4 IT Innovation Journey of the SMIS

2000-2002

The very first information system that the university had was the human resource management information system (HRMIS) in the year 2000/2001. The HRMIS dealt with staff management at the university. It was the first relation database management system at the University of Nairobi. The following year 2002, the student management information system became operational. The system started as student project and consequently the university management adopted it and converted it into a business application, the main motivation for the adoption of the system was the need for the university to manage student processes of which all the processes relating to students were manual. This included registration, course registration and fee management where there were notable pilferages and monitoring of how much money was collected. It was also difficult to answer questions relating to students like the total number of students in the Faculty of Law, the courses on offer at the college of education and external studies for a given semester.

The system at that time ran on a relational database model that is oracle and oracle forms, before the relational database model, the system was on COBOL a third generation language, one developer noted that *“this was very tedious and cumbersome it involved taking data and arranging it into a text file and it was run by the developers, the process had to be repeated for every process transaction. If there were any errors in the input file*

they had to be corrected so that the run could be executed”. It was a laborious process as each user had to key in to the text file and do a text run.

The School of Business and Faculty of Arts were the early adopters of the innovation, perhaps owing to the huge numbers of students in the two faculties, subsequently other schools and faculties joined in the bandwagon after seeing the transformation of processes at the two faculties.

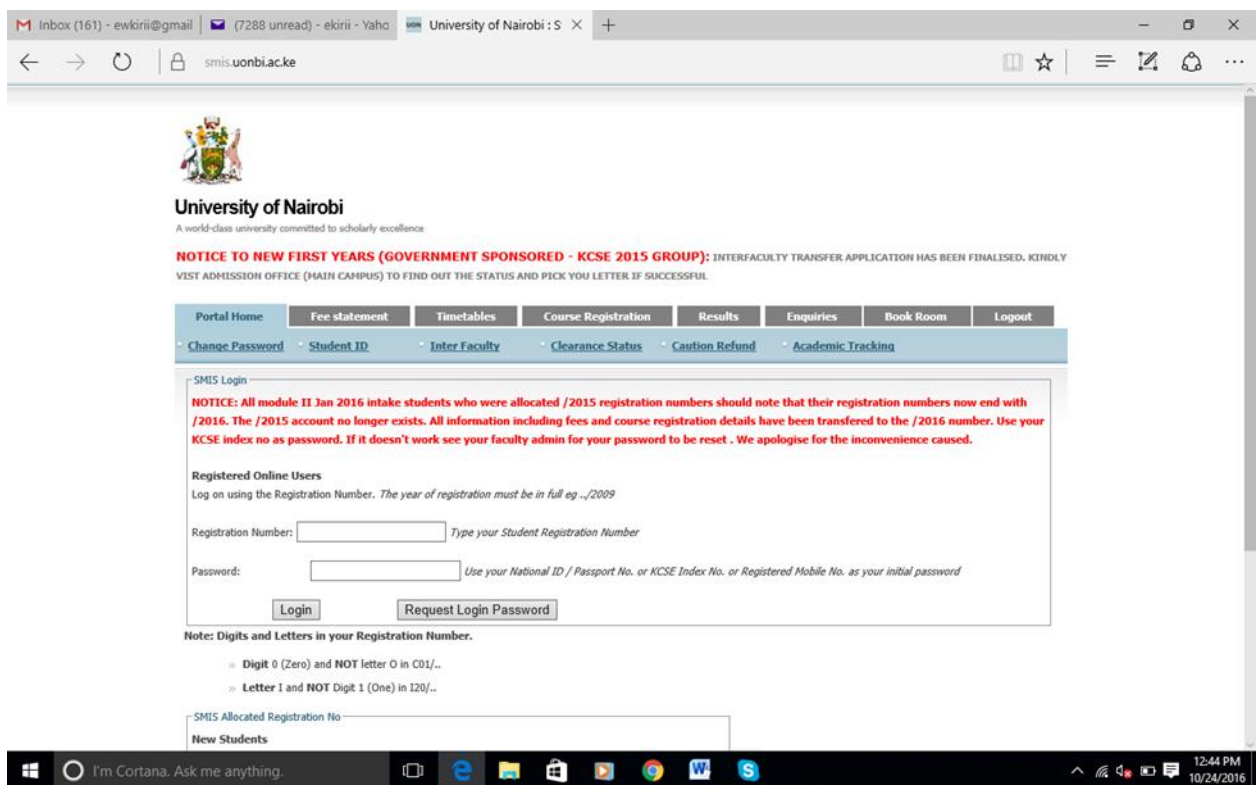


Fig 3: SMIS Screenshot

2004-2008

In the year 2004, the university did its first every computerized registration of students, one of the directors noted that *“the process was slow initially and this resulted into long queue of students, and there was a call to go back to the manual system”*, subsequent years saw the improvement of the system and the elimination of long queues during registration of students. In 2007/2008 saw the introduction of the online student portal which enabled the students to access students processes from anywhere since it was web based, the same year saw course registration being incorporated as part of the SMIS this enabled the enforcement of the 2/3rd rule that students are expected to have registered by the 5th week as a semester consists of 15 weeks. Only students who have fully settled their fee balance are legible to register for course units, the course registration also enabled students to print timetables relating to a specific academic semester.

NOTICE TO NEW FIRST YEARS (GOVERNMENT SPONSORED - KCSE 2015 GROUP): INTERFACULTY TRANSFER APPLICATION HAS BEEN FINALISED. KINDLY VISIT ADMISSION OFFICE (MAIN CAMPUS) TO FIND OUT THE STATUS AND PICK YOUR LETTER IF SUCCESSFUL

Portal Home | Fee statement | **Timetables** | Course Registration | Results | Enquiries | Book Room | Logout

Class Timetable | Class Exam | myTimetable | myExam Timetable

Timetable
D61/78038/2015 EUNICE WAMBUI KIRII (Nairobi Evening)

Course Code: or or Show Timetable for Selected Courses

Type at least the first two letters of the course code in the fields provided above
eg CS03 to show all level 3 courses starting with CS03
leaving the fields blank will show all courses

D61 MASTER OF BUSINESS ADMINISTRATION
Only Confirmed Courses/Units are FULLY REGISTERED and will appear in your timetable. Click on course title to access E-Learning material

2016/2017 Module II (September-December) : Sep 5th - Dec 17th

Code	Course Title	From	To	Venue	Group	Lecturer	Exam Date
1	DAC603 ADVANCED MANAGEMENT ACCOUNTING	17:30	20:30	AMBANK 1st Floor	Group 1	Karanja	Mon Dec 5th
2	DFI503 FINANCIAL INSTITUTIONS AND MARKETS	17:30	20:30	ED. I	Group 1	Kithinji	Mon Dec 5th
3	DFI699 RESEARCH PROJECT	17:30	20:30	Dept. Chair	Group 1		
4	DIB501 MANAGERIAL ECONOMICS	17:30	20:30	JKPL Exhibition Hall	Group 1	Nyandemo	Mon Dec 5th
5	DMA503 CONSUMER BEHAVIOUR	17:30	20:30	AW308	Group 1	Ngahu	Mon Dec 5th
6	DM5501 BUSINESS QUANTITATIVE ANALYSIS	17:30	20:30	SC. II	Group 1	Kariuki C.N/Muruli	Sat Dec 10th
7	DOM511 OPERATIONS MANAGEMENT PRACTICE	17:30	20:30	AMBANK 1st Floor FOYER	Group 1	Dr.Magutu/Kiruthu	Sat Dec 17th
8	DOM512 MANUFACTURING AND SERVICE OPERATIONS MANAGEMENT	17:30	20:30	AMBANK 12B	Group 1	Kaguara	Mon Dec 5th
9	DOM610 INNOVATIONS AND TECHNOLOGY MANAGEMENT	17:30	20:30	AMBANK Basement Rm5	Group 1	Dr.Iraki	Mon Dec 5th
10	DPS699 RESEARCH PROJECT	17:30	20:30	Dept. Chair	Group 1		
11	DSM602 GLOBAL STRATEGIC MANAGEMENT	17:30	20:30	CB232A	Group 1	Prof.Ogutu	Mon Dec 5th
12	DAC699 ACCOUNTING	17:30	20:30	Dept. Chair	Group 1		
13	DHR699 HUMAN RESOURCE	17:30	20:30	Dept. Chair	Group 1		
14	DIB699 INTERNATIONAL BUSINESS	17:30	20:30	Dept. Chair	Group 1		
15	DIN699 INSURANCE	17:30	20:30	Dept. Chair	Group 1		
16	DIS699 INFORMATION SYSTEMS	17:30	20:30	Dept. Chair	Group 1		

2009-to date

In 2009/2010 the hostel management information system was integrated into the student management information system. This enabled the application and allocation of hostel rooms to students of the university. In 2010/2011 saw the milestone integration of the SMIS with the university banker that is Barclays Bank of Kenya, students were given collection account numbers where they deposited their school fees and their accounts were immediately updated on the SMIS.

2016 has seen the introduction of a new functionality on the SMIS which is online research proposal tracking and project completion for post graduate students. It is also in this same year that saw September intake being done online heralding online applications for other subsequent intakes.

The SMIS has motivated the development of other management information systems such as transport management information system, health management information system hostel management information system, Leave Management information system and performance management information system. The university has a total of twenty management information systems which have been developed in-house and can still be customized to suit user needs as per user requirements which change according to internal and external environment.

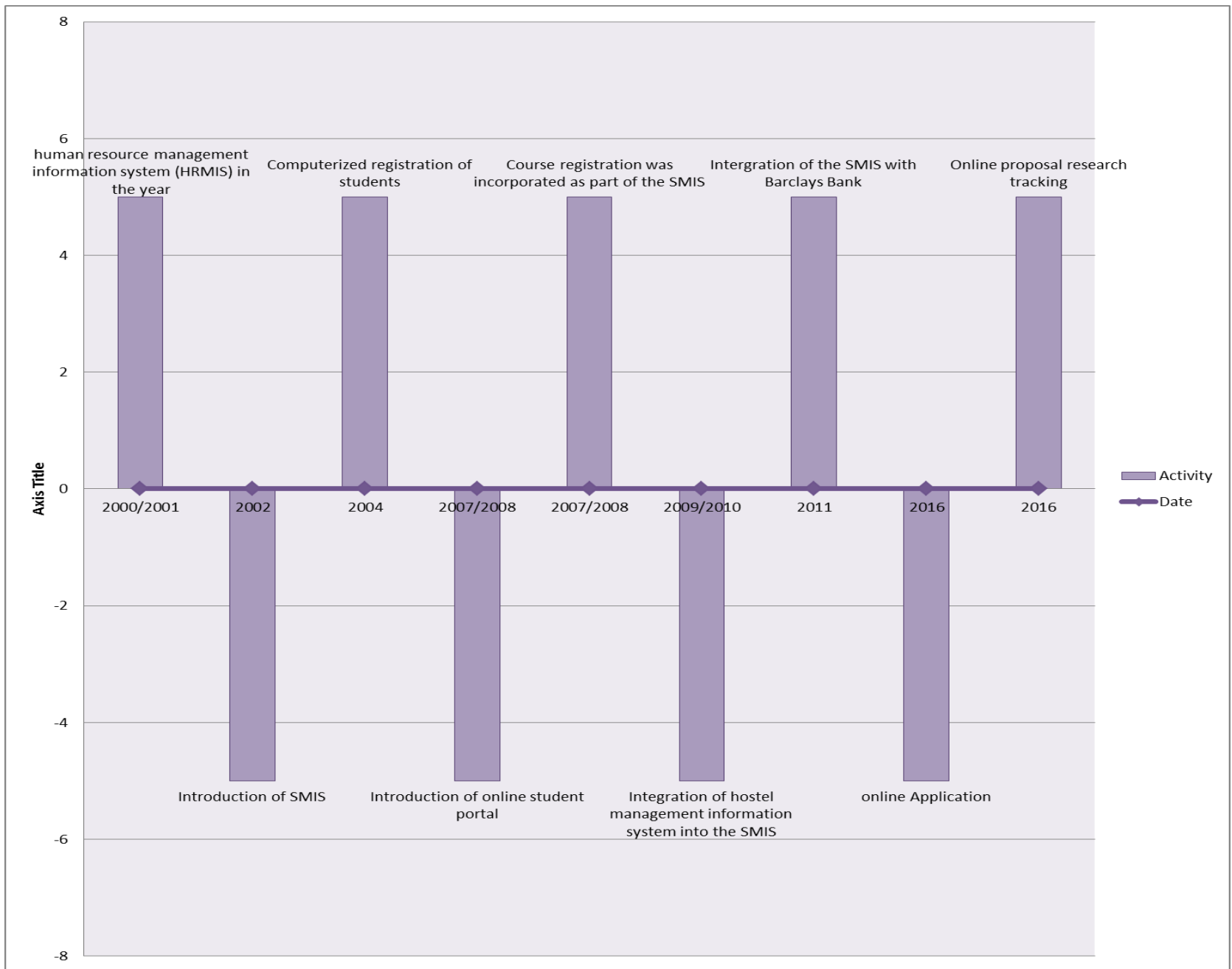


Fig 4: SMIS Innovation Journey

4.5 IT innovation influence on service delivery

Delivery of services was completely revolutionized with the introduction of the student management information system this was in 2002; the system enabled better management of student processes such as querying how many students are in a particular school, which courses are on offer in a particular semester, thus decision making was made easy and collaboration among various schools and faculties was enhanced and easy. Initially all student processes were manual which involved a lot of paperwork and laborious work both for students and administrators.

With the going online of the student end of the SMIS i.e. student portal in 2007/2008 made operation portable and paperless. Geographical limitation was eliminated as one would access the system from anywhere anytime. This saw the reduction of man-hours especially for evening working students who would have to criss cross from say lower Kabete campus to the main campus board of post graduate studies for various student processes. The online platform saw the saving of other resources such as fuel and paper; operations were at the touch of a button.

Other notable changes on the SMIS in the year 2007/2008 was course/unit registration, this enabled the enforcement of the 2/3rd rule that students are expected to have registered by the 5th week as a semester consists of 15 weeks. This also enables one to know which students are registered for exams after registering for courses and fully paying fees. Course registration enables management to know which students have registered for exams and this enables the generation of examination cards from the system. A student is expected to present an examination card when sitting for any unit. Students are able to access timetables which are online for the particular course that they are undertaking, the

timetable shows the time, course lecturer, the lesson venue for example Education building, Lecture Theater 1, the time table also indicates the examination venue and timing.

The Administrators and coordinators of various schools are responsible for publishing notices and timetables for the respective schools and faculties, the administrator also help in dropping units for students in case a student wishes to drop an already registered unit.

In the same year saw the automation of student results, these enabled students to get their results online and make reference to the results throughout the course duration, initially student marks were pinned on the various schools noticeboards. The automation made operations paperless and referencing became easy.

The development and integration of the hostel management information system into the SMIS in 2009/2010 enabled the application and allocation of hostel rooms to students of the university. This ensured better management of student processes such as making queries on room allocation and release of the rooms after a given academic year. Consequently making SMIS a one stop- shop for all student functions, as opposed to the standalone manual applications that had information of various function scattered all over.

The milestone integration of SMIS with the UON banker that is Barclays Bank of Kenya that was the year 2010/2011, this being one of the major reasons of the adoption of the SMIS, ensured that student fee was remitted to the collection account and the student account on the SMIS updated immediately. The integration reduced the long queues that

were initially experienced during the commencement of semesters and elimination of possible fraud cases, due to the initial manual receipts that were issued before.

In the current year that is 2016, September applications are being done online, a new student goes to the SMIS portal registers and is given a reference number, the student goes ahead to create a profile with his particulars and then uploads the necessary academic and professional testimonials and selects the course that they are interested in applying for. Online applications have reduced the manual laborious work that administrators and coordinators used to do during specific intakes for example the September intake. For the prospective students it saves on resources such as time to physically come to the university to make the application, it eliminates the geographical and distance barrier and makes the operations paperless and seamless hence effective and efficient. In the same year the research proposal process has gone online into the SMIS and thus allowing for tracking on research proposals for post graduate students, this is envisioned to make monitoring and evaluation of research proposals manageable. This will be advantageous to both the lecturers and students.

4.6 Challenges of using IT innovation for service delivery

The study identified some challenges of introducing and using IT innovation for service delivery notably management and user challenges.

4.6.1 Management Challenges

The introduction of an innovative IT solution such as the SMIS was faced with several challenges some of which included the resistance to change by university staff; this was largely due to lack of technological knowhow and skills, fear of the unknown, fear of job loss and lack of understanding of the new system.

The ICT team held workshops and meetings for senior management in order to get management buy in, the workshops and meeting were aimed at creating awareness of the system and the envisioned benefits, the management was also trained on how to use the system and generate reports which were useful for decision making. With the management buy in it was easy to get the other staff on board, they were trained on basic ICT skills which enabled them to use the system, and the staff were assured that they would not lose their jobs but rather the system was there to make their work easier, effective and more efficient. For the students, the ICT team normally does orientation for new students on how to use the system at the beginning of each semester and academic year.

Sustaining the Innovation is another challenge of using IT for service delivery and ensuring that the system continues to deliver as it should and coming up with new ways of doing the same thing in a different way.

Getting the right personnel who are qualified and people of integrity is another major challenge of using IT innovation for service deliver, the right personnel who are committed to the mission and vision of the organization and who can maintain confidentiality and integrity of the system at the same time making the system secure.

4.6.2 User Challenges

The users of the system, who include the students and administrators, also note that they have certain challenges with the system such as response rate of the system especially when querying the system. Another notable challenge is that students are not notified when the system will be unavailable, however internal users are normally informed beforehand through email notice that the system will be down for example during preventive maintenance. Some students noted that the system does not employ responsive web design that is it does not reflow automatically for smaller screens such as phones or tablets. Therefore, viewing on these smaller screens means a lot of scrolling or zooming in and out.

4.7 Discussion of Findings

Information technology innovation is concerned with using computers, internet, systems, networks and telecommunication to revolutionize the way processes are done and development of new products. The study sort to understand how the University of Nairobi has managed to use IT innovation for service delivery through the student management information system, by studying the SMIS development journey and noting the major milestones and how service delivery was influenced in each milestone. The SMIS is unique to the university because it is developed in-house and customized over time to meet changing customer needs and requirements, the system was context driven to suit the needs of the university at that particular point in time of managing student processes. The university had the option of purchasing commercial off- the- shelf software which was tried and tested but opted for the bespoke system because they had the opportunity to tailor the application to meet their user requirements. The ICT center is

fully in charge of the system and owns the intellectual property rights of the system and is continuously making changes to the system in order to keep abreast with the changing technological trends; this has given the university a competitive advantage. The notable milestones of the SMIS is an indication that the university is adapting to the changing digital world and confirmation of making the innovation better to improve of service delivery, Rogers (1983) notes that the final step of diffusion of innovation in any organization is the confirmation stage, in this study the university has continued to innovate the system and sustain it. During the introduction of the innovative system at the university, the School of Business and Faculty of Arts were the first to embrace the SMIS owing to the huge number of students in the two schools; this position is similar to Rogers (1983) of the diffusion of innovation theory. The School of Business and Faculty of Arts were the early adopters of the innovation, other schools and faculties joined the bandwagon after seeing the effect of the system on the operations of the two faculties.

In this study IT innovation has been found to have changed the way operations and processes were being done at the UON through the student management information system. Notably the introduction of the SMIS portal provided an online platform that made many of processes and functions paperless and also saved on resources such as man-hours, cost and time, making the operations seamless. Cases of possible fraud were also reduced when the SMIS was integrated with the university banker Barclay bank of Kenya.

It is evident from the research study that the SMIS has clearly impacted on the delivery of services at the university, as noted by Rhett walker et al (2002) and additionally it has given the university a competitive edge and advantage over other universities and

institutions of higher learning. The research study also established that the net benefits of the SMIS of delivering quality services to the users and the organization stems from user satisfaction of the information, system and service quality. These findings are echoed by Delone & Mclean (1992), Information System Success Model. More findings from this study established that the system is very intuitive to use, it's of high quality, highly reliable since downtime is minimal and readily available across the internet.

The study was able to establish some of the challenges associated with the introduction of IT innovation for service delivery, this included resistance to change, fear of the unknown and lack of technical knowhow and skills. Hurley and Hult (1998) noted that the culture of the organization determines innovation uptake in organizations. This study noted that the University of Nairobi is committed to innovativeness and service delivery as described in its service charter. The Management was cognizant of the challenges and put in place measures to mitigate this through forums such as workshops training and awareness creation for senior management, internal system users and students.

CHAPER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter sets to restate key findings within the framework of the research objectives and outline the recommendations of the study, the limitations of the current study and make suggestions for further research.

5.2 Summary of Findings

This research study sort to document IT innovation journey as evidenced by the SMIS, to establish how the University of Nairobi has used IT innovation for better service delivery using the student management system and the challenges of using IT innovation for service delivery.

The study findings indicate that the student management information system has undergone continuous improvement from 2002 to date, this has been in line with user requirements and needs and keeping abreast with latest technological trends. Notable milestones include the initial introduction of the system in 2002 that computerized student processes, improving on the operation efficiency and effectiveness, the online portal in 2007, removing the geographical barrier between the university and students, the integration of SMIS with the university banker in 2010 made fee management seamless and currently in 2016 the “going live” or online registration of new students making the whole process paperless. The UON is committed to innovativeness and quality service delivery as stipulated in its service charter; it’s against this backdrop that the SMIS has given the university a competitive edge over other institutions of higher learning.

The study also noted that there were challenges during the introduction of the innovative platform such as resistance to change which the university management addressed by sensitizing users on the benefits and use of the system.

5.3 Conclusion

The SMIS is a local, context driven innovation that was developed in-house to meet the needs of the university which was managing student processes. The fact that the system was developed locally and has met the needs of the university is clear evidence that there are skills and expertise in developing countries such as Kenya that can compete globally in developed countries. The SMIS has undergone continuous improvement mainly because of new user requirements and changing needs, this has given the university leverage over other learning institutions.

Technological innovation has the potential to transform service delivery and improve on operations of any given organization. This study was able to establish that IT innovation has the potential to improve the efficiency and effectiveness of student operations at the university through the SMIS. The students interviewed indicated they found the system intuitive and reliable and most of all it met their user needs, the same sentiments were echoed by the internal users who are able to perform their roles with much ease as opposed to before when the systems were manual. The study further established that the services delivered by the SMIS were reliable, and of quality as evidenced by the main users of the system. The study also noted that the introduction and adoption of the IT innovation followed the S curve pattern with the School of Business and Faculty of Arts being the early adopters of the student management information system. The success of

the SMIS at the university was mainly due to the culture of the University of embracing innovativeness and management buy in.

Sustaining the innovation was noted as a challenge of introducing IT innovation for service delivery, the study established that the innovation was sustained because it provided services that were useful and of quality to the user, notably the system was found to be secure and of high integrity.

5.4 Recommendations of the study

The research study recommends that the university should look for innovative technologies of using mobile phone applications in classroom learning and online E-learning platforms which are interactive and intuitive.

5.5 Limitations of the study

Time constraints was a major limiting factor, the time to collect the data and perform comprehensive analysis, draw conclusions and report was short given the due dates for this report. Another limiting factor was the sensitivity of the student management information system and hence the researcher was not able to access documents relating to the system.

5.6 Suggestions for further study

The study was limited to the University of Nairobi, however other public institutions especially government funded have technological innovations, there is need to carry out research on this public and government institutions to establish if service delivery has been enhanced with the use of IT innovation platforms.

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APPENDIX I: Interview Guide

Interview Guide for Developers, Project Head SMIS & Director ICT

1. Tell me about the SMIS. The SMIS Journey from the time it became operational to date
2. What systems were there before?
3. How was the change journey like?
4. What Measures were put in place to ensure adoption and buy in, by both management and users both student and administrator? Any resistance to Change?
5. What platform does the SMIS run on?
6. What are the changes that have been noted on the SMIS-Continuous improvement
7. What are the challenges of using a web based application?
8. How have you made to use of SMIS?
9. What makes SMIS unique at the University of Nairobi?
10. Has SMIS made operations effective at the UON? How? Why?
11. What are the challenges of using SMIS system for service delivery?
12. What are the challenges of introducing SMIS as an IT innovation at the UON?
13. How has SMIS been used as a strategic competitive tool?
14. How has the UON used IT innovation effectively for service delivery?

Interview Guide for Students

1. Tell me about the SMIS
2. What is the importance of SMIS to you?
3. How have you made to use of SMIS?
4. Is the SMIS of system quality i.e. usability, response time functionality, reliability and availability
5. What makes SMIS unique at the University of Nairobi?
6. Has SMIS made operations effective at the UON? How? Why?
7. What are the challenges of using SMIS system for service delivery?
8. What suggestions do you have in order to make the system more effective and efficient?

Interview Guide For Heads of Department, Deans,

1. Tell me about the SMIS
2. What are the changes that have been noted on the SMIS-Continuous improvement
3. What is the importance of SMIS to you?
4. How have you made to use SMIS?
5. What makes SMIS unique at the University of Nairobi?
6. Has SMIS made operations effective at the UON?
7. What are the challenges of using SMIS system for service delivery?
8. What are the challenges of introducing SMIS as an IT innovation at the UON?
9. How has SMIS been used as a strategic competitive tool?
10. How has the UON used IT innovation effectively for service delivery?

Interview Guide For Administrators,

1. Tell me about the SMIS
2. What are the changes that have been noted on the SMIS-Continuous improvement
3. What is the importance of SMIS to you?
4. Is the SMIS of system quality i.e. usability, response time, functionality, reliability and availability
5. How have you made use of SMIS in your day to day work?
6. What makes SMIS unique at the University of Nairobi?
7. Has SMIS made operations effective at the UON?
8. What are the challenges of using SMIS system for service delivery?
9. What are the challenges of introducing SMIS as an IT innovation at the UON?
10. How has SMIS been used as a strategic competitive tool?
11. How has the UON used IT innovation for service delivery?

APPENDIX II: Student Management Information System Screenshots

The screenshot shows a web browser window with the URL smis.uonbi.ac.ke. The page header includes the University of Nairobi logo and the text "University of Nairobi" and "A world-class university committed to scholarly excellence". A prominent red notice reads: "NOTICE TO NEW FIRST YEARS (GOVERNMENT SPONSORED - KCSE 2015 GROUP): INTERFACULTY TRANSFER APPLICATION HAS BEEN FINALISED. KINDLY VIST ADMISSION OFFICE (MAIN CAMPUS) TO FIND OUT THE STATUS AND PICK YOU LETTER IF SUCCESSFUL". Below the notice is a navigation menu with options: Portal Home, Fee statement, Timetables, Course Registration, Results, Enquiries, Book Room, Logout, Change Password, Student ID, Inter Faculty, Clearance Status, Caution Refund, and Academic Tracking. The main content area is titled "SMIS Login" and contains a red notice: "NOTICE: All module II Jan 2016 intake students who were allocated /2015 registration numbers should note that their registration numbers now end with /2016. The /2015 account no longer exists. All information including fees and course registration details have been transferred to the /2016 number. Use your KCSE index no as password. If it doesn't work see your faculty admin for your password to be reset. We apologise for the inconvenience caused." Below this is a "Registered Online Users" section with the instruction "Log on using the Registration Number. The year of registration must be in full eg. /2009". It features two input fields: "Registration Number:" and "Password:". The password field has a hint: "Use your National ID / Passport No. or KCSE Index No. or Registered Mobile No. as your initial password". There are "Login" and "Request Login Password" buttons. A note specifies: "Note: Digits and Letters in your Registration Number." with sub-points: "» Digit 0 (Zero) and NOT letter O in C01/.." and "» Letter I and NOT Digit 1 (One) in I20/..". At the bottom, there is a section for "SMIS Allocated Registration No" and "New Students". The Windows taskbar at the bottom shows the time as 12:44 PM on 10/24/2016.

NOTICE TO NEW FIRST YEARS (GOVERNMENT SPONSORED - KCSE 2015 GROUP): INTERFACULTY TRANSFER APPLICATION HAS BEEN FINALISED. KINDLY VIST ADMISSION OFFICE (MAIN CAMPUS) TO FIND OUT THE STATUS AND PICK YOU LETTER IF SUCCESSFUL

Portal Home | Fee statement | **Timetables** | Course Registration | Results | Enquiries | Book Room | Logout

Class Timetable | Class Exam | myTimetable | myExam Timetable

D61/78038/2015 EUNICE WAMBUI KIRII (Nairobi Evening)

Course Code: or or [Show Timetable for Selected Courses](#)

Type at least the first two letters of the course code in the fields provided above
 eg CS03 to show all level 3 courses starting with CS03
 leaving the fields blank will [show all courses](#)

D61 MASTER OF BUSINESS ADMINISTRATION


Only Confirmed Courses/Units are **FULLY REGISTERED** and will appear in your timetable. Click on course title to access E-Learning material

2016/2017 Module II (September-December) : Sep 5th - Dec 17th

Monday							
Code	Course Title	From	To	Venue	Group	Lecturer	Exam Date
1 DAC603	ADVANCED MANAGEMENT ACCOUNTING	17:30	20:30	AMBANK 1st Floor	Group 1	Karanja	Mon Dec 5th
2 DFI503	FINANCIAL INSTITUTIONS AND MARKETS	17:30	20:30	ED. I	Group 1	Kithinji	Mon Dec 5th
3 DFI699	RESEARCH PROJECT	17:30	20:30	Dept. Chair	Group 1		
4 DIB501	MANAGERIAL ECONOMICS	17:30	20:30	JKML Exhibition Hall	Group 1	Nyandemo	Mon Dec 5th
5 DMS503	CONSUMER BEHAVIOUR	17:30	20:30	AW308	Group 1	Ngahu	Mon Dec 5th
6 DMS501	BUSINESS QUANTITATIVE ANALYSIS	17:30	20:30	SC. II	Group 1	Kariuki C.N/Muruli	Sat Dec 10th
7 DOMS11	OPERATIONS MANAGEMENT PRACTICE	17:30	20:30	AMBANK 1st Floor FOYER	Group 1	Dr.Magutu/Kiruthu	Sat Dec 17th
8 DOMS12	MANUFACTURING AND SERVICE OPERATIONS MANAGEMENT	17:30	20:30	AMBANK 12B	Group 1	Kaguara	Mon Dec 5th
9 DOM610	INNOVATIONS AND TECHNOLOGY MANAGEMENT	17:30	20:30	AMBANK Basement Rm5	Group 1	Dr.Iraki	Mon Dec 5th
10 DPS699	RESEARCH PROJECT	17:30	20:30	Dept. Chair	Group 1		
11 DSM602	GLOBAL STRATEGIC MANAGEMENT	17:30	20:30	CB232A	Group 1	Prof.Ogutu	Mon Dec 5th
12 DAC699	ACCOUNTING	17:30	20:30	Dept. Chair	Group 1		
13 DHR699	HUMAN RESOURCE	17:30	20:30	Dept. Chair	Group 1		
14 DIB699	INTERNATIONAL BUSINESS	17:30	20:30	Dept. Chair	Group 1		
15 DIN699	INSURANCE	17:30	20:30	Dept. Chair	Group 1		
16 DIS699	INFORMATION SYSTEMS	17:30	20:30	Dept. Chair	Group 1		

Inbox (161) - ewkirii@gmail | (7288 unread) - ekirii - Yahoo | University of Nairobi : S | +

← → ↻ | smis.uonbi.ac.ke/index.php?realm=noticeDetail¬iceID=213260_21OCT2016134044_0081&fromDate=&toDate=



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Portal Home	Fee statement	Timetables	Course Registration	Results	Enquiries	Book Room	Logout
Change Password	Student ID	Inter Faculty	Clearance Status	Caution Refund	Academic Tracking		

D61/78038/2015 EUNICE WAMBUI KIRII (Nairobi Evening)

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Displayed Between 21-Oct-2016 and 24-Oct-2016

21-Oct-2016
To All Students

Re: Course Registration

COURSE REGISTRATION

THIS IS TO INFORM YOU THAT ALL STUDENTS ARE REQUIRED TO CONFIRM THEIR UNITS IN THE STUDENT PORTAL BEFORE THE REGISTRATION DEADLINE. THOSE STUDENTS WHO HAD APPLIED FOR SPECIAL/SUPPLEMENTARY EXAMS AND HAVE BEEN APPROVED ARE ALSO REQUIRED TO CONFIRM THE UNITS AND ENSURE THAT THE UNITS APPEAR IN THEIR EXAM CARDS.

NO STUDENT WILL BE ALLOWED TO SIT FOR CATS AND FINAL EXAMINATIONS IF THEY HAVE NOT CONFIRMED THE BY THE DEADLINE.

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Windows taskbar: I'm Cortana. Ask me anything. | 12:46 PM 10/24/2016