

**FACTOR INFLUENCING ADOPTION OF ELECTRONIC MEDICAL RECORD
SYSTEM IN WAJIR COUNTY REFERRAL HOSPITAL.**

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**A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF
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NAIROBI

SEP TO DEC 2020

DECLARATION

This research project is my original work and has not been presented for the award in any other University or institution. No part of this research should be reproduced without the author's consent or that of the Management University of Africa.

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Date.....

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DHD/4/00011/3/19

Supervisor Declaration:

This research project has been submitted for examination with my approval as the University Supervisor.

Sign.....

Date.....

Management University of Africa

DEDICATION

To my dear loving parents, for their constant encouragement and inspiration in my academic and professional endeavors.

ACKNOWLEDGEMENT

Glory to my almighty God for his abundant, grace and faithfulness for all my academic achievements.

ABBREVIATIONS

- AIDS-acquired immune Deficiency syndrome
- CCC- Comprehensive care and Treatment
- EH-Electronic Health
- EMR-Electronic medical record
- GPs-General practitioners
- HCW-Health care workers
- HIS-Health Information System
- 1. HIV-Human immunodeficiency Virus
- ICT-information Communication Technology
- MCH-Maternal Child Health
- NIOH-Ministry of Health
- NACP- National AIDs Control Programme
- NHIF-National Health Insurance fund
- HIEs= Health Information Exchange
- OPD-Out patient Department
- PHI- Patient Health Information
- P11-Personal Identifiable information
- PV-Perceive usefulness
- WHO-World Health Organization

ABSTRACT

Acceptance of the information system sent by a physician to healthcare facilities is important to achieve the goal of the program, but many systems facing the challenges of this study have attempted to identify factors that influence the acceptance of electronic record systems, a year after its implementation. in Kenya. Electronic devices are useful for capturing and storing patient data that can be returned in summary form to provide a summary of the patient's history. Electronic medical records may be able to demonstrate completeness, provide better search and retrieval instructions, and provide more accurate quality control and especially decision making. The purpose of the search and especially the support of the election. The purpose of this study was to identify the mechanism by which power may influence the acquisition of an electronic record system at Wajir County Referral Hospital, to determine the extent to which the area is affected by the adoption of an electronic medical record at the Wajir County Referral Hospital. The descriptive design of the search engine is welcome because it provides a description of the current state of affairs and currently the description of what is available, including the question and why. The target population was Wajir, County Referral Hospital. However, the electronic record system has not been implemented, so the penny is received to collect information from all healthcare areas in the general population. Selecting a participant from each hospital for the purpose of sampling is a kind of incompetence based on the characteristics of the population of interest, so the sample size of this study was all structures in the population based on the theory from which the modification technology exists. (TAM) imaging. Questionnaires were abandoned so that the plaintiff would complete them at his appointed time. This study collected data, as well as the use of standardized questionnaires and data encoded and analyzed using statistics.

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CHAPTER ONE

BACKGROUND

1.0 Introduction

EMR is defined as an electronic record of information relating to health information about persons who may be manufactured, collected, supervised and consulted by licensed personnel within a single healthcare company. It has potential benefits for medical clinics and health organizations (Association of health organizations). Another term used separately for EMR is an electronic medical record is a digital record of medical information that provides more data than EMR as they focus on the overall patient's health, not the standard clinical data.

1.1 Background of the Study

In the 28th century, knowledge was an important factor in decision making. There is a lot of power in the use of technology to produce and communicate important and reliable information that helps promote the delivery of quality services. Service delivery is one of the most important factors in the success of any organization that aims to ensure that their customers receive the same services as any other customer. The international standard for product quality is related and considers that if existing service standards meet the requirements of the customers, it can be measured as high quality (Reinarz 2004). Adequate health and well-being are important and important to help the country develop, and it must be cut in all races, ages and social status. Access to health care in all parts of the world and individuals is strongly influenced by socio-economic conditions, as well as health and population policies and programs in terms of demographics and populations based on social objectives.

In some countries and territories, quality planning is distributed among the market participants, while in some planning it is more common among the government or other

protest organizations. With the latest advances in technology and the commitment of governments to support technological growth, much of the work needs to be digital to have the right skills and the right service plan. Customer service delivery systems in the healthcare industry have significant economic potential in the long-term goal. Includes new and effective technology that saves time and delivers quality healthcare (Tam 2005)

In the United States, a systematic review of record keeping (EHRs) methods and applications reported that despite the EHR system, physicians and other caregivers were slow to accept it (porter 2013). And a 2005 payroll survey revealed that only a handful of U.S. executives have complete EHR systems and others have a stake in them. In 74% of U.S. healthcare providers, EHR approved in 2011 that the use of this system improves clinicians and 85% reported satisfaction with their system (Jamoon, Beatty, Woodwell, and Balso).

The UK is funded by a system introduced in 2002 and has a large EHR market in Europe (Flindes 2014). In 2005, their global health sector invested 1 billion shillings in health awareness, hoping the program would work more effectively and reduce the risk of safe and effective treatment, but abbreviated personal information.

In Canada, EHR is a Can-Canada program with partnerships from the federal government, emergency and local government and other organizations in the healthcare industry.

The Australian government has invested \$ 1 billion in an electronic health program aimed at promoting patient care and enabling healthcare providers to access information and share it through the healthcare system in the late 1990s. General practice is recommended to install clinical software packages in order to process clinical data electronically.

In South Africa, flexibility follows a different approach. Surveys of the health status of employees from 1994 to 2010 showed that the overall health outcomes were poor due to the poor management of the health system. Therefore, health inequalities must be taken into account (Harrison 2009). Contrary to this conclusion to the controversy surrounding the

move to bring the compulsory delivery of the National Health Insurance Fund (NHVV) to all South Africans due to the crisis regarding the high costs and inconvenience associated with the relevant information system, many existing EMS systems have been identified. Despite the extreme failures, the level they get in the design and implementation of the EMS system. The director of the National AIDS Control Program (NACP) in Tanzania was keen to take part in the 2005 HRC program demonstrations. They have already started writing a paper-based HIV / Aids document and have since made the first data on registration. and is collected at each visit. including vital signs, laboratory data and treatment. Although there is an electronic database for this registry, some of these forms are read or checked in the database. Thus, there was little experience in supporting project management and strategic planning. Due to the high cost of printing, the need for compliance and the collection of adhesive data, the NACP leader decided to abandon the conference forms developed by clinicians in Tanzania and instead use their existing HIV forms. Uganda also participated in the demonstration program in 2007, which differs in size, location and admission of the university.

In Kenya, plans to promote the health sector since 1994 have been guided by the Kenya Health Policy Framework Policy (KHPFP). KHPFP clearly articulates the vision for health promotion and innovation to provide affordable and affordable health care for all. The government has also announced devolution of power to regional authorities, with the aim of drafting a health plan in two to five documents, called the National Health Sector Strategic Planning (NHSSP). NHSSP-1 1999 to 2004 and NHSSP-ii (2005 to 2010) emphasized the importance of better managing global health events and implementing a participatory approach that benefits all caregivers (government, donors and non-governmental organizations) who bring together for profit and non-profit). on a common platform that

supports the essentials of health in an integrated way (common and electronic medical systems in Kenya, Ministry of Medical Services 2010).

The use of ESS systems was introduced in 2005 in Kenyan hospitals. By adjusting the use of electronic medical records, increased over the course of the year, the client is still consistent, and the rate of retrieval is slower compared to that of the health department. is expected, although there are benefits, and about 7% of health care users used. Reporting to NGOs and small private entities is much lower than their role in health care (WHO 2011). Large private and some public hospitals have integrated HRC systems into their work program, but the big gap is still in requiring these systems to be accredited by smaller health care organizations and what challenges they may face in adopting children. 2011).

1.2 Statement of the Problem

From the survey, most researchers concluded that physicians do not have the skills and expertise to handle electronic medical record (EMR) management, and that this has led to criticism. Many of the health workers have a lack of computer skills as well as the use of electronic health care systems. The general use of electronic medical records is related to medical training, since recent employees have been trained by one or more electronic record systems and have therefore been found free to use or switch from one system to another (Avery contril and sheikh 2005) . even potential employees have storage problems when using their electronic record systems, which raises the question of whether further CT training will contribute to their medical training. Many practitioners consider the electronic record company (EMR) to be difficult to use due to the number of steps, options and the use of mobility (Ludwick and Doucette 2009).

Although the initial training of the form is best illustrated by some inadequacies, the training is often considered an obstacle, either because there is insufficient training, or because the study stack was not suitable for clinical physicians and learning methods. The doctor complains about their training and after-sales information at the seller.

It has also been suggested that contradictions in relationships are a major obstacle in the mass adoption of an electronic recording system (Menachemi, Langley and Brooks 2007). Computer facilities are the backbone of healthcare technology. In the home, sufficient hardware is required to use the electronic record system, including telephone lines, computers, and Internet connections.

More than half (58.1%) of doctors who do not have electronic records do not doubt that the electronic record system can improve the clinical outcomes or patient treatment accordingly (Kemper et al 2006).

1.3 Purpose of the Study

This study intended to investigate the factors influencing the adoption of electronic medical record system in Wajir County Referral Hospital.

1.4 Objective of the Study

- I. To establish the extent which the capacity influence the adoption of electronic medical record system in Wajir county Referral hospital.
- II. To examine the extent to which the infrastructure influences the adoption of electronic medical record system in Wajir county Referral hospital.
- III. To assess the extent to which the user perception influences the adoption of electronic medical record system in Wajir county Referral hospital.
- IV. To establish the extent to which workload influence the adoption of electronic medical record system in Wajir county Referral hospital.

1.5 Research Questions

- I. To what extent did capacity influence the adoption of electronic medical record system in Wajir County Referral hospital?
- II. How did infrastructure influence the adoption of electronic medical record system in Wajir county Referral hospital?
- III. To what extent did the user perception influences the adoption of electronic medical record system in Wajir county Referral hospital?
- IV. How did workload influence the adoption of electronic medical record system in Wajir county Referral hospital?

1.6 Significance of the Study

This study sought to identify what factors may interfere with the use of EMR Systems. Health professionals help more people on a daily basis and thus have more information about the current health situation at the root. It is very important that data collection starts from the community and from the health level. It includes data collection on health services provided, public health needs, any outbreaks and preventive and therapeutic measures taken. Thus, for many health systems, their methods of collecting and recording this data are inconsistent. With the advancement of current technology where data recording is moving from paper recording system to electronic platform, thanks to technological capabilities such as Electronic recording systems, but retrieval has been used sparingly, the converted data is important in any organization and comes in the form of collected and summarized information. Information on the types of services provided, the reports available and the problems encountered are very important to assess the progress of the delivery of quality services and the planning of future actions. A well-organized health care system is an important factor in providing a summary, relevant information and time to ensure the quality of service provided. The Ministry of Health will be able to gather and evaluate and organize

additional information from health facilities in the country and plan for better and better health in the future.

1.7 Scope of the Study

The study focused on factors influencing adoption of electronic medical records. The researcher focused on Wajir Referral Hospital that have deployed EMR. From September to November 2020.

1.8 Delimitation of the Study

Adjustment is a step to reduce the population size to a possible size. The study designated according to the size it studied to participate in the study will be sent to public health institutions that are sent but do not use the EMR system in the Jir province. This study also focuses on the factors that contribute to the acceptance of electronic medical records and the in-depth analysis of the four factors, namely capabilities, facilities, user vision and operational responsibility for capturing EMR systems.

1.9 Limitations of the Study

This study focused on a referral hospital in Wajir district where the EMR system was sent in a different way but not performed as patients are not seen. private caregivers and different therapists who care for different work environments

1.10 Assumptions of Study

The study included the investigation into the Wajir County Reference Hospital that sent an EMR system, and so the assumption is that health care providers will be available to answer questions that will guide the study, respondents will want to participate, and honestly and will

be uncontrollable with their answers and ultimately respondents. be able to communicate in English.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter summarizes the importance of factors that affect the use of EMR in storage and transmission systems. It also provides past research and the results of other researchers who have conducted their research in the same field and with the psychological framework that will be based on this research.

2.1 Theoretical Literature Review

Diffusion Theory

The first doctrine is the interpretation of interpretation. The dissemination of new approaches, as defined by Rogers (2003), has been used to increase the understanding of the reasons for acceptance, methods of use and communication objectives that can be technically achieved in the developing world. This includes why and why skills are accepted, and especially the chosen choice of skills that change the individual needs.

Diversity is the way in which skills are acquired in other ways through time between members of the social system (Rogers, 2003). An art is a thought, practice or thing that is considered new by a person or part of a parent. Communication is the process by which participants create information one by one and share to understand each other (Rogers, 1995). of the one who takes, and the situation. Learn how skills work. Rogers (1995) stated that it has four phases: production, distribution (or communication) through social order, time, and outcome. Information flows through the network. The quality of the network and the way it is handled by the leaders in it sees the potential for innovation.

The experimental search engine tried to explain what influences systems and why users use a new level of information technology, such as EMR. Psychological leaders influence audience behavior through their relationships, while other agents who are alleged to be reformers and gatekeepers are involved in the distribution. The five acquisition phases are: (1) the developers, (2) the first contractors, (3) the first majority, (4) the delayed majority, and (5) the omissions. This mode has been used to study the acceptance of different technological knowledge technologies in healthcare. The DO therefore did not provide information on how to assess personality traits (Gagnon et al., 2010).

Technology Acceptance Model

The second point under consideration is the Technology Acceptance Model (TAM) to examine factors that contribute to the acceptance and use of electronic medical records in hospitals (Davis, 1989). This module seems to be particularly effective in the field of health information technology because it focuses on two different variables that affect the use of information technology. Comprehensive use (PU) is an indicator of the degree to which a person believes that the information system will assist them in the performance of their duties (Davis et al., 1989). Self-efficacy (PEOU) is the second factor used to indicate how much the individual believes that a planned system can be implemented. These structures are based on the theory of rational behavior, which has shown that human personality traits are defined by human attitudes as well as common behaviors as assumed by repetition.

Although TAM has been used in a number of studies dealing with a wide range of information technology, the literature review shows very few studies in the health field and even a few that have to do with health information. Subsequent sections have found that TAM is the best mode for evaluating clinicians' acceptance of telemedicine technology because it focuses on technological knowledge, is well-researched, uses psychological

measurements, and is the most important examples of user-taking technology (Mary 2008; Chau & Hu, 2001, 2002; Hu et al., 1999).

2.2 Empirical Literature review

Influence of Capacity in the Adoption of EMR

Information and communication technology (ICT) improves our lives, our interactions with each other and our daily lives and work. ICTs have had a major impact on the global healthcare industry. Its acceptance and use, leading to e-health care, has changed the way health services are provided. Its function in health is widely described as Health, including telemedicine¹, electronic medical records and healthcare systems with decision-making tools, telephone health and learning programs. EHealth has demonstrated excellence in managing better healthcare systems, leading to better health and universal health coverage. It creates opportunities, increases efficiency, improves early health systems and can be more conducive to situations where human resources are scarce (Shiferaw & Zolfo, 2012). Inspired by this change; treatment errors and the cost of referral services were reduced, while the capacity of physicians and physicians and patient relations was improved. The benefits have been realized and much more has led to a number of governments in developed countries saving large sums of money to promote its adoption. (Omary, Lupiana, Mtenzi, & Wu, 2010)

Despite these positive developments, healthcare professionals are still refusing to install computer technology on patients. These experts prefer to write sentences by hand, for example, rather than using too much technology. The ICT trend is linked to a number of factors. Health professionals say the whole process of taking patients' records off personal computers is not medically wasted or a waste of time. (Omary et al., 2010). EMR is a high-tech system that includes complex hardware and software, and therefore requires a different level of ITI expertise with users (therapists). In addition, there are other (technical) problems

with EMRs that lead to complaining physicians and therefore need to be improved. This is because the barriers that exist are based on the competence of physicians and issues of competence.

2.5 Influence of Infrastructure in the Adoption of EMR

EMR systems provide the first set of solutions that can be integrated into other electronic health solutions. EHealth properties contributes to effective Health acceptance (Ouma & Herselman, 2008; Qureshi et al., 2013). In a study conducted in Kenya, which focused on the adoption of ICT in SMEs in the health sector, the quality of ITI systems is considered to be an important factor in determining the acceptance of ICT (Muathe, Wawire & Ofafa, 2013). In another study conducted in Kenya, it was found that physicians want to do e-research to share access and health information with colleagues in other parts of the world. Thus, incomplete ICT resources establish themselves in research (Gatero, 2010). According to a study by MicevskaMaja (2005), which focuses on the existing interventions between information technology and public health promotion from two countries, Bangladesh and Lao, the stock of communications infrastructure plays an important role in the public sector. The transfer of health information between health facilities, patient and patient facilities, health facilities and third parties such as insurance companies, patients and health facilities is compromised if calls and television access are low (David Muchangi Mugo, 2014).

2.6 Influence of User Perception in the Adoption of EMR

Opinions, information and issues about people are the biggest concerns regarding the use of EMR systems. Physicians are concerned about the loss of self-regulatory skills and their perception that poor behaviors associated with EMRs are very worrying for physicians. More than half (58.1%) of non-EMR therapists have the suspicion that EMRs can promote clinical outcomes or inpatient treatment accordingly (Kemper et al., 2006). As confirmed by

some researchers who do not want to use the EMR system, they are not sure about the recommendations. that the system will successfully promote a variety of treatment methods (Jha et al., 2009). It thus creates a human resistance to accepted acceptance of EMR systems. Physicians often fear change and question its value, but as a result, the implementation of EMR systems means a change in the work ethic of physicians. Furthermore, the physician's perception of EMR systems is influenced by the environmental environment and thus uncertainty and negativity.

2.7 Influence of Workload in the Adoption of EMR

Lack of time and increased workload for physicians, other health care workers and administrators are significant barriers to the implementation of EMR. Studies include health workers who have made extensive statements about heavy workload (Greenhalgh, Wood, Bratan, Stramer, & Hinder, 2008) and EMR use as time management (Chronaki et al., 2007; Randeree, 2007) and are concerned about EMR performance. it takes time from clinical clinical activities. Studies on managers have expressed concern about the continued use of medications by physicians (Miller & Sim, 2004). Workflow is considered to be very important in the work of physicians, and thus they believe that the installation of EMRs reduces their mobility as it will lead to more time to use, enter data and learn to use the EMR system. As a result, their productivity increases and their yields decrease. It can also lead to financial problems, such as financial loss. The job function can be seen in the following steps.

2.4 Conceptual Framework

According to Orodho (2018) conceptual framework is a model of presentation where a researcher conceptualizes or represents the relationships between variables and shows the relationships graphically or diagrammatically.

Independent Variables

Dependent Variable

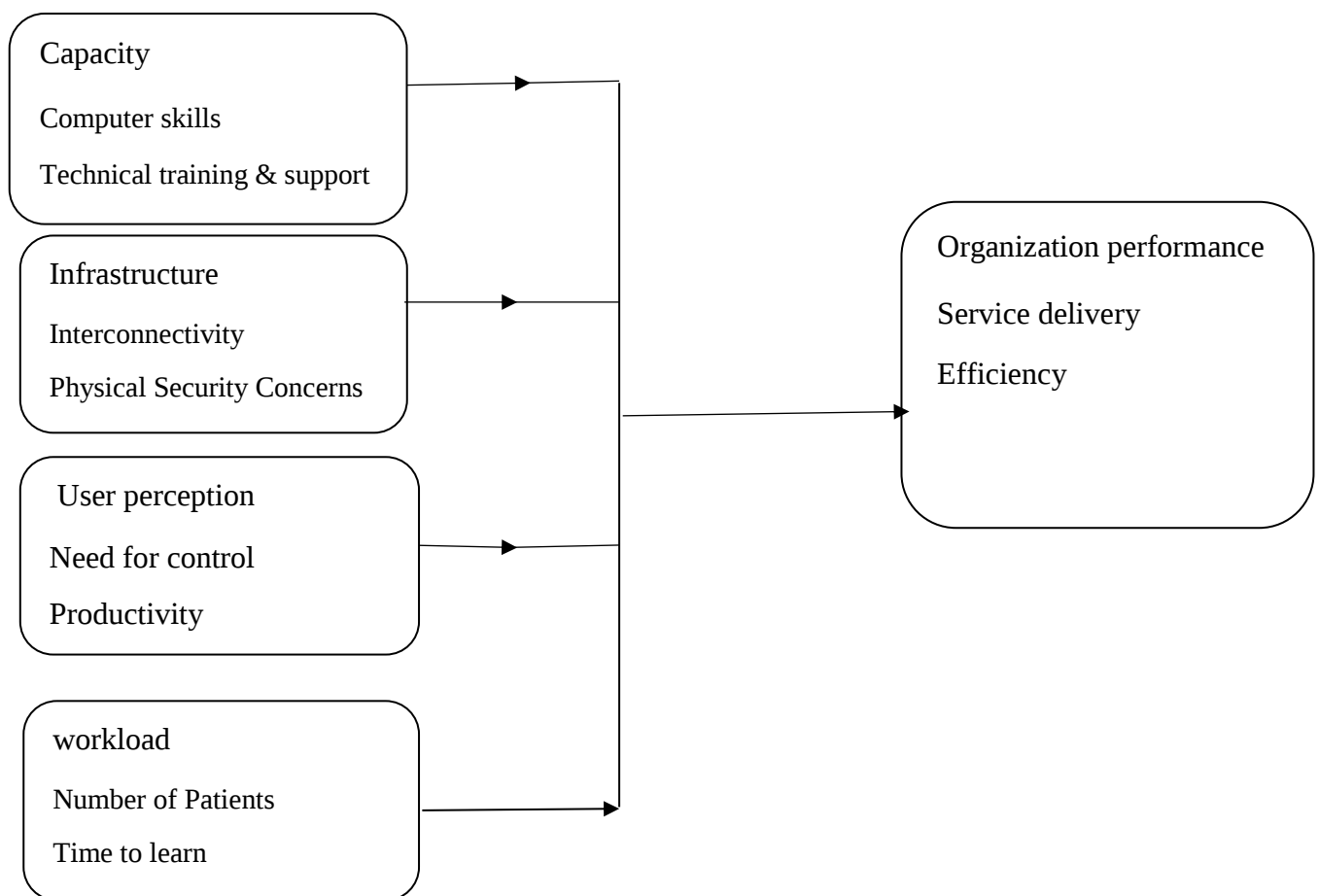


Table 2.1 Operationalization of Variables

OBJECTIVE	VARIABLE	INDICATOR	MEASUREMENT STYLE
Capacity	C	Computer skills Technical training & support	Measured by Question of part B, No.8 in the appended questionnaire
Infrastructure	I	Interconnectivity Physical Security Concerns	Measured by Question of part C, No.7 in the appended questionnaire
User perception	UP	Need for control Productivity	Measured by Question of part D, No.7 in the appended questionnaire
Workload	W	Number of Patients Time to learn	Measured by Question of part D, No.8 in the appended questionnaire

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter outlines the different components and components that were implemented during the conclusion of the study. This includes a data capture system. This section is a complete program, program or format designed to assist the researcher in answering search questions. In this section, the methods and techniques used in capturing, editing and analyzing data are explored.

3.1 Research Design

In this study, the definition of a research design was designed where self-guided queries would be used to collect data. Descriptive research is organized and regularly organized to find questions, including asking questions (usually in the form of individual group questions, adding that the main purpose was to describe current locations as they are and to ‘existing related applications or situations’). produce (Mugenda & Mugenda, 2017) states that a design specification that selects and reports activities or answers to questions regarding the current subject areas in the subject, and thus the descriptive strategy to achieve the learning objectives. The design has a one-to-one one community admission course followed in Wajir County Hospital.

3.2 Target Population

The target population was Wajir County Referral Hospital that had deployed but not implemented EMR. This study focused on Wajir County Referral Hospital. The accessible population.

The study was conducted at Wajir County Referral Hospital. This was the only County Referral Hospital that serves the entire county located at Wajir East Constituency, near Wajir police station.

The hospital occupies about an acre of land. It offers both inpatient and outpatient services which include preventive, curative, and rehabilitative services. It had 6 wards and total bed capacity of 83 with an average annual turnover of 8,341(hospital statistics'2015)

Table 3.1: Target Population

Sample	Number per institution	Number of institution	Total number of participants
Senior health managers	2	1	2
Health service providers	5	1	16
Total			18

3.3 Sample and Sampling Technique

Sampling is the process of selecting the appropriate subject number from a specific quantity. It was good to take the population if there was a small sample for the purpose of the study, because in the case of an existing study in the referral hospital of Wajir County, there were five departments with EMR so deployed, and readings were obtained to gather information from Select. participants of one department, medical head means supervising nurse and medical head of each department and health service provider of each of the five. Departments

in this area refer to the complete clinic (CCC) of the laboratory and pharmacy of the external department (MCH) for women's health (MCH).

3.4 Instruments

The researcher used questionnaires as a tool for data collection. The questionnaires contain closed ended questions that solicited respondents' views on customer satisfaction, as weighted on linker scale. Questionnaires were self-administered and picked one week later to allow respondents ample time to fill them. In addition to primary data, secondary data was obtained from relevant journals, books, researches and other academic publications.

3.5 Pilot Test

A draft questionnaire was tested informally concentrating on the research questions by my colleagues and family who read through and provided constructive comments on wording and meaning of each question. To ensure that the research instrument are valid, reliable, clear and free from errors, the study conducted a pilot study on selected 12 staffs of Postal Corporation of Kenya who were later omitted from the main study. The questionnaires that were tested on members of the Wajir County Government for piloting were not included in the final study findings.

3.5.1 Validity

According to Zikmund (2013) validity tests involve ascertaining the accuracy of the instrument by establishing whether the instrument focuses on the information they are intended to collect. For this study, to ascertain face validity, the instruments were constructed and passed over to supervisor for constructive criticism and later were revised according to his comments. On the other hand, content validity was achieved by subjecting the data

collection instruments to an evaluation by a group of experts who were expected to provide their comments on the relevance of each item on the instruments. The results of their responses were analyzed to establish the percentage representation using the content validity index.

3.5.2 Reliability

Reliability test is very important because it showed the magnitude of the scale that produces the result if the measurements are made doubled. This validity of the study was done by adjusting the relationship between the components obtained by the different management scales. Cronbach's alpha was employed to determine the internal reliability of the questionnaire to be used in this study. According to Sekran (2014) as cited by Wanyoike (2013), reliability should be at least 0.70. A Cronbach Coefficient Alpha which is above 0.7 indicates the instrument used is reliable and acceptable for administration since the alpha is above the recommended value.

3.6 Data Collection Procedures

The study recorded and distributed the questionnaires to the identified sample and gave the respondents a time frame within which the questionnaires were collected.

3.7 Data Analysis and Presentation

Both quantitative and qualitative techniques were used in analysis of the study findings. Qualitative data which is non-numerical took into account the respondents, opinions; statements and suggestions. This study used quantitative data specifically descriptive statistics. Regression analysis was used to determine whether one variable is a predictor of another variable, thus it was used to define the association amongst the dependent and

independent variables. The discoveries were offered in the procedure of a table, bar graphs, pie charts and percentages.

3.8 Ethical Consideration

Behavior is a set of values that lead to moral choices about our character and our relationships with others. Traditional thinking is:

3.8.1 Informed Consent

The exact contact by the respondent, the benefits of the benefit should be discussed. The interviewer should begin with an introduction with his or her name, name of the search site, and a brief description of the purpose and benefits of the research.

3.8.2 Voluntary Participation

The incentive to participate financially or otherwise should not be incompatible with the job or brought about in a way that results in coercion.

3.8.3 Confidentiality

Once a privacy guarantee has been granted, privacy protection is essential. Searchers should control access to information that identifies names, phone numbers, addresses or other indicators.

3.8.4 Privacy

All people have a right to privacy, and investigators should respect that right. The confidentiality guarantee is not only important to maintain the integrity of the search but also to protect respondents.

3.8.5 Anonymity

The rights and well-being of the respondent must be fully protected. Respondents must have given their consent before the study

3.9 Chapter Summary

This chapter outlines the different components and components that were implemented during the conclusion of the study. This includes a data capture system. This section is a complete program, program or format designed to assist the researcher in answering search questions. In this section, the methods and techniques used in capturing, editing and analyzing data are explored.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION OF RESEARCH FINDINGS

4.1 Introduction

In this chapter, data analysis and interpretation of the data on the subject are presented. It will focus on the level of responsiveness and the factor that attracts the acceptance of the EMR system in public health organizations, which will be organized according to search queries.

4.2 Questionnaire response rate

Out of 18 questionnaires distributed, 18 were correctly filled and returned which represent a response rate of 100 percent.

4.3 Demographic characteristic of the respondent

This section focuses on women, age group, education level, department of employment, year of service, level of admission and level of competition. This information is intended to determine whether the respondent is appropriate to answer the question regarding the factor contributing to the adoption of the EMR system in the referral hospital in Wajir County.

4.3.1 Distribution of the respondent by gender

An inclusion was in the questionnaire that sought information about participants' behavior. Studies have shown that the majority of participants were women. Table 4.1 presents the participant by character.

Table 4.1 Distribution of the respondent by gender

Gender	Frequency	Percentage
Male	6	45.8
Female	12	54.2
Total	18	100.0

The study revealed that 54.2% of the respondents were female while 45.8% of the respondents were male. As shown in table 4.1 both gender were visible in the study.

4.3.2 Distribution of the respondent by age group

Table 4.2 Distribution of respondent by age group

Category	Frequency	Percentage
Under 29 years	2	11.1
30 – 39 years	10	51.4
40 – 49 years	6	37.5
Total	18	100.0

Out of 18 respondents 45 (62.5%) are below 40 years. This shows that the majority of the respondents are in age group that is viewed as being technology receptive.

4.3.2 Distribution of respondent by level of education

Table 4.3 Distribution of respondent by levels of education

Category	Frequency	Percentage
Certificate	1	1.4
Diploma	11	61.1
Graduate	4	25.0
Post graduate	2	12.5
Total	18	100.0

Of the 18 respondents1 (1.4%), a certificate with the highest percentage of education,44 (61.1%) had a diploma education as their higher level of education, 18 (25.0%) graduates as part of their higher education, while 9 (12.5%) graduates as well the higher part of education. This indicates that the population includes student's human beings.

4.3.4 Distribution of respondents by years of experience

Table 4.4 Distribution of the respondent by years of experience

Category	Frequency	Percentage
Less than 1 year	1	9.7
1 – 5 years	13	76.4
6 – 10 years	4	13.9
Total	18	100.0

With the exception of 18 respondents (9.7%), health workers served less than one years (76.4%) between the ages of 10 and (13.9%) between the ages of six and ten information. Based on this study, most healthcare providers have an extra 5 years' information. It has shown that all healthcare providers have their own knowledge patient contact.

Distribution of respondent of level of adoption

Category	Frequency	Percentage
Fully electronic	3	20.8
Hybrid (both)	6	36.1
None (fully paper based)	9	43.1
Total	18	100.0

Out of the 18 respondents (20.8%) reported that they actually used the EMR system in their practice, (36.1%) currently use a hybrid system, i.e. paper and electronic system, while (43.1%) did not use an electronic record system. These results suggest that most conservation organizations have used the EMR system.

4.3.6 Distribution of respondent by level of competence

Table 4.6 Distribution of the respondents by level of competence

Category	Frequency	Percentage
Basic users	1	18.1
Intermediate users	3	22.2
Advanced users	2	16.7
Total	4	36.9
Not applicable	8	43.1
Total	18	100.0

At the competency level (18.1%) reported that they were heart users, (22.2%) were intermediate users in the use of the EMR system, while (16.7%) had advanced skills in the use of EMR. This indicates that all healthcare providers under the study are proficient in using the EMR system.

4.4 Influence of capacity in the adoption of EMR

4.4.1 Responses of respondent on the use of computer application

Table 4.7 Distribution of the respondent on use of computer application.

Use of Computer Application	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree	Total	Mean
Competence in using MS word	0	5.6	4.2	63.9	26.4	18	4.11
Competence in using MS Excel	8.3	20.8	5.6	50.0	15.3	18	3.43
Competence in using MS Access	25.0	30.6	5.6	33.3	5.6	18	2.64

Of the 18 respondents, 90.3% of respondents reported having knowledge of using MS Word (average = 4.10, 65.3%) had experience using MS Excel (average = 3.43), while 38.9% reported having experience using MS Access (mean = 2.64). From this analysis, it seems that most health care professionals have first-hand experience in some operating systems, but not all.

4.5 Influence on infrastructure in the adoption on EMR

4.5.1. Respondent by availability of a computer

Table 4.12 Respondents by availability of a computer

Category	Frequency	Percentage
Yes	12	62.5
No	6	37.5
Total	18	100.0

With the exception of 18 respondents (62.5%), they reported a computer in their department, while (37.5%) reported that there was no computer in their department. Based on this study, it appears that most healthcare providers have a computer that is one of the minimum requirements offered in terms of the construction process of the EMR system.

4.5.3 Respondent by availability of other infrastructure

Availability of other infrastructure	Yes	No	N/A	Total	Mean
Computer linked via LAN	30.6	32.0	37.5	18	1.58
Computer that have access to the internet	25.0	37.5	37.5	18	1.60
Computer room is burglar proofed windows and doors	62.5	0	37.5	18	1.00
System to secure the computers within rooms	9.7	52.8	37.5	18	1.84
Incidence of theft of EMR equipment in the last 6 months	0	62.5	37.5	18	2.00

Back-up system that ensures easier retrieval of patient information /records	30.6	31.9	37.5	18	1.51
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Based on the findings in Table 4.4, the majority of respondents agreed that there had been no incident of EMR theft during the past six months (i.e. = 2.00); closed cages, chains, etc. (Average = 1.84), the computer had no internet access (average = 1.60), and the computers were not connected to the LAN (average = 1.84).

There was no backup system that guaranteed easy control of the patient record (i.e. = 1.51), and finally the thief showed up in the computer room windows and door (average = 1.00). From this study, it is clear that coordination is a major obstacle in the widespread acceptance of EMR systems as reinforced by (Meacham, Langley & Brooks, 2007). This study also found a significant weight correlation between the traits and acceptance of EMR at $r = 0.0205$, $p < 0.177$ (Table 4.7).

4.6 Influence of user perception in the adoption of EMR

Table 4.15 perception of health care practitioner concerning adoption of EMR system

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total	Mean
An EMR system quickens the process of clinical decision making	0	1.4	13.9	52.8	31.9	18	4.15
An EMR system makes it easy to retrieve patient's	1.4	1.4	5.6	45.8	48.5	18	4.33

medical records							
With an EMR patient waiting time is shortened	1.4	1.4	13.9	45.8	37.5	18	4.17
Implementing an EMR improves confidentiality of patient record	0	0	8.3	47.2	44.4	18	4.36
EMR system can help reduce medication	0	0	8.3	38.9	52.8	18	4.36
With an EMR it's much easier to maintain a patient's appointment system	0	1.4	9.7	40.3	48.6	18	4.26
EMR system can improve the patient's overall quality of care	0	0	13.9	45.8	40.3	18	4.26
I prefer an EMR system for my day to day operations	1.4	0	11.3	38.0	49.3	18	4.34
I feel much in control while using paper based system than EMR	25.0	20.8	19.4	13.9	20.8	18	2.85
Transitioning to EMR will interfere with my overall performance	36.1	40.3	13.9	2.8	6.9	18	2.04

I am not assured of the security of the patient's information with EMR	45.8	34.7	11.1	2.8	5.6	18	1.88
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4.7 Influence of workload in adoption of EMR

The result are shown in the table 4.16

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total	Mean
In this department the daily workload is overwhelming	1.4	9.7	8.3	22.2	58.3	18	4.26
The number of staff in this department is adequate enough to offer services required	61.1	16.7	12.5	6.9	2.8	18	1.74
In this department the work schedule (shift) help to reduce the daily workload	20.8	15.3	22.2	26.4	15.3	18	3.00
Using the EMR System increases the amount of time spent with each patient	26.4	31.9	26.4	11.1	4.2	18	2.35
I always work beyond my working hours because of high daily	8.3	11.1	12.5	43.1	25.0	18	3.65

patient turn-up							
I find it easy to spare time to learn the EMR system will increase workload	4.2	1.4	19.4	33.3	41.7	18	4.07

Based on the findings in Table 4.16 of the 18 respondents, most of them strongly agreed that the daily routine is large (average 4.26). The adoption of an EMR system increases workload (average = 4.07); they always work outside of their working hours due to high returns (average = 3.65). The work program helps to reduce that of daily work (average = 3.00). the use of an EMR system increases the amount of time spent by each patient (average = 2.35) and ultimately they do not agree that the number of staff in the branch was sufficient to provide the required (average = 1,74).

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the findings, conclusions, and study tips.

The summarized findings are relevant to the learning objectives: capabilities, facilities, user visibility and scope function. These independent variables have been studied in contrast to the corresponding variance which is the acceptance of electronic medical records by health organizations.

5.2 Summary of Findings

The purpose of this study was to investigate the factors contributing to the adoption of the electronic medical record system in the referral hospital in Wajir County. Four research objectives were developed to guide the study. The purpose of the research objective is to establish a position that influences the adoption of electronic medical record systems; the purpose of the research objective is to evaluate the degree of infertility, electronic medical record systems, third party objective to measure the extent to which the acceptance of users of Electronic Medical Record systems in the referral hospital in Wajir County.

The study used a descriptive research design model where independent questionnaires were used in data collection. The study was ninety-nine people taken from the 13 referral hospital in Wajir County. Data were analyzed using frequency table, percentages, meanings, and correlations. Based on the analyzed data, the findings of this study are summarized in the table below.

5.3 Discussion of the research findings

5.3.1 Capacity and the adoption of EMR system

One of the objectives of this study is to determine how much energy affects the reception of electronic medical record systems at Wajir County Referral Hospital, Kenya. Findings from the study showed that Ability is one of the factors contributing to the adoption of EMR. Statistics reported that the majority of respondents admitted that they had experience with MS Word (90.3%) and MS Excel (65.3%), and most respondents also said that they had no experience with MS- access (38.9%). Most of them agree that they use the internet at least once a week (73.6%) and also speed up their typing skills (61.1%). Regarding the training of EMR, respondents agreed that they were already trained in the EMR system (66.7%) and that they received follow-up / instruction / support after training on the use of the EMR system (38.9%). Of all respondents trained at EMR, most of them strongly agree that the standard of teaching was good (51.4%) and that it was free to use in the program (38.9%) in terms of convenience , but only a few respondents said that the follow-up instruction level was positive (26.3%). This shows that most healthcare professionals have had first-hand experience in using computers and use the internet on a large scale, thus being able to understand and embrace new technologies.

These findings contradict previous findings of experts who have suggested that the reason for the decline in e-health care among developing countries is the lack of computer proficiency among physicians. To successfully practice e-health care in the country, computer skills for health workers and employees involved are a must. (Omary et al., 2010) However, these results also show that most undergraduate health professionals wrote quickly to understand and accept new technology, because as a doctoral certificate, typing skills are required to enter medical information, records, and records. the EMR system, and some doctors do not.

The statistically significant correlation was observed between the potential and acceptance of EMR at $r = 0.601$, $p < 0.000$. This means that an increase in energy will lead to an increase in EMR intake. A reasonably accurate comparison can still be interpreted as a potential factor in the use of EMR.

5.3.2 Infrastructure and the adoption of EMR system

The study sought to determine how the Buildings affect the use of electronic record systems at Wajir County Reference Hospital, Kenya. The findings of the study showed that the facilities were not one of the factors affecting the acceptance of EMR. The data showed that fifty-five (62.5%) out of 18 respondents had computers and that 57.0% and 44.5% of respondents had adequate computer and print capacity on a daily basis. Respondents also agreed that in the past six months there had been no theft of EMR equipment (average = 2.00), there were no computer security systems in the rooms, e.g. locked cages, chains, and more. (average = 1.84), computers without internet access (average = 1.60), computers not connected to LAN (average = 1.58), was a non-backup system that facilitates access to information / records (average = 1.51) and ultimately secure computer room security - windows and doors (average = 1.00).

From this analysis it seems that most healthcare professionals have access to a computer and printer, which is one of the few requirements for having an EMR system, and that there are still 'basic' / Hardware facilities required. These findings are consistent with previous findings by some scientists who have suggested that computer systems are the backbone of the use of e-health services. Sufficient Hardware is required to use the EMR systems, which include mobile phones, computers and internet connections. Lack of these 'original' hardware / Hardware prevents widespread adoption of the EMR system as it is necessary to support the implementation of EMR. This study also clearly shows that the integration and scarcity of

‘basic’ hardware / Hardware is a major obstacle in the widespread use of EEM systems as mentioned (Menachem, Langley, & Brooks, 2007). The significant decrease in positive correlations observed between facilities and EMR acceptance at $r = 0.205$, $p < 0.177$, implies that an increase in facilities leads to an increase in EMR acceptance. However, the measure is negative, which means that a lack of facilities does not prevent health workers from taking EMR systems.

5.3.3 User Perception and the adoption of EMR system

The study sought to measure the extent of user thinking that influences the adoption of electronic medical record systems at Wajir County Referral Hospital, Kenya. A research study showed that user estimation was one of the factors influencing the acceptance of MEMR. In ordering their power with the authorities, descriptive statistics showed that the majority of respondents agreed; The EMR system can help reduce medication / drug errors (ie = 4.44), EMR compliance improves the patient's privacy records (average = 4.36), EMR has very easy to maintain a patient plan (ie = 4.36). They select the daily operations of the EMR system (ie = 4.34), The EMR system makes it easy to obtain medical records of patients (average = 4.33); the EMR system can improve patient safety levels (mean = 4.26), and an EMR patient's waiting time is shortened (mean = 4.17), the EMR system accelerates treatment decision-making methods (mean = 4.15). Those who are more in control still use a paper-based system than EMR (average = 2.85). The switch to EMR affects their performance (mean = 2.04) and ultimately does not guarantee patient safety with EMR (mean = 1.88).) These findings were not consistent with previous findings of some experts who indicated that more than half (58.1%) of non-EMR physicians have no doubt that EMRs can improve clinical outcomes or patient outcomes accordingly (Kemper et al., 2006). As some researchers note, those who do not want to use the EMR system are uncertain about the claim

that the system will succeed in improving the quality of treatment, and that doctors are concerned about their loss of control over patient information and the performance of EMR systems. , because this data will be analyzed by others. As noted by (Walter & Lopez, 2008), the view of physicians is important in their acceptance of EMR of threats to their autonomy, nurses reported that longer time interacting with the EMR system controls their work because they spend less time with patients spent. This study found a positive correlation between user perception and EMR reception at $r = 0.545$, $p < 0.000$, indicating an increase in user perceptions and health professionals leading to an increase in EMR survey systems. A fairly accurate comparison can still be interpreted that led to user perception leading to the adoption of EMR.

5.3.4 Workload and the adoption of EMR system

The study sought to determine how the service was affecting the use of electronic recording systems at Wajir County Reference Hospital, Kenya. The findings of the study showed that increased activity was one of the factors affecting the use of EMR systems. In the ordering of their power from the authorities, descriptive statistics showed that the majority of respondents agreed; that of daily work is alarming (average = 4.26), acceptance of the EMR system increases activity (average = 4.07); they always work outside of their working hours for daily patients (average = 3.86), they find it easier to spend free time learning the EMR system (average = 3.65), which work program (shift) helps reduce that daily activity (average = 3.00). The use of the EMR system increases the amount of time a patient spends (average = 2.35), and ultimately did not assume that the number of staff in the branch was sufficient to provide the required services (average = 1.74). These findings, based on previous findings by some experts, indicate that physicians, other health care workers, and the lack of time and attention of managers and staffing are significant barriers to EMR performance. Studies involving

health professionals have made extensive statements about heavy workload (Greenhalgh, Wood, Bratan, Stramer, & Hinder, 2008) and the use of EMR as time consuming (Chronaki et al., 2007; Randeree, 2007) and about EMR performance. it takes time for clinical practice. Studies on managers have expressed concern about the continued use of medications by physicians (Miller & Sim, 2004). This study also found a negative correlation between ambiguity of activity and acceptance of EMR at $r = 00.653$, $p < 0.000$. This means that a reduction in workload leads to an increase in EMR acceptance. The negative ambiguity comparison can also be interpreted as an action that affects the reception of the EMR system.

5.4 Conclusions of the Study

This study examined the scope of capacity, buildings, user vision, and workload that led to the adoption of EMR systems in public places in Wajir County, Kenya. This study was successful in dealing with search objectives and search queries. Following the findings of the research and discussion above, the results of the study are as follows: the expertise was significant which led to a slight reduction of the EMR system. The results showed a significant relationship between the potential and acceptance of EMR, and this meant that MEMR acceptance was compromised by Competence.

Again, the findings showed a poor correlation between the facilities and the receipt of the EMR, and this meant that the acquisition of the MEMR was not affected by the lack of facilities. Again, the findings showed a positive relationship between users and EMR acceptance, and this meant that the acceptance of EMR was compromised by users' perception. Finally, work-related factors were found to be encouraging and relevant to the adoption of EMR. Most health professionals reported that daily activity was high (80.5%) and that EMR reception increased activity (73.6). The findings showed that such a significant association led to a significant reduction in EMR, as confirmed by some experts in other

studies that included healthcare providers who made extensive statements about hard work (Greenhalgh, Wood, Bratan, Stramer, & Hinder , 2008) and use EMR as time management (Chronaki et al., 2007; Randeree, 2007) and concerns about the implementation of EMR take time away from clinical activities of clinicians.

5.5 Recommendations

The inclusion of ICT in the curriculum of medical courses, as it gives them owners and confidence to use technology once they enter the culture, and is helpful in the acceptance of EMR by physicians.

After initiating the formal training of health workers, the best follow-up instruction should be followed to provide the necessary professional assistance. This will help health care providers to obtain adequate information to stabilize using the EMR system. 3. The Ministry of Health should consider providing adequate medical care for the growing number of patients who visit the hospital on a daily basis by educating the majority of medical professionals and providing them with adequate funding to remain in working areas. . This helps to reduce the amount of daily work.

5.6 Areas for further Study

This study focused on four factors that are considered to influence the adoption of EMR. This study suggests that future research should focus on other factors that may influence the predictability of EMR. This study was conducted only in Wajir County, so this study recommends that research be done in a large area to enable more quantity. This study focuses only on public buildings, and therefore it is recommended that only one study be done in private buildings to measure their level of EMR acquisition.

REFERENCES

- Abrahamc, Nishihara, E Akiyama, M(2011) transforming healthcare with information technology in Japan. A review of informatics, 80:15 7-70.
- Canada Health Infoway and Health council of Canada (2006) beyond good intentions, accelerating the electronic health record in Canada Policy conference Montebello, QC, Canada.
- Clines , S.(2012) About Health IT in North Carolina N.D Ott.a.H services , NCD department of health and Human services
- David MuchangiMugo D. N (2014) Determinants of electron Health in Developing countries international Journal ICF Arts and commerce, 3(3), 49-60
- Degeratu et al., (2003), *Accounting for Hospitality, Tourism and Leisure*, Newton Publishers, Edinburgh.
- Dornier et al., (2015), *A decision support system for supplier selection using an integrated analytic hierarchy process and linear programming*. International Journal of Production Economics;:pp.199–212, 1998
- Gaither (2001), *Purchasing Performance: Measuring, Marketing, and Selling the Purchasing*, Hillcrest, London.
- Girard, (2010) *The impact of supply chain management practices on competitive advantage and organizational performance*, Omega 34(2), 107-124.
- Handfield (1994), *An analysis of the supplier selection process*. Omega, International Journal of Management Science 1998; 26(6): pp 739–50,
- Hariga M., (2013) *Introduction to Supply Chain Management*. , Prentice-Hall, USA.
- Harrington (1996). “*Power, Value and SCM*”. *Supply Chain Management: An International Journal*. 4(4) 167-175.

- Johnson and Scholes (2004) “*Purchasing and Supply Chain Strategy: Benefits, Barriers and Bridges*” An Independent Conceptual Study Paper in Strategic Management, School of Business, University of Nairobi September 2002.
- Keeney, (2011). *Essentials of educational and Social Sciences*; Research Method, Masola Publishers, Nairobi.
- Lee W. C., (2004), *Global supplier development considering risk factors using fuzzy extended AHP-based approach*, International journal of management science, pp. 417 – 431.
- Leenders et al., (2002) “*Achieving World Class Supply Chain Alignment: Benefits, Barriers and Bridges*” A Compiled Research Report.
- Lewis, (1999). *Supply chain management: supplier performance and firm performance*. International journal of purchasing and material management 34 (3), 2–9.
- MacCarthy and Attchirawong, (2003), *Using data envelopment analysis to compare suppliers for supplier selection and performance improvement*. Supply Chain Management: An International Journal; 5(3):pp.143–50.
- Maclean and Pioro (2010), *Application of Inventory Manufacturing Practices. A Survey in Large Manufacturing Firms in Kenya*; Unpublished MBA Project University of Nairobi.
- Moon et al., (1997), *Financial Management for Hospitality Decision Makers*, First publishers, Burlington.
- Mugenda O. M and Mugenda A. G (2003), *Research Methods; Quantitative and Qualitative Approaches*; ACTS Press Nairobi
- Naddor (2014), *on the development of a case based supplier management tool for multinational manufacturers*. Measuring Business Excellence 2002; 6(1):pp.15–22.
- Ouyang et al., (2000), *Production Functions and The Concept Of Capacity*, McGraw Hill, New Delhi.

Pan et., (2002), *An Investigation On The Relationship For Supplier Performance Metrics And Supply Chain Strategies*, Chen Publishers, Singapore.

Porteus (1998), “*The Haves and the Have Nots*”: Supply Chain Practices for the New Millenium: Inbound Logistics Journal. 75-114.

Silver et al., (2000), *Measuring supply chain performance*. International Journal of Operations and Production Management 19 (3), 275–292.

Tulay (2016), *Why There Is Chronic Excess Capacity - The Market Failures Issue*, Challenger Publishers, New York.

Giatero, G. M. (2010) Utilization of ICT is for accessing Health information by medical professionals in Kenya

ITU (2013).ICT facts and figures retrieved from <http://www.itu.int> ITTUD/statistics /Documents/Facts/ICT facts Figures 2013.pdf.

Kemper, A.R Uren, R, L, Clarks, S.J.(2006). Adoption of electronic health records in primary care predicting the adoption of electronic health records by physicians, when will health care be paperless? Journal of the American medical informatics Association 13, 106-112.

Lewandowski, S.O connovi P.J solbeg L, L, Lals T, Hroschikoski, NI, and sperl-Hillen J.

M(2006) increasing primary care physician productivity . A case study American Journal of managed care, 12, 573-576. Doi 3201(Pii).

Makori, A, C Musoke, M, Gilbert, M (2013). User issues on the adaption of health informatics system in level 5 hospitals in Nyanza, Kenya interdisciplinary Journal of contemporary Research in Business, 5(1)

Meade, B, Buckley, D & Boland, M. (2009). What factors affect the use of electronics

- patient's records by Ivish GPs international journal of medical informatics S, 78, 55
1-558. Doi: 10. 1016/J. Imedinif . 2009.03.004
- Miceuska, M (2005). Telecommunication, public Health and demand for Health related
information and infrastructure, information technologies and international
Development, 2(3), 57-72
- Ministry, M.S, Health, P. (2010) standards and Guidelines for electronic medical record
systems in Kenya Information systems.
- Schoeric, Osborn R, Doty M M, squires D, peugh J, Applebaum 5 (2009) A survey of
primary care Physicians in eleven countries. Perspectives on care costs and
experiences. Health AFF(Mild wood) 28:W 1171-1183.
- Siluersides A: Canadian Physicians playing 'Catch-up' in adopting eltronic medical records
CAN J 2010, 182: E103-104

APPENDICES

Appendix I: Questionnaire

1. Gender of the respondents.

a) Male []

b) Female []

2. Age brackets of the respondents

a) 18-27 []

b) 28-37 []

c) 38-47 []

d) 48 and above []

3. Highest level of education of the respondents

a) None []

b) Primary []

c) Secondary []

d) Tertiary []

4. In which department do you work? (Select one)

a) CCC ☐

b) Lab ☐

c) Pharmacy ☐

d) OPD ☐

f) MCH ☐

5. For how long have you been working in this facility?

a) Less than 1 year ☐

b) 1 - 5 years ☐

c) 6 – 10 years ☐

d) More than 10 years ☐

6. Choose what best describes the level of electronic medical record system in your Department? (Tick only one box)

a) ☐ Management of health records in this department is fully electronic.

b) ☐ Management of health records in this department is hybrid (partially electronic and partially paper-based).

c) ☐ We do not have electronic medical records in this department.

7. Please choose one response that best describes your internet usage

- a) ☐ I use internet services atleast once every week
- b) ☐ I use internet services atleast once a month
- c) ☐ I rarely use internet (a month can go without using internet services)
- d) ☐ I do not use internet services at all

8. Please choose one response that best describes your typing skills

- a) ☐ I am slow in typing
- b) ☐ I am relatively fast in typing
- c) ☐ I consider myself quite fast in typing

9. Have you received any form of training course on Electronic Medical Records software?

Yes ()

No ()

10. Is there a computer(s) in your department?

Yes ()

No ()

11. Are there systems to secure the computers within the room(s) e.g. lockable cages, chains.

Yes

()

No

()

12. Has there been an incidence of theft of EMR equipment in the last 6 months?

Yes ()

No ()

13. Use the scale of: 1 = strongly disagree, 2 = disagree, 3 = uncertain, 4 = agree, 5 = strongly agree

		1	2	3	4	5
C8.	I am competent in using MS Word					
C9.	I am competent in using MS Excel					
C10.	I am competent in using MS Access					

14. Please choose one response that best describes your internet usage

a) [] I use internet services atleast once every week

b) [] I use internet services atleast once a month

c) [] I rarely use internet (a month can go without using internet services)

d) [] I do not use internet services at all

e)

15. Please choose one response that best describes your typing skills

a) [] I am slow in typing

b) ☐ I am relatively fast in typing

c) ☐ I consider myself quite fast in typing

16. Have you received any form of training course on Electronic Medical Records software?

Yes ☐ No ☐

Appendix II: Work Plan

Activity Timeframe	2018			2019			
	SEPT	NOV	DEC	JAN	FEB	JUNE	JULY
Topic Submission							
Proposal writing							
Proposal Submission							
Proposal Submission							
Data collection							
Data Analysis							
Data Presentation							
Project writing							
Project submission							

AppendixIII:Budget

ITEMS	AMOUNT
Stationary	2200
Typing and printing	1000
Binding (3 copies)	2000
Photocopy	500
Transport	2000
Total	7700

