INFLUENCE OF UTILIZATION OF MIS ON MONITORING AND EVALUATION OF PROJECTS, A CASE OF MOI TEACHING AND REFERRAL HOSPITAL KENYA

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DECLARATION

This research project report is my original work and has not been presented to any other institution of higher learning for the award of an academic certificate.

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DEDICATION

I dedicate this work to my beloved Mum Rhoda Tarus for the moral support. She has been a great inspiration in the area of academics.

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LIST OF ABBREVIATIONS & ACCRONYMS

MIS- Management information System

M&E-Monitoring & Evaluation

TPS-Transactional Processing System

DSS-Decision Support System

ESS-Executive Support System

SASSA-South Africa Social Security Agency

ABSTRACT

This study sought to address influence of utilization of MIS on monitoring and evaluation of projects, at the Moi Teaching and Referral Hospital Eldoret. The study used a total sample of staffs that were drawn from 120 staff working at Moi Teaching & Referral Hospital. The objectives of the study was to establish how transaction processing system, decision support system, executive support system & office automation system influences the utilization of MIS on monitoring and evaluation of projects. The MIS has many roles to perform like the decision support role, the performance monitoring role and the functional support role. From the population frame the required number of subjects, respondents, elements or firms will be selected in order to make a sample. The role played by management information systems in any organization cannot be over-emphasized. Descriptive survey design was used for research. Stratified proportionate random sampling technique was used to select the sample of 95 staff. Solvin's formula was used to come up with the sample size. Variables was analysed using descriptive statistics. The findings were presented using frequency tables. A sample size of 95 respondents were given questionnaires, 92 were dully and correctly filled and returned which represents 97% response rate The study will help establish at each point, how decisions must be made on the basis of available data. Moreover, once the program is under way, data for checking and analysis are required for effective monitoring and evaluation. From the study findings the demographic characteristics show that majority of the managers in the hospital are male (60.9%). The findings also show that most of the managers are between the ages of 46-50yrs (38%) and those with the lowest age (25-30yrs) being 3.3%. Those with the highest level of education (bachelor's degree) being 65.2% and minority with diplomas (2.2%). The findings also show that majority (58.7%) of the managers have served in the hospital for 11-20 years and the least (5.4%) having served for more than 30yrs. This shows that the level of seniority in the organization rises with age, education level and work experience. Where collection systems are lacking, they can and should be designed and implemented at all levels and location. Based on the above findings it would be extremely difficult for an organization to make their decisions without incorporating a Management Information System, MIS provides a fitting platform for good decision making.

CHAPTER ONE
INTRODUCTION

1.1 Background of the study

Overview Management Information Systems (MIS) are the systems through which social protection program perform functions such as identification of beneficiaries, compliance with conditions, grievance redress, and generating payment lists (Chirchir, 2011). Most countries are moving towards an online, computerized system, but some MIS remain paper-based and manual. MIS are useful because integrated data management of social protection program can lead to more equitable distribution of resources; provide oversight of multiple schemes; establish links with other services; and increase efficiency through economies of scale (Barca, 2014).

In USA MIS has been utilized as a tool of management in the healthcare organizations of most hospitals. The fundamental factor for the success of information systems may be the extent to which a health care organization considers its strategies in information management and understands the role of its information systems in achieving strategic objectives .As evidenced in recent studies. According to (DeLone, 1992) in the field of management information systems and later (Van der Meijden, 1996) in the field of patient care information systems, have presented six success dimensions of information systems: system quality, information quality, usage, user satisfaction, individual impact and organizational impact.

In South Africa, for example, a document management system called Livelink is used to scan and manage all letters to beneficiaries. Alternatively, the forms themselves could be incorporated within the database and completed electronically by administrative staff during interviews with applicants and recipients. In addition to the information necessary for the

management of operations, MISs can collect further information with which to monitor recipients.

In South Africa, the South Africa Social Security Agency (SASSA) staff wanted to use other departments' data to cross-check beneficiary information (GIZ, 2012). Other departments were reluctant to share data until SASSA negotiated a win-win situation by providing data which other departments did not have. Technologically in many countries' MIS are not yet electronic. It is widely assumed in the literature that an electronic management system was be more effective and accurate than a paper-based one. This seems to be borne out in case study experience. For example, GIZ supported the establishment of a pilot electronic system in Kyrgyzstan (GIZ, 2014). The system now performs automated calculations instead of manual, which improves efficiency and accuracy. It allows easy updating of beneficiary information and the ability to capture characteristics over time. Automated functions means it is easy to generate reports based on location, demographics and other variables. Overall, this electronic system has improved targeting and administration. 4 GSDRC Helpdesk Research Report The software's developed for Latin American CCT MIS are highly appropriate and tailored specifically to the programs (Villalobos et al., 2010).

This makes them much more useful than off-the-shelf solutions, and they have become widely used in the region. Electronic systems have been used to set up automated alerts when anomalous or critical situations arise, which improves managers' ability to respond (Villalobos et al., 2010). Technology must be appropriate for the technical capacity of staff and for the context. In Kazakhstan, Personal Digital Assistants were rejected in favor of small notebook computers because of the ease of typing, and because notebooks could be linked into the main MIS more easily (Saidulloev, 2013).

Management Information System (MIS) was formally introduced into Nigerian Universities Management systems in 1990 under the auspices of the National Universities Commission (NUC) to deal essentially with students, staff and financial records in the universities, and to provide periodic information reports for all Units within the Universities. Training needs were identified as realistic ways of meeting the proposal. The areas identified as priorities include; creating general awareness for MIS, computer appreciation, data collection and processing, data interpretation and computer operations. Each university was requested to set up an MIS Committee with membership specified by the NUC. The first training assignment of the MIS committee was to organize training for Principal Officers in order to get them personally identified with the project and provide leadership and support. This was to be followed was to be encouraged. In addition to the above courses, most of the universities, polytechnics and colleges of education operate short-time courses in Word processing, Database Management, Spreadsheet and Statistical analyses leading to awards of in-house certificates and diplomas, by training of other users in the Registry, Bursary, Library, Academic Planning etc. For the generality of staff and students, the MIS Committee was mandated to organize sensitization and popularization campaigns on MIS, its objectives and benefits. In all the above, in-house training, using the facilities of the computer center's and/or the computer science department.

Flexible incremental systems Brazil, Kenya and Mauritius have adopted an iterative approach to their MIS design, which accepts and incorporates feedback from users (Barca, 2014). This tailors the systems to users' needs, and also fosters a sense of ownership which enables staff to successfully manage the system (Chirchir, 2014). MIS which have been built in a modular fashion have been successful (Villalobos et al., 2010). This allows managers to add a new MIS module if the social protection program changes or adds new components. This flexibility supports the ongoing review and updating which is expected in a social policy

program (Villalobos et al., 2010). The MIS in the Kazakhstani BOTA program is identified as successful because it has been flexible.

Over time, the needs of the programs have changed, and the MIS has been able to design, test and implement new functions and modules, which have kept the program management effective and efficient. This is partly facilitated by in-house capacity to develop and update the MIS. Simplicity MIS are necessarily large and complex systems. There is some evidence from low-income countries that monitoring compliance with conditions places too great a burden on MIS and cannot be undertaken effectively (Kidd, 2011). Conditions and appeals systems increase the complexity of MIS and potentially make it less effective, leading to an argument that simpler social protection schemes may make the MIS more effective. In large-scale schemes and higher-income countries, MIS tend to collect less information about beneficiaries than in smaller and lower-income situations (Chirchir, 2011).

Indeed, in the Kenya Orphans and Vulnerable Children Cash Transfer program (OVC-CT), staff took the decision not to implement the appeals system as it would create too great a burden.5 Simpler social protection schemes – such as universal pensions – require minimal information and, as a result, their MIS can be less complex and easier to manage. Consequently, they are more likely to perform effectively in countries with weak administrative capacity. Making pragmatic compromises that reduce the amount of information to be managed can reduce stresses on MISs in complex schemes. Once it is accepted that poverty targeting is inevitably inaccurate, policy-makers and program managers may be more willing to make the pragmatic choice to re-certify households only rarely, perhaps every five years or more (although this will, inevitably, increase inaccuracies).6 Or, if households with older people are accepted onto a poverty targeted scheme, it makes sense not to subject them to further re-certification as they are unlikely ever to “graduate” out of poverty. Information requirements for management and monitoring Designers of social

protection schemes should assess the amount of information that is to be captured from beneficiaries as each piece of information collected is an additional cost and places an increased burden on MIS. Each piece of information collected should become a field in the program database; if not, then questions should be asked on whether it is really needed.

In Kenya the government in partnership with USAID created a Health information system called AFYA info. Which creates a unified and integrated internet-based host country owned and managed National Health Information System (NHIS). It aims at Providing a platform for stakeholder dialogue around the issues that affect HMIS, Advocating for greater central government attention to policy, legislation and resources that support a strong national HMIS, bridging the gap between the private and public health sectors to ensure complete reporting of health statistics, employing information and communication technology to integrate information systems from all the health system building blocks, supporting health sector stakeholders to use health information to improve policy and programming to positively affect health outcomes.

Uganda is currently implementing a web-based MIS that will be linked to a mobile Virtual Reality Service (VRS), a system for registration. In this model, a virtual private network was used to connect the SAGE cash transfer scheme's head office in Kampala with districts. This allowed functions such as change management and grievances to be captured at either the district or sub-county level. Ensuring the security of MISs Security should be built into the design of social protection MIS systems for the following purposes; to safeguard the confidentiality and integrity of information, to protect information from theft, abuse and any form of damage, to establish responsibilities and accountability for information security by establishing clearly segregated roles in the management of resources. There are four security elements that need to be tied together to secure social protection MIS systems. These elements are security policy, personnel security.

In Uganda, mobile phones have been used for birth and death registration. If a higher processing capacity is needed in the field, laptops are an option. Their disadvantage is that they may not have a long battery life and are less rugged compared to PDAs and some mobile handsets. Nonetheless, the type of computer technology employed for data capture depends on the type of targeting and registration approach used. With a census approach, in which all households are visited, more resilient technology is appropriate. But if applicants themselves visit registration centers, then laptops and desktop computers are a more appropriate option. Designers of social protection schemes should not, however, assume that a technological option is always best. During design, an assessment needs to be made of the information that a program needs to capture and the cost effectiveness of introducing advanced hardware. In some programs, it may still be cost effective to use paper capture and transfer the data onto computers in a location near to the community, such as a district center.

An increasing number of schemes, such as Kenya's HSNP and Uganda's SAGE, use open-source software. This is a relatively cheap option, provides programs with the source codes so that they can easily adapt the software and, with competent programmers, is robust. Other programs, such as the Kenya OVC-CT and Fiji Family Assistance Program, have chosen a proprietary option, which means that the ownership of the application software remains with the company that designed it. While this can provide good-quality software, disadvantages are that it is a more expensive option – the use of open-source software in the Kenya HSNP resulted in a 90 per cent saving – and schemes cannot access the source codes. As a result, they have to pay the owner to make modifications. A third option is for schemes to use government or para-statal institutions to develop and maintain application software. Mauritius, for example, uses a limited company – State Informatics Limited (SIL) – in which the state has a shareholding while South Africa employs a state-owned organization, the South Africa Information Technology Agency (SITA). The advantage of using parastatal or

government agencies is that social protection schemes have greater negotiating power on the cost of developing and customizing software. However, some parastatal and government suppliers do face the challenge of retaining competent developers, which can lead to inadequate service and poor value for money.

1.2 Statement of the problem

Adopting information system is one factor which increases the effectiveness and efficiency in an organization. However, implementing IS affects the organization to a great degree and can be seen as a major change for an organizations' processes; for instance, it requires employees to change (Chan, 2000). Many companies have found that implementing such changes is the most difficult part of MIS implementation (Kroenke, 2007). In addition, MIS can affect individuals, groups, and a whole organization when MIS was introduced into that organization. This system can create both a positive and negative impact on these levels (Davies, 2009). The negative effect of MIS occurs when the system fails. This failure can be analyzed on the technical, organizational and environmental level. Thus a good strategy is significantly concerned with avoiding the failure of the system and achieving a successful system (Davies, 2009).

While previous research is useful in providing insight about management information system implementation challenges, it provides little guidance for the management of ongoing implementation efforts and they do not specifically address utilization of management information system on monitoring and evaluation of projects at national government hospitals in Kenya, more so at the Moi Teaching and Referral Hospital. The hospital has three main divisions, Chief executive Office, clinical services, administration & finance. The administration & finance arm is concerned with the facilitation, co-ordination and control of

the cognate areas of General Administration, Human Resource, ICT, Maintenance, House Keeping, Catering Services, Finance, Procurement & Supplies as well as Planning and Development. With the current system all these functions are not coordinated and creates gaps in terms of how to review and monitor expenditure and revenue trends, to set priorities for recurrent expenditure, to identify and set the hospital's development priorities, to formulate development strategies and co-ordinate the implementation of development plans, to explore and review income generating ventures potential sources of external funding and possible enterprising investment portfolios. Consequently, there was need to fill this knowledge gap by undertaking a study that is aimed at answering the various research questions.

1.3 Purpose of the study

The study was to investigate the influence of utilization of MIS on monitoring and evaluation of projects, a case of Moi Teaching and Referral Hospital Eldoret, Kenya.

1.4 Research Objectives

This study was guided by the following specific objectives:

1. To establish how transaction processing influence utilization of MIS in monitoring and evaluation of projects in Moi Teaching and Referral Hospital.
2. To determine how decision support influence utilization of MIS in monitoring and evaluation of projects in Moi Teaching and Referral Hospital.
3. To establish how executive support influence utilization of MIS in monitoring and evaluation of projects in Moi Teaching and Referral Hospital.
4. To evaluate how office automation influence utilization of MIS in monitoring and evaluation of projects in Moi Teaching and Referral Hospital.

1.5 Research questions

The study was to address the following research questions:

1. How does a transaction processing influence utilization of MIS in monitoring and evaluation of projects in Moi Teaching and Referral Hospital?
2. How does decision support influence utilization of MIS in monitoring and evaluation of projects in Moi Teaching and Referral Hospital?
3. How does executive support influence utilization of MIS in monitoring and evaluation of projects in Moi Teaching and Referral Hospital?
4. How does office automation influence utilization of MIS in monitoring and evaluation of projects in Moi Teaching and Referral Hospital?

1.6 Significance of the study

The study provided a significant insight on how monitoring and evaluation is carried out on various projects at the Moi Teaching and referral Hospital through situational analysis of the influence of management information systems. The development of management information systems has for many years been regarded as the domain of the technical expert. In what appears to be a growing number of instances, facing state corporations in Kenya in the implementation of management information systems implementation appear to be having numerous challenges in many organizations. This study was therefore of value to: government hospitals in Kenya in the implementation of management information systems development and implementation processes. This contributed significantly to both theory and practice with regard to the challenges faced in the implementation of MIS in Kenya and more specific in the implementation of management information systems in a government hospital. The Study seeks to ensure that there is proper stakeholder participation through use of management information systems. It seeks to benefit the management of different department

in reaching better decisions. The researcher anticipates that the findings and policy recommendations generated from the study may be of invaluable input to the stakeholders and also to other's. The findings are anticipated to add more knowledge in the subject area and stimulate further research in the area.

1.7 Basic assumptions of the study

1. That all the respondents would be knowledgeable enough to give credible information on the influence of MIS as a tool in M&E.

2. That all the respondents were willing to provide information requested by the researcher.

1.8 Limitations of the study

The study encountered time constrain as the period allocated for the study was limited and had to combine the study and work ,given that the researcher is employed. The study was therefore focused on a small proportion of the total population as a representative of all the possible respondents. The respondents were suspicious of the motive of the study since it may bring about downsizing of staff. However, the researcher overcame the fear by assuring the staff that indeed the system works in tandem with them and it's not seeking to replace their expertise.

1.9 Delimitation of the study

The study did focus on the availability and the utilization of MIS as a tool of monitoring and evaluation of various projects at the Moi Teaching and Referral Hospital in Eldoret. The study will cover the staff from the three levels of management. It sought to find how data is collected and analyzed, duration of projects & stakeholholder participation. Challenges facing the hospital in the utilization of MIS as a tool of monitoring and evaluation. The conceptual framework provided operation scope of variables to explore in this project.

1.10 Definition of significant terms

MIS-This is the proper management of information systems to ensure efficiency & effectiveness in strategic decision making.

Utilization of MIS-This is the proper use of MIS.

Monitoring & Evaluation-It's a process that helps improve performance and achieve results.

Projects-tasks assigned resources to be completed within a specified period.

Transactional processing- It represents the automation of fundamental, routine processing used to support business operations.

Decision support- an information system application that assists decision-making.

Executive support- is a comprehensive information system that includes various types of decision support systems, but it is more specific and person oriented.

Office automation- refers to the application of computer and communication technology to office functions.

1.11 Organization of the study

The study is organized into five chapters; the first chapter is the introduction that gave the general overview of the research problem. It further provides a background to the problem, a problem statement as well as the objectives and assumptions of the study. Chapter two focuses on literature review on this field of study in regards to factors influencing the utilization of MIS as monitoring and evaluation tool in projects. Chapter three examined the methodology that was used to analyze and collect data. Chapter four dealt with data analysis, presentations and interpretations and discussion on findings, and chapter five dealt with summary of the findings, conclusion, contributions and recommendation.

CHAPTER TWO
LITERARURE REVIEW

2.1 Introduction

This chapter present review of literature based on the following themes concept of Management information Systems and Monitoring and evaluation in hospitals and other sectors, it also presents theory & following themes; transaction processing system, decision support system, expert support systems and office automated system guiding the study. It seeks to identify the gap that exists and justify the need to carry out the study so as to fill the knowledge gap.

2.2 Management Information Systems

The literature about management information systems (MIS) has been developed since the 1960s. An evolution of MIS can be divided into three periods: data processing, management information systems, and strategic information systems (Somogyi, 1997). The first era, “data processing”, is mainly focused on improving the efficiency of business through automation of basic information processes with not too much control over planning or resources. The second era, “management information systems”, was concerned about the enhancement of managerial effectiveness by satisfying widespread information requirements. Managers of each came to realize the capability of information technology resources and started to acquire their own systems to meet the requirements. MIS can be named as an organizational information system, a computer based information system, or an information system (Ives, 2000). Various characteristics of MIS are considered as important factors for the efficiency of MIS which is to report with fixed and standard information; to have reports developed and implemented using information system personnel, including systems analysts and computer programmers; to require formal requests from user; and to produce scheduled and demanded reports. In addition, external data are used by the MIS while it is not captured by the

organization (Asemi, 2011). Furthermore he claimed that an efficient MIS should contain the following characteristics which include: system capability, modularity, simple, transparent, instinctive, online capability; integration; and support from well-established and committed suppliers.

Cognitive fit theory was developed by (Iris Vessey, 1994). The theory proposes that the correspondence between task and information presentation format leads to superior task performance for individual users. Cognitive theory along with proximity compatibility principle is investigated as a basis to evaluate the effectiveness of information visualization to support decision making tasks. The task used in the study manipulates varying levels of task complexity for quality control decisions in a high volume concrete discrete environment. The volume of process of monitoring and evaluation in this type of environment can be daunting. Today's managers need effective decision support tools to peruse or sort data timely and make effective decisions on product and process quality. Contingency theories are a class of behavioral theory that contends that there is no one best way of organizing / leading and that an al / leadership style that is effective in some situations may not be successful in others (Fiedler, 1964). In other words: The optimal / leadership style is contingent upon various internal and external constraints. Four important ideas of Contingency Theory are: 1. There is no universal or one best way to manage 2. The design of and its subsystems must 'fit' with the environment 3. Effective s not only has a proper 'fit' with the environment but also between its subsystems 4. The needs of are better satisfied when it is properly designed and the management style is appropriate both to the tasks undertaken and the nature of the work group. There are also contingency theories that relate to decision making .According to these models, the effectiveness of a decision procedure depends upon a number of aspects of the situation: the importance of the decision quality and acceptance; the amount of relevant information possessed by the leader and subordinates; the likelihood that subordinates will

accept an autocratic decision or cooperate in trying to make a good decision if allowed to participate; the amount of disagreement among subordinates with respect to their preferred alternatives.

2.3. Transactional processing system and utilization of MIS on Monitoring and evaluation.

According (Matthews, 2007) that databases are the integration point where applications that are connected can communicate with each other. Now, Companies are investing for a new technology that eliminates or lessen errors and to gain advantage. This is the integration point that is necessary in building competence in management by investing in database technology to achieve lessen cost. (Veague, 2007). Transaction Processing System or TPS can be defined as a type of Information System or IS which gathers, stores, changes and retrieves the data transactions of an organization or business. Thus, it offers tools that will help to ease or automate application programming, execution and administration. In addition, it supports a network of device that submits different queries and updates to the application. Based on these inputs, the application will maintains a database representing some real world state. Application will then, responses and outputs typically drive real-world actuators and transducers that change and control the state. The applications, database and network tend to evolve over several decades. Increasingly, the systems are geographically distributed, heterogeneous, continuously available and have stringent response time requirements (Gray, 2004).

TPSs have been available since the 1970s, and most of the businesses are using them. Its widespread use can be associated with the advent of the Internet. As a result, the cost of buying, applying and implementing the needed software has dropped so much that most of the businesses can apply the said system in profitable manner. Thus, banking from home, booking a holiday online, shopping and working from home are now readily available and

less time consuming due to transaction processing (Crystal, 2009).TPS shows 4 vital characteristics: rapid processing, reliability, standardization and controlled access. The rapid or fast processing of transaction is considered as crucial aspect in the success of any business, due to the demand of the customers towards immediate action. Furthermore, reliability pertains on the issue of errors; this is because customers will not tolerate any mistakes. Therefore, TPS must be defined in order to make sure that the systems remain operational permanently. TPS must also be standardized, meaning, each transaction must be processed in the same way, at the same time. Controlled access pertains on the security of the system, which focuses on making sure that access is restricted to only those employees who require their use. In order to qualify for TPS, transactions being made by the system must pass the ACID (Atomicity, Consistency, Isolation, and Durability) test. It means that each transaction must be completed in full or not at all; must exist within a set of operational rules; must appear to take place in isolation; and must make sure that if a transaction was completed is cannot be undone. The said conditions make sure that the TPS carry out their transactions methodically.

Currently, one of the most important developments in the field of Information Technology is the growing importance and usage of mobile Internet. Thus, one of the important futures of TPS is the aspect of mobile TPS, which focuses on the versatile data sharing mechanism in the volatile mobile environments. This is due to the rapid growth of wireless network technologies and different portable computing devices which promoted a new mobile working environment (Mads, 2006). As a result, it will be important to focus on Mobile Data Access System, where in a transaction processing model will allows timely and reliable access to a heterogeneous and autonomous data source, at the same time, coping with the different mobility issues (Segun, 2001). As a result, it can help different individuals and organizations to stay connected, regardless of any physical barriers particularly the issue of

geography and demographics, thus allow continuous access and retrieval of data, which can help to maintain the different transactions in the organization.

2.4 Decision Support System and utilization of MIS on Monitoring and evaluation.

Decision support systems (DSS) are the area of the information systems (IS) discipline that is focused on supporting and improving managerial decision-making. IS, as an academic discipline, is currently at an important stage of its development. It faces a significant downturn in IT activity in commerce and government, which has led to serious decline in student numbers in IS degree programs. At the same time there is a groundswell of concern about the nature and direction of IS research. These concerns include the object of IS research (Weber, 1987), for the relevance and rigor of research (Benbasat, 1999), and the general place of IS in academe (King, 2004). An important vehicle in understanding the current state of IS scholarship is the critical analysis of published research (Chen, 2004). Combined with a reasoned reflection on the discipline, the analysis of quality publications helps understand how IS research can be improved. This paper provides such an analysis for DSS. It is structured as follows: first, a brief history of the DSS field is presented. The history traces its evolution from its radical beginnings to a complex disciplinary structure of partially connected sub-fields. The history provides the context for a critical analysis of published DSS research. The goal of the first management information systems (MIS) was to make information in transaction processing systems available to management for decision-making purposes. Unfortunately, few MIS were successful (Ackoff, 2007). Perhaps the major factor in their failure was that the IT professionals of the time misunderstood the nature of managerial work. The systems they developed tended to be large and inflexible and while the reports generated from managers' MIS were typically several dozen pages thick, unfortunately, they held little useful management information (Ackoff, 2007). The title of

(Dearden's, 2002) Harvard Business Review article, "MIS is a Mirage", summarized the feelings of the time.

(Scott Morton, 2001) conceived DSS as systems that support any managerial activity in decisions that are semi structured or unstructured.Later narrowed the definition, or scope of practice, to semi-structured managerial decisions; a scope that survives to this day. The managerial nature of DSS was axiomatic in (Gorry, 2001), and this was reinforced in the field's four seminal books. Much of the early work on DSS was highly experimental, even radical (Alter, 2002). The aim of early DSS developers was to create an environment in which the human decision maker and the IT-based system worked together in an interactive fashion to solve problems; the human dealing with the complex unstructured parts of the problem, the information system providing assistance by automating the structured elements of the decision situation.

The emphasis of this process was not to provide the user with a polished application program that efficiently solved the target problem. In fact, the problems addressed are by definition impossible, or inappropriate, for an IT-based system to solve completely. Rather, the purpose of the development of a decision support system is an attempt to improve the effectiveness of the decision maker. In a real sense, DSS is a philosophy of information systems development and use and not a technology. DSS is not a homogenous field. There are a number of fundamentally different approaches to DSS and each has had a period of popularity in both research and practice. Each of these "DSS types" represents a different philosophy of support, system scale, level of investment, and potential organizational impact. They can use quite different technologies and may support different managerial constituencies. Figure 1 extends the analysis of (Silver, 2001), and traces the evolution of the field from its radical beginnings to a complex disciplinary structure of partially connected subfields. In the figure,

the emphasis is on the theoretical foundations of each DSS type. The decades indicated on the left hand side of the diagram refer only to the DSS types and not to the reference disciplines. Another dimension to the evolution of DSS is improvement in technology, as the 6 emergence of each of the DSS types has usually been associated with the deployment of new information technologies.

2.5Executive Support System and utilization of MIS on Monitoring and evaluation.

Executive information systems are data-oriented DSS that provide reporting about the nature of an organization to management (Fitzgerald, 2002). Despite the 'executive' title, they are used by all levels of management. EIS were enabled by technology improvements in the mid to late 1980s, especially client server architectures, stable and affordable networks, graphic user interfaces, and 13 multidimensional data modeling. This coincided with economic downturn in many OECD countries that resulted in the downsizing phenomenon that decimated middle management. EIS were deployed to help try to manage the leaner reporting structures. The seminal EIS book, (DeLong, 1988), was titled Executive Support Systems, reflecting the decision support heritage. Rockart had earlier contributed what became EIS's major theoretical contribution to general information systems theory, the notion of critical success factors or CSF (Rockart, 1979).

CSF are the small number of factors that must go right for an organization, business unit, or individual executive to prosper. If a manager notices from an EIS report that the business is not performing in any critical area, the EIS enables the manager to drill-down through a report hierarchy to discover the possible sources of the variance. The multidimensional view of data, institutionalized as the 'data cube", was the foundation of early EIS vendor offerings like HOLOS and Cognos. This multidimensionality was later codified and described as online analytical processing (OLAP) by (Codd, 2003). By the mid-1990s EIS had become

mainstream and was an integral component of the IT portfolio of any reasonably sized organization.

The business intelligence (BI) movement of the late 1990s changed the direction or emphasis of EIS by focusing on enterprise-wide reporting systems although this organizational focus has yet to be widely realized in successful systems. Dashboard-style interfaces and web delivery changed the look and feel of EIS, and the broader measures of balanced score cards (Kaplan, 1996) displaced some, but not all, of the CSF framework of EIS reporting. Business intelligence (BI) is a poorly defined term and its industry origin means that different software vendors and consulting organizations have defined it to suit their products; some even use 'BI' for the entire range of decision support approaches. We use business intelligence as the contemporary term for both model-oriented and data-oriented DSS that focus on management reporting, that is, BI is a contemporary term for EIS.

2.6 Office automation System and utilization of MIS on Monitoring and evaluation.

Information Technology and Communication revolution has brought new products and services into our lives. These products are available all around us, at home, at work and virtually everywhere (Sanjay Kumar Pal, 2008). Computer applications invaded our office environment ever since the introduction of computers into the organization. DSS that provide reporting about the nature of an organization to management (Fitzgerald, 2002). (Diebold, J., 1984).Office automation indicates the use of computer hardware and software to automate the daily tasks and processes accomplished at organizations. Office automation applications enabled the digital creation and storing of data and information into databases for retrieval and manipulation when needed. Additionally, it is used to expedite communication across the entire organization and with external partners, customers and vendors. (Grantham Lisa, 1995).

New advanced applications has made it easier for workers to accomplish basic tedious repetitive tasks including, typing, filing, document management, faxing, storing and telephoning.(Coates, 1988) Office automation started in the seventies and into the eighties of this century. The vast introduction of the PC and desktop computer made it easier for organizations to implement office automation applications in every aspect and level of the organization. The advantages of office automation range from faster task completion, elimination of offline data storage, lowering the number of workers within each department and sharing office resources and collaboration between workers from different areas of the organization.These advantages make it a must for every organization including libraries to implement office automation at nearly all departments and levels of the library (Mary J. Culnan et al, 2007). But, what is the impact of applying office automation on the productivity of workers at all organizational levels of the university library.

The answer has to do with office automation transformation of the quality of work which is directly related to repetitive and tedious tasks, more control and flexibility in task completion, increased skill level and tasks variety leading to increased workers' productivity. Most office automation research is directly related to the use of office automation in the industrial or office environments. A small percentage of literature is available with regards to the use of office automation in the library setting and its influence on workers' productivity. Office automation refers to the use of computer systems and applications to increase the productivity of the workforce in the organization and thereby reducing the need for human intervention. It plays an important role in the development of any organization and industry and help increase labor productivity. (Haigh, 2006).

Office automation has a greater effect on workers at the operational levels of the organizations (Chalykoff, 1998). This is true in the sense that work in the operational level tend to be routine, repetitive and tedious in nature. Middle management are affected by office

automation to some extent but little or no effect is evident at the strategic level of the organization.. People at the top or strategic level are not affected by office automation since they are engaged in strategic decision making and planning and these ad hoc or strategic tasks need different tools. Available at the operational level of the organization. (Rajput, 2010). Office automation has several advantages including the elimination of having to go over repetitive and tedious tasks, more control and flexibility in task completion, increased skill level and tasks variety. On the other hand office automation has several disadvantages to workers at the operation level among them lowering job satisfaction, loss of control and influence, lower self-esteem and lower personal communication skills. This study focuses on the effects of office automation on the degree of workers' productivity as a direct effect of office automation use on the degree of task completion, task repetitiveness, task control and flexibility and increased worker skills level. (Akpomi, 2009).

2.7 Theoretical Framework

Various models and theories have been used to explain MIS adoption in Hospitals.(Kerlinger, 2002) defined a theory as a set of interrelated constructs, definitions and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting the phenomena. Studies on MIS adoption have generally taken three possible approaches: a diffusion approach, an adoption approach and a domestication approach. Theoretical framework is a collection of interrelated concepts that provides guidance in the research. There are various theories and models that are associated with the acceptance and take-up of MIS innovations. These models/ theories on MIS acceptance and implementation have been developed in association with commercial products and business organizations.

2.8 Conceptual framework

The study was guided by the following conceptual framwork, which was used to expline the interrelation between the variables. A conceptual frame work is a scheme of variables a researcher operation in order to achieve the set objectives (Oso & Onen ,2002).

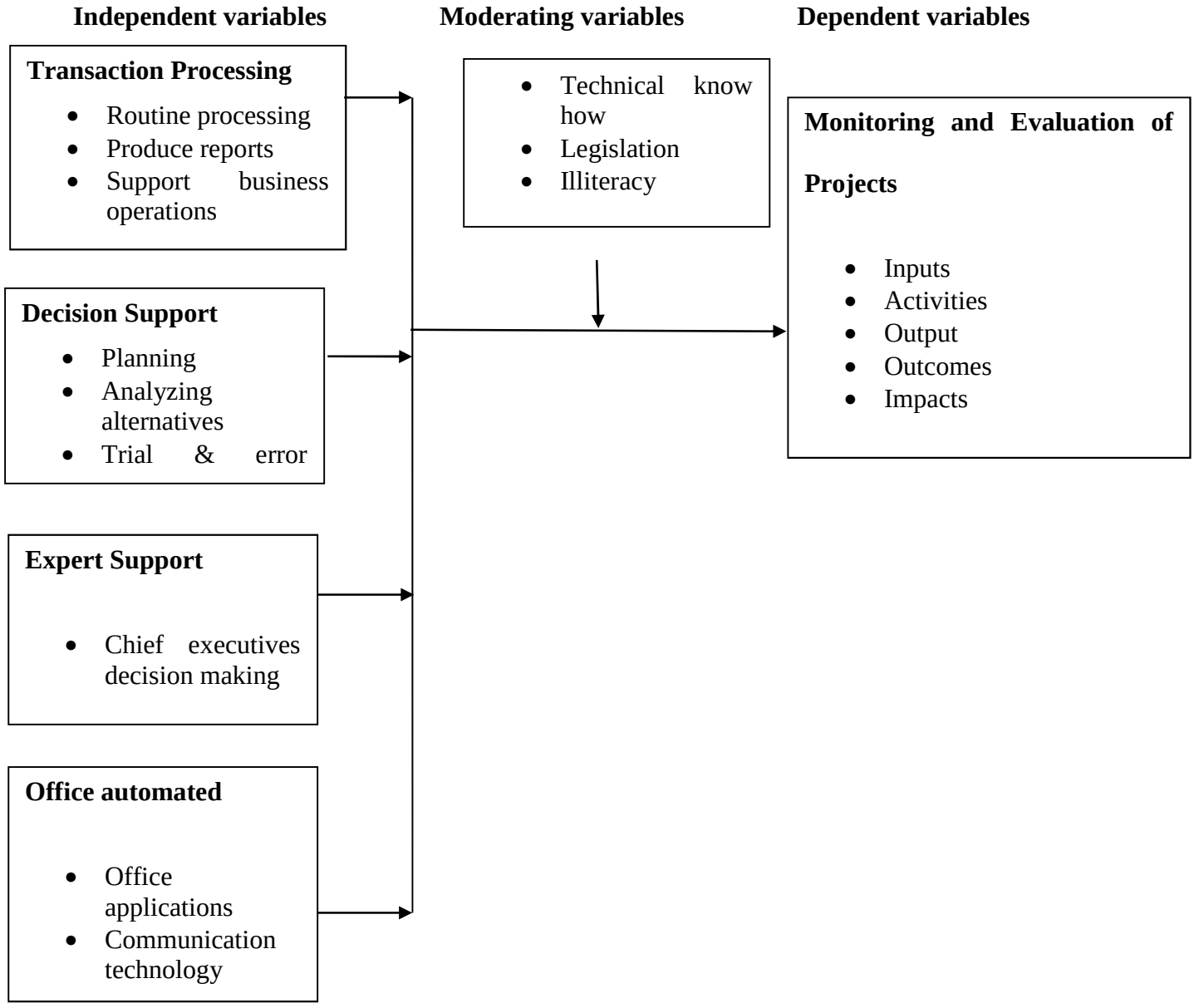

Figure 2.1: Conceptual framework

2.9 Summary of the literature and Gaps

Objectives	Main Findings	Types of study	Gaps in Knowledge
Transactional Processing utilization	A study by (Matthews, 2007) that databases are the integration point where applications that are connected can communicate with each other .Records of work coverage, attendance and attainment have been kept for all of the staff and patients, they did not provide tangible student's assessment initiative for most systematic monitoring in relation to users	A case study	Many studies have not focused on the legal issues in ensuring proper utilization of MIS as a Monitoring and evaluation tool in projects among the Kenyan Government parastatals.
Decisional Support utilization	According to (Benbasat, 1999), purpose of the development of a decision support system is an attempt to improve the effectiveness of the	A descriptive survey design.	The study provided data that support utility of assessments of tools, but did not provide its influence on employee

	decision maker. In a real sense, DSS is a philosophy of information systems development and use and not a technology.		retention.
Executive Support Utilization	DSS that provide reporting about the nature of an organization to management (Fitzgerald, 2002), where it proposed that when staffbelieve they are efficacious and competent, they will persist on tasks and develop higher goals for tasks	A cross-sectional survey	While the study did provide theoretical explanations why staff would persists to learning programs. It did not provide a relation on how monitoring tools can lead to persistency among the staff.
Office automation utilization	The study by(Sanjay KumarPal,2008),focused on Transformation of the quality of work which is directly related to repetitive and tedious tasks, more control and flexibility in task completion, increased skill	A survey type of design	Human Challenges - such issues relate to the interpersonal skills of the individuals involved with the project and come into play starting with the pre-planning stage, the

	level and tasks variety leading to increased workers productivity		approval process, project planning and project implementation through the transition to production status.

Table 2.1: Summary & literature Gaps

CHAPTER THREE
RESEARCH METHODOLOGY

3.1Introduction

This chapter provides a general framework for this research. The chapter presents details of the research design, target population, sample and sampling procedures, description of research instruments, validity and reliability of instruments, data collection procedures, data analysis techniques and ethical considerations while conducting the study.

3.2 Research Design

This study adopted a descriptive survey design incorporating quantitative research approaches. The descriptive survey design was used because it described the state of affairs as it exists at present; descriptive study is one in which information is collected without changing the environment (Kothari, 2003). The researcher applied this design to investigate the influence of utilization of MIS on monitoring and evaluation of projects. It enabled the researcher to have an in-depth understanding of the adaptation of MIS in Moi Teaching& Referral Hospital.

3.3. Target Population

A population is a set of elements that the research focuses upon and to which the results obtained by testing the sample should be generalized (Bless and Higson-Smith, 1995). The population of the study was the top level, middle & low level management staff at the Moi Teaching & Referral hospital working under various departments. It came to a total of 120 staff.

TARGET POPULATION	FREQUENCY
Top level management	20
Middle level mamangement	45
Lower level management	55
TOTALS	**120**

Source: MTRH information office 2015.

3.4. Sample size and Sample population

This section addresses method of sample determination and sampling procedure.

3.4.1 Sample size

Sample of responding staffs was drawn from 120 top and middle & lower level managers from the staff working at Moi Teaching & Referral Hospital. From the population frame the required number of subjects, respondents, elements or firms was selected in order to make a sample. According to (kothari,1999), an optimum sample size is one that fulfils the requirement of efficiency, representative, reliability and flexibility. The sample size selected was considered large enough to use powerfull statistics and generalize results to the population (Creswell, 2002). Statistically, in order for generalization to take place, a sample of at least 95 elements (respondents) must exist (Cooper, 2006). The study used a sample size of 95 determined using the Slovin's formula (Altares, 2003).

$$n = \frac{N}{1+N(e^2)} \qquad \frac{120}{1+120(0.05^2)} = 95$$

Where,

n= Sample Size

N= Total Population

e= Margin of error (5% or 0.05).

3.4.2 Sampling procedure

According to (Deming ,2007) stratified proportionate random sampling technique produce estimates of overall population parameters with greater precision and ensures a more representative sample is derived from a relatively homogeneous population. From each stratum the study used simple random sampling to select 95 respondents .The current structure of Moi Teaching & Referral Hospital put staff in three categories.

No. of staff per Management level (n) = population per level of management * sample size (95)

Target Population

STRATAS	TARGET POPULATION	SAMPLE SIZE
Top level management	20	16
Middle level mamangement	45	36
Lower level management	55	43
TOTALS	**120**	**95**

Source: MTRH information office 2015.

3.5 Data collection Instruments

The study used both primary and secondary data. Primary data was obtained through self-administered questionnaires. The questionnaires included structured and unstructured questions and was administered through drop and pick method to all levels of management. The closed ended questions enables the researcher to collect quantitative data. The questionnaire was divided into two sections. Section one is concerned with the general information about respondents, while section two deals with the issues of risk management practices and performance. Secondary data was collected by use of desktop search techniques

from published reports and other documents. Secondary data includes the governments' publications, journals, and periodicals.

3.6 Pilot testing of the instruments.

Questionnaires were tested in a pilot survey using 12 departments and administrators who were excluded from the final research in Moi Teaching & Referral Hospital. The aim was to ascertain practicality and effectiveness in gathering the desired information using identified instruments. That was administered to a similar study population to the one which was used in the research. According to (Bless and Higson-Smith, 2000) pilot testing of questionnaires involves testing the actual instruments on a small sample taken from the communities with similar characteristic with the target population. It allows the evaluator/researcher to identify any difficulty with a method or materials to be used and to investigate the accuracy and appropriateness of any instrument that has been developed.

3.6.1 Validity

Validity as noted by (Robinson, 2002) is the degree to which result obtained from the analysis of the data actually represents the phenomenon under study. Validity was via objective questions included in the questionnaire and by pre-testing the instrument to be used to identify and change any ambiguous, awkward, or offensive questions and technique as emphasized by (Cooper and Schindler, 2003). To establish the validity of the research instrument the researcher sought opinions of experts in the field of study especially the lecturers in the study of information systems and technology.

3.6.2 Reliability

Reliability refers to a measure of the degree to which research instruments yield consistent results (Mugenda and Mugenda, 2003). Reliability of the questionnaire was evaluated through administration of the said instrument to the pilot group of 20 respondents from the

target population. A pretest test method was conducted the higher the score, the more reliable the generated scale is. A construct composite reliability co-efficient (Cronbach alpha) of 0.7 or above, for all the constructs, was considered adequate for this study. (Nunnaly, 1978) has indicated 0.7 to be an acceptable reliability coefficient but lower thresholds are sometimes used in the literature.

3.7 Data Collection Procedures

The questionnaires were self-administered through drop and pick method. Self-administered questionnaires enable one to clarify the questions or probe for more answers. This makes it clear and is likely to yield relevant responses. To increase the response rate, an introduction letter from the University of Nairobi was attached and permit from the Moi Teaching & Refferal Hospital as this assured the respondents of their safety, trust and confidentiality.

3.8 Data Analysis and Presentation

Data collected was coded, cleaned and entered into statistical Package for Social scientists (SPSS). The simplest way to represent data in frequency or percentage table, which summarizes data about a single variable argued (Saulders,2003). Frequencies was converted to percentages in order to make it easier to interpret, analyze and present findings of the research. The analyzed data was presented in the form of tables, which gave a quick and easy interpretation of the information to the user.Variables was analysed using descriptive statistics .

3.9 Ethical Considerations

Ethics as noted by (Minja, 2009) is referred to, as norms governing human conduct which have a significant impact on human welfare. In this study, confidentiality was of concern in view of the fact that information relevant to the study was of strategic importance to Moi Teaching & Referral Hospital. In this regard, the names of the respondents were not disclosed

and the information collected was held in confidence. Due to sensitivity of some information collected, the researcher holds a moral obligation to treat the information with utmost propriety. Since the respondents might be reluctant to disclose some of the information, the researcher needs to reassure the respondents of confidentiality of the information given.

Table 3.1 Operationalization of the Variable

Objectives	**Variable**	**Indicators**	**Scale**	**Tools of analysis**	**Types of analysis**
Transaction Processing	**Dependent**monitoring and evaluation **Independent** Physical resource acquisition	Routine processing, Produce reports and Support business operation	Nominal Ordinal	Descriptive statistics	Frequecy distribution tables
Decision Support	**Dependent**monitoring and evaluation **Independent** Employee preparedness&skills	Planning Analyzing alternatives &Trial & error search	Nominal Ordinal	Descriptive statistics	Frequecy distribution tables
Executive Support	**Dependent**monitoringand evaluation **Independent** Governement legislation& policies	Chief executives decision making	Nominal Ordinal	Descriptive statistics	Frequecy distribution tables
Office automation	**Dependent** monitoring and evaluation **Independent**Organization culture,Management culture &Personnel culture	Office applications Communication technology	Nominal ordinal	Descriptive statistics	Frequecy distribution tables

CHAPTER FOUR
DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

This chapter presents the findings of the study on the influence of utilization of MIS on monitoring and evaluation tool of projects, a case of Moi Teaching and Referral Hospital Eldoret, Kenya. Detailed analysis of the data, interpretation and explanation of the results with regard to objectives and the research question are given. The findings are based on information from questionnaire survey from a representative sample of 95 MTRH staff and consultative discussions using key informant interviews.

4.2 Response rate

A sample size of 95 respondents were given questionnaires, 92 were dully and correctly filled and returned which represents 97% response rate. A response rate of 75% is adequate according to (Kothari, 2010). This was achieved by serializing the questionnaires and the contacts of the respondent and serial number of the questionnaire were recorded to help in tracking of the questionnaires and in case some parts were not filled the questionnaire was returned to the respondent to fill it fully.

4.3 Demographic characteristic of the respondents

The total number of 92 staff was given questionnaires to fill. The demographic characteristics of the study sample was as shown in Table 4.1.

Table 4.1: Sex

Characteristics		**N**	**Percentage**
Sex	Male	56	60.9
	Female	36	39.1
	Totals	**92**	**100**

The total number of 92 filled the questionnaires. The demographic characteristics of the study population are as shown in Table 4.3.1, 56 (60.9%) of the respondents were male and the 36 (39.1%) were female.

Table 4.2: Age

Characteristics		**N**	**Percentage**
Age	25 – 30 Years	3	3.3
	31 – 35 Years	7	7.6
	36 – 40 Years	10	10.9
	41 – 45 Years	20	21.7
	46 – 50 Years	35	38
	Above 50 Years	17	18.5
	Total	**92**	**100**

From the findings, 3 (3.3%) of the respondents were of age 25-30 yrs, 7 (7.6%) of the respondents were of age 31-35yrs, 10 (10.9 %) of the respondents were of age 36-40yrs, 20 (21.7%) were of age 41-45 yrs, 35(38 %) were of age 46-50 years and 17 (18.5%) were found to be above 50yrs.

Table 4.3: Level of Education

Characteristics		N	Percentage
Level of education	Diploma	2	2.2
	Bachelors Degree	60	65.2
	Post graduate Degree	30	32.6
	Total	**92**	**100**

The findings showed that 2 (2.2%) of the respondents were diploma holders, 60 (65.2%) had bachelor's degree and30 (32.6%) of the respondents had postgraduate qualification.

Table 4.4: Years of Service

Characteristics		N	Percentage
Years of service	1-10 Years	14	15.2
	11-20 Years	54	58.7
	21-30 Years	19	20.7
	Above 30 years	5	5.4
	Total	**92**	**100**

The study also sort to find out the number years the respondent had served in the organization, the findings showed that 14 (15.2%) of the respondents had worked in the hospital for 1-10 years, 54 (58.7%) of the respondents had worked for 11-20 years, 19 (20.7%) have been working in the hospital and those who had worked for more than 30 years were 5 (5.4%).

4.4 Transactional Processing Systems

Analysis was performed to see the extent to which routine processing in the hospital affects the inputs, activities, output, outcome and the impact.

Table 4.5: showing how routine processing affects use of MIS

	1	2	3	4	5
Input	**2(2.2%)**	**34(37%)**	**54(58.7%)**	**1(1.1%)**	**1(1.1%)**
Activities	**4(4.3%)**	**30(32.6%)**	**56(60.9%)**	**2(2.2%)**	**0**
Output	**10(10.9%)**	**65(70.7%)**	**17(18.5%)**	**0**	**0**
Outcome	**15(16.3%)**	**60(65.2%)**	**15(16.3%)**	**2(2.2%)**	**0**
Impact	**12(13%)**	**55(59.8%)**	**20(21.7%)**	**3(3.3%)**	**2(2.2%)**

The table 4.4 shows that 2(2.2%), 34(37%), 54(58.7%), 1(1.1%) and 1(1.1%) of the respondents feel that routine processing affects the inputs to very great extent, great extent ,moderate extent , little extent and not at all as shown respectively in table 4.2. The findings also show that 4(4.3%), 30(32.6%), 56(60.9%) and 2(2.2%) of the respondents feel that routine processing affects activities to very great extent, great extent, moderate extent and to a little extent as shown respectively. Table 4.2 also show that 10(10.9%), 65(70.7%) and 17(18.5%) of the respondents said that routine processing affects output to very great extent, great extent and to a moderate extent as shown above. The table also shows that outcomes in the organization are affected by routine processing to great extent (65.2%), followed by very great extent and moderate extent (16.3%). Finally, the table also shows that the respondents also believe that routine processing also affects impact to very great extent (13%), great extent (59.8%), moderate extent (21.7%) , little extent (3.3%) and not at all (2.2%). According to the results, transactional processing significantly influences the information systems in monitoring and evaluation of projects. The results obtained in the study are supported by (Veague R., 2007) on their research on the adoption of CRMS in hospitals who concluded that the more the benefits seen to be gained from adopting information systems, the more willingness the

hospital would have to adopt information systems. The findings are also in agreement with (Matthews, 2007) who found a positive relationship between perceived benefits and Information systems adoption.

Table 4.6 : Showing how reports produced by the hospital affects use of MIS

	1	2	3	4	5
Input	**5(5.4%)**	**7(7.6%)**	**63(68.5%)**	**15(16.3%)**	**2(2.2%)**
Activities	**3(3.3%)**	**15(16.3%)**	**58(63%)**	**12(13%)**	**4(4.3%)**
Output	**16 (17.4%)**	**22(23.9%)**	**49 (53.3%)**	**3(3.3%)**	**2(2.2%)**
Outcome	**15(16.3%)**	**20(21.7%)**	**50(54.3%)**	**4(4.3%)**	**3(3.3%)**
Impact	**13(14.1%)**	**26(28.3%)**	**53(57.6%)**	**0**	**0**

Table 4.6 shows that produce reports affect the inputs in the hospital to different extents as shown; very great extent 5(5.4%), great extent 7(7.6%), moderate extent 63(68.5%), little extent 15 (16.3%) and not at all 2(2.2%).The findings also show that 3(3.3%), 15(16.3%), 58(63%), 12(13%) and 4(4.3%) of the respondents feel that produce reports affects activities to very great extent, great extent, moderate extent and to a little extent as shown respectively. The findings further show that produce reports affects output as follows; very great extent 16(17.4%), great extent 22(23.9%), moderate extent 49(53.3%), little extent 3(3.3%) and not at all 2(2.2%). The findings also showed that 15(16.3%), 20(21.7%), 50(54.3%), 4(4.3%) and 3(3.3%) of the respondents said that produce reports affect the outcomes of the hospital to very great extent, great extent, moderate extent, little extent and not at all respectively as

shown in table 4.5. Finally, the findings also showed that impact that the hospital creates can be affected by the reports it produces to different levels as follows; very great extent 13(14.1%), great extent 26(28.3%) and to a moderate extent 53(57.6%).

According to the results, reports produced from the hospital influences the use management information systems in monitoring daily activities being undertaken. The results obtained in the study are supported by Crystal (2009) on their study on proper reporting in the organization, concluded that the automated reporting saves time and makes the management easier.

4.5 Decision Support Systems

The respondents were asked to state whether decision support systems affect monitoring and evaluation. Findings were in table 4.7.

Table 4.7: Showing how planning affects use of MIS

	1	2	3	4	5
Input	**4(4.3%)**	**32(34.8%)**	**54(58.7%)**	**1(1.1%)**	**1(1.1%)**
Activities	**3(3.3%)**	**31(33.7%)**	**53(57.6%)**	**5(5.4%)**	**0**
Output	**6(6.5%)**	**69(75%)**	**17(18.5%)**	**0**	**0**
Outcome	**3(3.3%)**	**72(78.3%)**	**15(16.3%)**	**2(2.2%)**	**0**
Impact	**12(13%)**	**55(59.8%)**	**20(21.7%)**	**3(3.3%)**	**2(2.2%)**

The table 4.7 shows that 4(4.3%), 32(34.8%), 54(58.7%), 1(1.1%) and 1(1.1%) of the respondents said that planning process affects the inputs to very great extent, great extent ,moderate extent , little extent and not at all as shown respectively. The findings also show

that 3(3.3%), 31(33.7%), 53(57.6%) and 5(5.4%) of the respondents feel that planning affects activities to very great extent, great extent, moderate extent and to a little extent as shown respectively. Table 4.5 also show that 6(6.5%), 69(75%) and 17(18.5%) of the respondents said that the planning process affects output to very great extent, great extent and to a moderate extent as shown above. The table also shows that outcomes in the organization are affected by routine processing to great extent 72(78.3%), followed by moderate extent 15(16.3%) and very great extent 3(3.3%). The findings also shows that the respondents also believe that the planning process also affects impact that the organization creates to very great extent 12(13%), great extent 55(59.8%), moderate extent 20(21.7%), little extent 3(3.3%) and not at all 2(2.2%). The findings show that planning is an important aspect in monitoring and evaluation. (Mads, 2006) said that planning not being involved when M&E is being performed is detrimental to project success. (Pasteur and Blauert, 2000) also said that most of the Aid organization have put more emphasis on planning because that increases the chances of achieving the goals. They all agree that planning should form part and parcel of the M&E framework.

4.7 Expert Support Systems

The respondents were asked to state whether expert systems affect monitoring and evaluation. Findings were in table 4.8.

Table 4.8: Decision of the Chief Executive affect the utilization of management information systems on monitoring and evaluation

	1	2	3	4	5
Input	**8(8.7%)**	**10(10.9%)**	**58(63%)**	**15(16.3%)**	**1(1.1%)**
Activities	**13(14.1%)**	**26 (28.3%)**	**53(57.6%)**	**0**	**0**
Output	**3(3.3%)**	**72(78.3%)**	**15(16.3%)**	**2(2.2%)**	**0**
Outcome	**10(10.9%)**	**65(70.7%)**	**17(18.5%)**	**0**	**0**
Impact	**5(5.4%)**	**7(7.6%)**	**63(68.5%)**	**15(16.3%)**	**2(2.2%)**

Table 4.8 shows that the decision made by the chief executive officer affect the utilization of management information on monitoring and evaluation as shown; very great extent 8(8.7%), great extent 10(10.9%) and moderate extent 58(63%). The findings also show that 13(14.1%), 26(28.3%) and 53(57.6%) of the respondents feel that the decisions made by the chief executive officer affect the utilization of management information on monitoring and evaluation as follows to very great extent, great extent and moderate extent and to a little extent as shown respectively. The findings further show that decision made by the chief executive officer affect the utilization of management information on monitoring and evaluation affects output as follows; very great extent 3(3.3%), great extent 72(78.3%) and to a moderate extent 15(16.3%). The findings also showed that 10(10.9%), 65(70.7%) and 17(18.5%) of the respondents said that decisions made by the chief executive officer affect the utilization of management information on monitoring and evaluation affect the outcomes of the hospital to very great extent, great extent, moderate extent, little extent and not at all as shown respectively. The findings also showed that the impact that the hospital creates can be

affected by the decision made by the chief executive officer affect the utilization of management information on monitoring and evaluation as follows; very great extent 5(5.4%), great extent 7(7.6%), moderate extent 63(68.5%) and little extent 15(16.3%). This findings show that top management's decisions significantly influence adoption of information systems. This is in agreement with (Thong, 1999) research which discussed the adoption of information systems in small businesses and showed a positive relationship between the innovation of senior executives and the adoption of information systems. The results were also supported by (Chen, 2004) who found that preferences of innovation among executives will increase the willingness in adopting information systems.

4.8 Office Automated Systems

The respondents were asked to state whether office applications monitoring and evaluation. Findings were in table 4.9

Table 4.9: Office applications affects monitoring and evaluation

	1	2	3	4	5
Input	**9(9.8%)**	**66(71.7%)**	**15(16.3%)**	**2(2.2%)**	**0**
Activities	**6(6.5%)**	**61(66.3%)**	**20(21.7%)**	**3(3.3%)**	**2(2.2%)**
Output	**2(2.2%)**	**10(10.9%)**	**75(81.5%)**	**3(3.3%)**	**2(2.2%)**
Outcome	**8(8.7%)**	**27(29.3%)**	**50(54.3%)**	**4(4.3%)**	**3(3.3%)**
Impact	**13(14.1%)**	**26(28.3%)**	**53(57.6%)**	**0**	**0**

Table 4.9 shows that office applications affect the inputs in the hospital to different extents as shown; very great extent 2(2.2%), great extent 2.9(10.9%), moderate extent 75(81.5%), little

extent 3(3.3%) and not at all 2(2.2%). The findings also show that 8(8.7%), 27(29.3%), 50 (54.3%), 4(4.3%) and 3(3.3%) of the respondents feel that analysis in the hospital also affects activities to very great extent, great extent, and moderate extent and to a little extent as shown respectively. The findings further show that analyzing affects output as follows; very great extent 4(4.3%), great extent 25(37%), a moderate extent 50(53.3%), little extent 3(3.3%). The findings also showed that 8(8.7%), 27(29.3%), 50(54.3%), 4(4.3%) and 3(3.3%) of the respondents said that analyzing affect the outcomes of the hospital to very great extent, great extent, moderate extent, little extent and not at all respectively as shown in table 4.6. The findings also showed that impact that the hospital creates can be affected by the analyses as follows; very great extent 13(14.1%), great extent 26(28.3%) and moderate extent 53(57.6%). The findings show that office automated systems have an influence on monitoring and evaluation. (Sanjay Kumar Pal,2008) postulate that the usefulness of automated system is time savings, in Turkey which is the new system of municipal management which offers great deal of effective management as the system is employed to perform a multiple tasks within a limited timeframe. Automation of tax collection also brings about efficiency and effectiveness in the declaration and subsequent payment of tax due. The situation in Turkey indicated that the new system offers a framework for all tax payers to be tracked. The ultimate of all of these is that more revenue is generated.

Table 4.10: Communication technologies affect monitoring and evaluation indicators

	1	2	3	4	5
Input	**3(3.3%)**	**5(5.4%)**	**67(72.8%)**	**15(16.3%)**	**2(2.2%)**
Activities	**4(4.3%)**	**32(34.8%)**	**54(58.7%)**	**1(1.1%)**	**1(1.1%)**
Output	**3(3.3%)**	**72(23.9%)**	**49(53.3%)**	**3(3.3%)**	**2(2.2%)**
Outcome	**16(17.4%)**	**22(29.3%)**	**50(54.3%)**	**4(4.3%)**	**3(3.3%)**
Impact	**2(2.2%)**	**13(14.1%)**	**71(77.2%)**	**3(3.3%)**	**3(3.3%)**

Table 4.10 shows that communication technologies affect the inputs in the hospital to different extents as shown; very great extent 3(3.3%), great extent 5(5.4%), moderate extent 67(72.8%), little extent 15(16.3%) and not at all 2(2.2%). The findings also show that 4(4.3%), 32(34.8%), 54(58.7%) and 1(1.1%) of the respondents feel that communication techno -logies in the hospital also affects activities to very great extent, great extent, and moderate extent and to a little extent as shown respectively. The findings further show that communication technologies affects output as follows; very great extent 3(3.3%), great extent 72(23.9%), moderate extent 49(53.3%), little extent 3(3.3%). The findings also showed that 16(17.4%), 22(29.3%),50(54.3%),4(4.3%) and 3(3.3%) of the respondents said that communication technologies affect the outcomes of the hospital to very great extent, great extent, moderate extent, little extent and not at all respectively as shown in table 4.10. The findings also showed that impact that the hospital creates can be affected by the communication technologies it uses as follows; very great extent 2(2.2%), great extent 13(14.1%) and moderate extent 71(77.2%).

According to the results, communication technologies influence the information systems adoption for monitoring and evaluation. The results obtained in the study are supported by (Hung et al, 2010) on their research on the adoption of CRMS in hospitals who concluded that the more the benefits seen to be gained from adopting information systems, the more willingness the hospital would have to adopt information systems. The findings are also in agreement with (Cragg and King, 2003) who found a positive relationship between perceived benefits and Information systems adoption.

CHAPTER FIVE
SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusions and recommendations of the study on the influence of utilization of MIS on monitoring and evaluation tool of projects, a case of Moi Teaching and Referral Hospital Eldoret, Kenya.

5.2 Summary of the findings

From the study findings the demographic characteristics show that majority of the managers in the hospital are male (60.9%).

The findings also show that most of the managers are between the ages of 46-50yrs (38%) and those with the lowest age (25-30yrs) being 3.3%. Those with the highest level of education (bachelor's degree) being 65.2% and minority with diplomas (2.2%). The findings also show that majority (58.7%) of the managers have served in the hospital for 11-20 years and the least (5.4%) having served for more than 30yrs. This shows that the level of seniority in the organization rises with age, education level and work experience.

On the transactional processing systems, the findings show that routine processing in the hospital, reports generated and support business operations influence utilization of MIS in monitoring and evaluation. The influence is greatly felt when monitoring of the inputs, activities and output.

Decision support also influences utilization of MIS in monitoring and evaluation of projects through the process of planning, analysis undertaken by the organization and trials and errors committed by the hospital.

The findings also showed that executive support influence utilization of MIS in monitoring and evaluation through the decision made by the chief executive office. The decisions made has an influence on the input in the projects, the activities performed while running the project, the output and outcome of the project and the impact that the project creates.

The findings also showed that office automation influence utilization of MIS in monitoring and evaluation of projects. Influence can be through the office application used and technology used to communicate among project team and the management. Office application used and communication technology can influence the inputs used in the project, the activities undertaken, the output and the outcome.

5.3 Conclusion

Based on the above findings it would be extremely difficult for an organization to make their decisions without incorporating a Management Information System, MIS provides a fitting platform for good decision making. This is because they would be forced to making baseless information due to the lack of confirmed information. Moreover, MIS normally lays a firm foundation for the establishment of concrete decisions through its systematic tools, timely information and adequate managerial policies and regulations.

Management information system with the benefit of modern tools and process of data can be help and support the managers in order to achieve management goals in relation to the project inputs, activities and the outputs or the outcome. Executive support has an influence on utilization of Management Information Systems in monitoring and evaluation through the decision made by the chief executive office.

Office automation influence utilization of Management Information Systems in monitoring and evaluation of projects. Automation systems have a great effect on the correctness, accuracy, time lines of managers' decisions. Automation system has a positive effect on

increase the correctness of managers' decision making which is part of the monitoring and evaluation process. Microcomputer prevalence in offices has been accompanied by the increasing spread of new communication, computer, products and information storage products and major changes in administrative procedures.

5.4 Recommendations

Management Information System should be used by organizations to provide a fitting platform for good decision making as it lays a firm foundation for the establishment of concrete decisions through its systematic tools, timely information and adequate managerial policies and regulations.

This would ensure that there's gender parity in the employment of management staff through proper employment software. Top management and the staff should not be resistance to change and they should be ready for changes brought about by the technology in their systems. This is because technology is changing for management information system to be effective managers should be willing to adopt these new technologies in their systems.

Major stakeholders involved in the project should get involved not only in project implementation but also on M&E.The beneficiaries of the project are better placed to give an opinion of the project success or failure. The stakeholders can also give an unbiased view of the project weaknesses, loopholes or strengths which in return shall help the project officer redefine the direction of the project**.**

5.5 Suggestion for further research

Further research should be done on the following areas;

1. The impact of management information system maintenance in organizations.

2. The challenges facing management information system projects implementation in organizations

3. Factors contributing to the failure of management information system projects failure in organizations

4. Assessment of the benefits brought about by management information system adoption in organizations

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Appendix I: Research Questionnaire for Middle and Low level Managers

Instructions: Please tick in the appropriate bracket or provided spaces

SECTION A: DEMOGRAPHIC INFORMATION

1. Gender: Male [ ] Female [ ]

2. Your age bracket (Tick whichever appropriate)

18 - 24 Years [ ] 25 - 30 Years [ ]

31 - 34 years [ ] 35 - 40 years [ ]

41 - 44 years [ ] 45 - 50 years [ ]

Over- 51 years [ ] 50 - 60 years [ ]

3. What is your highest education level? (Tick as applicable)

Primary [ ] Secondary [ ]

Diploma/certificate [ ] Bachelors' degree [ ]

Postgraduate degree [ ] Others-specify……

4. Years of service/working period (Tick as applicable)

1-10 years [ ] 10-20 years [ ]

20-30 years [ ] Over 30 years [ ]

Section B: Utilization of Management information systems on Monitoring and evaluation

TRANSANCTIONAL PROCESSING SYSTEMS

1) To what extent does routine processing affect the following on monitoring and evaluation in your organization?

	Very great Extent	**Great Extent**	**Moderate extent**	**Little extent**	**Not at All**
Inputs					
Activities					
Output					
Outcomes					
Impacts					

2) To what extent does produce reports affect the following on monitoring and evaluation in your organization?

	Very great Extent	**Great Extent**	**Moderate extent**	**Little extent**	**Not at all**
Inputs					
Activities					
Output					
Outcomes					
Impacts					

3) To what extent do support business operations affect the following on monitoring and evaluation in your organization?

	Very great Extent	**Great Extent**	**Moderate extent**	**Little extent**	**Not at all**
Iinputs					
Activities					
Output					
Outcomes					
Impacts					

DECISION SUPPORT SYSTEMS

4) To what extent does planning affect on the following in monitoring and evaluation in your organization?

	Very great Extent	**Great Extent**	**Moderate extent**	**Little extent**	**Not at all**
Iinputs					
Activities					
Output					
Outcomes					
Impacts					

5) To what extent does Analyzing affect on the following on monitoring and evaluation in your organization?

	Very great Extent	**Great Extent**	**Moderate extent**	**Little extent**	**Not at all**
Iinputs					
Activities					
Output					
Outcomes					
Impacts					

6) To what extent does trial & error affect the following on monitoring and evaluation in your organization?

	Very great Extent	**Great Extent**	**Moderate extent**	**Little extent**	**Not at all**
Iinputs					
Activities					
Output					
Outcomes					
Impacts					

EXPERT SUPPORT SYSTEMS

7) To what extent does the decision of the Chief Executive affect the utilization of management information systems on monitoring and evaluation of projects in your organization?

	Very great Extent	**Great Extent**	**Moderate extent**	**Little extent**	**Not at all**
Iinputs					
Activities					
Output					
Outcomes					
Impacts					

OFFICE AUTOMATED SYSTEMS

8) To what extent does office applications affect on the following in monitoring and evaluation in your organization?

	Very great Extent	**Great Extent**	**Moderate extent**	**Little extent**	**Not at All**
Iinputs					
Activities					
Output					
Outcomes					
Impacts					

5) To what extent does Communication technologies affect on the following monitoring and evaluation indicators in your organization?

	Very great Extent	**Great Extent**	**Moderate extent**	**Little extent**	**Not at all**
inputs					
Activities					
Output					
Outcomes					
Impacts					

THANK YOU