

**CHALLENGES IN THE USE OF HUMAN CAPITAL
MANAGEMENT INFORMATION SYSTEM (HCMIS) IN LOCAL
GOVERNMENT AUTHORITIES**

A CASE OF MWANZA CITY COUNCIL, TANZANIA

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MANAGEMENT INFORMATION SYSTEM (HCMIS) IN LOCAL
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By

Silver Paul Njau

**A Dissertation Submitted in Partial/ Fulfilment of the Requirements for the
Degree of Masters of Public Administration (MPA) of Mzumbe University**

2017

CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, dissertation entitled "***Challenges in the use of Human Capital Management Information System (HCMIS) in Local Government Authorities: A Case of Mwanza City Council, Tanzania***" in partial fulfilment of the requirement for award of the degree of Master of Public Administration of Mzumbe University.

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DECLARATION

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DEDICATION

This dissertation is dedicated to my loving children Victoria, Wolfgang and Humphrey. I have dedicated this work to you and hope it will inspire you to work hard and achieve success in your educational endeavours and careers, so that you can brighten your future and make a significant contribution to our growing nation.

ABBREVIATIONS AND ACRONYMS

CHRMIS	-	Computerized Human Resource Management Information System
E-HRM	-	Electronic- Human Resource Management
HCMIS	-	Human Capital Management Information System
HR	-	Human Resource
HR11	-	Human Resource form 11
HRHIS	-	Human Resource for Health Information System
HRIS	-	Human Resource Information System
HRM	-	Human Resource Management
HRMIS	-	Human Resource Management Information System
HRO	-	Human Resource Officer
ICT	-	Information and Communication Technology
IT	-	Information Technology
L.G.H.R.I.S	-	Local Government Human Resource Information System
LGAs	-	Local Government Authorities
M.C.C	-	Mwanza City Council
M.E.O	-	Mtaa Executive Officer
MDAs	-	Ministerial Department and Agencies
MIS	-	Management Information System
PA20	-	Personnel Administration form 20
PA21	-	Personnel Administration form 21
PA22	-	Personnel Administration form 22
PA34	-	Personnel Administration form 34
PA36	-	Personnel Administration form 20
PA52	-	Personnel Administration form 20
PLANREP3	-	Planning and Reporting Database
PO-PSM	-	President's Office-Public Service Management
PR14	-	Payroll form 14
PR15	-	Payroll form 15
PR15.2	-	Payroll form 15.2

PR52.4	-	Payroll form 52.4
PSRP	-	Tanzania's Public Service Reform
R.M.A	-	Records Management Assistance
T.A.M	-	Technology Acceptance Model
T.T.C.L	-	Tanzania Telecommunication Company Limited
T.T.F	-	Task Technology Fit
TZ04.2	-	Allowance form 04.2
TZ04.3	-	Allowance form 04.3
TZ71	-	Budget form 71
TZ80.2	-	Budget form 80.2
U.S.A	-	United States of America
U.T.A.U.T	-	Unified Theory of Acceptance and Use of Technology
V.P.N	-	Virtual Private Network
W.E.O	-	Ward Executive Office

ABSTRACT

Human Capital Management Information System (HCMIS) has been solution to some problems facing human resource department. The system facilitates storage and retrieval of human resource information timely hence increases of efficiency and effectiveness of public services. Despite the use of HCMIS at Mwanza City Council (MCC) still some of the challenges confront the smooth use of the system. The specific objectives of this study were to examine HRO's knowledge in using the system; to explore ICT infrastructure obstacles in effective use of HCMIS; to assess HR information flow from other departments to system users; to investigate top management support towards use of HCMIS and to assess the level of employee's satisfaction on the use of HCMIS at MCC. This study used single study case of Mwanza City Council Data were collected by using both qualitative and quantitative methods through questionnaires, observation and in-depth interview. Sample size of 173 respondents was selected through purposive sampling technique and convenience sampling technique. Findings of this study revealed that none of the HRO's had knowledge to use the system fully. Also the findings show that there is poor flow of information from other departments to HR department. Also results shows that system users were not happy with the support given by approvers at PO-PSM in approving the sent items on time. Findings also revealed that there is poor support from Mwanza City Council in creating better working environment and working tools such as computers and accessories. The study recommends that, system users should be given sufficient training so that they can be able to use system fully. Also management should put a mechanism which will facilitate easier and timely flow of HR information from other departments to system users and finally management should provide support to the users by providing enough computers.

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CHAPTER ONE

1.0 Introduction

This chapter covers eight areas which are background of the problem, statement of the problem, objectives of the study, research questions, scope of the study, significance of the study, limitations of the study and definition of key terms.

1.1 Background to the problem

Human resource information system (HRIS) was introduced for the first time in 1950s in General Electric Company in USA. The system has been transformed since its introduction and acquired various names such as Human Capital Management Information System (HCMIS), Human Resource Management Information System (HRMIS), Computerized Human Resource Management Information System (CHRMIS) and many others. According to Richards-Carpenter (2012), forty percent of U.S. corporations had HRIS by the 1980s. Rapid increase in using HRIS all over the world is caused by rapid economic growth which cause mushroom of organisation in public and private sector all over the world. It is also believed that future economic and strategic competitive advantage will be achieved by organizations with ability to attract, develop, and retain large group of the best and the brightest human talent in the labour market (Kavanagh et al., 1990). According to Ball, 2011 HRIS improves speed, efficiency and quality of services in the working place.

Therefore, in current situation with an increase in the number of public and private organizations, Human Resource section is now seen as a source of competitive advantage (Kavanagh et al., 1990). Therefore firms must have highly trained and skilled human capital to facilitate competition in the market. This will definitely be achieved through the use of human resource information systems. Therefore, when an organisation whether public or private invests in affordable HRIS, it directly becomes capable of dealing with its staff by looking at two of the primary components which are payroll and human resources. Beyond these computer

software solutions, organizations also invest in human resource information system modules which help them put the full productivity of their workforce to use, including the varied experiences, talents, and skills of all staff within the enterprise (Rietsema, 2015). Therefore, HRIS is widely used all over the world as it facilitates efficiency and accuracy of data storage and access, speed of service delivery in both public and private sectors has gone up and data storage has been improved in most of the organisations which use HRIS.

Africa has been using Information Technology since 1980's, time has come to fully embrace it with the rest of the world. Increase in competition in business organisation is a catalyst towards adoption and use of HRIS in private and public sector because the system has been the best way to manage Human resources. However, human resource function in Africa has not been proactive in the use of ICT technology to provide integrated services or to communicate more effectively (Troshani et al., 2011). This is because most of the organizations in Africa still rely on manual and paper work in service provision. There is need for HR to proactively embrace Technology to elicit responses and fulfil changing expectations within organizations (Ball, 2011).

In 2009 researchers from Georgia Technical Research Institute (GTRI) joined the effort to carry out an independent software evaluation of the new system and the overall usability of the system in Kenya and Zimbabwe health sectors and encouraged frequent monitoring and evaluation for human resource information systems to serve its intended purpose (Adams, Clarkson & Skeels, 2009). Literature shows that, use of HRIS in most of developing countries in Africa is confronted by number of challenges which are insufficient funds to adopt and implement the new technology, resistance to change due to fear of unknown, lack of knowledge and skills to implement the technology, insufficient IT experts and poor support from top management. Despite of 1988 Civil Service Reforms in Nigeria which had intention to institutionalize modern information processing cultures in the Nigerian National Centre for Economic Management and Administration still there is inadequate levels of availability and accessibility of modern IT (Hassan, 2013).

In Tanzania the introduction of computer linked system emerged in 1965 when second generation computer system was installed in the Ministry of Finance in Dar es Salaam. It was clear that before 1965 there were no any electronic computers system in Tanzania (Mbamba, 2003). Later on computers system and its accessories were installed in government agencies and major corporations in the country. The growth and use of computers in Tanzania continued with trade liberalization policy in 1980's (Baker, 1993). According to (Mgaya 1999) most computers were not used as intended and consequently failure to achieve desired goals.

In 1990s the Government of United Republic of Tanzania introduced a number of initiatives to reform the public service in the country. The intentions of such initiatives were to improve the efficiency and effectiveness of the public service. Public Service Reform Programme (PSRP) phase two was introduced to overcome challenges presented by information and communication technology (ICT). Due to this challenge, the President's Office, Public Service Management (PO-PSM) introduced national ICT Policy; this policy was approved by Cabinet in March 2003 aiming at promoting good governance, transparency and accountability.

The Human Capital Management Information System (HCMIS) was initially introduced in 1995. This new system formed part of the PSRP (also known as Civil Service Reform Programme). It was intended that employee's records would be managed as part of the system. The HCMIS was used jointly by the PO-PSM and the Ministry of Finance and these two ministries were connected through fibre optic cabling. HCMIS data was routinely used for government reports, budgeting and payroll management. Through the HCMIS, routine data checks and validation were done timely and accurately, as well as the provision of essential monthly reports to various pension, insurance funds and financial institutions. The introduction of HCMIS in central government, ministries and departments was not solution to the improvement of public service because all HR information from LGAs was to be sent to PO-PSM in hard copy to be fed into the system. This made the PO-PSM office to be overloaded with the documents from LGAs all over the country hence PO-PSM decided to decentralize the system to LGAs.

In 2011 the Government introduced Human Capital Management Information System (HCMIS) to Local Government Authorities (LGAs) including Mwanza City Council. The aim was to reduce the manual or traditional workload of the administrative activities (to shift from paper based records) and to enable human resource officers to maintain employee's information using application software. The system is still operating and most of the personnel management actions are done in the council through this system. The system is used to hire new employees, change salary of employees soon after promotions, upload loan deductions and stopping deductions, transfer of employees and all other activities concerning payroll changes which were initially done by the central government. Despite the use of HCMIS in MCC still the efficiency and effectiveness of the system is confronted with some challenges such existence of ghost workers, salary arrears claims, promotions claims and many others payroll related complains.

1.2 Statement of the problem

Over the past twenty two years, the Government of Tanzania experienced various obstacles in effective management of Human Resource and Payroll operations. Some of these challenges include ineffective and outdated human resource and payroll business processes that led to delays in effecting changes on various personnel actions including promotions, transfer, and exit from the payroll. In response to these challenges, various reforms such as Public Service Reform Programme (PSRP) aimed at reforming the business processes and putting in place effective systems and structures to manage Human Resource and Payroll were introduced by the Government of Tanzania as one of the effort to improve public service in the country.

In harnessing the opportunities provided by Information and Communications Technology, an integrated Human Resource and Payroll management system, known as Human Capital Management Information Systems (HCMIS) was implemented in 1995 and decentralized to LGAs in 2011 as a tool for effective management of HR and Payroll in the Public Service.

Despite the adoption of HCMIS at Mwanza City Council still payroll problems exists, issue of ghost workers still exists contrary to the expectation of central

government. Recent data shows the council had 71 ghost workers, still there is 3% employees whose salaries have not been changed despite of having promotion letters. (MCC Annual report 2006). One of the intentions of introducing HCMIS is to eradicate the problem of salary arrears because the system can change the salaries immediately after promotion but still there is 36% of employees claiming salary areas after promotion. This indicates that there are challenges which affect the use of HCMIS. (MCC Annual report 2006).

No any study which had been conducted before at MCC to explore challenges encountered in the use of this system. The intention of this study was thus to explore the challenges which affect the use of HCMIS and provide recommendations to the management and policy makers for possible rectification.

1.3 Objectives of study

1.3.1 The Main Objective

The main objective of the study was to explore challenges encountered in the use of human capital management information system in Local Government Authorities specifically Mwanza City Council.

1.3.2 Specific Objectives

The study had five specific objectives which are:-

- i) To assess HRO's knowledge in using HCMIS;
- ii) To explore ICT obstacles in effective use of HCMIS
- iii) To assess HR information flow from other departments to system users
- iv) To investigate top management support towards use of HCMIS
- v) To assess the level of employees satisfaction on the use of HCMIS at MCC

1.4 Research questions

In order to achieve the stated specific objectives the study was guided by the following questions.

- i. Does HRO's at MCC poses sufficient knowledge to use HCMIS fully?
- ii. What are the ICT problems associated with effective use of HCMIS at MCC?

- iii. Is there effective flow of HR information from other departments to system users?
- iv. Does top management provide full support towards use of HCMIS?
- v. Are employees satisfied with usage of HCMIS at MCC?

1.5 Scope of the study

This study looked at the challenges encountered in the use of Human Capital Management Information System (HCMIS). The study covered only one selected Local Government Authority (LGA) which is Mwanza City Council.

1.6 Significance of the study

The significance of the study is to make Mwanza City Council management aware of the challenges which affect the use of HCMIS hence be in a position to eradicate the problem of ghost workers, salary arrears and delayed changing of employee's salaries after promotions. Also to provide feedback to the HCMIS users, approvers and policy makers for possible rectification of the system management. The study is a source of information to other Local Government Authorities which use the same system; hence it adds knowledge to the stakeholders and be in a position to know challenges facing the use of the system and how to overcome those challenges.

1.7 Limitation of the study

Major limitation of this study is insufficient financial resources whereby the money provided by the sponsor to carry out this study was only 65% of the cost required to accomplish the whole study. In this case, the researcher consulted other sources of income to cover the remaining cost (35%). Also little has been written concerning challenges in using HCMIS and therefore weakens the part of literature review of this study.

1.8 Definitions of key terms

1.8.1 Systems.

Systems are interrelated parts or elements that work together to achieve an objective. In stating that, the components of a system work together to achieve an objective, we imply that the system is goal directed. It does something purposeful. It receives certain inputs and transforms them into outputs (Williams *et al.*, 1985).

1.8.2 Information

Wigand et al. (1997) information is the output of the processed and analysed data in some meaningful way.

1.8.3 Management Information Systems

According to Weihrich et al. (2007) Management Information System (MIS) can be defined as a formal system used to gather process and disperse internal information of the enterprise timely, effectively and efficiently hence support managers in making decisions in their jobs. MIS is the organized way of giving past, present and future information pertaining to internal organisation intelligence. MIS is an integrated, user-machine system for providing information to support operations, management and decision making functions in an organization (Williams, 1985).

1.8.4 Human Resources Information System (HRIS)

Bhattacharya (2010) defined HRIS as a systematic way used to store data and information of each employee in the organisation for the purpose of planning, making decisions, and generating report for external agencies. Therefore, HRIS is the intersection that exists between human resource management and information technology. For the purpose of this study HRIS is referred as Human Capital Management Information System (HCMIS).

1.8.5 Human Capital Management Information System (HCMIS)

This is a computerized skills inventory for acquiring; storing, analyzing and controlling the flow of HR related information throughout an organization. It helps in the collection of information on aspects of work life as diverse as salary, payroll, compensation, leave, accidents, superannuation-deduction for pension and other employee benefits (HCMIS user manual, 2011).

1.9 Organization of the Dissertation.

This dissertation is composed of six chapters. Chapter one is the introduction, which introduce the topic and explain the related concepts. Chapter two is literature review, which includes both theoretical literature review and empirical literature review from earlier studies and chapter three is about the research methodology. Chapter four contain presentation of the findings while chapter five is all about discussion of the findings and chapter six dwells on summary, conclusions, recommendations and policy implication.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents a review of the relevant literature on human resource management information system. The chapter reviews both theoretical and empirical literature drawn from various studies. Later the conceptual framework and synthesis of the reviewed literatures (research gap) is presented.

2.1 Theoretical Literature Review

This section provides different theories and concepts relating to human resource information system. The theories discussed in this section are task technology fit theory and technology acceptance mode theory. Then this mode is related to HCMIS in its operation.

2.1.1 Concept of Human Resource Information System

The terms Human Resource (HR) is widely used in organizations to represents human capital within a particular organization responsible for performing the tasks given to them in order to achieve goals and objectives of the organization (Bhattacharya, 2010). Human resources are the most valuable resources in any organization because they control all other resources. HRIS is a computer data base system used for acquiring, storing, analyzing, retrieving, manipulating, and distributing information relating to human capital in the organization (Kavanagh et al., 1990). HRIS facilitates the provision of quality information, store of information and data as well as quick retrieve of information for decision making. HRIS has been transformed to other names such as Human Resource Management Information System (HRMIS), Human Capital Management Information System (HCMIS),

Computerised Human Resource Management Information System (CHRIS) and many others. The evolution of HRIS does not change the main goal of the system which is to transfer HR activities from manual operations to electronic operations.

Because of the changes that are taking place in the world, most of the governments have adopted E-Governance technology to increase efficiency and effectiveness of service provided by the government to its people. In this case government of United Republic of Tanzania (URT) in the year 2010 adopted HCMIS from Lawson Company in United States of America to facilitate decentralization of human resource activities in the country. HRIS is integrated system with the objective to raise performance, efficiency, effectiveness and accuracy of HR activities in the public service.

Organisation management depend on Human Resource Information System to achieve its goals timely because the system contains the relevant information which can be retrieved easily. The base of organisation decisions are from databases that are used to collect, store, produce and manipulate data on human resources and other data related to payroll management (Gupta, 2006). However, it is important for human resource management to be comprehensive and maintain high quality, speed, flexibility and comply with upcoming technological changes to enable organisation compete with other rivals who use modern information technology. Use of information and communication technology becomes an imperative for HRM as well as the other activities in the organisation. HRIS is a modern technology in communication arena which connects the functions of HRM and information pertains to work force of the organisation.

Human resource information collected and stored within the HRIS provide base for decision making in the organisation. Having proper HRM, organisations will be in a position to provide relevant and crucial information that has positive impact on the entire business. HR information found in HRIS data base includes new hire, transferred employees, promotion, annual leave, performance appraisal, salary change, training, turnover rates, and personal information. Various studies provide evidence supporting the recognition of the role of HRIS in strategic decision making in the organisation. Therefore, there has been gradual increase in the use of HRIS systems in private and public sector all over the world for period of time. Bhattacharya and Lower (2010) reported that use of HRIS has been constantly

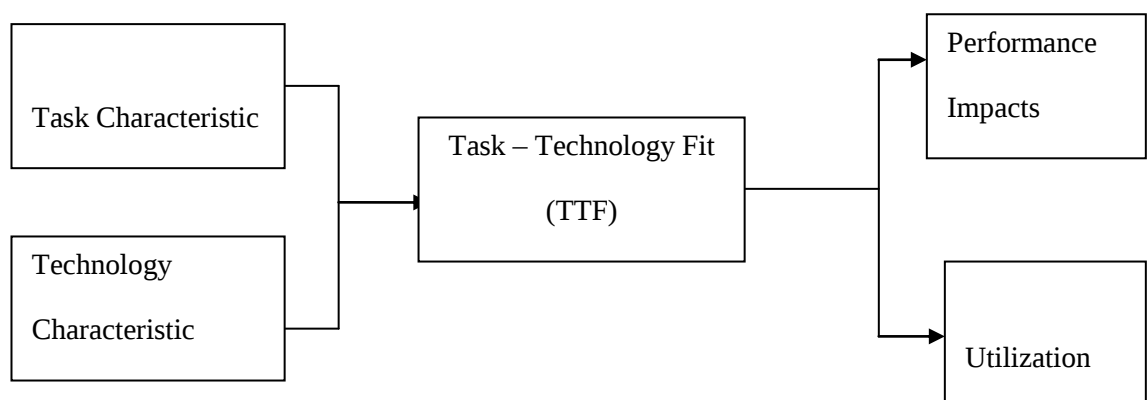
increasing over period of years. Therefore, if an organisation does not follow trends in the area of information and communication technology, it may have a problem with inefficient or insufficiently effective HRIS (Bhattacharya, 2010).

2.1.2. Task Technology Fit Theory

This study used Task Technology Fit (TTF) Theory as proposed by Goodhue and Thompson (1995) and its famous model known as Technology Acceptance Model (TAM) which was proposed by Davis *et al.* (1989). The main idea in TTF which is also applicable in HCMIS is the relationship that exists between individual performances, utilization of technology, technology characteristics and task characteristics. The theory insists that, individual performance will rise if the appropriate technology which matches the task characteristics will be fully utilized. Failure to select proper technology which fit with task characteristics may lead to poor performance or reduced performance.

Performance in the public service in Tanzania has improved after introduction and utilization of HCMIS technology because the technology characteristics fits the HR task characteristics however this performance has not reached 100% in the public service.

Figure 2.1: Task Technology Fit (TTF)



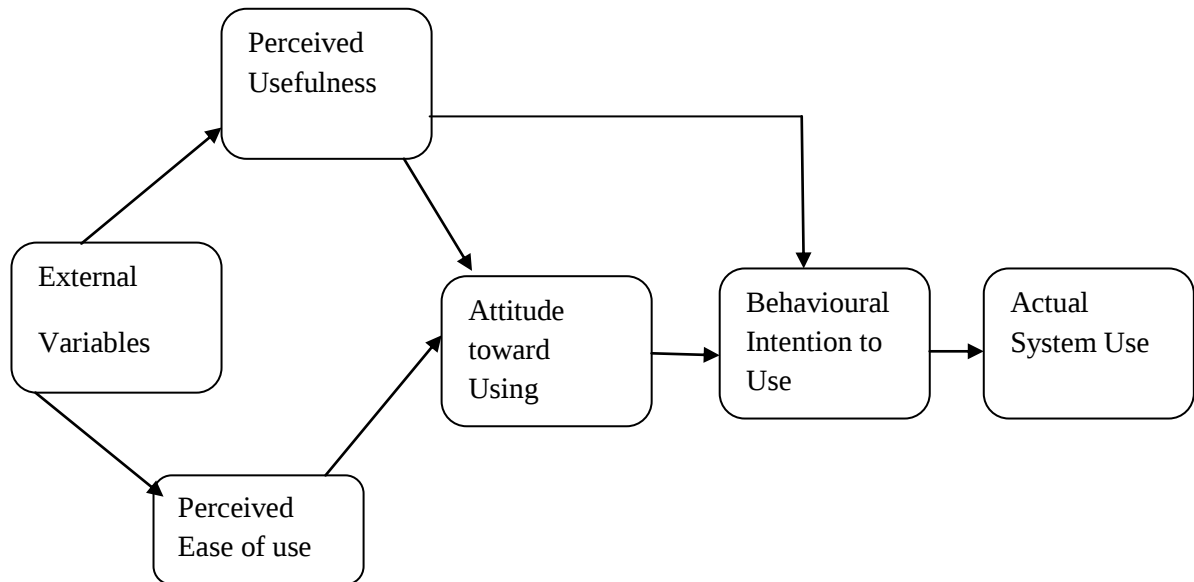
Source; Goodhue and Thompson (1995)

From figure 2.1 TTF is achieved when technology characteristics matches with task characteristics. Technology referred in this study is HCMIS and the task characteristics referred here is HRM functions. HRM functions are embodied in the HCMIS hence there is a match between technology characteristics and task characteristics. Therefore, technology which is HCMIS is used to execute human resource activities such as promotions, performance appraisal, training, employee compensation, employee benefits, recruitment, termination of service and many others. Another characteristic of HCMIS is that, it is simple and easy to use hence users enjoys using the system as it reduces time for performing HR activities as well as increasing efficiency and increase performance in the organisation. Therefore, proper utilization of technology is achieved when technology is user friend and its characteristics matches with those of the task to be done and technology users must have knowledge and skills to use the technology.

2.1.3 The Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) was initially proposed by Davis (1989). This is an information system theory in form of model which shows how users of technology come to accept and use it. The model demonstrates that, users of technology will accept the technology if they perceive that, it is easy to use it and the technology will be useful to the organisation and workers. However if users of technology will have negative perception about the technology they are likely to resist hence organization will fail to use the technology.

Figure 2.2: Technology Acceptance Theory Model



Source; Adopted from Davis *et al.* (1989)

The above model is extracted from the TTF theory by Davis 1989. The main idea in this model which is also applied in this study is that, individuals will be ready to utilize the technology if they believe that the utilization of that technology will yield positive results. Employees must have positive attitude toward the technology hence they will have intention to use that technology. TAM relies on two believes as it is seen in the model above which are perceived usefulness and perceived ease of use. According to Davis (1989), and Venkatesh (2003), behavioural intention to use technology arise when individual perceive that the technology will be useful and it is easy to use the required technology.

2.1.4 Linkage of Technology Acceptance Model Theory and HCMIS

External Variables: Adoption of E-Governance by government of Tanzania for the purpose of increasing efficiency in provision of services as well as accommodating technological changes around the world is one of the external variables which drove the government to introduce HCMIS. Increase of population is the key cause of increase of social service demands hence increase of workforce required to provide the required services, in this case government activities which were done manually

are now done electronically to increase performance, reduce bureaucracy, reduce corruption in the public service and speed up the provision of services.

Perceived Usefulness: The government of Tanzania adopted HCMIS after perceiving that the system will be fully utilized and it has capacity to use the system in terms of resources and technology required. Before the adoption of the system the government ensured that infrastructures to facilitate adoption were in place. Most of the Local Government Authorities, Ministries, Agencies, Government Departments and Central Governments offices were already equipped with internet connections and availability of power supply however few Local Authorities had problems with network connections.

Perceived ease of use: The system has been adopted because it is user friend in its operation. It requires one to two weeks for ordinary person to master the operation of the system. The system can be used to generate various HR reports within very short period of time as well as performing various payroll changes easily and timely. Training of the HCMIS can be done in the working place and after mastering the operation the trained officer need to request password from the central government. The system guides the user during its operation where by wrong entries will be rejected and the system instruct the operator to make some changes to the entries before the system accept those information.

Attitude towards using, Resistance to change is always an obstacle towards introduction of new technology because technology comes with changes which affect life of individuals in the working place. HCMIS has been adopted because the users and all stake holders have positive attitude towards the system. Negative attitude is catalyst for resistance to change and resistance to change is dealt with by educating people about the benefit of the new technology to individual and organisation. To impose the positive attitude towards introduction of HCMIS the government of Tanzania conducted training to directors, heads of departments, HRO's, administrative officers and managers from Government Agencies, LGA's, Ministries, Government departments and Central Government.

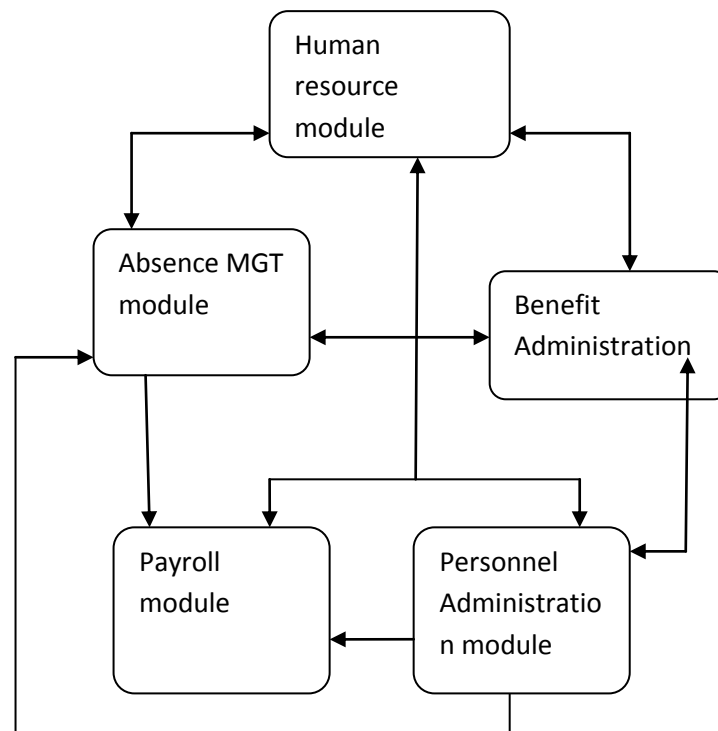
Behavioural intention to use, Intention to use HCMIS is derived from the perceived usefulness, since all stake holders know the advantages of the system and they are sure that they are in the position to utilize the system fully because they have positive attitude towards the system then the intention to use the system will be seen.

Actual system use, The system is successfully used all over the country and its has reduced cost because most of the HRO's operations such new hire, promotions, salary changes, personnel information change in the payroll are done without physically travelling to Dar es salaam as it was done before. Complains in the public service has been reduced because things are done timely and bureaucracy in the public services has been reduced to greater extent.

2.1.5 Integration of HCMIS module

Human Capital Management Information System is comprised of five sections which are integrated from one another as it is seen in figure three below. Change of information in one parameter lead to change of information in other section. If an employee is promoted through personnel administration module then salary change will be seen in the payroll module and the information about seniority change and date of last promotion will be seen in human resource module.

Figure 2.3: HCMIS Integration



Source: HCMIS manual, 2010.

2.1.5.1 Human Resource Module (HR)

This module stores basic information of officers such as personal particulars, academic qualifications, bank account number, work experience prior to joining the public service and awards received. In addition, this module stores information on service profile and asset declaration. Organization Structure can be defined using this module. The organization structure in this HR module consists of three main levels, these levels from the highest to the lowest being company, process level (vote) and department. Company is the highest level in the organization structure, where all Government Process levels (votes) are grouped together. Process level (Vote) is the second level within the organization structure, a process level may belong to one and only one company while a company may contain one or more process level.

Department is the third level within the organization structure, a department will belong to only one process level, but a process level may contain one or more

departments. The employees are the key asset of any organization; an employee will belong to a specific department, process level and company, making it easier to track where the employee is within the organization structure. An employee's eligibility to receive pay and benefits are indicated using the employee status. Job code is a specific set of duties or tasks within an organization, employees are tied to their relevant job codes within the system.

2.1.5.2 Personnel Administration Module (PA)

The Personnel Administration application is used to effectively manage the costs and processes related to personnel. Personnel action is an event that results in a change on employee data for one or more employees. Personnel Actions are used to update or maintain employee data without accessing the employee master. Personnel Actions prompt user to change the employee's data that is associated with the action.

Personnel Actions include: Transfer of employees from one employer to another, Promotion within Vote, Promotion between Votes, Status Change, Salary Change, Termination of employees from payroll, Personal Information Change and Bank information Change.

2.1.5.3 Payroll Module (PR)

The Payroll is a comprehensive system for generating and maintaining all payroll-related information, including payment writing, labour distribution and quarterly reporting. The Payroll is a management tool capable of handling all of your human resource needs. A Pay Code represents a type of pay, how it is calculated, and where it is expensed in the General Ledger. A Time Record is a payment record for an employee, in order for an employee or employee group to receive a payment; the employee or employee group need to be tied to a Pay Code, the payroll system provides several options for creating Time Records.

On processing the payroll the employee's earnings and deductions are calculated, payroll results are verified and finally the payroll is closed. Employees' earnings and

deduction details are recorded in history and time records are deleted ready for creating next month's time records/payment records.

This module enables user to make all necessary payroll changes such as entering and stopping various deductions in the employee's salary. Also entering and changing banks accounts

2.1.5.4 Absence Management Module

This module is used to manage absenteeism of public servants in the working place. By using form LP51.1 this module track employee information for a leave of absence. The information entered in this module address annual leave, compassionate leave, study leave, leave without pay, sick leave, convalescence leave, maternity leave, paternity leave, leave pending retirement, sabbatical leave and secondment. Data about these leaves will enable online inquiries and reports which help HR officer to determine eligibility for future leave time as well as identification of ongoing leave tracking actions such as notifications of leave ends.

2.1.5.5 Benefit Administration Module

This module helps administer remuneration records of officers for preparing salaries

Following placements, leave (half pay, no pay), promotion, competency level evaluation and change of service scheme. In addition, it administers the records of benefits enjoyed by the officers such as loans, medical benefit, claims and personal advances, scholarships and annual allowances.

2.1.6 HRIS and E-HRM

In Local Government Authorities, Government Agencies, Ministries, Departments and other nongovernmental organisations, internet makes possibility for these organizations to automate human resource activities. Several existing human resources functions, applications and services can virtually be converted' to Web-based ones (Ngai et al, 2006). However human resource management systems in today world are being changed to E-HRM systems, this is due to the development of internet technology and the growing concept of business industry (Zhang and Wang,

2006). Ngai et al (2006) proposed that web-based recruitment, training and performance measurement are functions supported by E-HRM. Reddic (2009) addressed the effectiveness of HRIS and found that most of the web based HR are currently providing information that can be stored in the information system for immediate or future use. A proper choice of a technology enables an organisation to perform its functions effectively. E-HRM, HRIS or online HRM is introduced in an organisation for the purpose of improving work operations in the HRM department and that services delivered be more attractive, effective, faster and modern due to technology. The government of Tanzania has adopted e-governance technology to increase efficiency and effectiveness of service provision in the public sector. In this aspect HRIS and E-HRM are mutually bonded.

2.1.7 Factors influencing use of HRIS

Use of HRIS is an organizational change which comes as result of globalization and technological change. Resistance is always inevitable in any change. To facilitate successful human resource information system usage, context issues must be assessed (McElroy, 1991). Perfect human capital management information system usage depends on the support of top management, the support from other departments, the involvement of trained human resource officers, support of organisation work force, computer knowledge and skills of human resource officers and network stability.

2.1.7.1 Top Management Support

According to Wong et al. (1994), for the system to be accepted the most needed and important support must originate from top management because such support will be needed from adoption stage to the implementation stage. At the beginning of any change the project must be approved by the top management (Kossek, 1994) and linked with strategic organisational goals (Davis 1989). This will be achieved through tying management bonuses to project achievement (Green, 20007). Top management in the organisation must publicly and explicitly see the project as a first priority and failure to execute it will be loss to the organisation (Holt, 1987). Top

managers must be committed with their own participation and ready to allocate valuable and sufficient resources to the implementation effort (Hassan, 2013). Also top management has major duty for providing sufficient financial assistance, technology, policies and sufficient resources required to create a successful and competitive human capital information system. All these involve providing the required human resource for the implementation and providing sufficient amount of time and other resources required to perform the required task (Green, 2007). In case top management in any organisation lack skills and knowledge on how the human capital information system brings benefits to the entire organization, then they will hesitate to allocate valuable required resources, time, technology and efforts of implementation (Ngai and Wat, 2006). Managers should legitimize new goals and objectives. A shared common vision of the organization and the role of the new system and structures should be communicated to employees. New organizational structures, roles and responsibilities should be established and approved. Policies should be set by top management to establish new systems in the company. In times of conflict, managers should mediate between parties (Green, 2007)

2.1.7.2 Effective communication with other departments.

Effective communication with other departments and stakeholders outside the organisation is critical to human resource information system implementation (Hassan, 2013). Human capital management information system section will only be active and effective depending on the information received from other departments which will be used as the raw material to the system. Management of communication within the organisation, education and expectations of the information to be received are critical and important throughout the organization (Holt, 1987). User input must be monitored in acquiring their personal interests, ideas, reactions and approval (Denton, 1987). Communication with other departments includes the formal launching of project teamwork and the advertisement of project progress to the entire organization (Davis 1989). Middle managers have duty to communicate its importance to the stake holders (Kossek, 1994). Employees must be informed in advance the scope, objectives, activities and updates, and admit change will occur

(Holt, 1987). Communicating quickly and in an effective way across organizational, functional and cultural boundaries is crucial. Members of the project team need to be able to communicate with a common language (Koster, 2010). Communication between top managers and work force in the organization is a crucial way to motivate employees. Communication among departments in the organisation strengthen teamwork in the working place hence facilitate achievement of organisational goals. Unfortunately many managers lack communication skills. (Brooks, 2003). Communication has to be well planned. Communication has to be planned for the right people at the right time via the right communication channel (Green, 2007).

If communication is done well in the organisation flow of information from other departments to HR department will be enhanced.

2.1.7.3 Training of the system users.

Effective use of a new human capital management information system may positively impact an organisation, creating a foundation for organisational development and improvement. Training of personnel is a key role in successful implementations of HCMIS, the way employees are introduced to the new system and how they learn to use it may be the main contact they have with the programme. For the new system to be adopted easily and be implemented with minimum resistance all stake holders must have positive attitude towards the new introduced technology and this will be achieved if they have been trained .Training engages employees, and raises their morale to embrace organisational change and encourages achievement of organisational objectives. Training should be first priority from the take off stage of the project, and funds and time have to be spent on various categories of education and training of personnel (Holt, 1987). Training, coaching and carrier development of the system users is critical. Computer skills training for appropriate work force help attain maximum human resource information system effectiveness (O'Connell, 1994). Insufficient computer knowledge and skills has been source of slowness and errors in using information technology to most of human resources departments (Kavanagh et al., 1990). Kossek et al. (1994) also

proposed that system user skill and competency level will be strongly related to the variance in attitudes toward the value of HRIS. (Denton, 1987) however DeSanctis (1986) proposed that one of the crucial hurdles of HRIS is lack of staff technical training and work experience in information system management. Kavanagh et al. (1990) also proposed that for a successful HRIS, proper training should be given to all HR staff, top managers, line managers, and all other employees. System user training must be emphasized, with sufficient investment in training and coaching of developers in system software development and methodology (Denton, 1987). Work force in any organisation needs training to facilitate understanding on how the system will improve business processes.

2.1.7.4 Availability of Consultants and IT Expert

A supporting organizational setting, including a skilled workforce, can be critical for successful innovation adoption (Lin, 2006). HRIS expertise or human capability is significant factors influencing adoption of HRIS. HRIS was found as an important factor in the adoption of new technologies in a study by Kwon and Zmud (1987). Therefore, successful adoption of HRIS requires availability of skilled HRIS professionals in the organization because if the users lack understanding of the system features can be a major obstacle in HRIS adoption. Troshani *et al.* (2011) indicated that the training was needed for all user levels such as operational and strategic levels to increase their knowledge and skills in using the system effectively.

2.2. Empirical Literature Review

This part of the study explores and presents literature from other studies on the challenges encountered in the use and implementation of HRIS as a human capital management information system in organizations. Banerji (2013) conducted study on the issue and challenges of implementation of Information Technology in HRM. Some of the challenges according to his study were employee's orientation, work culture, security issues, cost factor training and learning and finally technical limitations. Batool *et al.* (2012) in their study titled benefits and barriers of human resource information system in accounts office come up with results which were

almost the same as those of previous researches whereby barriers of HRIS were lack of funds, inadequate knowledge, lack of expertise, lack of cooperation, network problem, technical problems, lack of staff and time consumption.

Jahan (2014) in her study titled *human resource information system; A theoretical perspective* come up with challenges to success of HRIS which are inconsistency in the importance given to HRIS which cause difficult in sustaining management commitment to the project and in obtaining the resources necessary to fully develop the new or upgrade HRIS. Another challenge according to her study is tendency to underestimate the complexity of the HRIS and its impact on the behaviour and process of the organization.

Another barrier according to her study is the acceptance of the HRIS by user and the consequent underestimation of the importance of change management. Pande (2015) in his study titled *human resource information system in S.M.E's* come up with barriers in the adoption of HRIS which are lack of budget, high cost of setting up and maintaining HRIS, lack of support and commitment from senior management, lack of IT support and expertise, lack of staff, difficult in changing the organization culture, lack of sufficient capital and skills, lack of qualified HR staff, lack of cooperation with other departments and lack of HR knowledge by system designers. Magenda (2011) conducted a study on an investigation of problem facing application of HRIS at Institute of Judicial Administration (IJA) Lushoto. The study revealed that network failure is one of the problems in the use of HRIS.

The study proposed that the previous problems pertained to the sharing of data and process over a network could now be dealt with by means of the universal set of technology tool. This in turn meant that anyone in the organization with access to a personal computer and an internet connection would now use self-service tool. It enables line managers and employee to access and update. So far, the effective HRIS application is still a problem experienced in many organizations.

Kalikawe (2010) conducted a study on ‘‘the assessment on the effectiveness of Human Resources Information System in Parastatal Organisation in Tanzania. He

looked on the views, experiences and interests of the managers and directors in relation to the use of Information Systems. The study revealed that one of the major reasons of low use of information system is poor interaction of people and technology. The study also showed a big difference between middle managers and senior managers in using the system whereby middle managers are the most users of the system as compared to senior managers who only rely on printed reports from middle managers.

Paul (2011) conducted a study on availability, access, and use of the Computerized Human Resources Information System in Public Organisation in Tanzania. This study revealed that initially Organisation used Information Systems to produce salary slips and pay roll reports as well as keeping personnel records. However currently in many organisations HRIS have gone beyond these traditional functions and have developed and adopted CHRMIS/HCMIS which supports function such as recruitment, selection and hiring of job placement, performance management, employee benefit analysis, training and development, health, safety and security .

Kovach and Cathcart (1999) conducted study on the challenges in the implementation of HRIS and the major obstacles in acquiring maximum HRIS potentials were insufficient funds and lack of support from the top management. They also mentioned designer's insufficient HR knowledge as one of the barrier. Similar study was also conducted by Beckers and Bsat (2002) where by one of the reluctance in adoption and implementation of HRIS was need for huge funds.

Another study was conducted by Hassan et al. (2013) on Public sector employees' view(s) of obstacles facing the development of management information systems in River Nile State – Sudan. Findings from this study were almost similar as those mentioned in the previous literature, according to this study the following were the obstacles of the development of Management Information System (MIS), lack of system application software and lack of well trained employees to deal with the new technologies were the highly rated obstacles of MIS development. Other obstacles were lack of support from top management, lack of planning and activities related to the use of information technology. Also there were no information networks for

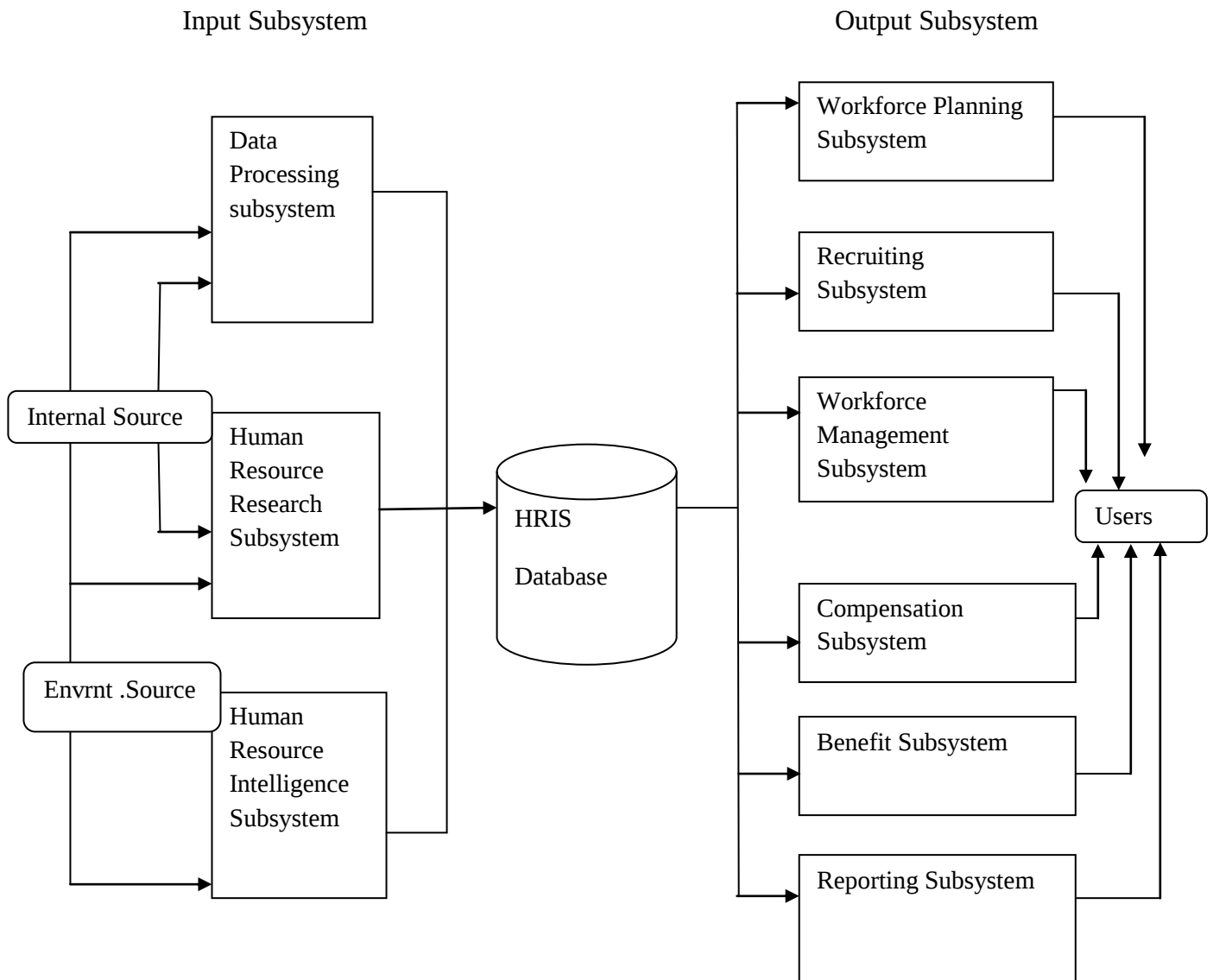
information exchange between the departments as well as lack of similar information within the departments. Another obstacle pointed by this study was insufficient number of computer machine in the work locations.

2.3 Resource Flow Model as a Model for HRIS

Resource flow model proves that firm achievements depend on the interaction between flow of information, materials, money and manpower (Beadles, 2005). The application of this resource flow theory in HCMIS bases on the flow of HR information through the entire organization. In this case it can be seen that the organization is always influenced by external environment hence it should provides several functions such as training and development, promotion, career planning, performance appraisal, recruitment and selection, absence management, termination, evaluation and benefit management. The main role of HRIS is to gather and organize data that tracks and facilitate this human resource flow. Datum is always stored until when needed, and they are used to produce reports that facilitate monitoring of the resource flow. This model is important and essential as it supports variety of HR tasks as well as helping ICT technicians to easily modify the database when need arise.

The figure 2. 4 below operates the same way as HCMIS operates and this is the main reason of using this model in this work. The output of HCMIS as it is seen in this model is recruitment whereby this system is currently used to hire new employees, another output is reporting, the system is also used to produce various reports needed by HR departments. Workforce planning is another output of HCMIS as it is used to prepare training and development programs, seniority lists, career planning and employee listing. Workforce management is also output of HCMIS because the system has ability to manage employee absence by recording types of leaves taken by employees and duration of those leaves as well as keeping information of employees whose leaves are nearly to be taken. Benefits of employees in HCMIS are accommodated in payroll component where salaries and pensions deductions are uploaded. Therefore this HRIS functions resemble that of HCMIS.

Figure 2.4: Resource Flow HRIS Model



Source; Modified from Journal of information technology management volume VI, (3) 1995.

2.3.1 Functional Modules of HRIS

Apart from what has been mentioned above as functions of HRIS module, some of the writers have also different ideas on the functions of these modules. Hendrickson (2003) said that these modules are there to enable information system to take of procedures and policies which are used to manage firm's human capital and procedure by activating both computer hardware and software.

According to Green (2007) some of the important functions of HRIS modules are integrating the HRIS technologies, increasing efficiency than before, increasing effectiveness. Hall (2003) comes up with the views that, IT-Enabled Processes need to be given priority because information technology affects HR practices. HRIS administration encompasses a distinct supporting task within HR department. It can undoubtedly be said that functional modules of HRIS are the life blood for the firm and the firms which have deployed the technology started getting benefit

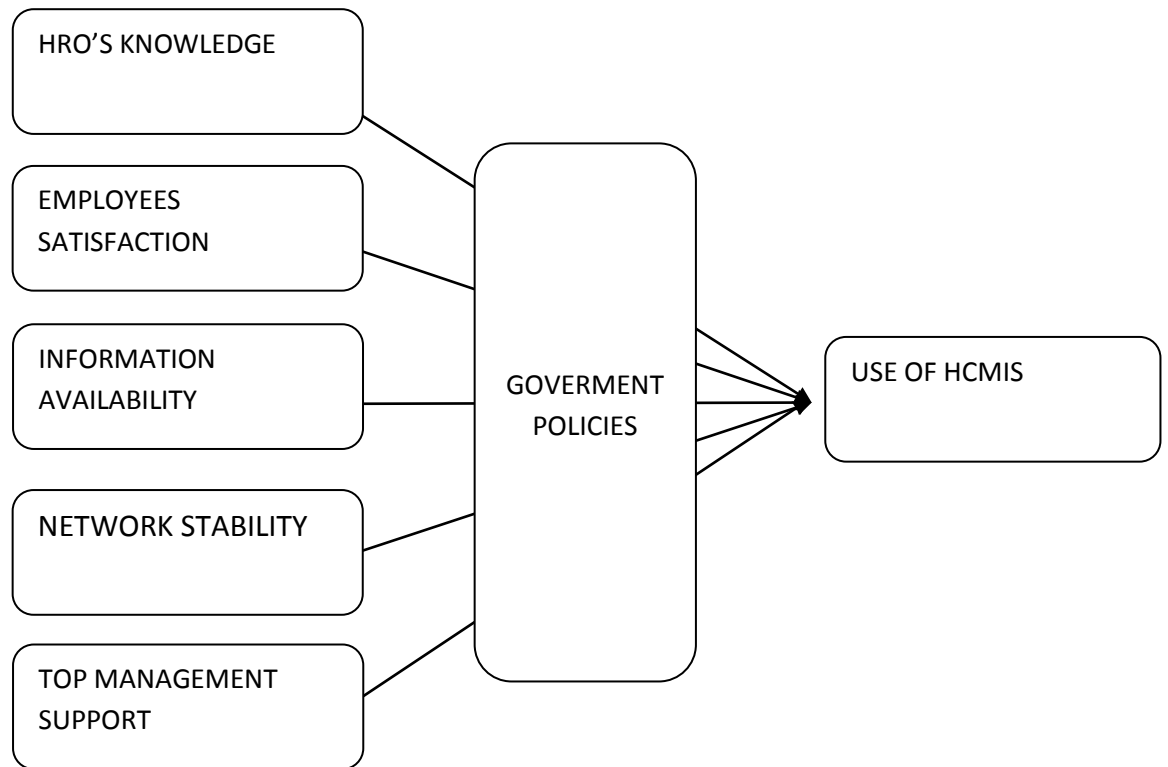
2.4. Conceptual Framework of the Study

According to Ndunguru (2007), conceptual framework refers to an established set of research concepts cum variables together with their logical relationships often presented in the form of figures, charts, graphs, pictographs, flow charts, organograms or mathematical equations. Dependent Variable of the study is the use of HCMIS which is influenced by independent Variables such as HRO's knowledge ,information availability, top management support, network stability and employees satisfaction.

Figure 2. 5: Conceptual Frame Work

Independent Variable s

Dependent Variable



Source: Researcher Construct, 2017

2.4.1 Human resource officers' knowledge

One of the crucial factors that can be challenge in the use of HCMIS is insufficient knowledge and skills of the users of the system. Many of the literature I have passed showed that newly introduced system such as HRIS faced problems in the implementation stage because most of the users had insufficient knowledge in using the system. HCMIS is a complicated system comprised of several modules which are used to administer various personnel actions as well as performing payroll changes, employees' performance, employees' benefits, performance management, training and development, career planning and many other human resource management

operations. In this case the use of HCMIS is directly influenced by the knowledge of HRO's who are the users of HCMIS in Mwanza City Council.

2.4.2 Employees satisfaction

There is direct relationship between satisfaction and use of the service. If service beneficiaries are satisfied with the service provided they will prefer to get it again. If employees are comfortable with the use of HCMIS in the council they will value it hence they will consult system users for services related to salary and payroll changes. Therefore less challenge means more satisfaction hence high preference in using the system.

2.4.3 Information Availability

The main goal of HCMIS is to receive, register and keep human resource information from various departments in the council. For this system to operate effectively the information from other departments must be received in the system offices timely so that the required information will be fed in the system timely. Sometimes employees need to be removed from the payroll but if the responsible department delay or fail to issue these information then effects of ghost workers will be seen in the payroll. HCMIS need to be fed with accurate information from other departments and sections to make it effective. The system is operated in collaboration between officers in Local Government and those of Central Government who are also known as approves, what is done by HRO's must be approved by officers in the Central Government for the necessary changes to appear in the payroll. If in one way or another there is communication breakdown between the two sides the use of HCMIS will be affected and the necessary changes expected in the payroll will not appear on time.

2.4.4 Network stability

Use of HCMIS is only possible if there is stable network. Variation of network will affect the use of HCMIS. Several literature shows that most of the areas where

network is a problem HCMIS system failed to operate. Therefore network stability will determine the use of this system.

2.4.4.5 Top Management Support

The use of HCMIS is directly influenced by the support from the top managers in the council. Infrastructures, facilities and ICT accessories must be provided by the top managers to enhance effective use of the system. The users of the system must be motivated by giving them regular training as well as incentives so that they can use the system efficiently. Top managers are also responsible in policy making hence they are in a position to give ideas on how to make the system more effective and user friend.

2.5 Synthesis (Gap) of Literature Review

Reviewed literature shows that most of the studies were done to explore challenges encountered in the adoption of HRIS. Pande (2015), Beckers and Bsat (2002) conducted their studies on the obstacles in the adoption of HRIS and one of the obstacle was lack of funds. Studies conducted in developed countries shows that management commitment and the need to show the benefits that HRIS can introduce to their organizations are crucial for both supporting adoption in Australia Public sector Troshani *et al.* (2011) and Yang *et al.* (2007). Also a study was conducted in Singapore and reveal that cost of adoption and availability of IT experts were the main obstacles of HRIS adoption (Teo *et al.*, 2007). From the above cited literature it can be seen that more has been written about the adoption of HRIS specifically on the obstacles encountered at adoption stage.

Little has been written on the challenges encountered when using HCMIS after its adoption, therefore researcher intends to explore challenges encountered by users when using this system after successful installation of the system. Persistence of some problems in the HR departments such as salary areas, ghost workers, promotion claims and many others are also justifications of carrying out this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter explain the methodological technique used in this study and it covers study design, population of the study, area of the study, sample size and sampling techniques, data collection methods and analysis techniques.

3.2 Research Design

Adam and Kamuzora (2008) define research design as the conceptual structure within which research is conducted. The decisions regarding what, where, when, how much, by what means concerning an inquiry or research study constitute a research design. In this research the case study design was used because it allows detailed investigation of a single unit, the unit of study was Mwanza City Council. Case study is a user friendly design as it enabled researcher to use the scarce resource available. Kothari (2004) define case study as a method popular analysis which involves careful and complete observation of a social unit be that unit a person, family, an institution or an entire community.

3.3 Area of the Study

The study was carried out in Mwanza City Council. Mwanza City is located on the southern shores of Lake Victoria in northwest Tanzania. On the north, it is bordered by Lake Victoria and Ukerewe district, Misungwi district to the south, Sengerema district to the West, and Magu District to the East. It covers an area of 1324km² out of these 424km²(32%) is dry land and 900km² (68%) is covered by water. The study was conducted at Mwanza City Council because it is one of the LGAs where HCMIS is been used since 2011 but its efficiency is in doubt due to the continuing problems of salary arrears, ghost workers and other payroll related problems. Also it was the interest of sponsor to carry out this study in MCC for the benefit of the organisation. Also researcher has the background information about the use of HCMIS in this organisation.

3.4 Population of the Study

The study's targeted population was all 4052 employees of Mwanza City Council. Targeted population was categorized in two major groups which were ordinary employees who are beneficiaries of HCMIS and Human Resource Officers who are the users of HCMIS

3.5 Sampling techniques and sample size

Sampling techniques refers to the procedures the researcher would adopt in selecting items for the sample (Kothari 2004). Adam and Kamuzora (2008) define sample size as the exact number of items selected from a population to constitute a sample.

Sample size of 173 respondents were selected from population of 293 employees who belong to sub vote 5004 which is among 17 sub votes of Mwanza City Council which in total make 4052 employees of Mwanza City Council. Purposive sampling technique was used to include all six human resource officers in the study because these are the users of the system hence they had all relevant information about challenges in using HCMIS. The remaining sample size of 167 was calculated from population of 293 by using online sample size calculator where by confidence level of 95% and confidence interval of 5% were selected. Purposive sampling was also used to select sub vote 5004 among 17 others because the system users fall in this sub vote. Convenience sampling technique was also used to get 167 respondents who were given questionnaires when they attend HCMIS office for service. Respondents selected in the sample are presented in the table 3.1.

Table 3.1: Sample Size

DESIGNATION	FREQUENCY	PERCENT
Human resource officers	6	3.468
RMA's	4	2.312
WEO's	18	10.404
MEO's	25	14.450
Accountants	12	6.936
Land Officers	10	5.780
Engineers	5	2.890
Social workers	20	11.560
Economists	3	1.734
ICT experts	1	0.578
Lawyers	4	2.312
Fisheries workers	16	9.248
Cooperative workers	4	2.312
Agricultural officers	8	4.624
Security guards	17	9.826
Supply officers	8	4.624
Drivers	7	4.046
Secretaries	5	2.890
TOTAL	173	100

Source: Field data 2017

3.6 Data Collection Methods

The study used questionnaires as the major data collection instrument. However it was supplemented by face to face interview and observation. Questionnaires were administered to both system users and system beneficiaries while interviews and observation were only for system users.

3.6.1 Interview

Kothari (2004: 96) defines interview as the methods of data collection Involving presentation of oral, verbal stimuli and reply in terms of oral verbal responses. Interview was administered to HROs who are the users of HCMIS. Interview guide contained questions which attracted information about challenges system users face when using the system. Also interview enabled researcher to lead and control the respondent to provide relevant information as per research objectives and questions.

3.6.2 Questionnaire

Adam and Kamuzora (2008) defined questionnaire as a series of Questions, each one providing number of alternative answers from which the respondents can choose. Again questionnaire can also be defined as data collection instrument in which each person is asked to respond to the same set of questions in a predetermined order. Questionnaires were administered to the employees who attended HCMIS office for services and to system users. This tool was selected as it facilitates collection of large amount of data in short period of time and gives respondents freedom of expression hence reduced possibility of bias in this study.

3.6.3 Documentary review

Secondary data were obtained by reviewing several reports extracted from HCMIS. Also subject file were viewed to gather information required by the researcher as far as objectives and research questions are concerned. Major information obtained from documentary review was information received from other departments to system users. Information about employees to be promoted, were greatly extracted from the documents received from other departments.

3.6.4 Observation

Personal observation is a tool that provides information about actual behaviour. This method refers to gathering data through physical checkups of the activities or processes. In this study researcher used observation method to see how system users uses various action forms available in the system to upload data and he also observed ability of system users to generate reports from the system.

3.7 Data analysis

Data analysis is the computation of certain measures along with searching for patterns of relationship that exist among data group (Kothari, 2004). Data was collected using both qualitative and quantitative methods by means of questionnaires, interviews, observation checklist and documentary information. Information from observation and open-ended questionnaires comprised of views and opinions. Either,

data collected through documentary review and closed ended questionnaires provided specific information and tallied, added up manually, converted into percentages and presented into tables. Data has been analysed by using simple Microsoft Excel. The findings has been presented in a descriptive form, where applicable and for further understanding the findings has been presented in form of tables, pie charts, and bar charts.

CHAPTER FOUR

PRESENTATION OF THE FINDINGS

4.1 Introduction

This chapter presents findings from the study. The results are presented in accordance with the sets of questions and items in the interview schedule and questionnaire respectively. Presentations of findings starts by showing demographic characteristics of the respondents, knowledge of human resource officers in using HCMIS, ICT problems associated with effective use of HCMIS at Mwanza City Council, effectiveness of HR information flow from other departments to system users, top management support towards use of HCMIS and employees satisfactions with the use of HCMIS.

4.2 Demographic Characteristics of the Respondent

This part presents data on the respondent's job designation, age, gender, education level and duration of time worked at Mwanza City Council. This intended to establish the suitability of the respondent to the study because characteristics can influence the perception of the respondents on the challenges encountered in the use of HCMIS at Mwanza City Council.

4.2.1 Job Position of Respondent

The study sought to find the job designation held by the respondents at Mwanza City Council. The job designation in the questionnaire intended to determine views and experience of the respondents in relation to the topic under study. This was also to ensure that questionnaires were answered by the targeted respondents, making their responses valid and reliable as a true representation of the entire population.

Table 4.1: Percentage of respondents by designation

DESIGNATION	FREQUENCY	PERCENT	CUMULATIVE PERCENT
Human resource officers	6	3.468	3
RMA's	4	2.312	5
WEO's	18	10.404	15
MEO's	25	14.450	29
Accountants	12	6.936	36
Land Officers	10	5.780	42
Engineers	5	2.890	45
Social workers	20	11.560	57
Economists	3	1.734	59
ICT experts	1	0.578	60
Lawyers	4	2.312	62
Fisheries workers	16	9.248	71
Cooperative workers	4	2.312	73
Agricultural officers	8	4.624	78
Security guards	17	9.826	88
Supply officers	8	4.624	93
Drivers	7	4.046	97
Secretaries	5	2.890	100
TOTAL	173	100	

Source: Field data 2017

The table above shows that key informants who are human resource officers were 3% of the selected sample size whereby 14% of the respondents were Mtaa Executive Officers (MEO's) followed by 10% of Ward Executive Officers (WEO's).

This happened because majority of employees in sub vote 5004 fall in these two designations. The above selected carder was selected by convenience sampling once they visit HCMIS office. Percentage of other cadres is stipulated in the above table.

4.2.2 Age of Respondents

The study sought to find out the age distribution of the respondents. This is shown in the table below. The aim was to know the age of the respondent because it is

perceived that the older generations are resistant and slow in using new technology compared to the younger generation. Also young generation may have different views compared to older generation as far as technology is concerned.

Table 4.2: Age Distribution

Age	Frequency	Percent	Cumulative Percent
18-25	15	8.670 = 9	9
26-33	39	22.543 = 23	32
34-41	54	31.213 = 31	63
42-49	40	23.121 = 23	86
50-60	25	14.450 = 14	100
TOTAL	173	100	

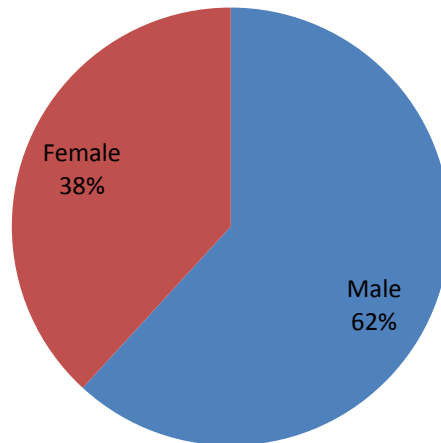
Source: Field data 2017

From the table above it can be seen that 31% of the respondent had 34-41 years of age followed 23% of respondents aged 26-33 years and those aged 42-49 had the similar percentage.14% were those respondents in the category of 50-60 years while 9% of respondents aged from 18-25.

4.2.3 Gender of Respondent

The study sought to find out the Gender distribution, to avoid biasness questionnaires were distributed to both male and female respondents. Out of 173 respondents 38% were females and 62% were males.

Figure 4.1: Gender distribution



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Source: Field data 2017

4.2.4 Education Level of Respondents

One of the objectives in this study was to assess the knowledge of the system users. In this case it was crucial to establish the level of education of the respondents. The study also sought to find out if the respondents were skilled enough and were computer literate to handle HCMIS in the council.

Table 4.3: Respondent's education

Education	Frequency	Percent	Cumulative Percent
Master degree	10	$5.780 = 6$	6
Bachelor degree	42	$24.277 = 24$	30
Diploma	76	$43.930 = 44$	74
Certificate	45	26	100
Total	173	100	

Source: Field data 2017

Majority of respondents (44%) were diploma holder followed by 26% of certificate holders. Only 6% were master degree holder and the remaining 24% were bachelor degree holders.

4.2.5 Work experience.

Respondents were required to indicate the period under which they had worked with Mwanza City Council. This information aimed at establishing the working experience' appropriateness of the respondent to have knowledge about usage of HCMIS in the working place. It was expected that the longer the years of experience at MCC the more likely it is to obtain reliable information on HCMIS as they have interacted with the system longer.

Table 4.4: Working experience

Working duration	Frequency	Percent	Cumulative Percent
Below 5 years	27	15.606 = 16	16
5 -9 years	48	27.745 = 28	44
10 – 14 years	43	24.885 = 25	69
15 – 19 years	30	17.341 = 17	86
Above 20 years	25	14.450 = 14	100
TOTAL	173	100	

Source: Field data 2017

Study revealed that 28% of the respondents were those in the category of 5-9 years of age followed by 25% of the respondents in the category of 10-14 years. Respondents above 20 years of age were 14% while those worked under five years were 16% followed by 17% of respondents in the category of 15-19 years.

4.3 Knowledge possessed by HRO's in using HCMIS

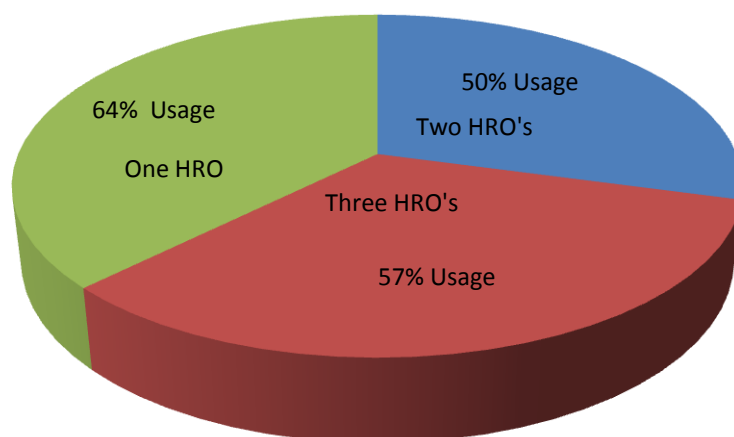
In assessing HRO'S knowledge and skills in using HCMIS researcher used interview and observation to see how these officers uses various action forms to perform various operations in the system. Also researcher assessed their knowledge in producing various reports from the system. In assessing their knowledge in using the

system one HR officer had knowledge to use 9 action forms effectively out of 14 active forms which is equal to 64% in this case the best user of the system could use only 64% of it. Two of the HR officers could use 7 action forms effectively out of 14 which is equal to 50% of the active forms in the HCMIS. The remain three HR officers had knowledge and skills in using only 8 action forms effectively which is equal to 57% of 14 active forms in the system. The above information is summarized by figure 6 below which show the percentage use of HCMIS by HRO's.

Relationship between HROs knowledge and use of HCMIS

Research findings show that, there is direct relationship between knowledge possessed by HROs and use of HCMIS. Table 4.6 shows that, HROs had knowledge to use some of the forms 100% while on other side they had no knowledge to use some of the forms completely. Therefore, system is used where users possess sufficient knowledge and it is underutilized where users lack or possess insufficient knowledge. Relationship is seen between HR11, PA52, PR14 and PA21, PA34, TZ04.2. In the first group system users had knowledge 100% to use the three forms while in second group users had 0% knowledge to use the three forms.

Figure 4.2: Percentage use of HCMIS as per knowledge possessed by users.



Source: Research data, 2017

Research findings show that all human resources officers have sufficient knowledge and skills in using PR14, HR11, PA52, and PR12 fully. In PR14 users showed competencies in uploading, stopping and changing various deductions in the employees' salaries. PA52 is the most used personnel administration form in the system and all users were able to use this form 100%. They used this form to change employees salaries after promotions, transfer of employees from one employer to another, changing of personnel information in the system, termination of employees from the payroll, data cleaning, re-categorization and status change in the system. HR11 is special form for viewing relevant information about particular employee and all system users had no problem with the use of this form. PR12 is special form for entering bank information and all users were competent in using this parameter.

Research findings also showed that only 3 users which is equal to 50% of the respondents could use TZ71 which is special form for entering budget commonly known as personnel emolument (PE). Also findings show that none of the users had knowledge in using PA21, PA34, and TZ042. Also of all users only two users have knowledge and skills in using form PA80.2. PR15 is a special form for uploading multiple deduction and research findings show that 50% of the users had knowledge in using this form while others had no knowledge in using this form. PA52.4 is very essential form in hiring new employees and the results of the study show that two users out of six had no knowledge in using PA52.4.

Table 4.5: HRO's knowledge in using active HCMIS forms

Active Forms	Knowledgeable Users	Percentage
HR11	6	100
PA52	6	100
PR14	6	100
PA20	3	50
TZ71	4	66.6
PA21	0	0
PA22	2	33.4
PA34	0	0
PR15.2	2	33.4
PA36	2	33.4
TZ04.3	0	0
PR15	2	33.4
PR52.4	4	66.6
TZ04.2	0	0
TZ80.2	2	33.4

Source; research data 2017

From the table above it can be seen that the average use of the system is 43.3% which means there is under utilization of the system because user lack knowledge in using some of the parameters in the system. It is also seen from the table above that all users had no knowledge in using four parameters which are PA21, PA34, TZ04.3 and TZ04.2. Research findings showed that four users which is equal to 66.6% had knowledge and skills in report generation from the system while the remaining percentage which is 33.3% had little knowledge in report generation. All users were able to generate reports about prospective retirees, promoted employees, employee listing, terminated employees, hired employees, transferred employees, pending actions in the system, and pre-payroll reports. HRO's knowledge in report generation is shown in the Table 4.5

Table 4.6: HRO's knowledge in report generation

No.	Type of report	Knowledgeable Users	Percentage
1	Payroll reports	5	83.3
2	Deduction reports	3	50
3	Wage bill reports	0	0
4	Service delivery report	0	0
5	Pre-payroll reports	5	83.3
6	Arrears and allowance reports	4	66.6
7	Data cleaning reports	6	100
8	PE reports	3	50
9	Education level reports	4	66.6
10	Personnel action reports	6	100
11	Employee verification report	6	100

Source; Research data 2017

From the table above, the average knowledge in report generation is 63.6%

4.4 ICT infrastructure obstacles in effective use of HCMIS

The study also looked at the ICT obstacles which could be one of the challenges of the effective use HCMIS. Users were given various options for them to identify obstacles they normally face when using HCMIS. Five users which are 83.3% agreed that unstable network is one of the obstacles they face when using the system while remaining percentage said that is not an obstacle. Three users which is 50% of the users pointed insufficient technicians as one of obstacle in the use of the system while the remaining 50% did not see this as an obstacle. One of the users who was interviewed had this to say;

We have only one IT technician who is degree holder but sometimes we may need him to rectify the system but you may find him out of office for other official activities and this is because the council is having more than three systems and all these must be cared by the same IT officer, we really need another one to assist him.

Insufficient computers and accessories is obstacle which was mentioned by four users which is 66.6% of all users. The remaining 33.4% had different views. The observation made by researcher revealed that the HCMIS room had only three computers while the office has six system users. Only one user mentioned security problem as one of the obstacle encountered when using the system while the rest which is 83.3% of the users did not agree with this idea.

Table 4.7: ICT obstacle in effective use of HCMIS

No	ICT obstacle	No of users agreed	No of users disagree
1	Insufficient IT technicians	3	3
2	Unstable network	5	1
3	Insufficient computers and accessories	4	2
4	Security problems	1	5

Source: Field data, 2017

The major obstacle to the effective use of HCMIS as it is seen in the table above is unstable network followed by insufficient computers and accessories. The system is centrally operated and the main server is in PO- PSM hence problems in the main server will cut off the network in the periphery.

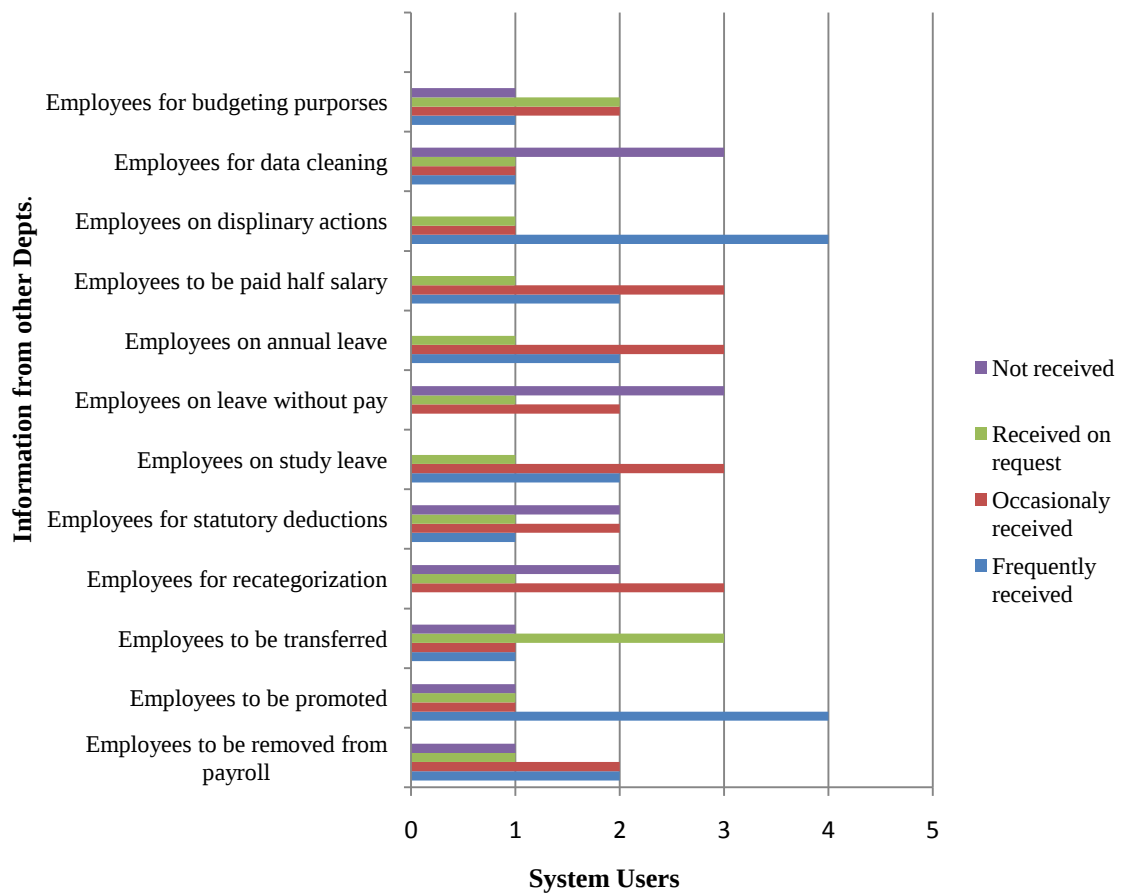
Relationship between network stability and use of HCMIS

There is direct relationship between use of HCMIS and network stability. In Table 4.7 it can be seen that there is problem of network stability. Stable network means the system will work smoothly. Therefore, stable network will affect the system positively while unstable network will affect the system negatively and lower its usage.

4.5 HR information flow from other departments to system users

Effective use of HCMIS depends on the human resource information received from other departments. Accuracy and timely receiving of information will facilitate correct information to be fed into the system at right time. Researcher assessed types of information received and the frequency of receiving such information.

Figure 4.3: System user's opinion on the information received from other departments



Source : Research data 2017

From the figure above the frequently received HR information from other departments is information about the employees to be promoted and employees on disciplinary actions where by four users which is 66.6% of all system users agreed to have received those information frequently from those departments. The second most received information are those concerning employees leaves while those information

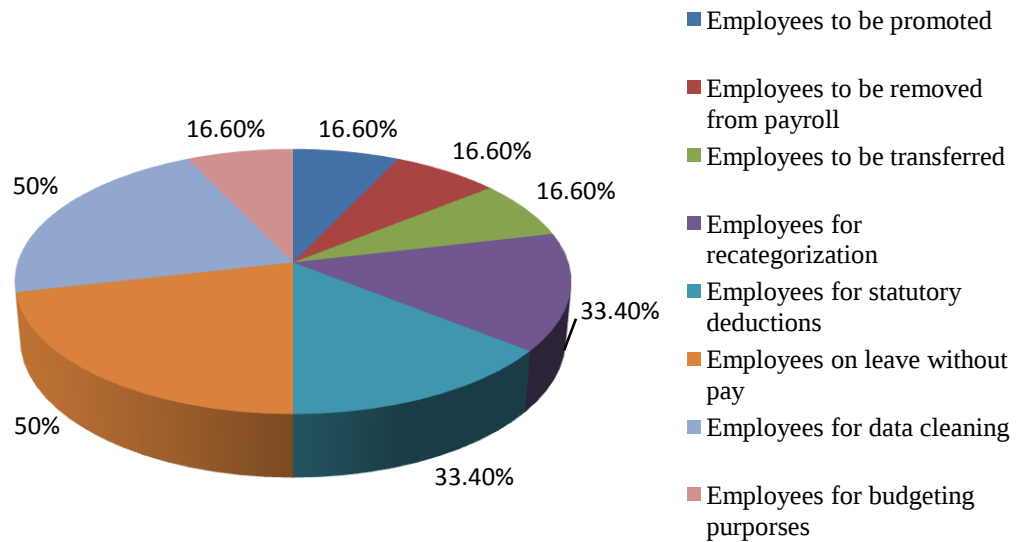
about employees to be terminated, recategorized and those in leave without pay are less received. Also 50 % of system user agreed to have received information regarding data cleaning while the remaining percentage did not agree with the said idea.

Information received from other departments will facilitate data entry into the system timely hence reduce employee's complaints in case of promotions as well as getting check number for new hires. Timely received information will also facilitate effective termination of employees from payroll in case of retirement, resignation, and cessation of service. During an interview one respondent was asked to comment on the information flow from other departments and she said:-

Information from other departments to our office comes seasonally. The most received information are those concerning promotions and they mostly comes from education department because majority of our employees are teachers. In the recruitment season we also receive a lot of HR information from the same department. However information involving few numbers of employees such as those concerning removing employees from payroll must be requested by system users because most of the heads of department do forget to presents information involving few employees. We have been affected by problem of ghost workers because termination information do reach our office very late and sometimes we don't get such information at all.

Figure 4.4 below presents the summary of percentage of information not received in HCMIS office from other departments.

Figure 4.4: Percentage of HR information not received by System users from other departments.



Source: Field data 2017

The figure 4.4 shows that, half of the information concerning employees on leave without pay and half of information concerning data cleaning of employees are not presented in the HCMIS to be entered into the system. On the other hand only 33.4% of statutory deductions information is not received from those departments; interview revealed that more of staff deductions information is received from employees themselves, financial institutions, trade unions and pension funds. Also 16.6% of the information concerning employee termination, employees transfer and employees to budgeted for salary increment are not received from other departments. 33.4% of information concerning employee recategorization are also not received.

Relationship between information flow and use of HCMIS

Research findings shows that, there is direct relationship between HR information flow from other department and use of HCMIS. Figure 4.3 shows that, the system is mostly used to upload promotion and disciplinary action information because these

are the most received information. On the other side the system is under utilized in data cleaning and leave management because information are less received.

4.6 Top management support towards use of HCMIS.

Top management support towards effective use of HCMIS was measured by researcher using eight statements (Table 4.8). All users responded to all statements by agreeing and disagreeing. Top management in this context refer to Mwanza City Council Management, Approvers at PO-PSM and Policy makers.

Table 4.8: Top management support towards use of HCMIS.

No	Statement	% Agreed
1	Most pending actions in the HCMIS are on the side of approvers	83.3
2	Approvers responds HRO's enquiries in the system timely	33.4
3	Salary arrears are caused by delay in approving work items sent to PO-PSM	100
4	Approval of sent items is done timely in the PO-PSM	16.7
5	There is enough support from PO-PSM in using HCMIS	33.4
6	Training provided by PO-PSM is sufficient for you to use HCMIS fully	83.3
7	PO-PSM issue guidelines ,policies, manuals, and laws to use HCMIS	83.3
8	MCC administration provides all necessities required to use HCMIS	66.6

Source: Field data 2017

From the Table 4.8 it can be seen that there is little support from approvers in dealing with sent items where by all users agreed that salary arrears are caused by delay approval of the sent items. Also 83.3% of the system users agreed that most pending actions in the system are on the side of approvers in the central government and this reveal that there is little support from approvers. On the other hand 83.3% of the system users agreed that the training provided by PO-PSM is sufficient for them to use the system and the same percentage agreed that the PO-PSM provides all necessary guidelines, policies, manuals, and laws required in the use of HCMIS.

Mwanza City Council administration has not managed to support the system full because only 66.6% of the users agreed to have full support from the administration. The other 33.4% of the remaining users had complains on insufficient number of 'computers available and presence of single room to accommodate all system users. Only 33.4% of the users agreed that sent items are approved on time while the remaining percentage which is 66.6% were not comfortable with the time used to approve the work units sent to PO-PSM.

However, during face to face interview with one of the system user, he was very disappointed with the support provided by council management and he said this;

I am not satisfied at all with support offered by council management to us. We have been complaining about poor working environment but nothing has been done by management to improve the situation. As you can see we have insufficient number of computers compared to number of users, new recruited HROs have not attended any training to use the system; we only show them how to perform some of the operations. Also the room as you can see does not meet criteria set by PO-PSM. Also no extra work allowance provided during the weekend days and overtime.

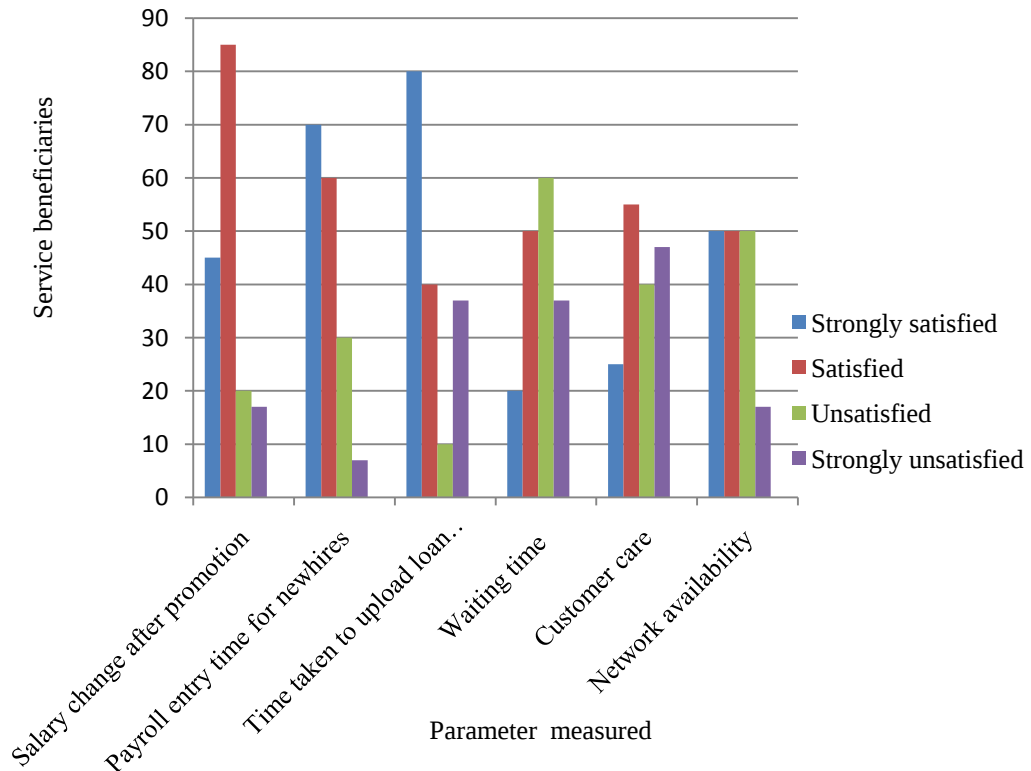
Relationship between top management support and use of HCMIS

Research findings show that, there is direct relationship between top management support and use of HCMIS. Table 4.8 shows poor support from approvers at PO-PSM which affects directly use of HCMIS also failure of management to provide sufficient computers has affected the system negatively hence lower its usage.

4.7 Level of employee's satisfaction on the use of HCMIS at MCC

Researcher was also interested to know employees satisfaction towards the use of HCMIS. Beneficiary of HCMIS were given six statements and they were required to indicate whether they are strongly satisfied, satisfied, unsatisfied, and strongly unsatisfied. Level of employee's satisfactions in relation to the service provided by HCMIS is shown in the figure 4.5 below.

Figure 4.5: Employee satisfaction towards service provided by HCMIS office



Source: Research data 2017

The figure 4.5 above shows that, majority of the system beneficiary who were given questionnaire were strongly satisfied with the time taken by the system users to upload loan deduction followed by time taken to get check number for new hires where by 70 employees which is 41.9% of all employees were strongly happy with the time taken to enter payroll for new hires. Those who were strongly satisfied with the time taken to upload loan deductions were 80 which is 47.9% of all employees who were given questionnaire. On the other hand, a big number of employees were satisfied with the time taken by system users to change their salary soon after promotions. Half of the employees who were given questionnaire were satisfied with the time taken to change salary after promotion and it can be seen in the figure above this half is 85 employees out of 167 employees. Employees were also asked to indicate whether they are satisfied with the customer care and time they normally spend waiting for service, 28% of the employees were strongly unsatisfied with

customer care offered by system users while 22% were strongly unsatisfied with the time they spend on the bench while waiting for service. Few employees are unsatisfied by the time taken by system user to change salary after promotion whereby 20 employees which is equal to 11.9% were unsatisfied. On the other hand 60 employees which is 35.9% and 40 employees which is 23.9% were unsatisfied with waiting time and customer care respectively.

Research findings show that, 50 employees which are 29.9% were strongly satisfied with the presence of network when they attend HCMIS while the same figure again was satisfied and those who were unsatisfied were also the same figure but those who were strongly unsatisfied with the presence of network were 17 which is equal to 10.1% of all 167 employees. In general strongly unsatisfied is seen most in customer care, waiting time and time taken to upload loan deductions while strongly satisfied is seen in time taken to upload deductions, time taken for new hire to get check number and network availability during working hours. However most of the employees were satisfied with the time taken to change salary after promotion.

Relationship between employee satisfaction and use of HCMIS

Satisfaction is the reinforcement towards using HCMIS. Researches findings in Figure 4.5 shows that majority are satisfied with most of the services provided through HCMIS hence continue to visit HCMIS office for service. However there is no relationship between employee satisfaction and use of the system because ordinary employees are not system users.

CHAPTER FIVE

DISCUSSION OF THE FINDINGS

5.1 Introduction

In the chapter four, the findings from the study have been presented. In this chapter the findings are discussed in order to provide a comprehensive understanding of the challenges encountered in the use of Human Capital Management Information System. This discussion also relates with the findings from the study and those findings from similar studies elsewhere.

5.2 Knowledge possessed by HRO's in using HCMIS fully

It has been shown in chapter four that, users of HCMIS who are trained HROs could not use the system at 100%. The result shows that, only 63.6% of the system is used and this indicates that system users lack knowledge in using the system fully. These results are in line with the findings by Batool *et al.* (2012) in their study titled benefits and barriers of human resource information system in accounts office, in this study one of the reason which was mentioned as barrier to HRIS was inadequate knowledge of system users. Knowledge of users in this study was assessed by observing ability of system users to use various actions forms used in HCMIS to perform various operations and the results revealed that, some of the users were not able to use some of the forms completely; also knowledge was assessed by looking at the ability of system users to produce various reports and the results shows that 36.4% of the reports could not be produced because users had no knowledge in generating those reports.

Similar findings were also revealed by Pande (2015), in the study titled human resource information system in S.M.E's; in this study he came up with barriers in the adoption of HRIS and one among such barriers is, lack of qualified HR staff and lack of HR knowledge by system designers. Despite the training to system users on how to use HCMIS to upload leave information, training information, performance appraisal information, allowance information and health and safety information still

the users have never used the system to upload such information and this indicates that they lack knowledge in using the appropriate forms as it has been indicated in the previous chapter.

5.3 ICT obstacles to effective use of HCMIS

In the previous chapter, findings showed that the major obstacle to the effective use of HCMIs is unstable network followed by insufficient computers and accessories and later insufficient technicians. These results are in line with those presented by Pande (2015) in his study titled human resource information system in S.M.E's which observed the barriers in the adoption of HRIS and among several barriers to include lack of IT support and expertise. New technology in developing countries is confronted with insufficient funds to implement the technology fully and enable the organisation to achieve the desired goal. Mwanza City Council has adopted E-governance in finance department, human resource management department, supply department and land department hence the need of IT expertise is high.

Similar findings regarding insufficient computers was revealed in the study conducted by Hassan et al. (2013) on Public sector employees' view(s) of obstacles facing the development of management information systems in River Nile State – Sudan. Among several obstacles outlined by researcher in this study one of them was insufficient number of computer machine in the working place. As it has been presented in the previous chapter Mwanza City Council is facing similar problem and the system users need to share few computers available which reduce the efficiency and speed in the working place.

Research also revealed that network stability was one of the problem in effective use of HCMIS and the same finding were presented by Magenda (2011) who conducted a study on the investigation of problem facing application of HRIS at Institute of Judicial Administration (IJA) Lushoto. The study revealed that network failure is one of the problems in the use of HRIS. Network is the engine of HCMIS in the sense that availability and stability of network will facilitate effective use of the system and minimize time taken to serve customers. Mwanza City Council is connected to optic

cable fibres which is operated by Tanzania Telecommunication Company Limited (TTCL) however sometimes failure of the main server at PO-PSM will cause network cut-off even if the TTCL network is fully available. Functioning of HCMIS network depends on the availability of TTCL network and perfect functioning of main server at President Office Public Service Management in Dar es Salaam.

5.4 HR information flow from other departments to system users

Effective use of the HCMIS depends on the human resource information received from other departments. The system will be used at maximum depending on the amount of information received and it will be underutilized in case of restricted information flow. Information about transferred employees, employees to be promoted, employees to be removed from payroll, employees for data cleaning, and employees to be taken disciplinary actions must be received by system users from other departments so that such information will be fed into the system timely.

Research findings shows that 50% of the system users agreed that there is poor cooperation from other departments in receiving information about employees on leave without pay, employees for data cleaning and employees for statutory deductions. These findings are in line with the findings presented by Hassan et al (2013) on his study titled Public sector employees' view(s) of obstacles facing the development of management information systems in River Nile State – Sudan. Findings from this study show that there were no information networks for information exchange between the departments as well as lack of similar information within the departments.

There must be close cooperation between HR departments especially HCMIS office and other departments to facilitate information flow hence updates of information in the system by using those information received from those departments. Pande (2015) in his study titled human resource information system in S.M.E's come up with several barriers in the adoption of HRIS and one of them was lack of cooperation with other departments.

The study revealed that, there is delay in removing employees from payroll because heads of department delay to pass information about death of employees to the system users soon after the deaths. Also secondary education department failed to inform system users about resignation of employees in the department on time. The system can be used to generate prospective retirees report but those under voluntary retirement cannot be identified by the system users therefore it is the duty of the heads of departments to present information about voluntary retired employees so that they can be removed from the payroll timely.

5.5 Top management support towards use of HCMIS

Effective use of HCMIS also depends on how top management at Mwanza City Council and approvers at PO-PSM provide enough support to the system users so that they use the system as intended. Employer has a duty of ensure user friend environment which will facilitate usage of the system while PO-PSM has a duty to ensure sent work items are approved on time and all technical assistance are available when required.

Research findings have shown that employer managed to provide only 66.6% of the support required. Top management is responsible for ensuring that there are enough computers and accessories but the study shows there is insufficient computers compared to the number of users trained to use the system. On the other side all users agree that salary arrears are caused by delay in approving sent items to PO-PSM. This poor support is also seen in the study done by Kovach and Cathcart (1999) concerning the challenges in the implementation of HRIS and the major obstacles in acquiring maximum HRIS potentials, results from this study were insufficient funds and lack of support from the top management.

Commitment of top management towards usage of HCMIS is highly recommended and failure to do so will reduce the morale of system users. Jahan (2014) in her study titled human resource information system; A theoretical perspective come up with challenges to success of HRIS which are inconsistency in the importance given to HRIS which cause difficult in sustaining management commitment to the project and

in obtaining the resources necessary to fully develop the new or upgrade HRIS. Another challenge according to her study is tendency to underestimate the complexity of the HRIS and its impact on the behaviour and process of the organization. Another barrier according to her study is the acceptance of the HRIS by user and the consequent underestimation of the importance of change management. In this case top management needs to provide material and moral support to the system users. Also another study done by Hassan et al. (2013) on Public sector employees' view(s) of obstacles facing the development of management information systems in River Nile State – Sudan revealed lack of support from top management as one of the obstacle.

5.6 Level of employee's satisfaction on the use of HCMIS at MCC

Research findings have shown that, majority of the system beneficiaries were satisfied with the time taken to change their salaries after promotion, time taken to upload their loan deductions and time taken for new hires to enter payroll. However few of the system beneficiaries were not satisfied with the customer care offered by system use and time taken to receive service when they visit HCMIS office. These findings resembles findings by Kassam (2013) in her study titled Challenges of Human Capital Management Information System (Lawson version, 9) in Local Government Authorities; A case of Shinyanga Municipal Council. In her study 53.1% of the respondents were satisfied by the way HCMIS operates in the council. Nyamoita (2011) on the "Factors Influencing the Effectiveness of HRIS at the National Cereals and Produce board, Kenya" concludes that satisfaction criterion considers attitudes, beliefs, cultures and behavioural issues as the key areas that influence successful implementation of information systems. However satisfaction in this study comes as a result of minimized time in salary change, payroll entry, and payroll exit, transfer of employees, uploading loan deductions, and many other issues which were initially done at PO-PSM.

The current study intended to assess employees' satisfaction towards the service provided by HCMIS as a measure of magnitude of challenges encountered in the use of HCMIs. The findings revealed that, majority of system beneficiaries are satisfied

with the use of the system despite the challenges mentioned by the system users. On the hand system users were not satisfied with the way top management provide support to the system users in case of providing suitable working environments as it has been mentioned in the previous chapters. Also some of the system users were not satisfied with the availability of network during the working time while all system users were not satisfied with the time taken by approvers at PO-PSM to approve sent work items. Therefore research findings shows that system beneficiaries are more satisfied with the system usage than system users.

CHAPTER SIX

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the summary of the findings; then conclusion from the overall study results and thereafter recommendations to overcome challenges unfolded in the use of HCMIS at Mwanza City Council. Recommendation will enumerate what should be done and last part will emphasize on possible policy rectification to improve usage of HCMIS in Local Government Authorities. Finally areas for possible research are highlighted to provide room for further studies.

6.2 Summary

HCMIS has been solution to the problems facing human resource department, the system facilitate storage and retrieval of human resource information timely hence increase of efficiency and effectiveness of public services. Despite use of HCMIS at Mwanza City Council still some of the challenges confront the smooth use of the system. Therefore, this study intended to make an assessment of the challenges encountered in the use of HCMIS at Mwanza City Council.

The specific objectives were to examine HRO's knowledge in using the system; to explore ICT infrastructure obstacles in effective use of HCMIS; to assess HR information flow from other departments to system users; to investigate top management support towards use of HCMIS and to assess the level of employee's satisfaction on the use of HCMIS at MCC.

The main guiding research questions were intended to understand whether HRO's possess sufficient knowledge in using the system, whether there is ICT infrastructure obstacles in using the system effectively, other research questions intends to assess flow of information from other departments to HCMIS room, whether there is support from top management in using the system and to see whether system beneficiaries are satisfied with the use of HCMIS at the council.

Based on the literature review, poor support from top management, availability of funds, lack of knowledge, network availability, and insufficient computers, poor communication with other departments, organization culture and resistance to change were among the challenges in the use of HRIS worldwide.

This study used single case study of Mwanza City Council, were collected by using questionnaires, observation and in-depth interview complemented by secondary data. Sample size of 173 respondents were selected from population of 293 employees who belong to sub vote 5004 which is among 17 sub votes of Mwanza City Council which in total make 4052 employees of Mwanza City Council. Purposive sampling technique was used to include all six human resource officers in the study because these are the users of the system hence they had all relevant information about challenges in using HCMIS. The remaining sample size of 167 was calculated from population of 293 by using online sample size calculator where by confidence level of 95% and confidence interval of 5% were selected. Purposive sampling was also used to select sub vote 5004 among 17 others because the system users fall in this sub vote. Convenience sampling technique was also used to get 167 respondents who were given questionnaires when they attend HCMIS for service.

The findings of this study revealed that, none of the HRO's had knowledge to use the system fully. According to the findings the average use of the system is 43.3% which indicates insufficient knowledge in using the system. Also the findings show that there is poor flow of information from other departments whereby the most frequently received information are those concerning employees to be promoted and those to be taken disciplinary actions. The findings show that system beneficiaries were satisfied with the time taken to change salary after promotion, uploading deductions and payroll entry for new hires while majority were unsatisfied with customer care, waiting time and network availability in the working time. Also results shows that system users were not happy with the support given by approvers at PO-PSM in approving the sent items on time. Findings also revealed that there is poor support from Mwanza City Council in creating better working environment and working tools such as computers and accessories.

6.3 Conclusion

All system users managed to use the system fully in few common operations such uploading deductions, salary changes after promotions, status changes, employees transfer, data cleaning, new hire and entering bank information. However the study revealed that none of the system user had knowledge in uploading performance appraisal information into the system, uploading training information, absence management information, health and safety information and allowance information. Therefore the study concludes that system users possess insufficient knowledge in using the system.

The study also concludes that the council possess insufficient number of ICT experts to required to maintain system operations when need arise. The council has only two experts while the required number is four. These findings resemble those given by Kassam (2013) in her study *challenges of human capital management information system (LAWSON VERSION 9) in Local Government Authorities*.

Another conclusion made from this study is on the presence of insufficient number of computers and accessories available compared to the number of trained system users. System users have to share the few computers available because there is deficit of five computers connected to HCMIS network. Similar findings were also reported by Hassan et al. (2013) on *Public sector employees' view(s) of obstacles facing the development of management information systems in River Nile State – Sudan*.

Another conclusion made from this study is on the poor flow of human resource information from other departments to HR department specifically HCMIS section. Effective use of HCMIS depends on the information received from other departments because this information is regarded as the raw material of the system. The only frequently received information are those concerning promotions and disciplinary actions but those concerning terminations are less frequently received.

The study also concludes that, system beneficiaries were satisfied with almost all services provided by HCMIS with exception of customer care, waiting time and network availability whereby most of the customer were unsatisfied with these

parameters. Also the study concludes that there is poor support from approvers in PO-PSM in approving the sent items on time while on the side of Mwanza City Council there is poor support from top management in creating conducive environment for the system users to use it fully.

6.4 Recommendations

Basing on the findings of this study, The following recommendations are made:

Management at Mwanza City Council should ensure that system users have sufficient knowledge and skills to use the system fully. Newly recruited human resource officers should be taken to training so that they can be competent in using the system. Also senior system users need to update their knowledge to facilitate accommodation of new changes in the system.

- a) It is also recommended that system users be motivated for the extra work done after working hours and non working days.
- b) It is also recommended that management of Mwanza City Council should provide sufficient computers and accessories to the system users and ensure stability of network as well as renovation of HCMIS office so that the office will meet the criteria set by PO-PSM. The office should be well ventilated and entry to the room must be restricted to the authorized personnel only.
- c) Due to the technological growth and use of E-governance, demand of ICT experts in the council is high because almost every department has its own information system, finance department, land department, supply section, human resource department and health department all these department have different information system which rely on one expert. It is recommended that the council should hire more ICT experts to facilitate effective use of the system.
- d) Top management at the council should put a mechanism of information flow from other departments to system users so that relevant human resource information will be received by system users timely and be fed into the system on time to minimize ghost workers and timely change of employee's salaries.

- e) PO-PSM should put a mechanism to make approvers accountable for unnecessary delay of approving work items sent from the council as well as recruiting more approvers to reduce the work loads they are facing especially during promotions and hiring of new employees.
- f) System managers at PO-PSM should ensure that all forms in the HCMIS are active so that system users can feed the required information into the system as required. Most of the relevant information is not fed into the system because the required forms to perform such actions are inactive.
- g) Policy makers should allow health secretaries and officers from teacher's service department (TSD) to use the system because these are also administrators and they are also dealing with human resources. This will reduce workload in the human resource department and increase efficiency of the system as well as minimizing bureaucracy in the service delivery.

Finally policy makers should allow heads of department to access the system so that they can generate various reports concerning their subordinates and see the status of their employees. This will enable them to respond to the questions regarding status of their work force and minimize workload in the HR department.

6.5 Policy Implication

6.5.1 HCMIS Security Policy

Human Capital Management Information System possess information that is sensitive information and valuable, the exposure of sensitive information to unauthorized individuals could cause irreparable harm to the government. Additionally, if HCMIS information were tampered with or made unavailable, it could impair the government's ability to manage and serve Public service. HCMIS Information Security Policy therefore requires employees to diligently protect Information is appropriate for its sensitivity level (HCMIS Security Policy, 2013). HCMIS security policy has been a useful tool towards use of HCMIS at Mwanza City Council because it guides system users and other stake holders on how to maintain security while using the system. Greater part of this part has been

implemented successfully however some of the sections in this document are not implemented yet and this can endanger the security of the system.

This policy has the clause which states, "*users must not attempt to access any data or programs contained on HCMIS for which they do not have authorization or explicit consent*". Contrary to this clause, the system itself allows users to print report from any vote all over the country. To facilitate implementation of this clause the system administrator must limit users to generate report in their respective votes only.

The policy also contradict itself as it allows use of Virtual Private Network (VPN) in remote arrears and at the same time restrict the use of HCMIS in any other place apart from office premises. Experience shows that VPN is being connected in laptops hence use of the system is no longer limited in the working place as the policy demands. In this case the security and privacy of information has been reduced by the use of VPN which allows HCMIS to be used at any place and this has been also caused by lack of power and network in some arrears.

The policy also insist change of password within 90 days but the system has no mechanism to remind the user or to disable the password after the specified period of time hence the users continue to use the same password even after elapse of the time. The same policy stipulates that, users who extend their leave in more than 30 days their passwords will be disabled but in real sense the action never happened because the system is not automatically set to perform this operation. Therefore some of the good principles are not implemented because the system itself is not programmed to facilitate the implementation of the policy.

The policy also recommends physical entry restrictions on HCMIS facilities to unauthorized personnel and this can be achieved by use of entry cards, passwords even by use of posters. Such restriction is not seen in Mwanza City Council whereby every customer can enter the room with no such hurdles as mentioned above. The policy need to introduce more guidelines which will provide room for system administrators to audit facilities used to execute HCMIS services.

The policy also recognize accounting officers as the main owner of the information and they are also the recognized as manager of the system in terms of decision making. In reality they have very little knowledge on how the system operates and they also lack skills in auditing the information uploaded into the system. In this case this policy must show clearly a program of training accounting officers regularly so that they can audit the work done by system users.

The policy recognizes system users as Human Resource Officers, Personnel Action Approvers, Payroll Officers and Printer Operators. All these groups work as a team to achieve a common goal. Failure of one group to accomplish its work unit on time will make the whole system to stack. Therefore, this policy must show the relationship between the four groups and this policy must show clearly the mode of making one group accountable when proved to be source of negligence in the service provision.

6.5.2 Suggestions for Further Research

The study did not cover Ministries, Departments, Agencies and other organisations which are in partnership with government such as District Designated Hospitals (DDH) where government is involved in the salary payment.

Similar study should be conducted in those organisations to come up with challenges encountered in the use of HCMIS in those organisations. Second, the study was case study design which focused on single unit. Similar study based on empirical surveys should be conducted on challenges encountered in the use of HCMIS whereby several organisations with similar characteristics will be included in the study hence comparison of the findings can be done to add knowledge to the body of knowledge. Third, the study focused on the side of system users only and left aside approvers at PO-PSM. Similar study can be done to include both system user at LGAs and approvers at PO-PSM because none of group can use the system alone.

Fourth, in the same LGAs there are two HR information systems which are Human Capital Management Information System (HCMIS) and Local Government Human Resource Information System (LGHRIS) which carries similar HR information

except LGHRIS lacks payroll information. Study can be done to see whether similar challenges in using HCMIS resembles those of LGHRIS and whether there is need to continue having two system with almost similar information.

Fifth, the findings from this study revealed that, there is poor floor of information from other departments to HCMIS users. A study can be done to explore benefits of integrating HCMIS with other HR related systems such as EPICOR 9, LGHRIS, and PLANREP 3 so that system users can access HR information from related systems easily. Therefore, the researcher calls upon other researchers from universities, colleges, research organizations and those with special interests to conduct more comprehensive studies on the subject matter.

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APPENDICES

Appendix: 1

QUESTIONNAIRES FOR HUMAN RESOURCE OFFICERS ONLY.

Dear participant, I am Silver P.Njau, a student of Master of Public Administration (MPA) from Mzumbe University Morogoro. As part of my Master's dissertation, I am conducting a research on challenges encountered in the use of Human Capital Management Information System (HCMIS) in Mwanza City Council. This research is purely for academics purposes. All the information provided in this study will be confidential and anonymous. Your cooperation is highly appreciated.

Tick for the correct response.

PART A: Background information

1) Position..... 2) Department.....

3) Sex

Male ☐ Female ☐

4) Age

i) 18-25 ☐ ii) 26-33 ☐ iii) 34-41 ☐ iv) 42-49 ☐ v) 50-60 ☐

5) Educational level

i) Primary level ☐ ii) Secondary level ☐ iii) Diploma ☐

iv) Degree ☐ v) Others ☐

6) Marital Status

i) Married ☐ ii) Single ☐

7) Working Experience

i) Below 5 years [] ii) 5-9 [] iii) 10-14 []

iv) 15-19 [] v) 20 and above []

PART B : Research Questions

Tick for the correct response.

1. a) Have you ever been trained on how to use HCMIS

Yes [] No []

b) Are you among the users of HCMIS?

Yes [] No []

2. Below is a list of forms used in HCMIS, please tick all forms you have used and you possess knowledge and skills in using them.

- | | | | | | | | |
|------------|--------------------------|-------------|--------------------------|-------------|--------------------------|-------------|--------------------------|
| (1) PR283 | ☐ | (2) PR260 | ☐ | (3) PR276 | ☐ | (4) PR275 | ☐ |
| (5) PA213 | ☐ | (6) PA210 | ☐ | (7) PA341 | ☐ | (8) PA223 | ☐ |
| (9) PA310 | ☐ | (10) HR211 | ☐ | (11) PR15.2 | ☐ | (12) PR15. | ☐ |
| (13) PR14 | ☐ | (14) TZ30 | ☐ | (15) PR12.3 | ☐ | (16) PR12 | ☐ |
| (17) HR 11 | ☐ | (18) PA22 | ☐ | (19) PA36 | ☐ | (20) PA52.4 | ☐ |
| (21) PA20 | ☐ | (22) PA34 | ☐ | (23) TZ04.3 | ☐ | (24) TZ04.2 | ☐ |
| (25) PA52 | ☐ | (26) PA31 | ☐ | (27) PA42 | ☐ | (28) PA80.2 | ☐ |
| (29) TZ71 | ☐ | (30) PA26 | ☐ | (31) PA345 | ☐ | (32) LP51 | ☐ |
| (33) LP251 | ☐ | (34) LP70 | ☐ | (35) PA59 | ☐ | (36) PA259 | ☐ |
| (37) PA90 | ☐ | (38) PA90.2 | ☐ | (39) PA290 | ☐ | (40) PA35 | ☐ |
| (41) PA21 | ☐ | (42) TR04.1 | ☐ | (43) TR20 | ☐ | (44) TR22 | ☐ |
| (45) TR222 | ☐ | | | | | | |

3. Do you have knowledge and skills on how to generate various reports from HCMIS).

a) I don't have [] b) I have little [] c) I'm specialist in report generation []

4. Does the top management at MCC provide enough support to HCMIS users to use the system effectively?

a) Yes [] b) No []

5.If yes in question 4 above explain support provided

.....

.....

.....

.....

.....

.....

.....

6. Does the top management provide all necessities required to use HCMIS fully?

a) Strongly agree [] b) Agree []

c) Strongly disagree [] d) Disagree []

7. Effective use of HCMIS depends on the support from approvers at PO-PSM. Tick **Yes/No** if you agree or disagree with the statements in the table below.

No	Statement	Yes	No
1	Most pending actions in the HCMIS are on the side of approvers		
2	Approvers responds HRO's enquiries in the system timely		
3	Salary arrears are caused by delay in approving work item sent to PO-PSM		
4	Approval of the sent items is done timely in the PO-PSM		
5	There is enough support from PO-PSM in using HCMIS		
6	Training provided by PO-PSM is sufficient for you to use the system fully		
7	PO-PSM issue guidelines, policies ,manuals, circulars and laws to use HCMIS		

8. Tick ***all*** ICT problems which affect effective use of HCMIS

a) Insufficient IT technicians ☐ b) Unstable network ☐

c) Insufficient computer and accessories ☐ d) Security problems ☐

e) No any ICT problem ☐

f) Mention Other ICT related problems.....

.....

.....

9. a) Tick the appropriate cell depending on the extent you receives information from other departments.

Key: FR = Frequently Received OR = Occasionally Receive RR = Received on Request

NR = Not Received

SN	TYPE OF INFORMATION RECEIVED FROM OTHER DEPARTMENTS	FR	OR	RR	NR
1	Employees to be removed from payroll				
2	Employees to be promoted				
3	Employees to be transferred				
4	Employees for recategorization				
5	Employees for statutory deductions				
6	Employees on study leave				
7	Employees on leave without pay				
8	Employees on annual leave				
9	Employees to be paid half salary				
10	Employees on disciplinary actions				
11	Employees for data cleaning				
12	Employees for budgeting purposes				

b) What do you think is the most received HR information from other departments
and

why.....
.....

c) What do you think is the least HR information received from other departments
and why.....

.....
.....

END.

APPENDIX II

DODODSO KWA WATUMISHI

UTANGULIZI

Mimi ni mwanafunzi kutoka Chuo Kikuu Mzumbe ambako nasomea shahada ya pili ya utawala (**Masters in Public Administration**) nipo hapa Halmashauri ya Jiji la Mwanza kwa ajili ya utafiti wa kitaaluma utatakaoniwezesha kukamilisha sehemu ya kozi yangu katika fani ya Utawala. Hivyo naomba ushirikiano wenu kwa kunijibia maswali yafuatayo hapa chini yatakayoniwezesha kujua ni kwa kiasi gani watumishi wanauelewa kuhusu mfumo wa taarifa za utumishi na mishahara (**Human Capital Management Information System - LAWSON**).

Tafadhali jibu maswali haya kulingana na uelewa wako binafsi. Utafiti huu ni wa kwa ajili ya kitaaluma. Napenda kukuhakikishia kuwa taarifa itakayotokana na maswali haya itakuwa ni siri.

Sehemu ya Kwanza:Maelezo Binafsi

Weka alama ya tiki kwa jibu sahihi

1. Umri2. Jinsia KE [] ME [] 3. Kazi.....
4. I) Elimu ya msingi [] II) Elimu ya sekondari [] III) Cheti [] IV) Stashahada [] v) Shahada [] vi) Uzamili []

Maswali ya utafiti

1.Je umewahi kusikia kuhusu kuwepo na kutumika kwa mfumo wa taarifa za utumishi na mishahara (**Human Capital Management Information System - LAWSON**) katika ofisi za halmashauri ya Jiji la Mwanza?

a) Ndio [] b) Hapana []

2. Je umewahi kupata huduma kupitia mfumo tajwa hapo juu?

a) Ndio [] b) Hapana []

3. Weka alama ya tiki kwenye kisanduku husika kuonyesha ni kwa kiwango gani unaridhika na huduma zinazotolewa na mfumo wa HCMIS (LAWSON)

No .	Huduma	Naridhika Sana	Naridhika	Siridhiki	Siridhiki Kabisa
1	Mshahara kubadilishwa baada ya kupanda daraja				
2	Muda wa kuingia payroll baada ya kuajiriwa				
3	Kuingiziwa makato ya mkopo kwa wakati				
4	Muda wa kusubiri kwenye huduma kwenye benchi				
5	Huduma kwa mteja(customer care)				
6	Kuwepo kwa mtandao wakati wa huduma				

Asante sana.

Appendix III

Interview Guide

Questions.

- i) What are the ICT problems associated with effective use of HCMIS at MCC?
- ii) To what extent does top management provide full support towards use of HCMIS?
- iii) To what extent do you receive HR information from other department?
- iv) What are the most frequently received information and least received information?

Appendix IV

Observation Checklist

1. Assessing HROs ability to use forms declared to have knowledge in using them.

- Put tick if he/she can use the form and x if he/she can't use it.

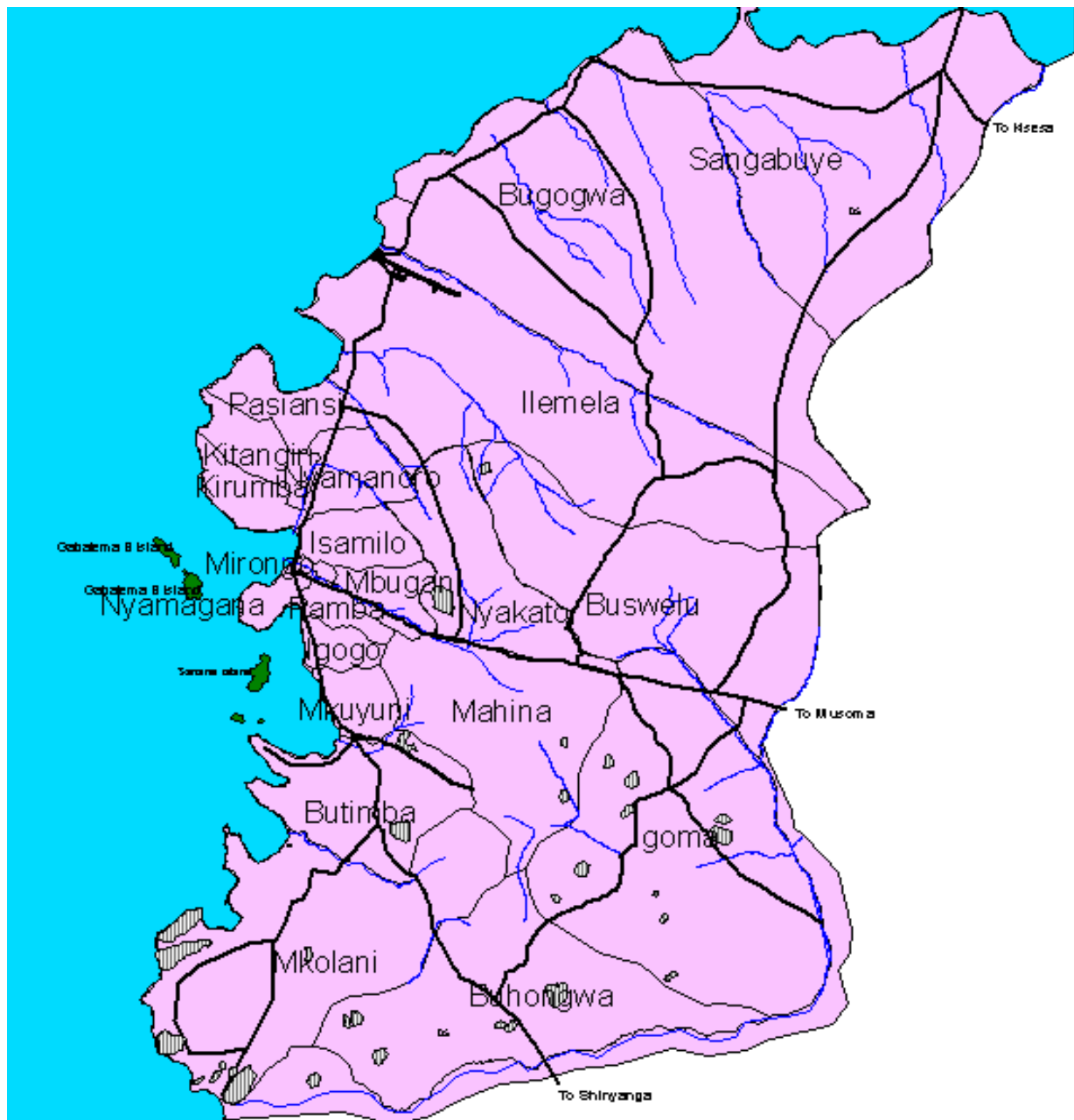
(1) PR283 ☐	(2) PR260 ☐	(3) PR276 ☐	(4) PR275 ☐
(5) PA213 ☐	(6) PA210 ☐	(7) PA341 ☐	(8) PA223 ☐
(9) PA310 ☐	(10) HR211 ☐	(11) PR15.2 ☐	(12) PR15. ☐
(13) PR14 ☐	(14) TZ30 ☐	(15) PR12.3 ☐	(16) PR12 ☐
(17) HR 11 ☐	(18) PA22 ☐	(19) PA36 ☐	(20) PA52.4 ☐
(21) PA20 ☐	(22) PA34 ☐	(23) TZ04.3 ☐	(24) TZ04.2 ☐
(25) PA52 ☐	(26) PA31 ☐	(27) PA42 ☐	(28) PA80.2 ☐
(29) TZ71 ☐	(30) PA26 ☐	(31) PA345 ☐	(32) LP51 ☐
(33) LP251 ☐	(34) LP70 ☐	(35) PA59 ☐	(36) PA259 ☐
(37) PA90 ☐	(38) PA90.2 ☐	(39) PA290 ☐	(40) PA35 ☐
(41) PA21 ☐	(42) TR04.1 ☐	(43) TR20 ☐	(44) TR22 ☐
(45) TR222 ☐			

2. Assessing HROs ability to generate reports declared to have knowledge in using them.

No	Type of reports	Knowledgeable	Unknowledgeable
1	New Hires		
2	Promoted employees		
3	Deductions reports		
4	Budget reports		
5	Payroll exits		
6	Pending actions		
7	Sent items		
8	Prospective retirees		
9	Education level		
10	Employee listing		
11	Transferred employees		
12	Employee designation		
13	Data cleaning		
14	Employee profile		

APPENDIX: V

Map of Mwanza City Showing Distribution of Wards



Source: Mwanza City Urban Planning Report

APPENDIX:VI

MWANZA CITY COUNCIL ORGANIZATION STRUCTURE

