EFFECTS OF COMPUTERIZED HUMAN RESOURCE INFORMATION SYSTEM ON STAFF PRODUCTIVITY OF GOVERNMENT MINISTRIES IN KENYA A CASE STUDY OF MINISTRY OF ENERGY

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DECLARATION

Declaration by the Student

I hereby declare that this research project is my original work and has never been submitted to

any institution or college for any academic purposes.

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Declaration by the Supervisor

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

Supervisor's Name   **:**

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Date   **: _____**

DEDICATION

This research project is dedicated to my entire family for their provisions, inspiration and

encouragement.

ACKNOWLEDGEMENT

First and foremost I would like to thank God for guiding me in the course of my studies. I would like to thank my family for being there with me always, my colleagues for their prayers and support not forgetting my lecturers and classmates for enriching my academic life. God bless you all.

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ABSTRACT

Computerized human resource information system is a fully integrated organization wide network of human resource systems concerning data, information, services, database tools and transactions. The information process uses computer hardware and software, procedures, analysis models, planning, control and decision making and a database. The research was done to investigate the effects of computerized human resource information systems on the ministries'' productivity at Nyayo house headquarters. The objectives of the study was to see how various functions in the organization were influenced by the use of computerized human resource information system so as to improve on the ministry productivity. Data analysis, training administration, organization redesign planning and internet were some of the variables used in the research while the dependent variable was the ministry productivity. In the methodology, a descriptive research design was used. The target population was 300 employees and the researcher decided to use 50 employees as the sample size. Questionnaires were used as a data collection instrument. 50 questionnaires were given out to the staff of the ministry. The data was descriptive statistics for both qualitative and quantitative analysis. Charts and tables were used to represent the quantitative data. The main objectives was to investigate the effects of computerized human resource information systems on organization productivity at the ministry. The findings revealed that 70% of the responded agreed that training influences the ministry's productivity while 30% disagreed. A majority of the respondents felt that planning had a great impact on the ministry productivity. 80 % of the respondents felt that employee involvement helped to motivate them and make them work towards higher productivity. The study showed that computerised Human Resource Information system had a great impact on organisation productivity. Training was used to equip employees with skills that made them improve performance and productivity of the organisation. Planning was started as one of the most important things that would affect the productivity of the organisation.

CHAPTER ONE

INTRODUCTION OF THE STUDY

1.1 Introduction

This section discuss the background of the study, gives a brief explanation on the ministry of energy and petroleum, statement of the problem to be addressed, research objectives; both general and specific, research questions, significance of the study, the study limitations and the scope of the study.

1.2 Background of the study

The human resource function, unlike the other functions in an organization has a reluctance of trying and quantifying its impact on the business. This may be because they do not have the human resources to design, specify and implement the strategic HRIS, there may be other reasons that need to be paid attention to as well? Historically HR have had some downfalls which are brought into consideration when negotiating for capital projects such as new or upgrading the HRIS. In the earlier days, Information system in Human resource belonged to information system experts, they also managed them. This was accepted because most of the systems were huge, put in the same place and required some knowledge to design suitable applications and manage project implementation. This resulted in a focus on the virtues of information systems and underestimated the importance of creating easy-to-use applications that will work with people rather than against them. The experts in information systems at some point fail to acknowledge the relevance of human dynamics, the great effect they have on the way in which things are done, and the perspective of those who use the systems, such that these factors are not considered or only solved partly due to financial constraints or competitive imperatives or simply that the process is mismanaged.

May be because of line managers view that Human Resource experts did not require to be part of what is likely to be viewed as information systems policy making; in approximately fifty percent of organisations, decisions to introduce new applications are taken without reference to HR.

The best management thinkers suggest that "it is not technology, but the art of human- and humane-management" that is the continuing challenge for executives in the 21st century (Drucker, Dyson, Handy, Saffo, &Senge, 2015). Similarly, Smith and Kelly (2011) believe that "future economic and strategic advantage will rest with the organizations that can most effectively attract, develop and retain a diverse group of the best and the brightest human talent in the market place". In general, to maintain a competitive advantage in the marketplace, firms need to balance the resources available to the firm to achieve the desired results of profitability and survival. The resources that are available to the firm are categorises into three different main types: physical, organizational, and human. In explaining on how to get the competitive advantage in the world market, Porter (2011) noted that management of the human resources is the most critical of the three. The view of taking human resources as a way of creating competitive advantage in the local and international has been echoed by other authors,(Greer 2012).

Reflecting the systems view, (Becker and Huselid 2013) stress the importance of HR structure that is, the "systems, practices, competencies, and employee performance behaviours that reflect the development and management of the firm's strategic human capital" for organizational performance. Context is a very important thing in SHRM, making people carrying out research to greatly emphasize the "best-fit" approach to SHRM as opposed to the "best-practice" approach. For SHRM to be successful it dependents on many factors like national culture, culture company, size, industry type, occupational category, and business strategy.

Accordingly, Becker and Huselid (2012) argued that "it is the fit between the HR architecture and the strategic capabilities and business processes that implement strategy that is the basis of HR's contribution to competitive advantage". The best example of the benefits of HR and information provided by HRIS is seen through the human resources planning (HRP) function. HRP mostly deals with forecasting the need for more work force in the future and the availability of the work force either inside or outside the company. The best is when an organization is considering a strategic decision to expand by creating a production plant in a different new location. By making use of the data recorded and analysed in the HRIS, HRP can portray estimates of whether or not there are enough people available in the outside labor market of the new location to work in the new plant. Thus, the availability of potential work force in the labor market may be relevant to the strategic decision to create the new facility, and this, mostly likely, could involve millions or billons of dollars. Therefore, in determining the strategic fit between technology and HR, it is not the strategy per sector that leads to competitive advantage but rather how well it is "implemented," taking into account the environmental realities that can be unique to each organization and, indeed, between units and functions of the organization.

With the increasing use of information technologies in HR planning and delivery, the way people in organizations look at the nature and role of HR itself may change (Roehling et al., 2005). With HR data and reports today being readily available on their desktop, would managers interact less with the HR department and see it as being less important? If that is true, how would it affect the attitude of HR professionals toward their jobs and profession?

1.2.1 Profile of the ministry of energy and petroleum

The Ministry of Energy and Petroleum has its main goal and purpose of providing and sustaining quality services, which are geared to satisfy the needs and expectations of its esteemed customers. The main objective of the ministry is to facilitate provision of clean, sustainable, affordable, reliable, and secure energy services for national development while protecting the environment. Energy has been singled out as one of the key enablers of the Vision 2030. Energy security therefore remains a matter of national importance and the Ministry is also working to the fact that high prices of energy prevents the competitiveness of our country by making the expenses of carrying out business more expensive. In this regard, energy accessibility and cost are key importance in the Ministry.

Despite the importance of computerized human resource systems in organizations, its relationship with staff development is not documented and few studies have been undertaken on the same. Nawaz (2012) in his research to investigate the impact of computerized human resource system in facilitating information flow found out that useful information flow on various domains of HR processes ranging from hiring of employees, coordinating between HR departments, promotion, organizing and administering staff and motivation of employees however, did not focus on the relationship between computerizes human resource system and Staff development. Shiri (2012) studied the effectiveness and the importance of the use of computerizes human resource system on the HR functions and established that HRIS is of direct significance, verifies completeness of the HR function and gives chances to improve HR contribution to the strategic direction of the company however did not focus on the relationship between computerized human resource system and Staff development. Shibly (2011) studied human resource information systems and got that computerized human resource system support

labour force planning and supply and demand forecast; staffing with information, and development with information on training programs. In Kenya there is no research done on computerized human resource system. Buhasio (2012) did a research on challenges facing employee recruitment and selection among Ministries in Kenya and found that they use information system to find best possible person to fill the job. Ombogo (2010) studied best practices in human resource management and in his conclusion he said that employee development is important for Ministries and undertake this through periodic trainings. Abong'o (2012) studied the effect of training on employee productivity in Ministries in Kenya and established that training is important in staff development. Otuko, Kimani and Musiega (2013) did a study on the effect of training dimensions on employee's work performance and established a positive and significant effect between training needs assessment and employee performance. The studies did consider the relationship between computerized human resource system and staff development leaving a wide knowledge gap that this study seeks to fill-in. This research therefore, sought to answer what is the relationship between computerizes human resource system and staff development?

1.3 Statement of the Problem

There is very little and to some extend outdated literature that mainly discusses the human capital of HR experts within an HRIS context. Yeung and Berman (2012) state that, unlike other functions, there is a natural reluctance for the HR function to try and quantify its impact on the business. This may be because they do not have the human capital to design, specify and implement strategic HRIS.

Among the greatest important of the design, development, and implementation of an HRIS is to bring down the amount of time the HR employees has to use on transactional activities, allowing the staff to spend more time on traditional and transformational activities.

With the increasing use of information technologies in HR planning and delivery, the way people in organizations look at the nature and role of HR itself may change. With HR data and reports now being readily available on their desktop, would managers talk less with the HR department and see it as being less important? If that is so, how would it affect the attitude of HR professionals in the direction of their jobs and profession? Would they resist adoption of technology if they perceive that technology lessens their status? In traditional organizations with silo mentalities, turf wars between departments and functions acting as independent entities are common. Therefore, top management should be mindful of politics in the company in managing change. Through most of its evolution, HRM has had an administrative and caretaker focus in its delivery. With technology significantly decreasing the time required for administrative tasks, many HR experts may find it challenging to redefine their jobs and may thus refuse the change to an HRIS. This leads for redefining and transforming the role of HRM through value-added, strategic initiatives and interventions. This also involves knowing new skills for HR experts and rethinking the way the HR department is organized and delivers its services. With the improved job skills of HR professionals, technology will be seen as HR's "partner in progress." While having an advanced, full-fledged system will not automatically make HR a strategic business partner, it acts as a building block and an effective aid in the process (Lawler &Mohrman, 2014).

1.4 Objectives of the Study

1.4.1 General Objectives
The study targets to investigate and find the effects of computerized human resource information

system on employee on government ministries in Kenya with particular reference to the ministry

of energy and petroleum.

1.4.2 Specific Objectives

    i.   To establish the effects of internet on staff productivity.

    ii.   To identify how human resource planning affects staff productivity.

    iii.   To find establish the relationship between training administration on staff productivity.

1.5 Research Questions

    i.   How does internet affect organisation productivity?

    ii.   What are the effects of human resource planning on staff productivity?

    iii.   What are the effects of training administration on organisation productivity?

1.6 Importance of the study

The findings from the study will be beneficial and important to various parties.

1.6.1 The Researcher
The researcher will be acquainted with skills and knowledge that was as a result of the various

expertise findings that he was able to find out through the research.

1.6.2 The Government
The government will be able to acknowledge that computerisation has contributed to the

economy of the country when computers are imported the government gets revenue from the

duty paid. Computerisation has also helped the government to deduct taxes from employee's

salary without the employee being able to evade paying tax. Increase in organisation productivity

means that the organisation made a profit was paid to the government through Kenya Revenue Authority.

1.6.3 The Employee
The employee through new and enhanced services and products provided competitive advantage and motivated them to work hard since computerization helps to facilitate reduction of monotony from doing one job of the same kind. Employees were able to maximise on the important data so as to be able to make good use of resources and be more productive hence yielding better output.

1.6.4 The Management of Ministry of Energy and Petroleum
The organization on the operational efficiency promote the organizational innovation and build strategic information resources thereby giving the organization competitive advantage in the relationship with customers, suppliers competitors and new entrants. Good image of the organisation may attract many customers since the information systems helps the customers get good services.

1.6.5 Other Government Ministries/Agencies
In addition other government ministries and agencies will greatly benefit from the computerized human resource information system in that information sharing will be faster, economical and efficient. Data integrity will also be maintained since it is only authorized users who will be logging into the system and share data. It plays a vital role in the operation management and strategic success of the organisation and was a major functional area in business administration and management. Managers through the research were able to use computerised Information system as an aid for proper and good decision making on matters concerning the organization.

1.7 Limitations of the study

1.7.1 Confidentiality
Confidentiality is a major research limitation since many respondents attempt to withhold crucial information which they regard confined only to the top management for fear of victimization. To

ensure that this did not affect the response rate, the researcher explained to the top management and the staff that the information will be treated as confidential and it is only meant for academic purposes.

1.7.2 Tight Working Schedule
Most respondents did not submit the questionnaires in time due to their busy schedule therefore hence inconveniencing the researcher according to his schedule. To overcome this, the researcher urged the respondents to be punctual and submit the questionnaires in time.

1.7.3 Lack of Cooperation
The researcher was unable to collect all the required information since some of the respondents might be uncooperative to the extent that they may refuse to offer the information and therefore some questions may not be answered. Some of them may fear victimization yet others may think their time is being wasted thus affecting the accuracy of the results. The researcher will give them more time to fill the questionnaire. The researcher will later collect the questionnaire and will use fully filled ones for the analysis.

1.8   Scope of the Study
In pursuance of the objective of the study, attention focused on effects of computerized human resource information system in the ministry of energy and petroleum. The study was conducted at the ministry's headquarters situated in Nyayo house Building along Kenyatta Avenue. The effects of computerized human resource management information system focused on this study were limited to the top management, the middle management and the operational staff of ministry of energy and petroleum.

LITERATURE REVIEW

2.1 Introduction

This chapter presents the theoretical and empirical literature, training administration, planning, organization redesigning, internet, data analysis, summary of literature review and research gaps and conceptual framework.

2.2. Theoretical Review

Most industries have been transformed by information technology and information systems. HRMIS is a single interface for government workers to perform HRM processes effectively and efficiently in an integrated environment. HRMIS is only a tool and the success of its implementation depends highly on its users. HRIS research lacks theoretical depth and richness. Adaptive Structuration Theory (AST) assumes that information systems and organizations are interrelated.

Information technology extremely infuses human resource management in this global networking era-digital possibilities have been challenging the traditional ways of delivering human resource management services within business and public organizations for more than a decade now (Bondarank & Ruel,2013).in addition, the performance of human resource (HR) manipulates the organizational success in today's knowledge economy. Thus, to increase the effectiveness of human resource management organizations now a days are becoming strongly dependent on human resource management information systems (Lippert & Michael Swiercz,2005;Troshani ,Jerram ,& Hill, 2011).

2.2.1 Human Resource Information Systems

 The human resources information system is one of the sub-systems within the information systems that concerns of providing all the historical, present and future information related to

human resources, presenting them to the parties interested in these resources whether they are internal or external ones, to identify the value of human resources which are considered the sources that have the greater value in the economic units particularly in the service and industrial projects (Dessler, 2005).

The making of the human resources information systems helps in measuring the value of the human resources in a fiscal way and contributes to plan these resources on the economic unit, as well as the national one through the contribution in drawing the labor and employment policies and the other linked polices as migration, payments, promotions, and motives in a scientific way. The benefits of human resources spurs out in the industrial and service projects through affecting the market value of these economic units in the bank and commercial projects, as to their contribution to the economic processes used by these units and what these resources could form and occupy of the tangible and intangible that could affect in a way or another on the performance continuation of these corporations, as a result, it is necessary to concern all the data related to human resources to be possible to get their benefit in all domains that need more improvement in performance (Collins and Smith, 2006).

Organizations must treat information as any other resource or asset. It must be organized, managed and disseminated effectively for the information to exhibit quality. Within an organization, information flows in four basic directions as upward, downward, horizontal and outward/inward (Haag & Cummings, 2008). Taking into account that there is a huge amount of information flow in organizations, it will be possible to understand the importance of information systems in organizations.

2.2.2 Types of Human Resource Information Systems

2.2.2.1 Operational CHRIS

Operational human resource information systems gives the manager data to support routine and repetitive human resource decisions. A number of operational- level information systems collect the data relating to human resources including the information about the organization's positions, workforce and governmental regulations (Collins and Smith, 2006).

Employee Information Systems

The human resource section must have the information of the organization's work force profile for taking different decisions. A work force profile includes personal and organization related information, like name, address, sex, minority status, marital status, citizenship, years of service or seniority data, education and training, previous experience, employment history within the organization, salary rate etc (Dessler, 2005).

Position Control Systems

A job is usually explained as a group of identical positions. A position, on the other hand, consists of tasks performed by one worker. The purpose of this system is to identify each position in the organization, the job title, its classification and the currently assigned to the position to the employees.

Applicant Selection and Placement Information Systems

When work force planning has been identified and then a suitable selection of job candidates has been recruited. For this purpose, the candidates must be screened, evaluated, selected and placed in the various positions in the organization. The primary purpose of the applicant selection and placement information system is to assist human resource staff in these tasks (Beltran-Martin et al, 2008).

2.2.2.2Tactical CHRIS

Tactical information systems are used to provide managers with support for decisions related with allocation of resources. Major important decisions in human resource management include recruitment decisions; job analysis and design decisions, training and development decisions, and employee compensation plan decisions (Schuler et al, 2001).

Job Analysis and Design Information Systems

This system includes information from interviews with supervisors and workers and positive action guidelines and information from sources external to the firm, such as labor unions, competitors, and government agencies. The result of the job analysis information system are job descriptions and job specifications which provide managers with the basis for many tactical human resource decisions (Huselid, 1995).

Information Systems for Recruitment

For the hiring function, the company needs to strategies a recruiting plan. The plan puts in place the positions to be filled and the skills required of the worker for these positions. For this purpose, a hiring information system is important which collect and process the many different types of information like a list of positions that need to be filled; the responibilities and prerequisites of these positions; lists of planned employee retirements, transfers, or terminations; and summaries of employee appraisals.

Compensation and Benefits Information Systems

The Compensation and Benefits Information Systems helps in a variety of tactical human resource decisions, especially when compensation and benefits information is related to information from internal and external sources.

Training and Development Information Systems

Training and development systems must meet the needs of jobs available in the organization as identified through the position control system and the job analysis and design system. The training should also be directed to the persons interested and should benefit them (Becker et al, 2001).

2.2.2.3 Strategic CHRIS

Strategic CHRIS helps the organization in to implement strategic human resource management.

Information Systems for Workforce Planning

Organization engaged in long-term strategic planning, such as those planning to open in different market areas, build factories or offices in new locations and wants to add new products, will need information about the quantity and quality of the available workforce to achieve their goals.

Information Systems for Workforce Planning

Organization involved in long-term strategic planning, such as those planning to expand into new market areas, construct factories or offices in new locations and wants to add new products, will need information about the quantity and quality of the available workforce to achieve their goals. Information systems that support workforce planning serve this purpose (Ferris et al, 1998) function, can be divided into two categories: comprehensive human resource information systems software and limited-function packages that support one or a few human resource activities (Huselid, 1995).

2.3 Literature Empirical Review

Automation of tasks and process as an implication of human resource information system minimises the use of resources. It reduces the charges incurred on human resource, costs of paper work and also the costs of management.

According to Hendrickson (2011) human resource information system benefits an organization in their human resource processes by increasing the efficiency and effectiveness and provides self-service human resource. Therefore, workers can input and make changes on data on their own. This makes the data to be accurate and also saves time and costs. Some researchers have put across some relevant information of human resource information system which is effective. Human resource decision making and also strengthening an organizations character (Sadri & Chatterjee, 2013), reducing process and administration costs, actions (Lengrick-Hall & Moritz, 2012).

Furthermore, Agggarwal and Kapoor (2012) mentioned that human resource information not only helps the management and human resource department but also assists the employees in several ways. Information system can make the decision making process to be more efficient for management of an organization. There are factors for the organization which shows the characteristics of the organization that may have an effect on the use of human resource information system. Yang *et al*. (2011) stated that adoption can be influenced in organizations that show high level of centralization since top management can make adoption decision irrespective of resistance from lower level managers or employees. Organization size, supporting organization settings including a skilled workforce are important factors in successful innovation adoption (Troshani *et al*, 2011).

According to Hendrickson (2012) all types were not created equally and they don't need to be as the human resource information system usage depends greatly on firms' size. The reason can be explained with an example major human resource information system like people soft can be used by an organization with a work force of about 25 but the larger costs would be difficult to justify.

In the same way, a big international organization could generate a database program just to access and perform functions necessary to operate but it would be unmanageable and limited solutions found. It is therefore clear that a good human resource information system should have a balance between technical and critical information needs of the human resource function according to the organization's size, as the size can define the needs of the human resource function (Hendrickson, 2014).

On the other hand, smaller and mid-sized company only tried to implement operational and relational human resource information system as these two human resource information system do not perform human resource processes.

Besides organization size, another factor which is top management support shows influencing action on adoption of human resource information system findings from Yang *et al.*(2014) indicates that managers attitude and interest on Information Technology are beneficial in making it to be adopted by the organization. According to Teo *et al.*(2013) apart from the top management support to use a system in the organization, employee involvement is also needed and it is greatly affected by the management commitment has a positive influence on human resource information system or I.T adoption(Teo *et al.*, 2007; Trashani *et al.*,2011;Yang *et al.*, 2013.

Technological factors focuses on the manner where technology characteristics can influence adoption (Yang *et al.*,2012).adopters assess the characteristics of innovations in terms of ''possible gains and barriers'', gains refer to the fruits the company will get when it adopts the use of information system in human resource and which include increased levels of service quality, efficiency and reliability(Oliveira & Martins,2010). In the other side, barriers may be considered as the complexities and its compatibility with the technology used in the company.

A number of researches have recognized technological readiness as a significant factor that influence I.T adoption (Kwon & Zmud, 2013 Oliveira & Martins, 2010). Research done earlier indicate that innovation characteristics match with those of technological factors.

2.3.1 Training Administration

According to Michael (2013) he stated that highly trained employees who are interested in bettering themselves can be an incredible asset in the work place through the knowledge of information systems. This is among the reasons that so many companies big and small actively support their employee's decision to go back to school. Continuing education can be a win - win proposition for individuals and employees and make them be a section of the organization for long through better knowledge in IT. Dissatisfaction of employees about the organization was because of no or less communication between the upper level of management and the employee. This too much extent can be handled with the help if information technology in the firm to assist employees stay longer period.

ICT has made it easy for employees to perform their duties in an effective way resulting to a more employee's satisfaction which has led to more retention in organizations. Employee to customer service has drastically improved due to application of technology, to be able to reach the entire customer quickly and even solve their problems. Many companies are struggling when it comes to actually enhancing the customer experience. Even after customer initiative, planned time may pass and leaders may wonder why customer's scores aren't improving. Good intentions and plans if not sustained, may get taken over by running of the business.

2.3.2 Planning

Human resource information system assists the human resource department in making the human resource process easier, faster, cheaper and more effective as well as it benefits the organization

to greater success. The fruits of human resource information system can be realized when the system is accepted for use in an organization accurately and more effectively. However, several changes are experienced by most of the organizations faced by almost every organization while implementing and adopting the human resource information system.

Improved customer balance is increased when organization uses ICT to do all its activities (Drecker, 2009). ICT has helped to improve communication in many organizations, which has also led to improved retention among employees due to easy and accessible information about the progress of a firm. When employees are better related without conflicts, they tend to stop leaving an organization due to reasons like lack of important information, conflicts arising from different management levels and they tend to abide for long duration in an organization. This has resulted due to application of ICT in modern organization.

2.3.3 Internet

All organizations depend on communication. Communication is the force that holds various elements, coordinates activities, makes people to work together and achieve common goals. One of HR's many roles in organizations is to communicate new initiatives to employees. HR communication efforts can occur in a variety of ways. Downward communication is the communication from management to employees. Upward communication methods are communications from employees to management.

The Internet is viewed as an information technology with interest centered on software, data transmission systems and messaging capabilities. Secondly, the Internet is seen as a business innovation focusing on the harmonizing of practices within the community of firms linked by electronic means.

There are numerous business opportunities brought about by the use of the Internet in organizations.

2.4 Summary of Literature and Research Gaps

This section commenced by a discussion of research questions with the support of literature review. The main areas covered are the effects of computerized human resource information, organizational redesigning, planning, data analysis, training and internet.
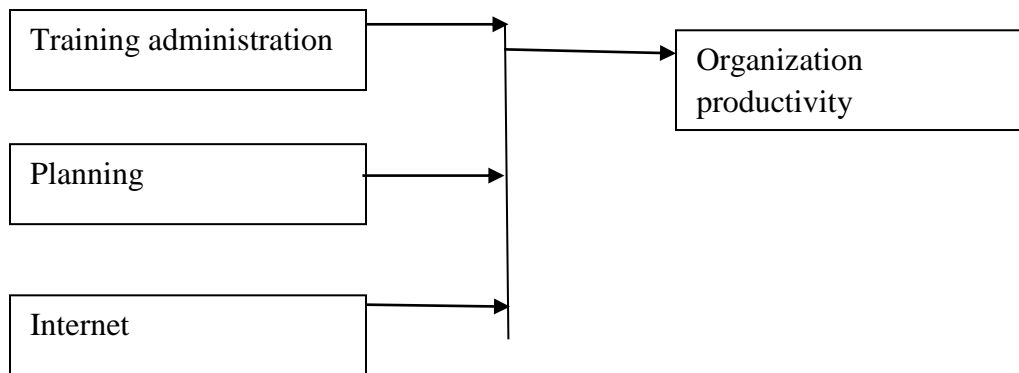
Summarizing briefly the key findings of the studies; computerized human resource information system a kind of method and capability targeted at meeting organizational targets and further impact all organizational activities. Ministry of energy and petroleum requires a computerized human resource management information system that can deliver the expectations of the stakeholders. Human resource information system in any organization sustainability strategies involve better dissemination of information concerning all departments and coordinating their operating methods and practice to maintain basic uniformity, foster education, training of members, officials and employees of any organization. It fosters and promotes the organization's growth and is capable of promoting the return on investment.

Effective HRMIS in an organization is very important tool to effectively manage and handle employees records. Without better and effective HRMIS in an organization it is impossible to manage and handle the employees records. The overall performance in an organization like organizational communication and decision making strategies depend on various tools of information technology like the use of internet to network in an organization. It should be noted that effective training on HRMIS helps employees to increase their knowledge and capacity to have greater input to the organization than before. Trained employees feel a sense of belonging and feel having participated and involved fully in all organizations activities. It is an important

way of improving productivity in an organization and retaining employees, reducing costs of time and money incurred by an organization.

2.5 Conceptual Framework
Fig.2.1 Conceptual framework

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┌─────────────────────────┐
│  Training administration │ ───────┐
└─────────────────────────┘        │        ┌──────────────────┐
                                    ├──────→ │  Organization    │
┌─────────────────────────┐        │        │  productivity    │
│  Planning               │ ───────┤        └──────────────────┘
└─────────────────────────┘        │
                                    │
┌─────────────────────────┐        │
│  Internet               │ ───────┘
└─────────────────────────┘
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Source: Author (2018)

2.5.1 Training administration
Use of technology has considerably improved training of employees through management of human resource information considering this fact, HRMIS Directorate facilitates effective management and better access to personal records and information of employees.

2.5.2 Planning
At the heart of HRMIS is the ability to create a crucible of information for an organization, this will become your single source of truth of organisation and people information. It is a powerful tool for both organisational planning strategy and its implementation.

2.5.3 Internet
The infrastructure aspect is a major constraint in ensuring the smooth running of the web-based system development. A recurring debate among the agency representatives was whether to use

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an open internet network or a special network for government application access. Owing to data security concerns in all government application systems, MAMPU decided that a special line called the EG*Net be used for HRMIS application. MAMPU is responsible for the installation of the EG*Net at all public sector agencies. However, the installation process of the EG*Net network across all agencies requires time. There are still users who are not able to access the HRMIS website owing to either the unavailability of access facility at the agencies concerned or the insufficient capabilities of the available network to accommodate high volumes of traffic at one time.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

This chapter examines the procedures and strategies that were used in conducting the study. This was based on the population that was under study, location of the targeted population, sampling design, data collection method, research design, methods of collecting and analysing data.

3.2 Research Design

In the study the researcher will use a survey approach that involved a flow of plan of events that started with laying down objectives and then ending up with findings. The researcher opted for this design because the study was descriptive in nature and the target population was large.

3.3 Target population

The study targets the Ministry of Energy and Petroleum. The target population will be approximately 300 employees at the Headquarters. The target population will be characterized with those employees that use computerized Information system in doing various activities in the office.

Table 3.1 Target Population

Category	Number	Percentage
Top management	50	17
Middle level management	100	33
Supportive staff	150	50
TOTAL	**300**	**100**

Source: Researcher (2018)

3.4 Sampling design

Sampling is a method of drawing a portion of a population to represent the whole population. Ministry of Energy and Petroleum in the study had a target population of approximately 300 employees and the sample size used was 50 employees. The researcher used stratified random sampling since it enabled the researcher to represent not only the overall population, but also key small groups of the population especially the small minority groups. In the study, subjects were selected as they fit into the identified strata which made the sample be more representative.

Table 3.2 Sample Size

Category	Number	Percentage
Top management	10	20
Middle level management	15	30
Supportive staff	25	50
TOTAL	**50**	**100**

Source: Researcher: (2018)

3.5 Data collection instruments

The research used questionnaires to collect data from respondents. The questionnaires had both structured and open-ended questions which were intended to give the respondent the freedom to fully express their views and opinions in full and in a self-styled manner. Questionnaires were chosen because of its acceptability to the unity of study and its ability to collect primary data from respondents located in a given area and even areas with wide distance in a much faster and cheaper way. Due to lack of so much time to undertake the study, questionnaires were used to enable the researcher to get information from many respondents and it also upholds confidentiality.

There is need for you to explain how the questionnaire is organised i.e. the various sections that it has and what specific research objectives they will be addressing.

3.6. Data Analysis

The data found from the research will be analysed quantitatively and qualitatively. In the study quantitative analysis will be used through the analysis of numeric data, use of frequency tables from which percentages were calculated to give graphs and charts. Qualitative data analysis was used to find out the views of respondents on the various issues through simple descriptive analysis and it was able to deal with the findings from respondents on certain issues that were not always computable by arithmetic relations.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1. Introduction

4.2. Quantitative Analysis

This section analyses questions that are presented in numerical date, use of frequency tables from which percentages are calculated and used to draw charts and tables.

4.2.1 Gender

The response rate on gender was as follows;

Table 4.2.1 Gender

Gender	Frequency	Percentage
Female	16	40
Male	24	60
TOTAL	**40**	**100**

Source: Research (2018)

Fig 4.2.3 Gender Representation
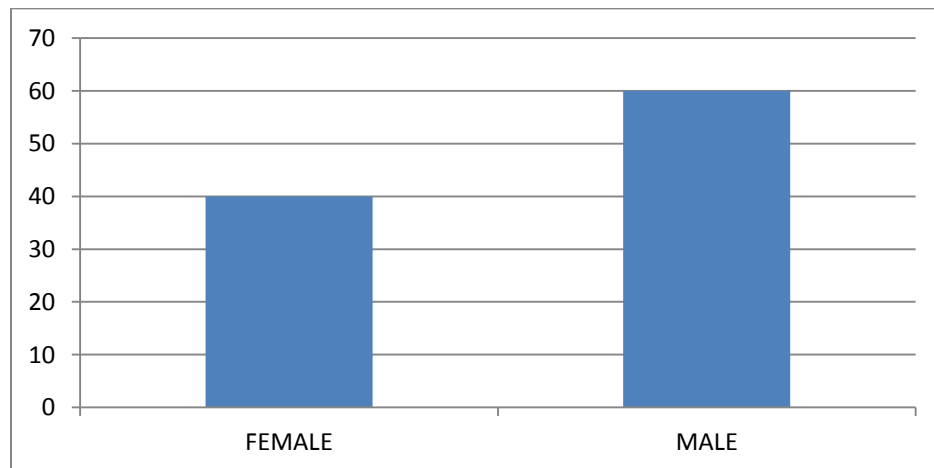
Source: Research (2018)

It is clear from the above table 4.2 and Fig 4.2 that the respondents were 40% female and 60% male.

4.3 Age Group
The respondents were from different age groups as shown below;

Table 4.3 Age Group

Age group	Frequency	Percentage
20-29	10	25
30-39	12	30
40-49	8	20
50 and above	10	25
TOTAL	**40**	**100**

Source: Research (2018)

Fig 4.3 Age Group
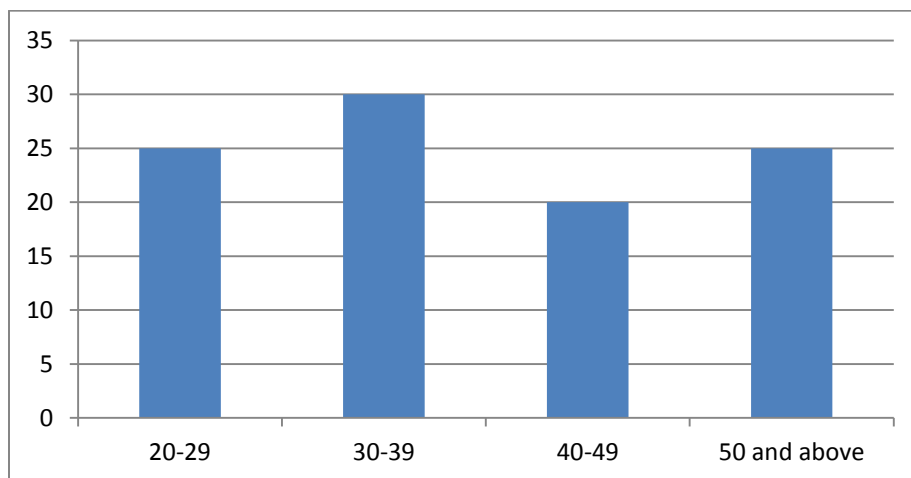
Source: Researcher (2018)

From table 4.3 it was noted that a majority of respondents are in the age bracket of 30-29 years with 30%,20-29 years were 25%,40-49 years were 20% and 50 and above were 25%.It can therefore be concluded that most of the employees are young in age.

4.3.1 Length of Service
The researcher carried out a research to investigate how long the employees had worked in the ministry's headquarters and the findings were as follows;

Table 4.4 Length of Service

Years	Frequency	Percentage
1-5	5	12.5
6-10	5	12.5
11-15	8	20
16-20	10	25
21 and above	12	30
TOTAL	**40**	**100**

Source: Author (2018)

More conspicuous trends of experience within the ministry of energy and petroleum headquarters was shown whereby most of these employees have served for the years 21 and above which is represented by 30% as shown in fig 4.3.2 below;

Fig 4.3.2 No of Years in the Organization
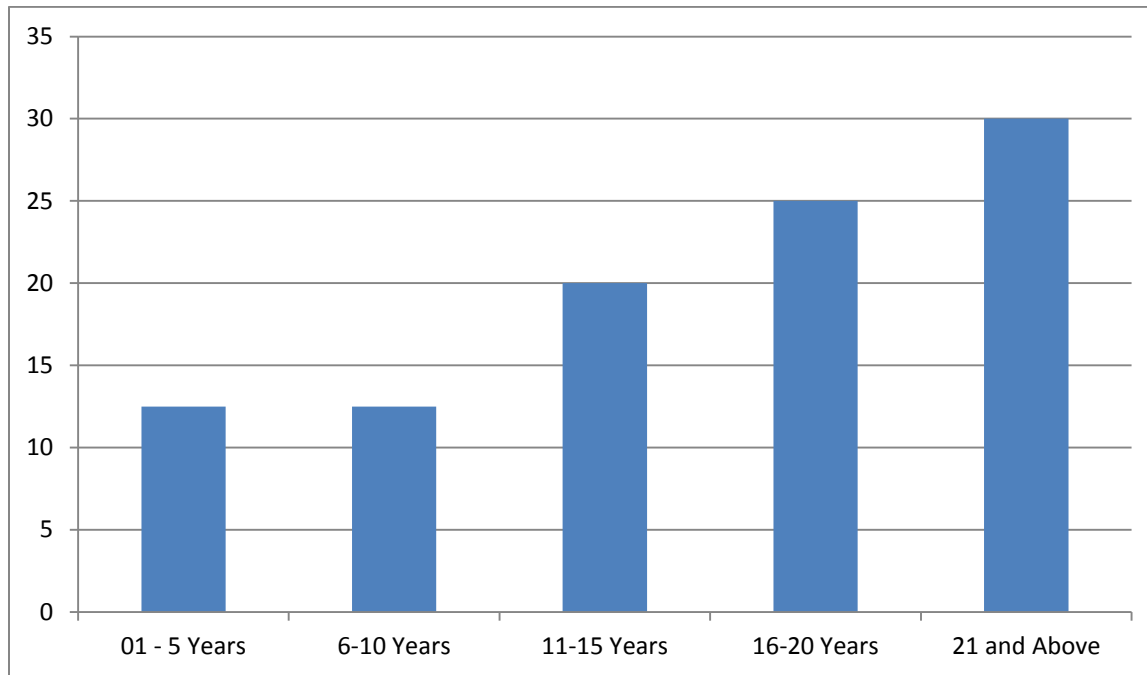
Source: Author (2018)

It is clear that as people mature and gain experience they become more wiling and ready to assume more responsibility to deal with complex tasks.

Table 4.3.3 Highest Level of Education

The research revealed that the employees in the ministry have various education levels as shown in table 4.5 below

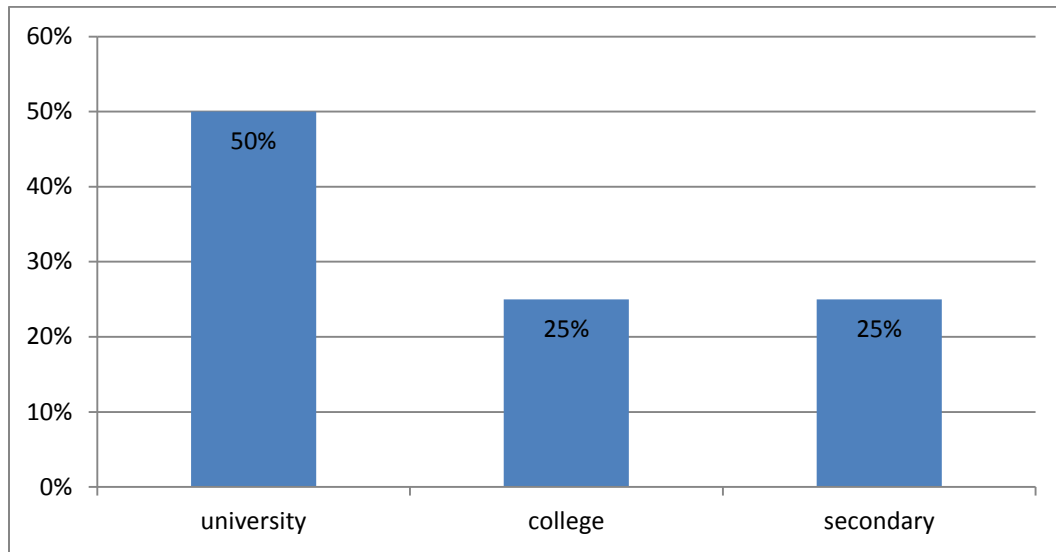| Level of education	Frequency	Percentage
Secondary	10	25
College	10	25
University	20	50
TOTAL	**40**	**100**

Source: Researcher (2018)

Fig 4.3.4 Highest Level of Education

Source: Researcher (2018)

From the above figure 4.3.4 it is noted that most of the employees are university graduates as this was represented by 50%, followed equally by college with 25% and secondary with 25%.

4.3.2 Departments
The questionnaires indicated that the respondents were from various departments.

Table. 4.6 Departments

Department	Frequency	Percentage
Human resource	12	30
Administration	8	20
Finance	10	25
IT	10	25
TOTAL	**40**	**100**

Source: Researcher (2018)

Fig.4.6 Departments
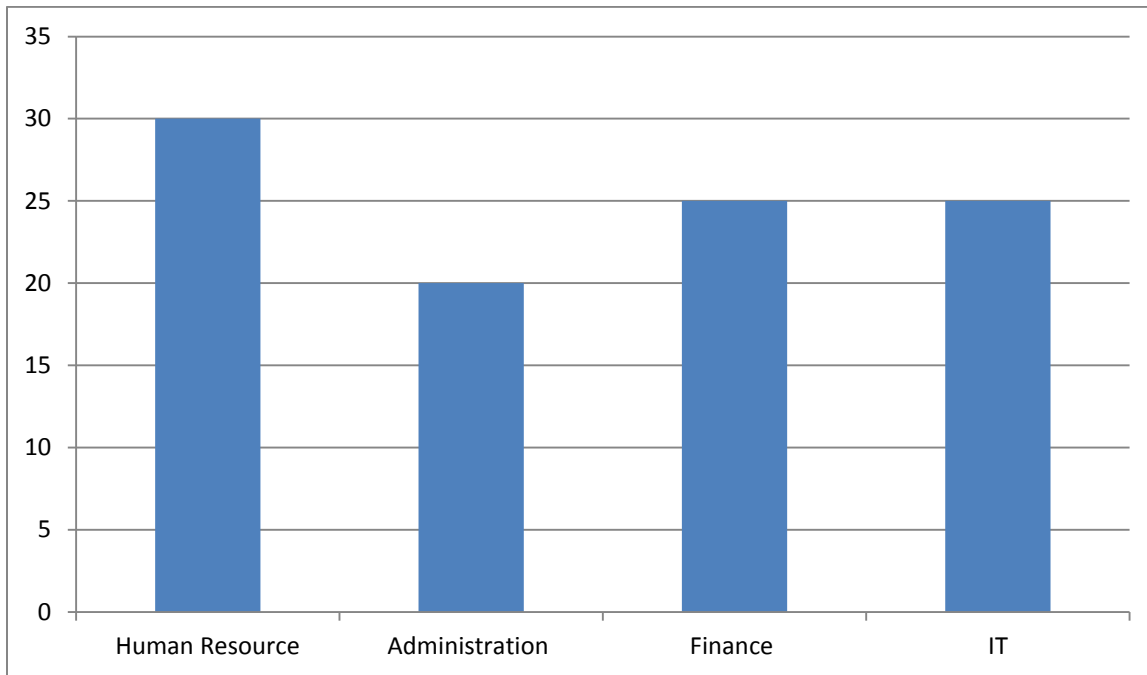
Source: Researcher (2018)

The response indicated that Human resource department gave the highest percentage rate of 30%, Information technology 25%, finance 25% and administration 20%.

4.3.3 Effects of computerized human resource information system on organization productivity

The researcher findings are as follows:-

Table 4.7 Effects of computerized human resource information system

Response	Frequency	Percentage
YES	35	87
NO	5	13
TOTAL	**40**	**100**

Source: Author (2018)

Fig 4.8 Effects of computerized human resource information system

Source: Research (2018)
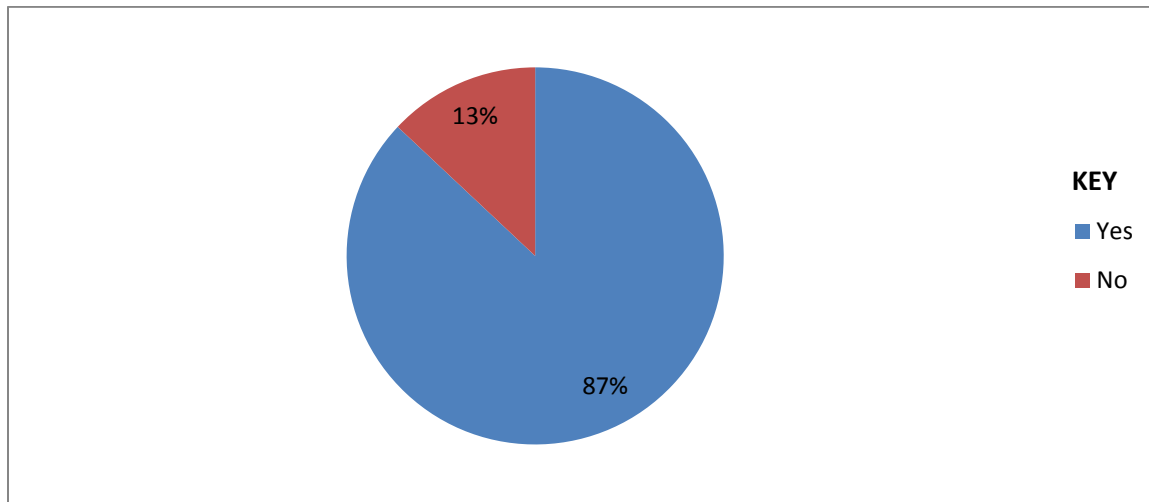
The respondents was categorized as 87% who indicated that computerized human resource information system influenced ministry's productivity and 13% were of the contrary opinion.

4.3.4 Influence of training administration on Ministry productivity

The researcher wanted to find out how training administration influenced the ministry productivity, from the study a greater number of the respondents agreed that training administration affected productivity. The results were s tabulated below.

Table. 4.9 Influence of Training

Response	Frequency	Percentage
Yes	28	70
No	12	30
TOTAL	**40**	**100**

Source: Research (2018)

Fig 4.9 Influence of Training
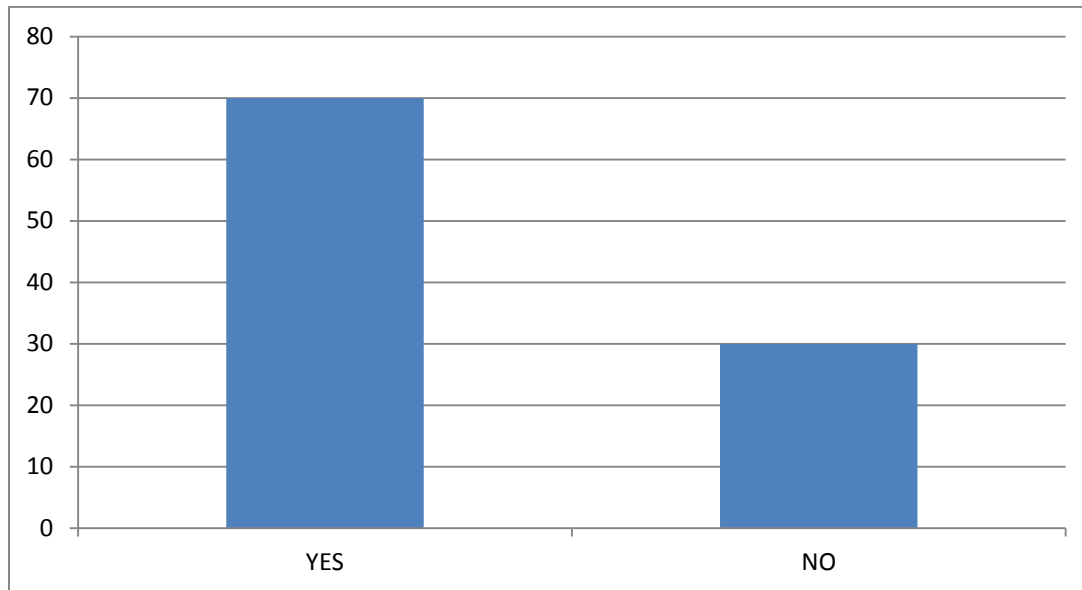
Source: Research (2018)

From the above fig 4.9 the findings revealed that 70% agreed that yes training influences the ministry's productivity while 30% disagree.

4.3.5 Training Rate

It was noted from the respondent that in the ministry training is carried out at regularities and the response was as indicated in the table 4.10 below.

Table 4.10Training Rate

Rate	Frequency	Percentage
Very often	10	25
Often	12	30
Fairly often	14	35
Never	4	10
TOTAL	**40**	**100**

Source: Research (2018)

Fig 4.10 Training Rate
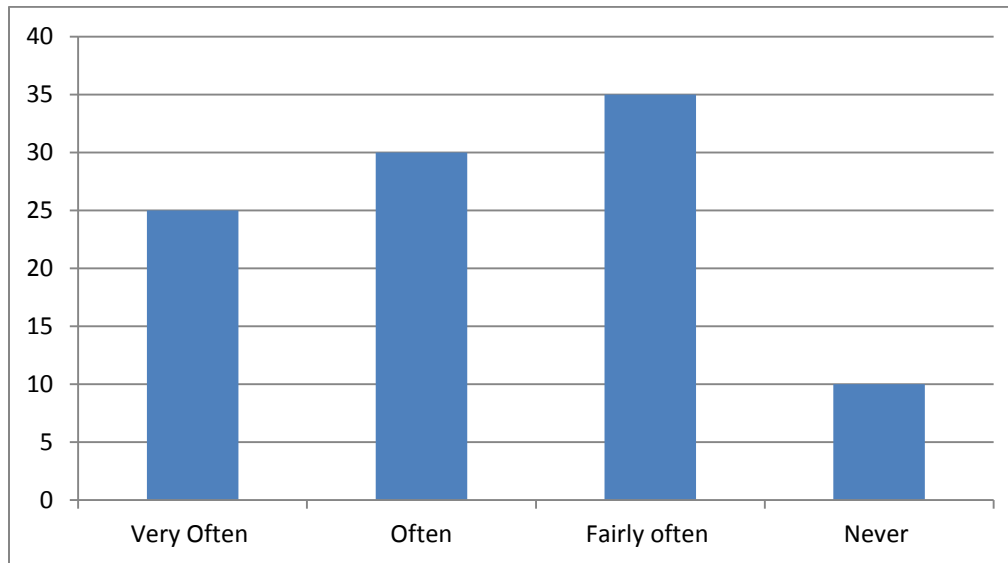
Source: Research (2018)

From fig 4.11 it was noted that training is fairly often carried out this constitutes 35%, often with 30%, very often with 25% and never was 10%.

4.3.6 Impact of Human Resource planning on Ministry productivity
On how the respondents rated the impact of human resource planning on Ministry productivity the response was as follows;

Table 4.11 Impact of Planning

Response	Frequency	Percentage
Yes	35	87
No	5	13
TOTAL	**40**	**100**

Source: Research (2018)

Fig 4.11 Impact of Planning
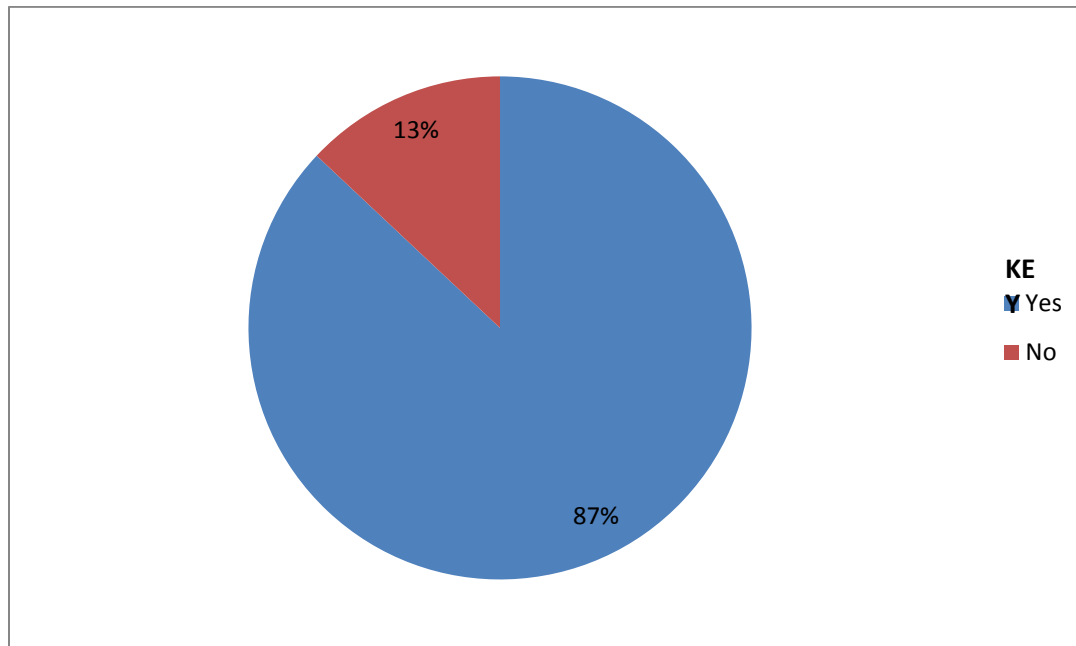
Source: Research (2018)

The study findings indicated that majority 87% of the respondents felt that planning had a great impact on the ministry productivity.13% of the respondents felt that planning did not impact on the ministry's productivity.

4.3.7 Employees involvement in planning

On whether employees were involved in planning in the ministry, the response was as follows;

Table 4.12 Employee Involvement

Response	Frequency	Percentage
YES	32	80
NO	8	20
TOTAL	**40**	**100**

Source: Research (2018)

Fig 4.12 Employee Involvement
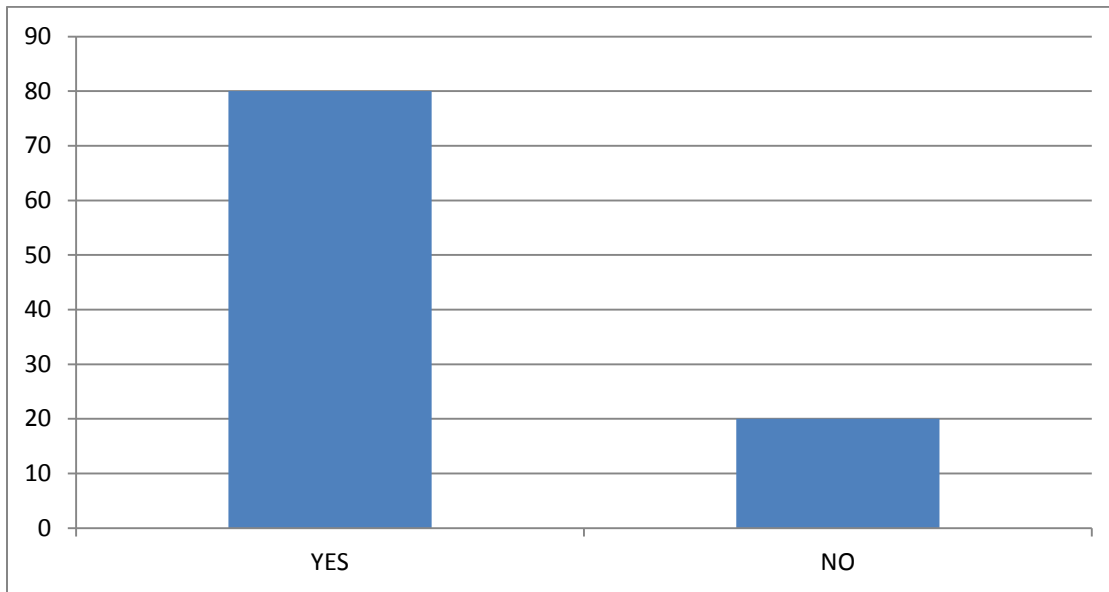
Source: Research (2018)

From the above fig 4.13 it can be established that the ministry involves the employees in planning since 80% of respondents agreed and 20% disagreed. The respondents felt that employee involvement would help to motivate them and make them work towards higher productivity.

4.3.8 Effects of redesigning on the ministry productivity
On whether redesigning affected organization productivity the response was as follows;

Table 4.13 Effects of Redesigning

Response	Frequency	Percentage
Yes	28	70
No	12	30
TOTAL	**40**	**100**

Source: Research (2018)

Fig 4.13Effects of Redesigning
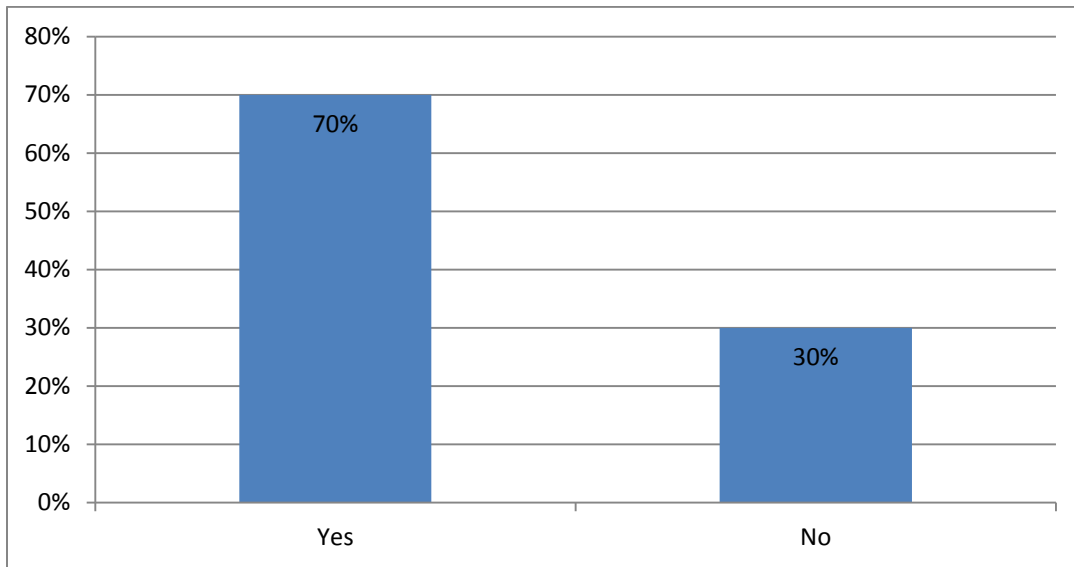
Source: Research (2018)

Majority of the respondents 70% indicated that redesigning affected the ministry's productivity. It was indicated that change of the ministry structure into narrower structures would help to facilitate smooth work flow and encourage flexibility in the ministry which will foster improved performance and higher productivity.30% of the respondents felt that redesigning did not have an impact on the ministry productivity.

4.3.9 Impact of Internet on the Ministry productivity
On whether internet had an impact on the ministry productivity the respondences indicated the following;

Table 4.14 Impact of Internet

Response	Frequency	Percentage
Yes	30	75
No	10	25
TOTAL	**40**	**100**

Source: Research (2018)

Fig 4.14 Impact of Internet
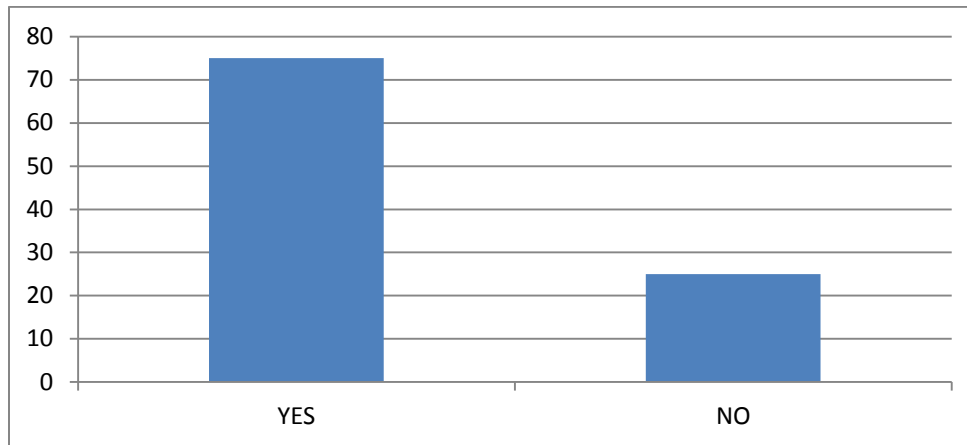
Source: Research (2018)

The study findings indicated majority of respondents 75% felt internet impacted on the ministry productivity. Respondents of 25% felt that internet did not impact on the ministry productivity.

4.3.10 Areas affected by Internet
On how respondents showed area affected by internet in the ministry the response was as follows;

Table 4.15 Areas Affected by Internet

	Response	**Percentage**
E-commerce	7	18
Communication	5	12
Innovation	8	20
Customer service	10	25
Competitive advantage	10	25
TOTAL	**40**	**100**

Source: Research (2018)

Fig 4.15 Areas Affected by Internet
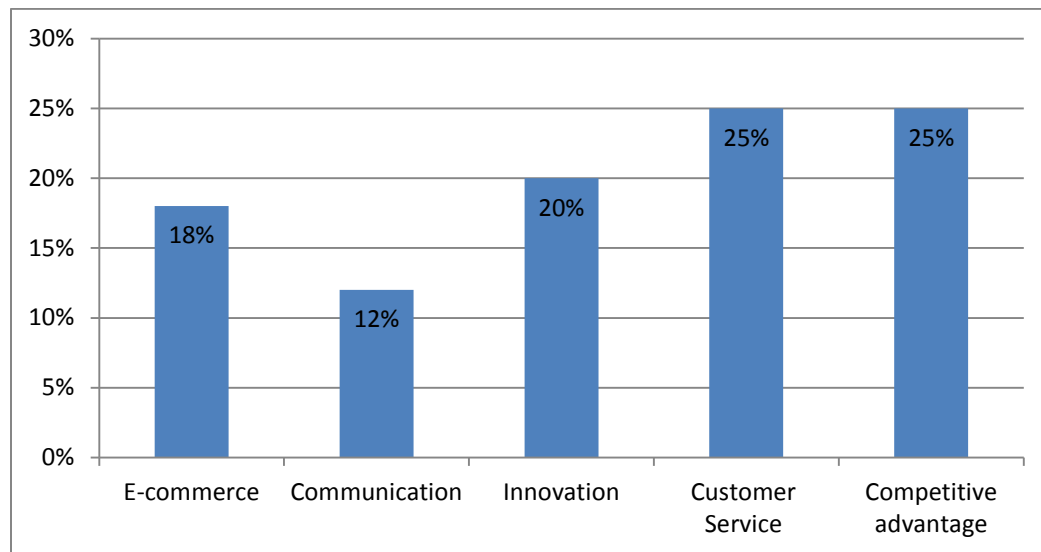
Source: Research (2018)

The study findings as shown in fig 4.15 indicated that 18% respondents felt that e-commerce was affected by internet, 12% felt that communication was affected by internet,20% felt that innovation was affected,25% felt that customer service was affected and 25% felt that competitive advantage was affected.

4.3.11 Evaluation on measuring productivity
On how evaluation on measuring productivity was done in the ministry the response was as follows;

Table 4.16 Evaluation on Measuring Productivity

Response	Frequency	Percentage
Yes	26	65
No	14	35
TOTAL	**40**	**100**

Source: Research (2018)

Fig 4.16 Evaluation on Measuring Productivity
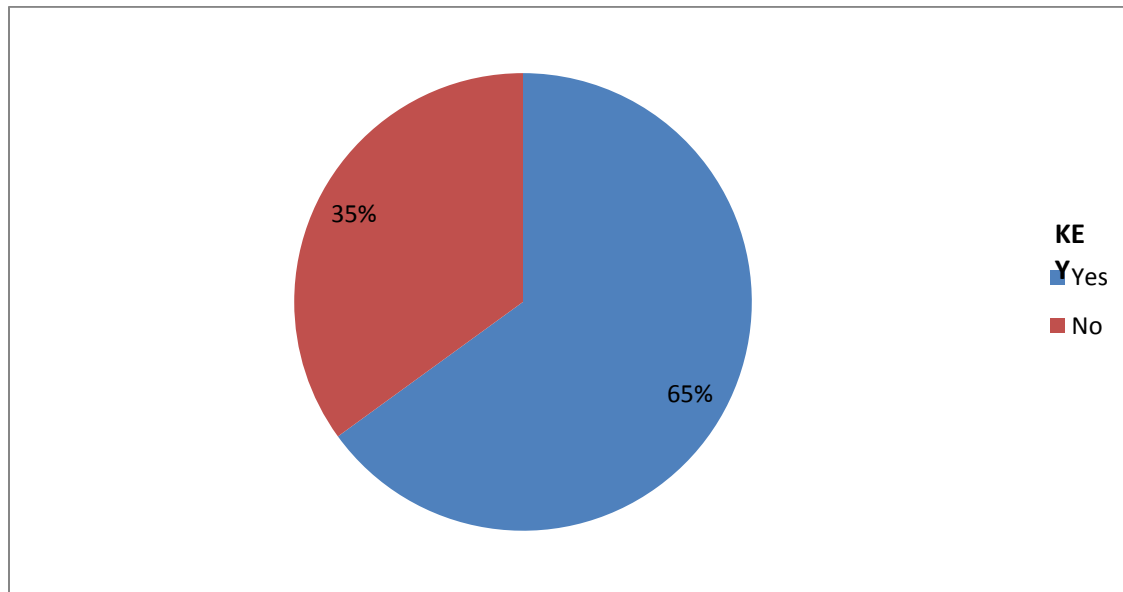
Source: Research (2018)

The study revealed that 65% of respondents indicated that the ministry carried out frequent evaluation while 35% felt that the ministry didn't do frequent evaluations.

4.3.12 Measuring the ministry productivity
On how often the ministry productivity is measured the response was as follows;

Table 4.17 Frequency of Measuring the Ministry Productivity

Response	Frequency	Percentage
Weekly	-	-
Monthly	20	50
Semi-annually	12	30
Annual	8	20
TOTAL	**40**	**100**

Source: Research (2018)

Fig 4.17 Frequency of Measuring the Ministry Productivity
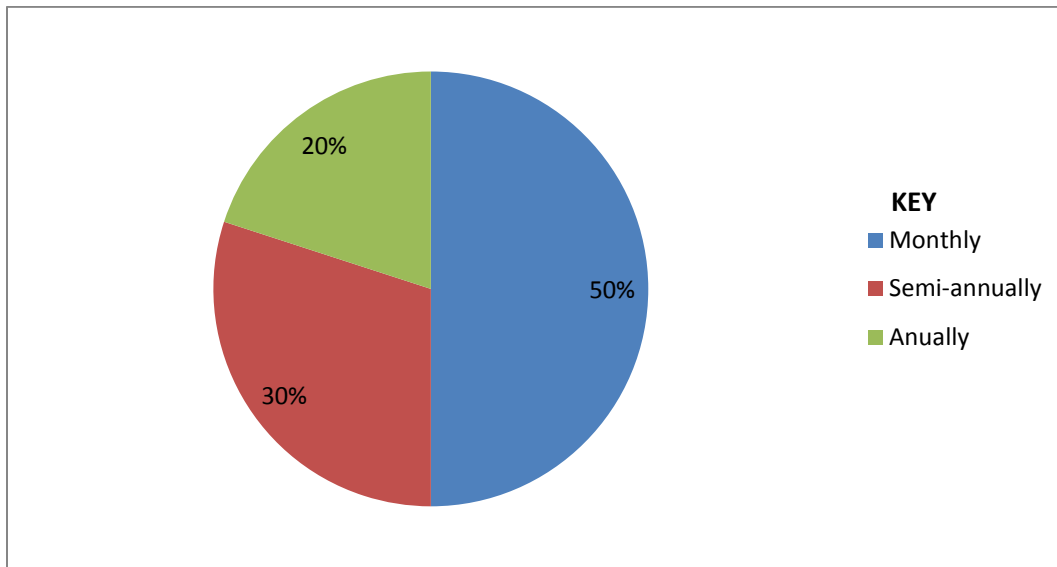
Source: Research (2018)

From the study the 50% of the respondents felt that evaluation of the ministry productivity was done monthly,30% felt it was done semi-annually,20% annually and none of the respondents felt that evaluation was done weekly.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The study evaluated the effects of computerised Human Resource Information System on organisation productivity in ministry of Energy and Petroleum. Analysis on the findings in relation to the research questions. Conditions, recommendations and areas for further studies on this topic as highlighting in this chapter.

5.2 Summary of the research findings

The research confirmed that effects of computerised Human Resource Information System organisation productivity at ministry of Energy and Petroleum adversely affect the various functions that can be used through.

Computerised Human resource information system has enabled the organisation to have an easy time in operation as well as being able to improve the organisations productivity. Majority of the respondents indicated that data analysis affected organisations productivity. It emerged that the use of data analysis enabled the organisation to carry out various analysis. e.g. Record management, appraisal management of fringe benefits, labour turnover absence of records, all these factors can be made possible through the use of data analysis so as to enable the organisation assess productivity.

Majority of the respondents indicated that there was a relationship between training and administration productivity. It emerged that training helps employees with relevant skills that they use in performing various work and duties in the organisation hence higher productivity. When all employees are trained they are able to be more productive and the supervisors too may be able to serve themselves a lot of supervision since the workers know their duties and apply the necessary skills & knowledge to perform the work assigned to them perfectly hence the overall organisations productivity improves.

The study indicated that the planning had a great effect on organisations productivity. Planning enables the organisation be able to achieve the set targets that in turn help in realisation of goals

and & higher productivity. Planning helps in decision making. Planning as used through evaluation of manpower. I.e. planning for the workforce in terms of how many employees are currently in the organisations, how many more were needed in future. Planning how lease was taken so as to avoid a situation hence a big number of employees in a department go for leave hence affecting the productivity in that department. Planning enabled the employees to plan about how to about dealing with personal performance and the management was able to have a schedule on how to handle issues that were likely to affect the organisations productivity now and in future.

Majority of the respondents indicated that the organisation redesign affected organisation productivity. Organisation redesign has affected goal work design values and competition. Redesigning enable the organisation have clean and flexible organisation structure that enabled communication & work to flow easily in the organisation, hence assessing decisions based on performance was easy and quick hence organisation productivity was improved.

Information System has helped to reduce rigidity that is brought about by broad organisation structures. Information system helped to enable middle level management to make more important decision making has decentralised as knowledge & information because more wide spread throughout.

Majority of the respondents felt that important internet affected organisations productivity. Internet productivity affects productivity through use of internet related activities. e.g. e-commerce- learning communication. Though the internet indicated that the organisation was able to carry out different transactions through the internet e.g. Transactions were done without customers are necessarily resulting the bank. This was done through electronic money transfer through credit cards.

5.3 Conclusions
The study showed that computerised Human Resource Information system had a great impact on organisation productivity. The research findings also indicated that various Information System were used to carry out activities linked to analysis, training analysis administration planning organisation redesign and use of internet. Data analysis was used to do analyse data like remuneration, performance, absence, records and labour.

Making and even planning by the organisation computerisation has enabled the Ministry of Energy and Petroleum to conduct its activities in a much simpler and modest way. These activities are important for smooth running of the organisation as well as ensuring increase in productivity. Training was easily monitored through the use of Information System that ensures fair evaluation to determine who was eligible for training.

Training was used to equip employees with skills that made them improve performance and productivity of the organisation. The use of internet email to electronic services has made it easier for the organisation to carry out various activities e.g. an advertisement.

Planning was started among the first beneficial matters that could impact the productivity of the organisation. Through planning the organisation was able to achieve the scope of the current work force in comparison to its changing needs like technology. Planning was the key to organisation since it led the light to assess the necessary measures to encourage department of employees and to enable the performance of potential candidates for succession. Proper planning encouraged the employee to feel motivated in the sense that manpower is properly worked out by ensuring the management number of employees for a particular job. The management was able to properly plan for the organisation in a way that ensured the organisations goals were achieved through high performance and this led to high organisation productivity.

5.4 Recommendations

The different components that comprise of the computerized human resource information system should be implemented so as to ensure smooth running of operations in the ministry. The storage of data should be done in computers so as to avoid a lot of costs that will be accrued through buying filing materials. Manual storage of documents is tiresome therefore a computerized system of storing information is effected and it encourages easy access of data stored.

Training should be carried out frequently so as to ensure that the employees get to loan the relevant skills that they will need while undertaking their work. Training should be done frequently and employer should be given an equal opportunity for training. Only relevant training should be offered since training that is not relevant will not have any impact on organization productivity yet it could be costly in terms of the training facilities.

Planning should be emphasised in the organization. Managers should get their employees input on the various planning ideas. This will give the employees sense of value encouraging them to take up ownership of their various contributions. Planning should be able to deal with the actual problems and issues affecting the organization productivity. The organization should focus on the future and the changes it will have to go through in future e.g. technology change, manpower changes like retirement, retrenchment, recruitment of new workers, succession plans e.t.c. there should be a clear and distinct definition of authority to make the employees to be able to know how procedures should be followed. a clear structure of the organization encourages easy flow of work hence enabling employees to clear their work as expected, achieve performance and improve on organization productivity.

The organization should open up to a more open way of dealing with transactions that could be used in internet. The organization could introduce a way that the customers could easily do their transactions at the comfort of their homes e.g. inquiries on one's account could be done through a programme that will be limited to the organization and the customers. The organization should work together so that they are able to use relative information to carry out functions easily.

5.5 Areas for Further Studies

Further research should be done on the different information systems that could be used in the organization. This is because with emerging rise of technology and change in the operations of the ministry there should be an evaluation that would establish the various changes affecting the productivity of the ministry.

The working environment is dynamic and therefore organization should be able to work with the changes that rise up.

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APPENDICES
APPENDIX I : QUESTIONNAIRE

I am a Student at Management University of Africa studying a Degree Course in Management and Leadership (specialized in Human Resource Management). I am carrying out a research to investigate the effects of computerised human resource information systems on organization productivity. I have chosen Ministry of energy and Petroleum as my area of study. This questionnaire is intended to collect data for academic purposes only. Your responses will be treated as confidential. Your co-operation will greatly be appreciated.

SECTION A: GENERAL INFORMATION

(Please tick inside the box)

1) What is your gender?

   Male ( ) Female ( )

2) What is your age?

   Between 21-29 ( ) 30-39 ( ) 40-49 ( ) 50 and Above ( )

3) What is your highest level of education?

   Secondary school ( ) College Level ( ) University Level ( )

4) What is your number of years in service in the organization?

   1-5 Years ( ) 6-10 Years ( ) 11-15 Years ( )

   16-20 Years ( ) 21 and above ( )

SECTION B

5) In Your own opinion does computerised human resource system affect organizations productivity?

YES (   )

NO   (   )

6) Do you think data analysis affect organizations productivity?

YES   (   )

NO   (   )

7) Is it easy to get access to data in the Ministry of Energy and Petroleum?

YES (   )

NO   (   )

In which way…………………………………………………………………………………

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8) How does training administration influence organization productivity?

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9) How frequent is employee training carried out in the organization?

Very Often   (   )

Often   (   )

Fairly Often   (   )

Never   (   )

10) In what ways does planning affect organization productivity ?

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11) In what ways does the management involve the employees in planning so as to improve productivity?

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12) How does redesigning affect organization productivity?

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13) What are some of the redesigning methods used in the organization ?

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14) How does the use of internet affect organizations productivity?

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15) What areas are greatly affected by the use of internet in the organization?

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16) How frequent does the ministry carry out evaluation to measure employee productivity?

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