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DEPARTMENT OF BUSINESS AND MANAGEMENT STUDIES

AN ASSESSMENT OF THE EFFECTIVENESS OF ELECTRONIC HUMAN RESOURCE MANAGEMENT PRACTICES: THE CASE OF SONARA LIMBE

A Research Project submitted to the Department of Business and Management Studies of the Pan African Institute for Development, West Africa in Partial Fulfillment of the Requirements for the Award of a Bachelor of Science (BSc.) Degree in Sustainable Development with Specialization in Human Resource Management.

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BUEA, JANUARY 2018.

DECLARATION

I (JULIUS GISI WISIY) declare that this project is my original work and has not been presented for a degree in other Universities and that, all the sources of materials used for the project have been duly acknowledged.

20/04/18

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CERTIFICATION

The project entitled: "AN ASSESSMENT OF THE EFFECTIVENESS OF ELECTRONIC HUMAN RESOURCE MANAGEMENT PRACTICES: THE CASE OF SONARA" is submitted to the department of Business and Management studies of the Pan African Institute for Development-West Africa (PAID-WA) Buea, by JULIUS GISI WISIY student Registration No (PAIDWA01353) for the award of a Bachelor of Science (BSc.) degree in sustainable development with specialization in Human Resource Management.

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DEDICATION

I dedicate this work to the WISIY's family.

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Writing this project has made me more aware than ever of the interdependencies needed to complete a complex task. It is with double gratitude that I thank a good number of people who helped shape this project. I acknowledge the various authors from whose books I gathered materials.

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ABSTRACT

Distributors of the e-HRM technology promise several advantages organizations can benefit from while using the e-HRM technology but scientific support is scarce and there is a lack of clarity regarding the contribution of e-HRM to HRM effectiveness (Bondarouk, *et al.,* 2009). This study is focused on assessing the effectiveness of e-HRM practices in SONARA, with specific objectives, to identify the e-HRM practices used by SONARA, to examine the extent to which these e-HRM practices are effective in SONARA and finally, to identify the challenges faced by the users. The research design adopted for this study is the ex-post facto research design. The population of the study consisted of all employees of the four departments of SONARA that make use of e-HRM systems and they were 321 employees at the time of the study. A stratified and the simple random technique was used and the Bourley's formula` helped in determining the sample size which was 178 respondents. The study used primary and secondary data sources. A well-structured questionnaire was used to collect the primary data that was analyzed using descriptive statistics through Microsoft Excel software and SPSS version 20.1. The data were presented in tables, charts and graphs. The following were the findings for this study; for objective one, it was found that the e-HRM practice highly used by SONARA is the Operational e-HRM tier. While both the Relational and Transformational e-HRM were found to be underutilized. This could be exemplified by the fact that majority of respondents have hardly used any of the relational and transformational e-human resource tools. The challenges of e-HRM practice in SONARA included; lack of training, difficulty to use the software, data security, no available software manual for self-training, administrative bottlenecks, no innovation since the implementation of e-HRM system, lack of technical support from in-house. It is therefore recommended that SONARA should develop an e-HRM strategy that will include all HR functions and technical support. The Oracle E business suite should be deployed in all departments and run on one portal with all the modules included (Operational, Relational and Transformational e-HRM). Also It is imperative for training on the use of this technology to be implemented in all departments and not only the HR department. Some areas were suggested for further studies.

***Key words**: e-HRM, Operational e-HRM, Relational e-HRM, Transformational e-HRM*

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LIST OF ACRONYMS AND ABBREVIATIONS

CHRIS	Computerized human resource Information systems.
E-HRM	Electronic Human Resource Management
ERP	Enterprise Resource planning
ESS	Employee self service
HR	Human Resource
HRIS	Human Resource Information System
ICT	Information and communication technology
MSS	Management self service
OAB	Oracle Advanced Benefits
OHR	Oracle Human Resources
OTL	Oracle Time & Labor
PAID-WA	Pan-African Institute for Development West Africa
SONARA	Société Nationale De Raffinage S.A
UTAUT	Unified Theory of Acceptance and Use of Technology

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Human resource is one of the most precious resource of any organization that want to remain competitive and stay at the top especially in this era of globilization. The past decade has seen the role of HR deparment transform from that of a bureaucrat to more recently a critical component in the competitive success of business (Varma,2010).

The human resource management function deals with a very important and difficult to manage resource, the human capital. People are the main brain behind the production of goods and services in all the companies and organisations we see. Oganizations need to recruit, find the best person-job fit and retain talented employees. Without people they will be no Samsung, Coca cola, Pepsi, Apple, Oracle, Petrolium products, or the modern internet technologies we use today. (Laumer, Eckhardt, & Weitzel, 2010).

(Stolt, 2010) support the above assertion by stating that human resource departments are created to manage all issues connected with the organizations workforce. Such duties include employees' performance, human resource planning, staffing, training, compensation, payment, and employees' benefits.

In recent years with the pressure exerted on the human resource department, there is an increase need for innovation. This innovation can only came by the introduction of information and communication technology (ICT). Many organizations are adopting and implementing a lot of ICT tools- based innovation in order to improve their business performance and eventually acquire and keep competitive advantage.

According to Kemske (2008), the pressure and priorities, facing the HR department has forced many organizations like SONARA in Cameroon to change from traditional HR practices to electronic methods. In other to make the human resource function to be strategic, flexible, cost effective and efficient Companies are now able to perform multitasking activities in a highly efficient manner at an amazing speed (Snell, Stuebner & Lepak, 2002)..

Researchers like (Cedar 2004, Lengnick-Hall & Moritz 2003, Strohmeier 2007, Watson Wyatt 2002, Wright & Dyer 2000), emphasize the importance of technology development in transforming the role of HR department from administrative to a tactical one.

The human resource departments in the US embrace ICTs as far back as the 1940s when the computer was developed, but have spent most of the past years playing catch up as far as other business functions are concern. Areas in the HR department that were first to support these technologies are the payroll and employees storage (Walker 1980).

In around 1943, The United states implemented the federal tax and payroll systems, many clerks struggled with labor-intensive processes which failed to avoid human errors. With the push to increase the efficiency of the auditing department this led to innovation where the automated payroll systems were adopted to reduce the burden of HR staff (Fletcher 2005: 11).

The 70s saw the US introduce a series of legislations targeting businesses such as the Affirmative Action, Equal Employment opportunity, the occupational safety and Health Act and the employee Retirement Income security act, which caused many companies to collect , store, manage and report more personnel data than ever before. In this light the role of technology became more and more important. Companies started offering technologies that could address this data issues especially the payroll vendors began to emerge, offering not only technology but in some cases also services to outsource this functions. (Fletcher, 2005; Ruel and Bondarouk, 2004).

As the demand for more solutions to data management increased, vendors began to promote web base technology like the electronic human resource management systems that is integrated with the enterprise resource planning (ERP) solutions which combine personnel data and payroll applications with some vendors integrating financial controlling systems with the human resource systems so that companies could make more efficient financial decisions, but also increase control over such high investments of corporate money (Bulmash 2006),

Bulmash (2006), defined ERP as a system that supports enterprise-wide or cross-functional requirements, rather than a single department or group within the organization. This software originated from that which integrates information from different modules into one relational universal database. Information from HR department can be link with finance and other departments' databases like in the case of SONARA in which four of the ten departments are linked.

Electronic human resource management (e-HRM) originated in the 90s during the era of the dot.com boom. Since then many large and recently small organizations are more and more implementing electronic human resource management systems in the running of their HR activities. This technology has different names, for example e-HRM, CHRIS, digital HRM and Web based HRM. (Watson Wyatt, 2002), virtual HRM (Huang, Jin, & Yang, 2004).

With more and more literature on this concept, there is still no categorical definition of e-HRM. The available ones are rather general and emphasize the internet support way of performing HR policies and activities.

Strohmeier (2007), defines e-HRM as the 'planning, implementation and application of information technology for both networking and supporting at least two individual or collective actors in their shared performing of HR activities' (p. 20)

Gowan Mary (2011), on her part define e-HRM as a web-based solution which is comprehensive but with it easy to use features, rich, yet flexible enough approach tailored to meet specific needs of an organization. Therefore in this study we can consider e-HRM as "an umbrella term covering all possible integration mechanisms and contents between HRM and Information Technologies aiming at creating value within and across organizations for targeted employees and management". (Bandarouk & Ruël, 2006)

This technology has the potential to change all traditional human resource management functions. Employees do not have to be in the same geographic areas to work together. The reduction of the cost of HR technologies and some of the benefits promise by vendors in recent years are pushing major organizations in the developing and develop world to have interest on e-HRM systems for their human resource management needs.

According to Pedigo and Krawiec (1995), e-HRM can influence the structural integration within the HR in three ways ; Operational (by streamlining operations and alleviating much of the administrative burden), Relational (by increasing the timeliness and service levels with employees and managers, as well as outside partners) and Transformational (by enabling people to communicate across geographic boundaries and share information which eliminated barriers of time and space) (Lepark and Snell, 1998).

The e-HRM technology has been witnessing an increase in market share since its introduction in the 90s. The market since 2006 has witness a growth of 10% on a yearly basis. (CompareBusinessProducts.com).

Some important players in the domain of e-HRM include SAP, Oracle, and Microsoft. This are tier 1 players and they command a 55% market share with SAP leading followed by Oracle and Microsoft respectively.

SAP was founded in 1972 by five former IBM engineers and is the undisputed market leader in the ERP space and the third largest software company in the world. Its current version has more than 30,000 relational database tables that allow it to handle extremely complex business situations ("ERP Cloud | SAP S/4HANA Cloud," n.d.)

Oracle was earlier best known for its relational database, it was for many years the database of choice for SAP ERP applications. This cooperative situation had existed since the late 70's. However, sometime around 2004, Oracle began to look at building its own ERP solutions. The first Oracle ERP product was Oracle Financials which was released into the market as early as in 1989. However, post 2004, Oracle began to become a serious player in the ERP market and is now a well-established number 2 in the Tier I market. . ("ERP Cloud | SAP S/4HANA Cloud," n.d.)

Microsoft – Microsoft Dynamics is mostly focused on Tier II clients in the ERP space. It provides solutions in a number of different business domains including in the Customer Relationship Management domain. . ("ERP Cloud | SAP S/4HANA Cloud," n.d.)

The Cameroon Refining Corporation (SONARA) is a strategic organization in Cameroon. SONARA in recent years has invested a lot on information communication technology (ICT) for the support of various business functions. One area that has embrace ICT in this organization is the HR function. The e-HRM-ERP technology adopted by SONARA to manage it HR functions is the Oracle e-business suite with modules such as HR, CRM, Sales, Financial, Supply chain, inventory, planning, project and service etc.

Figure 1.1 Oracle E-Business Suite

Organizations can activate any of the modules based on their objectives. Oracle E-business suite is an enterprise wide system also called an enterprise resource planning (ERP).

One Module of importance for this study is the Oracle Human Resources Management System (HRMS), which is the module of Oracle E-business suite used by SONARA with sub modules such as, Oracle Human Resources (OHR), Oracle Payroll, Oracle Self-Service Human Resources, Oracle Performance Management, Oracle I Recruitment, Time & Labor (OTL), Oracle Learning Management, Oracle Advanced Benefits (OAB), and Oracle HRMS Intelligence (HRMSi)

SONARA implemented the Oracle e-HRM technology on the 12th of May 2012. This was done by an Egyptian consulting firm with the objective to increase the integration within the human resource function, encourage open communication and sharing of information, standardize systems and procedures, enable HR cost saving and control, reduce time spent on routine administrative task by the HR, better management of data and information, reduce paper transactions, refocus HR staff on strategic activities, increase overall productivity and improve HR transactions accuracy, speed and integrity.

SONARA with over 746 employees, requires employee screening, resume processing and tracking, additional compliance and reporting, employee self-service (ESS) and management self-service (MSS) of some HR activities. This e-HRM systems, promises the above functionalities which might not be achieved in some firms where human resource innovation and efficiency is not considered as a central force for success but rather a pitfall for employees.

The Oracle E-Business Suite architecture in SONARA operates on a framework of multi-levels. In this model, various servers or services are distributed among three levels which are desktop tier, application tier and database tier.

With Desktop tier the client interface is provided through HTML for HTML-based applications, and via a Java applet in a Web browser for the traditional Forms-based applications.

The application tier play a dual role: hosting the various servers and service groups that process the business logic, and managing communication between the desktop tier and the database tier.

The database tier contains the SONARA Oracle database server that stores and manages all the data maintained by Oracle E-Business Suite. This includes the various types of file in which the tables, indexes, and other database objects for the system physically reside, as well as the database executables. The database also stores the Oracle E-Business Suite online help information.

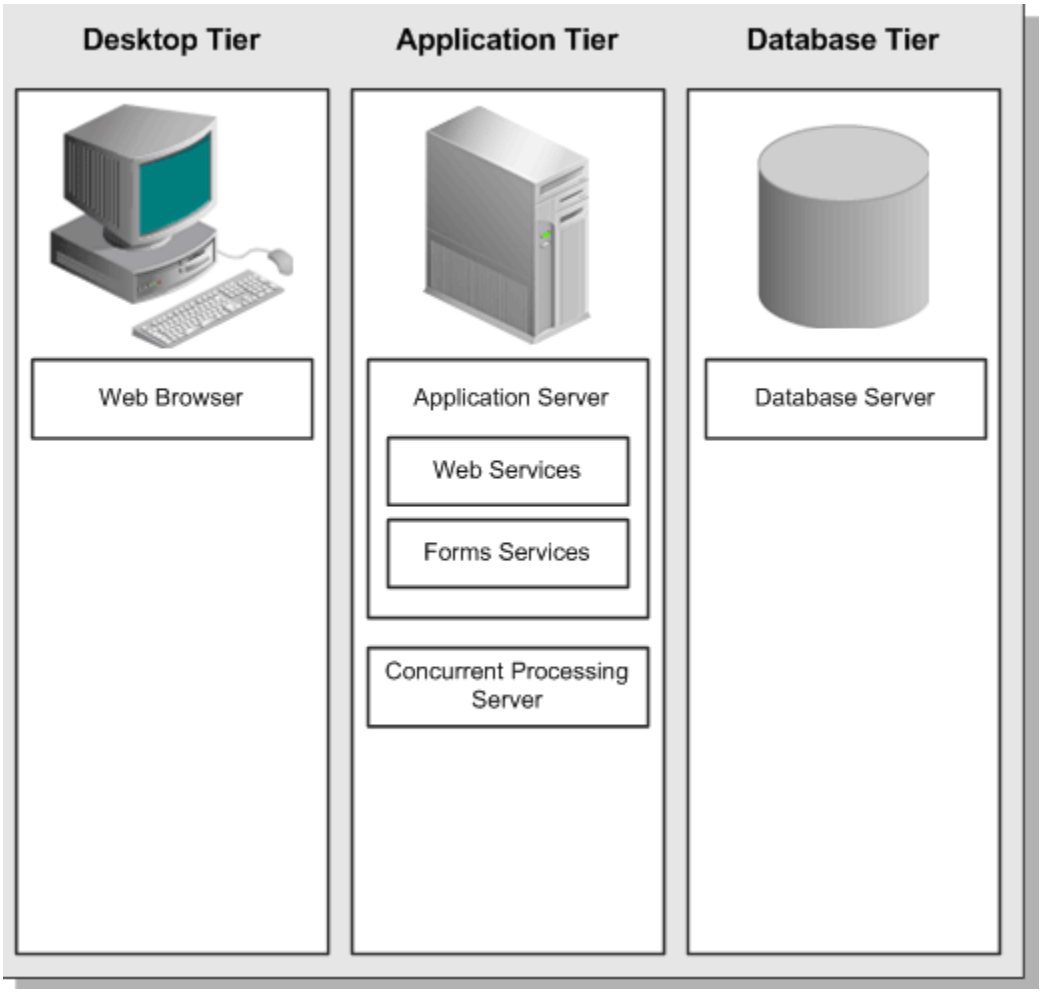

Figure 1.2 Oracle E-Business Suite Architecture

Employees of the four departments of SONARA using this technology can log in via the Oracle E-Business Suite Home Page on a desktop client web browser. The Home Page provides a single point of access to HTML-based applications, Forms-based applications, and Business Intelligence applications.

Once successfully logged in, you are not prompted for your user name and password again, even if you navigate to other tools and products. Oracle E-Business Suite also retains preferences as you navigate through the system. For example, if you registered in the Home Page that English is your preferred language, this preference carries over whether you access forms-based or HTML-based applications.

Figure 1.3 Example of Oracle E-Business Suite Home Page

Against this background, the purpose of this study will be to assess the effectiveness of the e-HRM practices (oracle e-HRM technology) based on the objectives set by SONARA for it implementation.

1.2 Statement of the Problem

Till late 2011, Human resource management practices in SONARA with a workforce of 746 employees distributed in over ten departments was mostly carried out in a traditional format where records were entered manually and files stored in paper format resulting to waste of resources and time, loss of information and delay in decision-making such as delays in hiring and training of new employees with huge cost on the organization (SONARA News, 2012).

However, going through literature, a lot has been promised on the potential benefits accruing from the implementation of electronic human resource management practices in organizations (Bondarouk, Harms, & Lepak, 2015, Ruel et al, 2008).

More so, distributors of the e-HRM technology promise several advantages and benefits to organizations using the e-HRM technologies. Such advantages and benefits include; open/sharing of information within the organization, standardize HRM Systems and Procedures, enable HR cost saving and control, reduce time spent on routine administrative tasks by HR staff, better management of data and information, reduce paper transactions, improve HR transactions accuracy and increase overall organizational productivity. Perhaps, this justifies the introduction of e-HRM project (ORACLE E-BUSINESS SUITE) in SONARA in May, 2012.

SONARA over the past years has systematically transformed its HR system from manual to electronic human resource management system for strategic effectiveness and efficiency (Lengnick-Hall & Moritz, 2003). This system envisages the achievement of the above mentioned e-HRM advantages and benefits thus, replacing paper documents to digitalized documents, whereby employees records can be easily located and open in seconds through management self-service and employee self-service without leaving your desk. However, it is not clear if the e-HRM system in SONARA has achieved the above mentioned benefits since little evidence exists to showcase such. In addition, researchers are increasingly calling for more experimental studies to inform the effectiveness of e-HRM adoption and its impact on organizational effectiveness (Lengnick-Hall & Moritz, 2003). Yet SONARA has no such experimental studies to inform the effectiveness of its e-HRM system. Thus, there is need for SONARA to reliably measure the effectiveness of the e-HRM practice. This motivates the researcher and forms the bases of this study.

1.3 Objectives of the Study

1.3.1 Main Objective

The main objective of this study is to assess the effectiveness of electronic human resource management practices in the national oil refinery corporation (SONARA) Limbe, Cameroon.

1.3.2 Specific Objectives

- To identify the e-HRM practices used by SONARA;
- To examine the extent to which these e-HRM practices are effective in SONARA;
- To identify the challenges faced by the users of e-HRM in SONARA.

1.4 Research Questions:

1.4.1 Core research question

- How effective are e-HRM practices used by SONARA

1.4.2 Sub Questions of research

The study seeks to respond to the following questions

- What are the e-HRM practices used in SONARA?
- To what extend are these e-HRM practices effective in SONARA?
- What are the challenges of e-HRM practices faced by users in SONARA?

1.5 Significance of the Study

Electronic human resource management is still at it infancy in most developing countries and particularly Cameroon. Only few privilege corporation like SONARA can claim of an Enterprise resource planning (ERP) software which enable organizations to use a system of integrated applications to manage the business and automate many back office functions related to technology, services and human resources.

1.5.1 Significance to the management and employees of SONARA

This study will enable top management and employees of SONARA, to identify the challenges involved with electronic human resource management practices and how to overcome these challenges. If these challenges are addressed SONARA can successfully achieve the primary objective of implementing Oracle E-Business Suite. The information gathered will also enable management of SONARA to formulate good e-HRM policies.

1.5.2 Significance to other Organization

This study will help other organizations, and their employees understand the importance of the e-HRM tools and how it can improve on their performance.

1.5.3 To the Academic Community and the Researcher;

This study is also significant to the academic community. It will contribute knowledge to the already existing literature and assist future researchers as they carry out their works. This work has also enable the researcher to have a better comprehension of the subject under study thereby widening the researcher's mind and knowledge concerning e-HRM practices.

1.6 Scope of the Study

This study is delimited geographically to the South West Region of Cameroon with specific focus on the employees of the National Refining Corporation (SONARA). The practices considered in this study include Operational, Relational and Transformational e-HRM practices. The timeframe for this study was between June to December 2017.This involves the presentation of introduction letter from the school to the company and programming for the questionnaires and interviews to be administered. With the variables under study, with focus on the effectiveness of e-HRM practices in SONARA. The extent to which this topic shall be explore will be limited to three objectives which are to determine the e-HRM practices used by SONARA, to assess the effectiveness of e-HRM practices in SONARA and to examine the challenges faced by users of this technology.

1.7 Description of the Study Area

The study will be conducted in Fako Division, South West region of Cameroon precisely Limbe where the refinery is located. Created 0n 7th of December 1976 and inaugurated in 1981, SONARA is a topping reforming refinery. SONARA places at the disposal of the market the following petroleum products: butane, gasoline, jet fuel, kerosene, fuel oil, distillate, fuel oil.

The Limbe refinery has a theoretical capacity of 2,100,000 tons/year. It was conceived at first to treat light crude (Arabian light). However Cameroon currently produces heavy crudes and one notes an inadequacy between the existing tools in the refinery and the crudes available.

After 32 years of exploitation of its refinery, SONARA has undertaken since 2005 an upgrade and modernization project of its installations. Extension works and increase in production capacities is also on-going.

More concretely, SONARA plans to carry its capacity to 3.5 million and perhaps more. It will be capable to treat more heavy crudes in the future, in particular national crude oils. The control of the units will be digitized; the truck and ship loading stations will be increased and modernized.

The company is a parastatal with shareholdings. The republic of Cameroon hold the highest shares (66%), SNH (20%), Caisse Stabilization des Prix des Hydrocarbure (19%), SNI (17%), Ministry of the economy and Finance (10%), Oil companies (34%), Total Outremer (10%), Societe National Elf Aquitaine (8%), Mobil Oil petroleum Corporation (8%), and Pecten Victoria company (8%).

Administration of SONARA

SONARA has a board of Directors comprising of 12 members with Mr. John Ebong Ngole as the chairman and Mr. Ibrahim Talba Malla as the General Manager. It is this board of directors that appoint the CEO, and 8 member committee to supervise the interest of the company in Cameroon.

The General manager control all the 10 departments which are the department of management, Finance, administration and human resource, production, maintenance, risk management, translation interpretation and communication, technical control, commercial, audit and internal control. The company count over 746 employees.

The organigram of the company consist of 640 posts for Cameroonian including 76 executive position, eight posts occupied by technical assistance, and 6 of these are executive post.

The main goal of this refinery is to become the leader in Africa in the domain of refine crude oil and finished petroleum products like butane, high octane gasoline, jet fuel, kerosene, fuel oil, and distill fuel oil to the national market and the world at large.

This goals have been pushing the management of SONARA to embark on a modernization project of it refinery which is still going on.

1.8 Organization of the Study

This study is organized into five chapters and will be followed by several appendices to enhance the scientific quality. Chapter One: is made of the Background to the study, which looks at the historical background of the topic and later brings it to the particular area of interest. It will also bring out the problem statement, research objectives, and questions, significance of the study, its scope; and definition of terminologies. The second chapter is concerned with a review of the literature, which seeks to put the work in its academic context by describing and discussing theories and research work carried out in the area. Chapter three covers the research design, population, sampling technique, sample size, instruments and sources for data collection and

method for data analysis. Chapter four deals the compilation, analysis, interpretation, and discussion of data collected from respondents during the study. It also brings out the presentation of findings in line with the research objectives and questions. Lastly, chapter Five: present summary of findings conclusion and recommendations, it also presents the suggestions for future research, references, and appendices.

1.9 Definition of Key Term

Computerized Human Resource information System (CHRIS): Computerized human resource Information systems. As defined by Kettley and Reilly (2003), a computerized human resource information System consists of a fully integrated, organization-wide network of HR-related data, information, services, databases, tools and transactions'.

Electronic human resource management: Strohmeier (2007) defines e-HRM as the 'planning, implementation and application of information technology for both networking and supporting at least two individual or collective actors in their shared performing of HR activities'.

Effectiveness: determines among all the possible processes the optimum strategy that will maximize the outcome on its highest level. It is frequently quoted as "doing the right things" (Lu, & Hung, 2011). The term "effectiveness" with regard to e-HRM could be understood as the degree to which the e-HRM software achieves the goals that the stakeholders expect from it; within the Human Resources Management field, effectiveness takes a slightly different way: according to Boundarouk & Ruël (2005), effectiveness can be identified by the level of commitment, development and change that the employees show in response to the e-HRM practices

Enterprise resource planning (ERP): According to Bulmash (2006) is defined as a system that supports enterprise-wide or cross-functional requirements, rather than a single department or group within the organization. These ERP systems have their origin in software that integrates information from different applications (modules) into one universal database. This means that financial information can be linked to HR information through one database. The most popular high-end enterprise-wide systems are SAP, PeopleSoft, and Oracle (Bulmash, 2006).

Human Resource information systems (HRIS) are a data base system that offers important information about employees in a central and accessible location. When the HR department is in need of this information, the data can be retrieved and used to facilitate human resource planning decisions. HRIS is only directed toward the human resource department.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

This chapter focuses on the conceptual reviews, theoretical framework and empirical reviews which are in line with the subject under study.

2.1 Conceptual Review

2.1.1 The Concept of electronic human resource management (e-HRM)

People are one of the most important asset of any organization as proven by their contributions to the growth and development of these organizations. They run and manage the affairs of these organizations, reason why it is necessary for the enterprise to store organizational data along with employee data, and use them to manage the people related to the enterprise effectively. This requirement has created a ready market for human resource (HR) technology.

In the 80s companies became more aware of the benefits of information and communication technology (ICT), and started scrambling for the implementation of new applications like accounting , finance, and time management software's in order to automate this activities for easy accessibility (DeSanctis 1986). At this point, many researchers started using the term human resource information system (HRIS). In the 90s, things accelerated with the introduction of the internet in the business circle. At this time, things have become sophisticated and new terms and technology started surfacing in the field of HRM like electronic human resource management (e-HRM). Electronic human resource management (e-HRM) is a term that originated in the 90s according to (Panayotopoulou, Vakola and Galanaki, 2007). This term was used to refer to the act of conducting human resource management via the internet (Lengnick-Hall & Moritz, 2003). As the speed of the internet improved, e-HRM application became more and more sophisticated as part of the enterprise resource planning (ERP) system with the integration of other departments of the organization (Bondarouk & Ruël 2009).

E-HRM has so many definitions ranging from those that are based on system functionality to those that see it as an overall approach to the human resource department. The definitions by Strohmeier (2007), Ruël, Bondarouk and Looise (2004) are the exceedingly cited.

Strohmeier (2007) defines e-HRM as the 'planning, implementation and application of information technology for both networking and supporting at least two individual or collective actors in their shared performing of HR activities'.

Ruël, Bondarouk and Looise (2004) define e-HRM as "a way of implementing HRM strategies, policies, and practices in organizations through the conscious and direct support of or with the full use of channels based on web-technologies"

Snell, Pedigo and Krawiec (1995) considered e-HRM as the backbone of the human resource department. They reasoned that it can highly influence the structural integration of the HR department in three ways;

Operational, which streamline operations and alleviate much of the administrative burden of the HR department.

Relational, which facilitate delivery of service on time between employees, managers and external customers.

Transformational, which enable people to communicate across geographic boundaries, share information thereby eliminating time, and space (Lepark and Snell, 1998).

Voermans and Van Veldhoven (2007), on their part defined 'e-HRM as the administrative support of the HR function in organizations by using Internet technology'.

Lepark& Snell (1998) define e-HRM as "the network based structure built on partnerships and typically mediated by information technologies to help the organization acquire, develop, and deploy intellectual capital".

Ruta et al. (2005) consider e-HRM, as 'HR portals which act as vehicles through which HR information and applications can be channeled effectively and efficiently. Through HR portals, administrative activities could be updated by users and may have the access to customized and personalized news, resource applications, and e-commerce options. Through HR portals, managers are able to generate reports, examine employee activities and manage their own activities'.

Bondarouk and Ruël (2009) again define e-HRM as "an umbrella term covering all possible integration mechanisms and contents between HRM and Information Technologies aiming at creating value within and across organizations for targeted employees and management".

In other for us to understand the concept of e-HRM, it is necessary to differentiate between e-HRM and Human resource information system (HRIS).

2.1.2 Human Resource Information System (HRIS):

According to (Bulmash, 2006), HRIS is a method by which organizations collect analyses and reports information about people and jobs. It applies to information needs at macro and micro levels. It is a data base system that offers important information about employees in a central and accessible location. When the HR is in need of this information, the data can be retrieved and used to facilitate human resource planning decisions. HRIS is only directed toward the human resource department. This assertion is supported by (Ruël et al., 2004) which states that HRIS are directed towards the HR depart itself as users of these systems are mainly the HR staff. They also agree that it improves the efficiency and effectiveness of the HR department in line with the organizational objectives (Ruël et al., 2004).

On the other hand, e-HRM is not the sole domain of the HR department. It is the devolution of HR functions to management and employees through internet or the organization intranet, thereby permitting management and employees self-service (MSS&ESS) of basic HR functions (Ruël et al., 2004).

The extension of the HRIS from the HR department to management and employees through self-service web technology is what constitute e-HRM. The evolution of HRIS technology to Web supported technology and the provision of information on HR data and services to multiple users is regarded as the major difference between HRIS and e-HRM (Ruël et al., 2004).

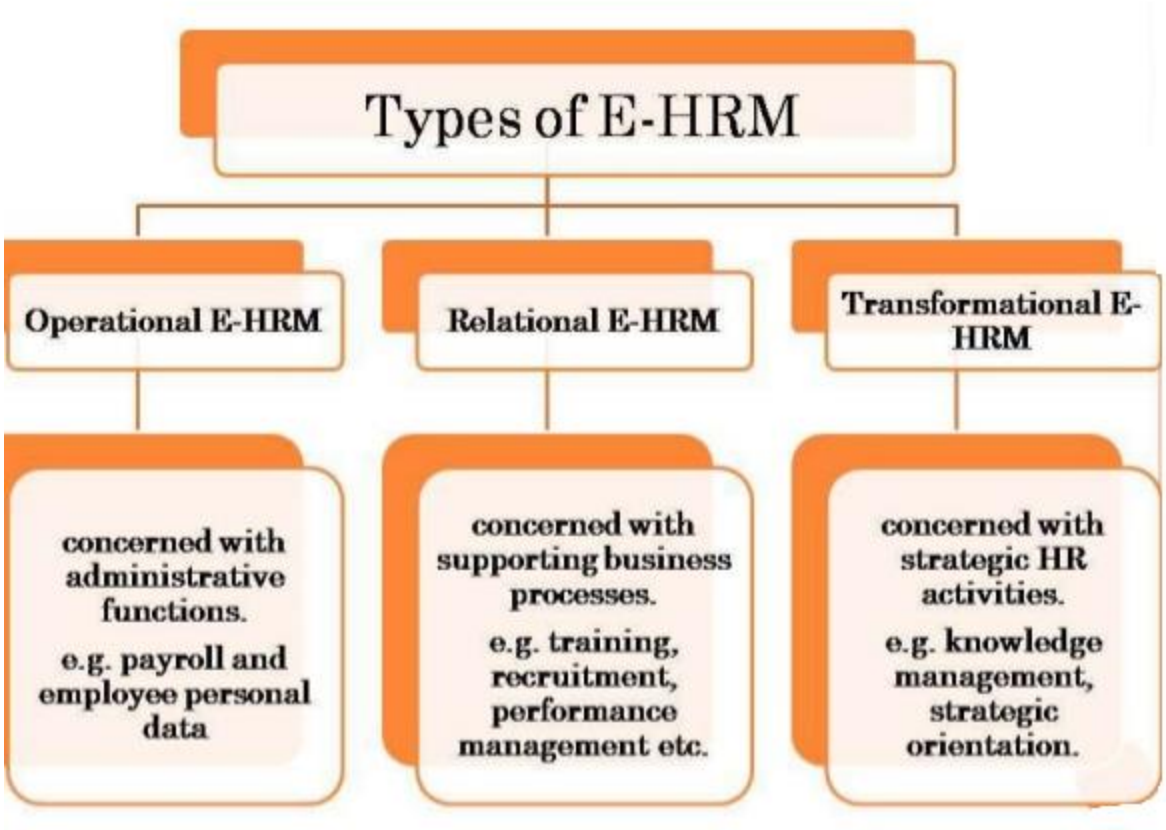

Figure 2.4 Types of E-HRM

Source: (http://businessjargons.com ehrm.html)

2.1.3. Types of e-HRM Practices

Based on several scholars there are three layers of e-HRM practices, which are Operational, Relational and Transformational Lepak and Snell (1998). Wright and Dyer (2000) in the same vein list three levels of e-HRM practice, which companies can choose to offer which are transactional, traditional, and transformational e-HRM. Lengnick-Hall and Moritz (2003), regard e-HRM as a process of maturity and development in the HR field. The first form of e-HR involves the publication of human resource information, a one-way communication from the company to employees and managers. The next level enables the automation of transactions, workflow and supply-chain integration and finally it matures into full transformation of the human resource function.

Table 2.1 (Classification of E-HRM Practices by some researchers)

Author	Development stages		
Lepak& Snell (1998)	Operational HRM	Relational HRM	Transformational
Wright & Dyer (2000)	Transactional	HRM	Traditional HRM
Lengnick-Hall & Moritz (2003)	Publishing	Automation of	Transactions
Ruël et al. (2004)	Cost reduction	Improve HR	Services
Foster (2009)	Replication	Enhancement	Transformation

(Source:Ha, 2011)

2.1.3.1 Operational E-HRM

This is concerned with administrative functions such as Payroll and employees personal data. With Operational, e-HRM employees can keep their personal data up to date through the HR portal using the intranet or the internet. These are some of the works, which use to occupy the HR department and with the transfer of this basic function to management and employees through self-service using e-HRM, this has liberated the HR department to concentrate on strategic HR tasks. This can reduce cost and increase efficiency (Marler, 2009; Ruël et al., 2004). This is achieved through decreasing HR staff stuck to these activities, increasing processing speed and reducing the amount of administrative works, thus liberating time for other important activities (Ruël et al., 2004; Ruta, 2005; Strohmeier, 2007).

2.1.3.2 Relational e-HRM

These are practices that necessitate two-way relationship among HR professionals and internal or external sources using HR systems. It is concern with the supporting of business processes by means of e-learning, e-recruitment, e-performance management etc. These are advance HR activities that support a mutual relationship between the HR department and other departments, both within the organization and externally. This advanced e-HRM activities place emphasis on tools that support central business processes. Such as recruitment and selection of personnel, training, performance management and appraisal, and rewards, Bondarouk and Ruël (2006). Relational e-HRM may provide employees and managers with remote access to HR information from any location, thus increasing their ability to connect with other internal and external

stakeholders, as well as providing individuals with the tools to perform HR activities themselves. This again reduces the involvement of HR staff, allowing them to refocus their priorities.

Some details about transformational e-HRM activities as considered by some researchers

E-Recruitment and Selection: are very important components of relational e-HRM. According to Barber (1998), e-recruitment is an important function that attracts new employees in the organization. Using only the traditional way of recruitment in this era of globalization can be inappropriate and costly for many organizations as a consequence many organizations are adopting strategies that would minimize the time and money used (Tong, 2009). E-recruitment is very popular these days because it offers organizations variety of qualified employees. These in many organizations also act as a first contact between the organization and prospective recruits. Any organizations that want to remain competitive most endeavor to adopt e-recruitment strategies. Sylva &Mol (2009). Recruiting the right person for the right job is the most critical aspect of human resource management. Starting with high caliber people is the first step. Only then can this be followed by effective performance management and employee development. E-Recruitment simplifies this process by providing a sophisticated web-based solution that manages the process of recruitment from start to finish. Using a job centric design with multiple position linkage provides features such as job advert generation, online applications, applicant matching, and interview question database and letter of appointment generation. The recruitment monitors shows at a glance the status of organizational recruitment and provide reports that compare candidate suitability profile. E-recruitment is one stop shop for organizational recruitment. E- Recruitment improves the quality of candidate by ensuring that proper recruitment profiles and adverts are drafted and effective interview are conducted. It also improves the quality of interviews questions. Potential candidates' details are kept electronically. The use of electronic tools for recruitment provides real time report for managers to monitor recruitment progress through the cycle. It also shows the candidates being most closely matched to the job specification and the standardize condition of employment clauses.

Benefits of E-recruitment system

E-recruitment system links all individual involved in the hiring process and selection process and dramatically shrinks the high costs associated with recruitment.

It also provides the much needed control, security and visibility to all aspects of the recruitment process.

There is direct interaction with candidates by publishing the vacancies on the web.

With E-recruitment, system applicants can check their application status via the internet.

There is high level of transparency as each stage can be tracked.

E-recruitment systems provide large pool of applicants to choose from ensuring that he most suitable candidate is hired.

Reduces time spent on the recruitment process.

Productivity gains allow the HR personnel to spend more time on value added activities such as increasing the fiscal objectives of the company.

Eliminates the paperwork and manual processes associated with the selection process.

Customizes workflow and manages it execution.

Enable various departments to specify their human resources requirements and to manage their needs.

Central decision of organizations' human resource requirements

Better performing hires by improving the match between the company's expectations and those of candidates

Individual department can easily define their recruitment needs and outline qualifications and skills necessary.

HR department can easily manage job vacancies and ensure their compliance with overall organizational goals.

Publish job vacancies over the internet.

Receive job applications according to job requirements.

Manage the selection process and communicate with other departments.

Applicants can easily apply for job vacancies in a secure and private environment and do follow up of their application via the internet.

E-Performance management

E performance management, a web base tool designed to make employees performance review easier than ever. E-performance management places effective performance management where it belongs in the hands of line managers. Performance contracting and appraisal have never been easier. Goals are linked to balanced scorecard elements giving the organization an overall view of performance with drill down capability to departments, sub-departments and individuals Sanayei & A.Mirzael, (2008)

Benefits of E-Performance appraisal system

Based on international HR best practices e-performance appraisal system provides an innovative approach to administrating employee performance appraisal that flexible, secure, intuitive and completely paperless. The system is fully customizable and aligns employee goals, objectives and actions with organizational strategies.

Automates the time-consuming employee performance appraisal process.

Accommodates any kind and combination of performance measures and key performance indicators and associates a value to each indicator according to organizational goals and needs.

Define a set of rules to evaluate employees equally.

Intelligent system defines performance indicators according to preset rules and constraints.

Empower employees and enables collaboration across departments.

Customizes a workflow and manages its execution

Guarantees privacy and security of all documents and processes

Generate real time reports of appraisal forms, documents and processes.

Provides flexible employee reviews that accommodate performance cycle alternatives as well as performance appraisal types.

Aids HR professionals in making decisions on promotions and rewards.

E- Salary review

This module provide the functionality to model salary increases taking into account the employees performance, the budgeted salary increase and the industry benchmark salary for each

job. In addition, the system operates on the principle of managing salaries within a particular band by limiting the recommended increases of overpaid employees even if they perform well and recommending increases to unpaid employees even if they perform poorly.

E-360$_o$ Appraisals

E-360E-360$_o$ appraisals have never been easier. Statements are preloaded into the system and the client is then able to custom build any number of profiles that can be linked to employees. There are a number of E-360E-360$_o$ appraisal reports available including reports that include and exclude self-ratings, organizational reports that allow individual is comparison to group and individuals' graphs. The report also allow for drill down to statements averages to analyze the category averages. The system provides reports for HR or senior managers to monitor the progress of completed performance appraisals in the organization.

E- Succession planning and Career management

Who are the high flyers in your organization and when will they be ready for promotion? Does your organization have a steady and process to identify and retain talents? Do you have adequate cover for the key jobs in your organization? Succession planning provide tools to effectively manage the organizations strategic people resources. Through the process of line driven career discussions, the potential of your employees is captured. Once captured, the organization is able to run reports that show potentials by a variety of parameters. Future date driven reports indicate employee succession plans and allow the organization to ensure that there is adequate strategic cover of critical jobs.

E- Skill management

E- Skill module allows for the management of the competency acquisition process and on-the-job training in compliance with the skill development Act recommendations. The functionality of this method allows for the assembly of unit standards according to the job titles , roles or qualifications and the capability is provided to link employees to these unit standards according or job titles. It is that simple if you harness the power of the software that provides e-skills development modules. For each profile, the system has the functionality to add an assessment checklist for each unit standard comprising a set of learning objectives. Employees acquire a fixed number of learning objectives (normally between 50 and 150) when unit standards are linked to their respective jobs or qualifications. To show progress in skills acquisition, each

employee is then assessed against the criteria and learning objective is signed off on the software.

E-Training management

E-training management provides the facility to capture course information, book employee on specific courses and record individual training history. Included features are bookings by delegate of course, provision of an open text field for development plans and the recording of training days planned and completed. E-training management provides an efficient means of tracking training courses and employee training records. Course details are entered with multiple event capability and booking can then be carried out online. Course reminders can be generated using email and details of training costs are recorded and can be reported on by race, gender and category.

Benefits of E-training management systems

- It offers an employee training solution to streamline your system-wide training process helping to increase employee retention, productivity and reduce costs. The e-training management system is a self-service, cost effective application that requires no IT investment or overhead.
- Reduce the time spent administering a training process.
- Productivity gains allow HR personnel to spend more time on value added activities such as increasing the fiscal objectives of the company.
- Eliminates the paperwork and manual processes associated with training procedures.
- Customizes employee enrolment workflow and manages it execution.
- Enables different departments to specify their training needs and enroll their employees in training courses.
- Better employee's performance in the short run by improving the connection between training needs and training courses.
- Increased productivity by implementing training programs that encourage retention and increase employee morale.
- Select the best tender for training course needed.

Individual department can easily;

- Create profile of employees for upcoming trainings
- Define their training needs to fulfill and improve productivity
- Assign employees and enroll them in training programs enabling them to become more competent and productive.
- Approve training courses for employees through a customizable approval workflow resulting in reduced administration time and streamlining the approval process.
- Department can easily;
- Review the training needs of various departments and plan their training accordingly.
- Prepare an annual training plan.
- Publish training courses required on the internet for tenders.
- Receive training centers and institute's database.
- Manage training cost effectively.
- Interact with training centers regarding employee's evaluations and performance
- Training Center can easily;
- Check the training courses needed by the organization on the internet
- Offer tenders for required training courses
- Check the status of their tender
- -Discipline and Grievance management;

Line managers can now record details of their disciplinary hearings and grievance cases online. History of previous disciplinary cases can be accessed immediately. Managers can record details of counseling sessions as well as grievances lodged by employees. Drill down-de [art mental reports are available to analyze where disciplinary cases are most prevalent. The system provides the capability to record corrective cases by race, gender and occupational grouping and is used for employment equity returns.

E- Learning

It means using the internet or organization's intranet to facilitate the training and development programmes for the workforce. Getting the online modules of training, a large number of employees can be covered irrespective of their locations.

2.1.4 Transformational e-HRM

This is concern with strategic activities like knowledge management and strategic reorientation. This tier of e-HRM is the most complex type of activities which has nothing to do with HR routines and transactions. Snell et al. (2001)

2.1.5 The Goals of Electronic Human Resource Management

E-HRM goals have traditionally been broken down into three types being cost effectiveness, improving services for internal customers and addressing the strategic objectives of the business.

Varma (2010), have the same opinion. He states that, e-HRM is "designed to Offer a comprehensive and on-going information system about people and jobs at reasonable cost in other to provide support for future planning and also for policy formulations; to facilitate monitoring of human resources demand and supply imbalances, to automate employee related information; to enable faster response to employee related services and faster HR related decisions and to offer data security and personal privacy

Figure 2.5 Objectives of E-HRM

Source: (Kaur, 2013)

Implementing e-HRM especially in the developing world, involves high investments. Organization that goes for these technologies need have good reasons for this investment.Watson Wyatt (2002) gives us four most important metrics to support E-HRM investments, which includes productivity improvements, cost reductions, return on investments and enhanced employee communications.

Rao (2010) give us the following reasons for the design of e-HRM to;

- Offer an adequate comprehensive and ongoing information system about people and jobs at a reasonable cost.
- Provide support for future planning and also for policy formulations
- Automate employee related information
- Increase Integration within the HR function
- Encourage open communication and sharing of Information
- Standardize Systems and Procedures
- Enable HR cost saving and control
- Reduce time spent on routine administrative tasks by HR staff
- Better management of data and information
- Reduce paper transactions
- Refocus HR staff on strategic activities
- Increase overall productivity
- Improve HR transactions accuracy/speed/Integrity

Some of the above objectives have been confirm in a research carried by Ruël, Bondarouk&Looise (2004) in which they developed a e-HRM model based on the HR literature to describe the approach used by some multinational firms in Belgium, Netherlands and Luxembourg. Their research concluded that, the deployment of E-HRM enables corporations to gain administrative efficiency, cost reduction as well as to standardize HR policies and processes but hardly improve employee competences. However, e-HRM can become a downfall of many organizations, if the goals are neither clear nor realistic to line managers and employees.

When the aimed for e-HRM type does not fit the real needs of line managers, employees, and HR departments; the anticipated results do not materialize or are shown to be impracticable (Ruël et al. 2004).

Base on the literature available on e-HRM some researchers like Lukazweski (2008) are of the opinion that e-HRM has been largely utilize in the United States and other developed countries but regrettably, “their use is often predicated on untested claims about their functional consequences”.

2.1.6 Challenges Associated with E-HRM Practices

There is one inherent risk that is associated with the introduction of technology. It is that of huge set up cost, over skill and loss of "human touch" security of information generated managing that data, monitoring and feedback.

Cost: Most of the e-HRM technologies are very expensive for organization to setup and maintain. Therefore, companies must implement only those operations that are vital, essential or desirable. According to Varma, (2010), the IDBI bank of India invested Rs. 45 Lakh for Oracle HRIS, e-learning portal and on e-training modules. With its clear vision and planning, the bank recovered the investment on this project after a period of three years for the human resource information system and six months for the e-learning venture.

Matching the e-HRM System with The Business Requirement: There are lot of e-HRM software's in the market promising users different functionalities. As a result, there is a discrepancy in their control to ensure it will meet the business expectations. It is also paramount for management to understand the software functionality if they meet the requirement of the business before implementing it.

Security of data on the system: Security of information is very important when it comes to the corporate world. Companies face many challenges in securing this important data from abuse. Therefore, companies need to ensure that outsiders or competitors should not lay hands on this data. Since most ERP's software's are linked to the cloud, it is important for companies to select a proper model of e-HRM that will ensure security and confidentiality of data in the system. Many of the e-HRM, like Oracle e-business can only be open through login and password. Therefore, employees are responsible for protecting their secret code and login from unauthorized intruders. The password issued to employees expires over a certain period and employees are required to replace or request for a new secret code from the administrator of which at time they forget to do so and by so doing put the entire organization at risk. An e-HRM like Oracle e-business has multi-level of data security: There is restricted access to business processes by limiting menu options for different user types. For example, a top manager in a company like SONARA may have limited access to different functions in the system differently from employees. Employees may be restricted to see only information concerning them and some can be changed while others cannot be manipulated.

Data management: e-HRM generate huge amount of data. This is a very big challenge to many companies. Data need to be well managed in other to arrive at good decisions. Many companies use this data to understand the patterns like workforce utilization levels, tracking employees' attrition rate etc.

Loss of human touch: One major challenge with e-HRM is the loss of human touch. Human touch is very important in the life of any organization. Firms that have implemented e-HRM technology forget these important aspects. It can be boring to employees as no one like to interact constantly with faceless names answering queries on the phone or replying to questions through the system network. While technology is good for certain activities human interaction is still necessary in the areas like group meetings, counseling and other human interventions.

2.2 Theoretical Framework

2.2.1 Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) introduced by Davis et al, (1989) is an adaptation of the theory of reason action (TRA) by Ajzen and Fisbien's, (1980), which has its roots in social psychology. The model also influences user's decisions when challenged with new software package or technology like Oracle E-Business Suite, when and how to use the technology:

The theory assumes two beliefs; perceived usefulness and perceived ease of use, which are considered fundamental determinants of user acceptance (Hubona&Kennick, 1996). These are the primary relevance for e-HRM acceptance behavior as depicted by the figure below.

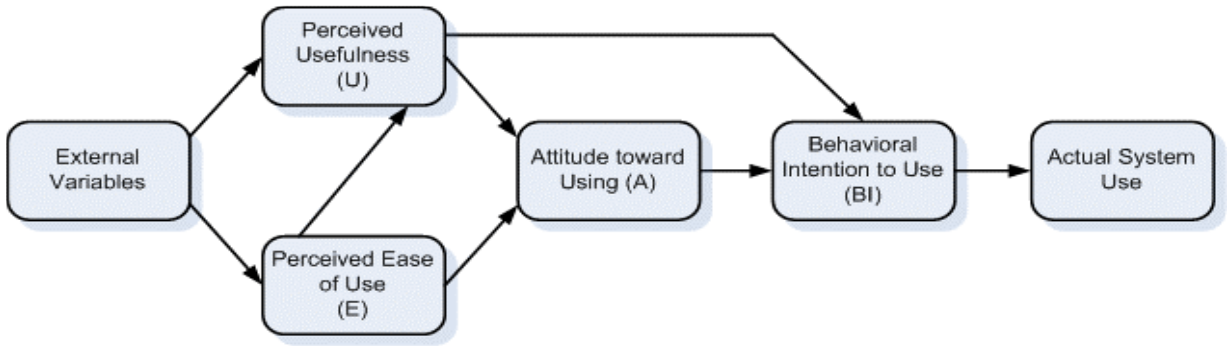

Figure 2.6 Technology Acceptance Model (TAM)

Source: Hubona&Kennick, 1996

Maatman (2006), further explained that TAM assume that behavioral intention (BI) determines actual system usage and that BI is only determined by perceived usefulness (U) and attitude toward using (A).

BI= U+A.

A is jointly determined by U and perceived ease of use (E) which results in: A=U+E. The following conclusions were arrived at as per Davis et al, (1989):

The use of technology by people can be predicted from their intentions.

“Perceived usefulness is a major determinant of people's intentions to use computers”.

“Perceived ease of use is a significant secondary determinant of people's intentions”.

2.2.2 Unified Theory of Acceptance and Use of Technology

With the limitation of the TAM model, a new model was introduced known as the Unified Theory of Acceptance and Use of Technology (UTAUT) formulated by Venkatesh and others in "User acceptance of information technology: Toward a unified view" in 2003. The UTAUT aims to explain user intentions to use an information system and subsequent usage behavior. The theory holds that there are four key constructs: 1) performance expectancy, 2) effort expectancy, 3) social influence, and 4) facilitating conditions. The first three are direct determinants of usage intention and behavior, and the fourth is a direct determinant of user behavior. Gender, age, experience, and voluntariness of use are posited to moderate the impact of the four key constructs on usage intention and behavior. The theory was developed through a review and consolidation of the constructs of eight models that earlier research had employed to explain information systems usage behavior as depicted in the figure 2.4 below.

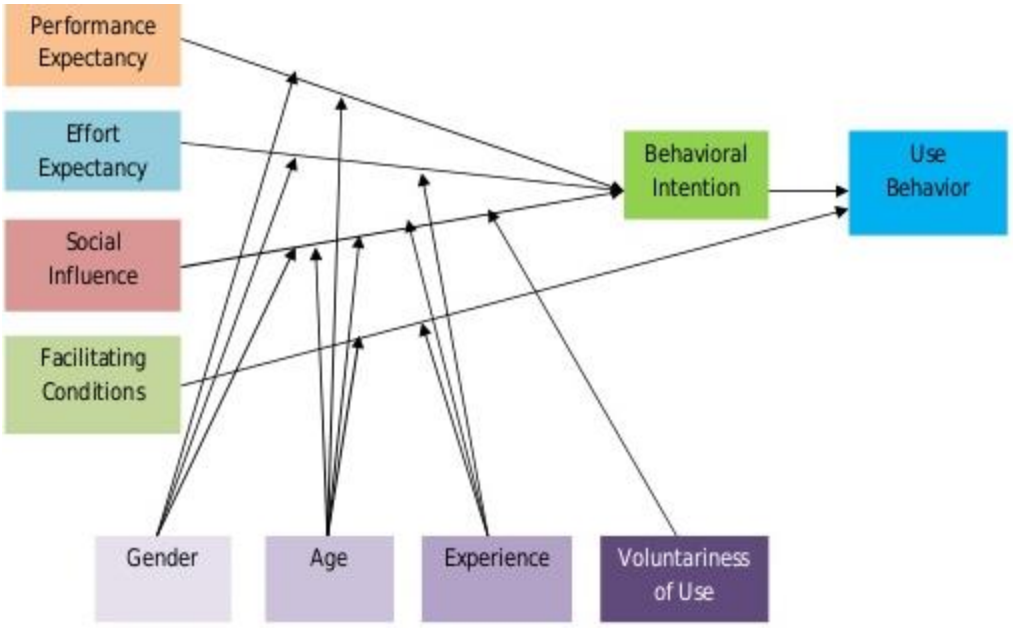

Figure 2.7 Unified Theory of Acceptance and Use of Technology.

Source: (Venkatesh et al.; 2003)

This model will help me to investigate the perceive usefulness and perceived ease of use, effort expectancy, social influence and facilitating conditions of e-HRM practices in SONARA and the ease and effectiveness of the usage of the e-HRM package considering gender age ,experience and voluntariness of use.

2.3 Empirical Literature

This empirical literature reviewed studies carried out by other researchers which were considered relevant and related to the specific objectives of the work.

2.3.1 Operational e-HRM practices

In a research carried out by *Broderick & Boudreau (1992)*, over the years, e-HRM have been acknowledged as an important contribution of corporate decisions making process. Operational and tactical business objectives are now not being considered in sequestration of HR objectives. Hence, e-HRM Systems are now enterprise-wide decision support systems. Traditionally, e-HRM is considered as automated record keeping of employees and computerization of their payroll. However, it is now well established that HR managers with information systems can play a greater role beyond their administrative role.

Saleh (2014), in a study conducted an investigation to the factors affecting the adoption of Electronic Human Resource management systems in Palestine and to develop an e-HRM framework that is adopted by Palestinian organizations to utilize technology effectively in their operations. The representative sample for this study were banks, government organizations, hospitals, insurance companies, internet service providers, logistics companies, telecommunication companies and universities in Palestine. The TAM model, Theory of planned Behavior, Yale model of communication and Persuasion, Perceived Risk, Social Risk, and Organizations Role were used. To conduct the study, both qualitative and quantitative research methods were used. Qualitative data was collected via interviews with IT specialist and HR managers. Besides, a self-report questionnaire was designed to gather the pertinent quantitative data from sample of HR managers, IT managers, department managers, and employees in the targeted organizations. The research concluded that the perceived ease of use; attitude, intention and communication are the most significant factors influencing e-HRM adoption in Palestine. It was also found that the perceived risk, system security, organization role and availability of resources are influencing e-HRM technology adoption in a lesser degree.

In an empirical study carried out by Michael Armstrong (2003) it was realized that "the e-HR provides the information required to manage HR processes." These may be core employee database and payroll systems but can be extended to include such systems as e-recruitment, e learning, performance management and reward. The system may be web-based, enabling access to be remote or online and at any time. The information provided by the e-HR process can be communicated across organizations. If post static data such as information on HR policies and communications about employer facilities such as learning opportunities and flexible benefits. It can include links that enable managers and other employees to interface directly with HR applications and make changes or enquiries.

(Ammar, 2012) in another study to measure the satisfaction level of 302 employees toward the implementation of e-HRM in UNRWA concluded that e-HRM simplified work procedures, decrease workload, increase effective communication and promote transparency". They equally found that employees are satisfied with e-HRM implementation in UNRWA with a satisfactory level estimated at 72.88%. He further concluded that there is a significant correlation between the level of employees' satisfaction towards e-HRM and the benefit of e-HRM systems, such as simplifying work procedures, decreasing workload, increasing effective communication and achieving transparency. In addition, there is also a significant relationship between the level of

employees; satisfaction towards e-HRM and the application of e-HRM system due to the broad mindedness of dealing with the system and it various applications, compatibility of the use of electronic applications with work requirements, and providing the technical requirement of the system,(Ammar, 2012).

(Abu, 2009) carried a study in the Palestinian university of the Gaza strip to determine the clearness of the importance of the concept at different management levels, the administrative support for changing to online management, the infrastructure of IT centers, HR systems and e-learning systems. Employees from managerial level and lower level participated. It was concluded that different managerial levels have different perspective to e-HRM. The study equally found that finance was a problem in the effective implementation of e-HRM systems

(Ruel, et al., 2004), conducted a study in five large corporation with each containing over 15 thousand employees to understand their take on e-HRM if it is an innovation or Irritation. The conclusions were that the trend toward e-HRM is closely linked to the operations of the organization and orientation toward globalization. It was also found that as one of the supposed benefit, e-HRM is supposed to help reduce cost but through the study it became clear that this reduction was only in terms of the number of individuals working in human resource management in most cases, but on the other hand there was an increase in new jobs as a result of the use of e-HRM.

2.3.2 Relational e-HRM Practices:

According to (Lubna, 2006) investigation on the impact of the application and use of electronic human resource management (E-HRM) within an organization on its organizational performance. The researcher developed the research model to investigate how the application of e-HRM influences organizational performance in terms of innovation, customer satisfaction, and time to market, rapid adaptation and human resources (HR) processes. The study followed a quantitative methodology by using a questionnaire tool. The study population was all employees in the Royal Jordanian Company. (120) questionnaires distributed as a sample of the study, only (90) questionnaires returned, 11 were excluded due to missing values and incorrect multiple answers to questions; accordingly, only 79 returned questionnaires were valid for data analysis which makes (66 %) from the total distributed questionnaires.

Based on data from 79 respondents from a different level of employees, the researcher found that there is a statistical significant impact of e-HRM application on organizational performance.

In his study on “The Role of Human Resource Information System in the Process of Manpower” (Ama, 2004) interviewed two HRIS managers in the hospitality industry in Greater Region (Ghana) to identify the benefits, contributions and the challenges of HRIS. It was revealed that HRIS identified unfilled positions, accurately analyzed each job position and its job title in the organization, providing insight into organizational training needs, selected the right persons to be trained at the right time, and evaluated the effectiveness of training programs and made faster and better decisions about successor ranking. It was therefore concluded that HRIS played a major role in the management of human resources.

In another research by (Daniel, 2003) on influence of Information Communication Technology (ICT) on work and human resource development. It observes main novelties and changes in areas of information sharing, decision taking, and efficiency, motivating and leading and discusses possible adaptations of organization and business. To discover the mentioned changes and consequences, firstly the researcher tried to broadly assess present condition in the field, both globally and in Ghana, and outline promising future trends. Finally, combining that with elements of human resource development, the researcher tries to predict basic consequences that ICT will have on the way employees skills are upgraded and updated. This work has been initiated as a result of many questions raised as to whether ICT adoption has real impact on human resource development and work performance. The purpose of this research therefore is to unveil the impact of ICT in relation to human resource development and the challenges associated with the adoption of ICT in Ghana. In order to obtain the best results from the discussions, the main research methodology adopted was a case study involving Rural Enterprises Project (REP) with a descriptive survey, using simple random sampling method. Findings indicated that ICT facilities given out to Project staff and management, enhance their easy access to and the use of ICT to achieve a high level of efficiency in the performance of work. It is recommended that all units of the project be provided with ICT equipment and networked all REP areas for easy access to data. Besides, there should be regular staff training and workshops, upgrading and purchasing of ICT facilities as well as regular maintenance of ICT equipment.

Gonzalez. R, Koizumi. Daisaku, Kusiak .Kinga (2011), carried out a study on relational e-HRM in multinational companies. With the purpose to identify and explain the outcomes that multinational corporations experience by using Relational e-HRM. A quantitative method was used and data was collected through semi structures interviews. It was identified that the

interviewed companies make use of e-recruitment, e-training and e-performance appraisal in their HR processes. Also it was discovered that there was increase of speed in processes, standardization, elimination of distance constraints and possibilities for data archiving. The recommendation from this research was that in order to achieve better results, companies must combine e-HRM with face-to-face interaction. Lastly, it was discovered that apart from bringing positive outcomes, it is difficult to say if e-HRM is effective because there are no concrete ways of measuring it.

(Voermans et al., 2006), in another study on "Attitude toward E-HRM (the case of Philips) in which they presented a research project on attitude towards e-HRM. Found that there are multiple factors affecting the (E-HRM) system application, for instance a technological, organizational and human factors, all of which are important factors that each of them affect the application of the system, as well as each factor affects the other (mutual effect between factors).It also found that the attitude of the staff toward the application of (E-HRM) is inclined by several factors, with the two main factors to improve this situation, being the positive use of information technology practices, and preferences of staff for the role played by the human resources department within the organization and especially the strategic role of human resources. Consequently, if the e-HR applications were successful on the ground, and the technology used are sophisticated and easy to use, then the attitude toward (E-HRM) will be positive, and the benefits resulting from the changing role of human resources management in the enterprise will be concrete. This study used questionnaires on 99 managers and 257 employees within Philips electronics Netherlands. The participants answered the questionnaires based on their previous experiences with regard to the use of e-HRM system, their preferred HR roles, and their attitude towards e-HRM system. A model was provided to determine the multiple factors that affect the application of relational e-HRM and how to understand how these factors lead to solution of problems that may arise during the application of the system, as well as to determine the attitude of the staff towards the implementation of this system.

Khashman and Al-Ryalat, (2015). Carried a study to identify the impact of electronic human resource management practices through the main study dimensions of Relational e-HRM represented in the (e-recruitment, e-selection, e-training, e-performance appraisal, e-communications and e-compensation) on the operational performance. Represented through the main dimensions shown as follows: (Time, financial cost, quality of service and flexibility) in the Jordanian telecommunications sectors (Zain, Orange and Umniah). With the study population

consisting of all supervisory positions employees in the three companies. To achieve the objectives of the study, the researcher used the descriptive analytical method and a stratified random sample consisting of 178 employees, then the questionnaire was developed and distributed to the sample, data was analyzed using SPSS statistical software, a descriptive and analytical statistics were used for the process of analysis. The results showed that there was an existence of a positive statistically significant impact to dimensions of electronic human resources management (e-recruitment, e-selection, e training, and e-performance appraisal)

2.3.3 Transformational e-HRM Practices

Transformational E-HRM is concern with strategic HR activities such as knowledge management, organizational change processes, strategic competence and strategic re-orientation. It help create change- ready workforce through using web tools that enables the work force to develop in line with the company's strategic choice. An organizations may choose to pursue e-HRM policies and practices from any of this tiers to achieve their goal (Ruël et al., 2004).

(Ukandu et al., 2014), carried studies on the Influence of e-HRM in decision making in selected tertiary institutions in South Africa to uncover the benefits and challenges of using this technology in the HR Department. It was found that e-HRM would indeed improve the levels of efficiency and effectiveness in the organizations. Enable top management in taking fast and good decisions. The major challenge was that not all manager were willing to use this technology.

In an empirical study by, (Michael et al., 2012). It was found that it is necessary for firms to have highly skilled human capital to provide them with a competitive edge. So, an effective management of Human Resource in a firm is to gain advantage in the marketplace which requires timely and accurate information on current employees and potential employees in the labor market. With the changing world and evolution of new technology, meeting this information requirement becomes important. Human Resource managers need to be aware that the change in technology will not only increase the quality of employee information, but also will have a strong effect on the overall effectiveness of the organization. Shammy Shiri (2012).

2.3.4 Gaps Identified in literature

Research gap examines the shortcomings on works of other writers and how the researcher's work attempts to fill such gaps. While a considerable amount of research has been conducted in many areas of e-HRM, little research has been carried out to address the conceptualization and measurement of e-HRM effectiveness within organizations in developing countries. Majority of the studies duel much on develop countries. This study sought to fill these gaps by studying the

effectiveness of e-HRM practices in the private sector in Cameroon. Also most of the studies have only dealt with one part of e-HRM but this study will fill the gap by studying all the three tiers of e-HRM which are the operational, Relational and Transformational e-HRM. In addition, the challenges faced by organizations in the utilization of this technology will be examined.

CHAPTER THREE

METHODOLOGY OF THE STUDY

This chapter outlines and describes the methodology applied in this study. These amongst other things include the research design, population for the study, sampling techniques and sample size, sources and type of data, data collection instruments, presentation and analysis techniques. The research area is the National Oil Refining Corporation (SONARA), located in Limbe, South West Region of Cameroon.

3.1 Research Design

The research design adopted for this study is the Ex-post facto research design. According to Kenlinger (1986) Ex- post facto is a research design that allows the researcher to study the manifestation of variables the way they are without manipulations of the variables. At the time of the study the manifestation of variables of electronic human resource effectiveness in SONARA had already occurred. Thus the researcher only study them the way they are.

3.2 The Study population

The Population of the study consisted of all employees of the four departments of SONARA that make use of e-HRM system which are, (Department of Administration and Human Resources (DARH), Department of General Management (DG), Department of General Affairs (DAG), Department of Finance and Control (DFC) Information from the human resource department of SONARA revealed that there are total of 321 employees in these departments. The population was subjected to adjustment depending on their extent of operation and size. The population was subjected to Bourley's formula` which is adopted to determine a sample size when the total population is known (Yamane 1987).

Table 3.2 shows the departments in SONARA using e-HRM (oracle e-business suite)

No	Department	Numbers	Sample size per department
1	DARH	52	29
2	DG	54	30
3	DAG	179	99
4	DFC	36	20
	TOTAL	**321**	**178**

$$n = \frac{N}{1 + Ne^2}$$

n = the sample size sought

N = the population size

E = Tolerable error

1 = Constant

n = ?

N = 321

e = 0.05

$$n = \frac{321}{1 + 321\ (0.05^2)} = 178$$

An estimated 178 respondent's (sample size) was used for the study.

3.3 Sampling technique and sample size

The sampling technique adopted for the selection of respondents for this study was the multi stage sampling technique. The population was stratified first and the proportionate sampling technique used to select from each department using the e-HRM system. Firstly, each of the four departments under study stood as stratum from where the respondents were selected. From each of the stratum (departments) proportionate sampling technique was used based on the number of respondents to be selected as determine by the Bourley's formula. Accordingly, 30 respondents were selected from the Central Administration, 29 respondents from the human resource, 99 from the general affairs department and 20 from the finance department. Simple random sampling technique was then used to select the respective respondents from their departments. To do this a list of workers in each of the department under study was obtained from the human resource department and a table of random number was formed. Randomly the required number of respondents were selected from each of the department. In all a total of 178 respondents were selected and used for the study.

3.4 Data Collection Techniques

The instruments used for this study is a structured questionnaire. The questionnaire were constructed by the researcher and aimed at eliciting information from the respondents on the variables of the study. The questionnaire consisted of five sections (A, B, C, and D). Section (A) contained items seeking information on the demographic characteristics of respondents such as, age, sex. Section (B) to (D) contained items that measured the various sub independent variables of the study. Items in this section were designed on 5-points Likert scale type with "SA" for strongly agree, "A" for agree, "N" for Neutral, "D" for disagree and "SD" for strongly disagree respectively for section (C) to (D), while section B used, "Very Frequent", "Frequent", "Rarely", "Not at All". The items here were positively and negatively worded. The respondents were required to tick one of the possible options against each item, to indicate the extent of their agreement or disagreement with the items.

3.4.1 Primary Sources

This study made use of the primary data collection technique. The main primary source for data collection in this study was through the administration of questionnaires to gather information on the various e-HRM practices employed by SONARA and the challenges they encounter.

3.4.2 Secondary Sources

Secondary data included the review of diverse literature such as official documents, journals as well as published and unpublished materials on Human Resource Information systems and Electronic human Resource Practices issues. Another important secondary data source consulted was the Google scholars through the World Wide Web. These provided useful data and facilitated the understanding of the genesis and the consequences of the subject under study.

3.5 Validity and reliability of the instrument

The face validity of the instrument was established by presenting the instrument to the supervisors and experts in quantitative analysis to ascertain that the items on the instrument were related to the research questions to be tested. Some of the items were then modified while those that were irrelevant were removed and new ones introduced.

3.6 Procedure to data collection

The final copies of the questionnaire were administered to the respondents personally by the researcher. This was after obtaining permission from administration of the Corporation. Care was taken to explain the details in the questionnaire to the respondents. In all a total of 178 copies of the questionnaire were administered and all return. During coding, it was discovered that 3

copies of the questionnaire were not properly filled and thus discarded. Therefore the remaining 175 copies were used for computations of results.

3.7 Analytical Approach

Descriptive statistics were used to examine the data. Descriptive statistics used included frequency (counts), percentages, median amongst others. The alpha Cronbach statistics were used to test the reliability of the data collection instruments. The statistical methods were ran using excel software and Statistical Package for Social Science (SPSS) version 20.1

3.8 Ethical Consideration

Ethical considerations are a very important aspect as concern research. A letter from Institution helped to assure and guarantee SONARA management and employees of the careful handling of confidential information provided by the company. For ethical reasons the trustworthiness of the individual's response was also ensured. As questionnaires did not require the names of the respondents.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

In this chapter we present the data collection through the administration of questionnaires. The information presented represents the responses from all the respondents to the various questions of the questionnaire. The chapter consist of data presentation, data analysis and the discussion of findings

4.1 Socio-demographic distribution of respondents

Table 4.3 Distribution of respondents by socio demographic characteristics

Sex	**Category**	**Frequency**	**Percentage**
	Male	82	46.86
	Female	93	53.14
		175	100.00
Age	18-35	54	30.86
	36-50	83	47.43
	51-60	38	21.71
		175	100.00
Educational Qualification	FSL		0.00
	O/L		0.00
	A/L		0.00
	HND		0.00
	Bachelor Degree	81	46.29
	PGD and Above	94	53.71
		175	100.00
Working Experience			
	Less than 5 years	56	32.00
	6-10 years	36	20.57
	11-15 years	38	21.71
	16 years and above	45	25.71
		175	100.00

The result in Table 4.3 revealed that 82(46.86%) of the respondents were males while 93(53.14%) were females. Distribution of the respondents according to age revealed that, 54(30.86%) of the respondents were between 18-35 years of age, 83(47.43%) were between 36-50 years, while 38(21.71%) were between 51-60 years. Also, 81(46.29%) of the respondents had Bachelor Degrees while 94(53.71%) had PGD and Above. Distribution of the respondents according to years of working experience revealed that 56(32%) had worked for less than 5 years, 36 (20.57%) had worked for 6-10 years, 38(21.71%) had worked for 11-15 years while 45(25.71%) had worked for 16 years and above.

4.2 Answer to Research Objectives

4.2.1 Research objective one

Table 4.4 Identification of e-HRM practices used by SONARA

	Very Frequent	**%**	**Frequent**	**%**	**Rarely**	**%**	**Not at All**	**%**
Operational	113	64.6	43	24.6	19	10.9	0	0.0
Relational	23	13.1	34	19.4	2	1.1	116	66.3
Transformational	17	9.7	21	12.0	5	2.9	132	75.4

The result in Table 4.4 revealed that 113(64.6%) of the respondents said very frequently used operational e-HRM, 43(24.6%, said they frequently used it while 19(10.9%) of the respondents said they rarely used e-HRM. Also, 23(13.1%) of the respondents said they highly frequently used relational e-HMR, 34(19.4%) said they frequently used it, 2(1.1%) said they rarely used it while 116(66.3%) said they had never used it at all. Finally, 17(9.7%) of the respondents said very frequent they used transformational e-HRM, 21(12.0%) they frequently used it, 5(2.9%) they rarely used it, while 132(75.4%) said they had never used it at all.

4.2.2 Research objective two:
To examine the extent to which these e-HRM practices are effective in SONARA

The result is as presented in Figure 4.4

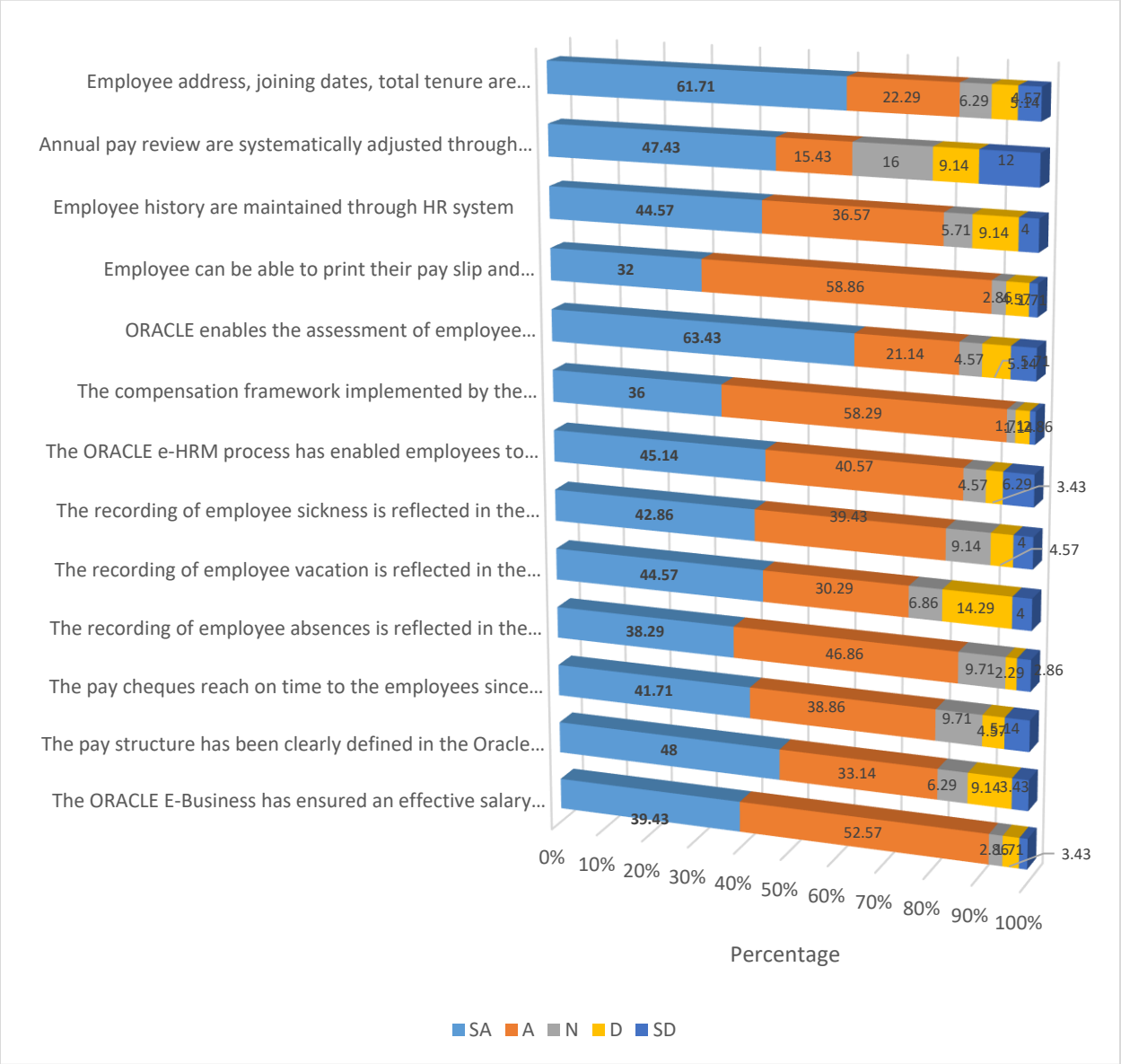

Figure 4.8 Effectiveness of Operational Electronic Human Resource management Practices in SONARA

The result in Figure 4.8 revealed that 69(39.43%) of the respondents strongly agreed that the ORACLE E-Business has ensured an effective salary administration system, 92(52.57%) agreed, 5(2.86%) were neutral, 6(3.43%) disagreed while 3(1.71%) strongly disagreed with the statement. Also, 84 (33.14%) of the respondents strongly agreed that the payment structure has been clearly defined in the Oracle E-Business, 58 (33.14%) agreed, 11(6.29%) were neutral,

16(9.14%) disagreed while 6(3.43%) strongly disagreed with the statement. Equally, 73(41.71%) of the respondents strongly agreed that the pay cheques reach on time to the employees since implementation of ORACLE E- business technology, 68(38.86%) agreed, 17(9.71%) were neutral, 8(4.57%) disagree while 9(5.14%) strongly disagreed with the statement. Additionally, 67(38.29%) of the respondents strongly agreed that the recording of employee absences is reflected in the Oracle e-HRM system, 82(46.86%) agreed, 17(9.71%) were neutral, 4(2.29%) disagreed while 5(2.86%) strongly disagreed with the statement. Furthermore, 78(44.57%) of the respondents strongly agreed that the recording of employee vacation is reflected in the ORACLE e-HRM system, 53(30.29%) agreed, 12(6.86%) were neutral, 25(14.29%) disagreed while 7(4.00%) strongly disagreed with the statement. Equally, 75 (42.86%) of the respondents strongly agreed that the recording of employee sickness is reflected in the ORACLE e-HRM technology, 69(39.43%) agreed, 16(9.14%) were neutral, 8(4.57%) disagreed while 7(4.00%) strongly disagreed with the statement. The result also showed that 79(45.14%) of the respondents strongly agreed that the ORACLE e-HRM process has enabled employees to enroll for flexible benefit administration effectively, 71(40.57%) agreed, 8(4.57%) were neutral, 6(3.43%) disagreed while 11(6.29%) strongly disagreed with the statement.

63(36%) of the respondents strongly agreed that the compensation framework implemented by the ORACLE e-HRM allows managers to calculate incentives and rewards for the employees online, 102(58.29%) agreed, 3(1.71%) were neutral, 5(2.86%) disagreed while 2(1.14%) strongly disagreed with the statement. Furthermore, 111(63.43%) of the respondents strongly agreed that ORACLE enables the assessment of employee performance online and helps to calculate performance related pay effectively, 37(21.14%) agreed, 8(4.57%) were neutral, 10(5.71%) disagreed while 9(5.14%) strongly disagreed with the statement. Also, 56(32%) of the respondents strongly agreed that employee can be able to print their pay slip and certificate through the ORACLE system, 103(58.86%) agreed, 5(2.86%) were neutral, 8(4.57%) disagreed while 3(1.71%) strongly disagreed with the statement. Additionally, 78(44.57%) of the respondents strongly agreed that employee history are maintained through HR system, 64(36.57%) agreed, 10(5.71%) were neutral, 16(9.14%) disagreed while 7(4.00%) strongly disagreed with the statement. Also, 83(47.43%) of the respondents strongly agreed that annual pay review are systematically adjusted through ORACLE E system, 27(15.43%) agreed, 28(16%) were neutral, 16(9.14%) disagreed while 21(12%) strongly disagreed with the statement. Lastly, 108(61.71%) of the respondents strongly agreed that employee address,

joining dates, total tenure are maintained through the ORACLE system, 39(22.29%) agreed, 11(6.29%) were neutral, 9(5.14%) disagreed while 8(4.57%) strongly disagreed with the statement.

4.2.2.1 Effectiveness of Relational Electronic Human Resource management Practices in SONARA.

Table 4.5 Effectiveness of Relational Electronic Human Resource management Practices in SONARA.

Statement	**SA**	**%**	**A**	**%**	**N**	**%**	**D**	**%**	**SD**	**%**
The ORACLE e-HRM process has enabled SONARA to identify and nurture individual talents and help to raise their performance.	11	6.29	27	15.43	32	18.29	43	24.57	62	35.43
The ORACLE self-service e-learning opportunities have supported employees of SONARA to keep their knowledge and skills up-to-date.	6	3.4	14	8.00	21	12.00	61	34.86	73	41. 3
The candidate application maintained and recorded online has made the applicant tracking system easily accessible.	11	6.29	15	8.57	18	10.29	48	27.43	83	47.43
The e-learning strategies have brought about effective change in leadership development in SONARA.	12	6.86	10	5.71	75	6.86	9	5.14	69	39.43
E-HRM has provided sufficient opportunities for employees' career planning and development in SONARA.	10	5.71	16	9.14	7	4.00	78	44.57	64	36.57
Training through e-HRM helps in recommending candidates for promotion and individual compensation awards.	13	7.43	17	9.71	14	8.00	82	46.86	49	28.00

The self-service e-learning opportunities have supported employees to keep their knowledge and skills up-to-date.	11	6.29	10	5.71	13	7.43	63	36.00	78	44.57
Manager & employee can jointly review & discuss on performance	6	3.43	12	6.86	10	5.71	82	46.86	65	37.14
There is online training manual, course in system	26	14.86	38	21.71	18	10.29	37	21.14	56	32.00
Managers can submit employee training need through HR system	15	8.57	18	10.29	14	8.00	56	32.00	72	41.14

Table 4.5 revealed that 11(6.29%) of the respondents strongly agreed that the ORACLE e-HRM process has enabled SONARA to identify and nurture individual talents and help to raise their performance, 27(15.43%) agreed, 32(18.29%) were neutral, 43(24.57%) disagreed while 62 (35.43) strongly disagreed with the statement.

Also, 6(3.43%) of the respondents strongly agreed that the ORACLE self-service e-learning opportunities have supported employees of SONARA to keep their knowledge and skills up-to-date, 14(8. %) agreed, 21(12. %) were neutral, 61(34.86%) disagreed while 73 (41.71%) strongly disagreed with the statement.

Equally, 11(6.29%) of the respondents strongly agreed that the candidate application maintained and recorded online has made the applicant tracking system easily accessible, 15(8.57%) agreed, 18(10.29%) were neutral, 48(27.43%) disagreed while 83(47.43%) strongly disagreed with statement.

Additionally, 12(6.86%) of the respondents strongly agreed that the e-learning strategies have brought about effective change in leadership development in SONARA, 10(5.71%) agreed, 75(42.86%) were neutral, 9(5.14%) disagreed while 69(39.43%), strongly disagreed.

Furthermore, of the 10(5.71%) respondent strongly agreed that E-HRM has provided sufficient opportunities for employees' career planning and development in SONARA, 16(9.14%) agreed, 7(4.00%) were neutral, 78(44.57%) disagreed while 64(36.57%) strongly disagreed with the statement.

The result also revealed that 13(7.43%) of the respondents strongly agreed that training through e-HRM helps in recommending candidates for promotion and individual compensation awards, 17(9.71%) agreed, 14(8.%) were neutral, 82(46.86%) disagreed while 49(28%) strongly disagreed with the statement.

Equally, 11(6.29%) of the respondents strongly agreed that the self-service e-learning opportunities have supported employees to keep their knowledge and skills up-to-date, 10(5.71%) agreed, 13(7.43%) were neutral, 63(36%) disagreed while 78(44.57%) strongly disagreed with the statement.

Furthermore, 6(3.43%) of the respondents strongly agreed that manager & employee can jointly review & discuss on performance, 12(6.86%) agreed, 10(5.71%) were neutral, 82(46.86%) disagreed while 65(37.14%) strongly disagreed with the statement.

Additionally, 26(14.86%) of the respondents strongly agreed that there is online training manual, course in system, 38(21.71%) agreed, 18(10.29%) were neutral, 37(21.14%) disagreed while 56(32%) strongly disagreed with the statement.

Lastly, 15(8.57%) of the respondents strongly agreed that managers can submit employee training need through HR system, 18(10.29%) agreed, 14(8.00%) were neutral, 56(32%) disagreed while 72(41.14%) strongly disagreed with the statement.

4.2.2.2 Effectiveness of Transformational Electronic Human Resource management Practices in SONARA.

The result is as presented in Figure 4.5

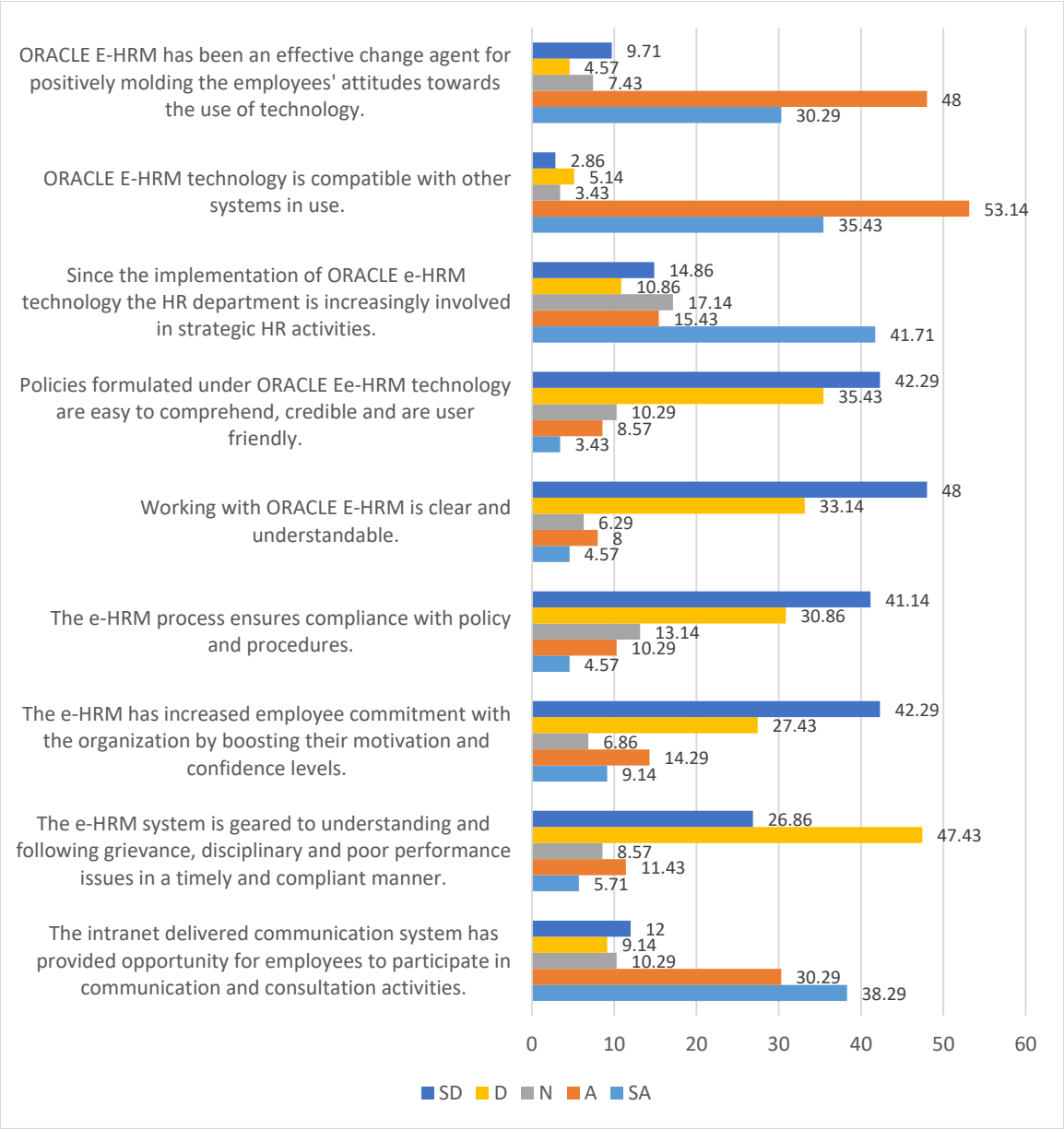

Figure 4.9 the effectiveness of Transformational Electronic Human Resource management Practices in SONARA

The result in Figure 4.9 revealed that 67 (38.29%) of the respondents strongly agreed that the intranet delivered communication system has provided opportunity for employees to participate in communication and consultation activities, 53(30.29%) agreed, 18(10.29%) were undecided, 21(12. %) disagreed while 16(9.14%) strongly disagreed with the statement.

Also, 10(5.71%) of the respondents strongly agreed that the e-HRM system is geared to understanding and following grievance, disciplinary and poor performance issues in a timely and compliant manner, 20(11.43%) agreed, 15(8.57%) were undecided, 47(26.86%) disagreed while 83(47.43%) strongly disagreed with the statement.

Equally, 16(9.14%) of the respondents strongly agreed that the e-HRM has increased employee commitment with the organization by boosting their motivation and confidence levels, 25(14.29%) agreed, 12(6.86%) were undecided, 74(42.29%) disagreed while 48(27.43%) strongly disagreed with the statement.

The result also showed that 8(4.57%) of the respondents strongly agreed that the e-HRM process ensures compliance with policy and procedures, 18(10.29%) agreed, 23(13.14%) were neutral, 72(41.14%) disagreed while 54(30.86%) strongly disagreed with the statement.

Additionally, 8(4.57%) of the respondents strongly agreed that working with ORACLE E-HRM is clear and understandable, 14(8.00%) agreed, 11(6.29%) were neutral, 84(48%) disagreed while 58(33.14%) strongly disagreed with the statement.

Equally, 6(3.43% of the respondents strongly agreed that policies formulated under ORACLE e-HRM technology are easy to comprehend, credible and are user friendly, 15(8.57%) agreed, 18(10.29%) were neutral, 74(42.29%) disagreed while) 62(35.43%) strongly disagreed with the statement.

Also, 73(41.71%) of the respondents strongly agreed that since the implementation of ORACLE e-HRM technology the HR department is increasingly involved in strategic HR activities, 27(15.43%) agreed, 30(17.14%) were neutral, 26(14.86%) disagreed while 19(10.86%) strongly disagreed with the statement. Additionally, 62(35.43%) of the respondents strongly agreed that ORACLE E-HRM technology is compatible with other systems in use, 93(53.14%) agreed, 6(3.43%) were neutral, 5(2.86%) disagreed while 9(5.14%) strongly disagreed with the statement. Lastly, 53(30.29%) of the respondents strongly agreed that ORACLE E-HRM has been an effective change agent for positively molding the employees' attitudes towards the use of technology, 84(48%) agreed, 13(7.43%) were neutral, 17(9.71%) disagreed while 8(4.57%) strongly disagreed with the statement.

4.2.3. Answer to research objective three:

The challenges of E-HRM practices in SONARA. The result is presented in Table 4.4: challenges of E-HRM in SONARA.

Table 4.6 Challenges of E-HRM in SONARA.(C)

Statement	SA	%	A	%	Neutral	%	D	%	SD	%
The e-HRM system is not user friendly.	78	44.5712.00	23	13.14	8	4.57	45	25.71	21	12.00
The e-HRM system does not provide timely information.	12	6.86	32	18.29	14	8.00	63	36.00	54	30.86
Inadequate Financial Resources	15	8.57	28	16.00	17	9.71	42	24.00	73	41.71
Resistance to change as a result of the introduction of e-HRM	21	12.00	24	13.71	10	5.71	62	35.43	58	33.14
Lack of top management support of the HR system	65	37.14	32	18.29	21	12.00	37	21.14	20	11.43
Inadequate Training on the use of e-HRM	47	26.86	42	24.00	45	25.71	13	7.43	28	16.00
Poor technical infrastructure	37	21.14	21	12.00	5	2.86	40	22.86	72	41.14
Issues with Security of data	67	38.29	40	22.86	19	10.86	36	20.57	13	7.43
Insufficient tangible benefits	26	14.86	34	19.43	23	13.14	48	27.43	44	25.14
Lack of innovation	70	40.00	32	18.29	17	9.71	38	21.71	18	10.29
Inability to overcome bureaucratic hurdles	69	39.43	37	21.14	22	12.57	34	19.43	13	7.43
Difficulty in converting standardized packages into customized	58	33.14	35	20.00	18	10.29	47	26.86	17	9.71
Inadequate training to use the new technology	52	29.71	39	22.29	20	11.43	36	20.57	28	16.00

The result in Table 4.6 revealed that 78(44.57%) of the respondents strongly agreed that the e-HRM system is not user friendly, 23(13.14%) agreed, 8(4.57%) were neural, 45(25.71%) disagreed while 21(12%) strongly disagreed with the statement.

Also, 12(6.86%) of the respondents strongly agreed that the e-HRM system does not provide timely information, 32(18.29%) agreed, 14(8%) were neutral, 63(36%) disagreed whereas 54(30.86%) strongly disagreed with the statement.

Equally, 15(8.57%) of the respondents strongly agreed that there is inadequate Financial Resources, 28(16. %) agreed, 17(9.71%) were neutral, 42(24%) disagreed, while 73(41.71%) strongly disagreed with the statement.

Additionally, 21(12%) of the respondents strongly agreed that resistance to change as a result of the introduction of e-HRM, 24(13.71%) agreed, 10(5.71%) were neutral, 62(35.43%) disagreed while 58(33.14%) strongly disagreed with the statement. Furthermore, 65(37.14%) of the respondents strongly agreed that lack of top management support of the HR system, 32(18.29%) agreed, 21(12%) were neutral, 37(21.14%) disagreed while 20(11.43%) strongly disagreed with the statement. Furthermore, 47(26.86%) of the respondents strongly agreed that there is inadequate Training on the use of e-HRM, 42(24%) agreed, 45(25.71%) were neutral, 13(7.43%) disagreed while 28(16.00%) strongly disagreed with the statement. The result also showed that 37(21.14%) of the respondents strongly agreed that there is poor technical infrastructure, 21(12%) agreed, 5(2.86%) were neutral, 40(22.86%) disagreed, 72(41.14%) strongly disagreed with the statement.

Additional, 67(38.29%) of the respondents strongly agreed that there are issues with Security of data, 40(22.86%) agreed, 19(10.86%) were neutral, 36(20.57%) disagreed while 13(7.43%) strongly disagreed with the statement.

Also, 26(14.86%) of the respondents strongly agreed that there are insufficient tangible benefits, 34(19.43%) agreed, 23(13.14%) were unsure, 48(27.43%) disagreed while 44(25.14%) strongly disagreed with the statement.

Also, 70(40%) of the respondents strongly agreed that there is lack of innovation, 32(18.29%) agreed, 17(9.71%) were undecided, 38(21.71%) disagreed while 18(10.29%) strongly disagreed with the statement.

Equally, 69(39.43%) of the respondents strongly agreed that there is inability to overcome bureaucratic hurdles, 37(21.14%) agreed, 22(12.57%) were neutral, 34(19.43%) disagreed while 13(7.43%) strongly disagreed with the statement.

Also, 58(33.14%) of the respondents strongly agreed that there is difficulty in converting standardized packages into customized, 35(20%) agreed, 18(10.29%) were neutral, 47(26.86%) disagreed, while 17(9.71%) strongly disagreed with the statement. Lastly, 52(29.71%) of the respondents strongly agreed that there is inadequate training to use the new technology, 39(22.29%) agreed, 20(11.43%) were neutral, 36(20.57%) disagreed while 28(16.00%) strongly disagreed with the statement

4.3 Discussion of findings

The findings of research objective one of this study revealed that Operational e-HRM practice is highly used in SONARA.

The finding of research objective two of this study revealed that Operational Electronic Human Resource management Practices is one of the most effective e-HRM tier that is carried out in SONARA. This could be noted as most of the respondents about 83 per cent accepted the fact that they are able to use some of the operational electronic human resource management tools effectively. This finding is in line with the findings of Ammar (2012) who in his study to measure the satisfaction level of 302 employees toward the implementation of e-HRM in UNRWA concluded that e-HRM simplified work procedures, decrease workload, increase effective communication and promote transparency". He equally found that employees are satisfied with e-HRM implementation in UNRWA with a satisfactory level estimated at 72.88%. He further concluded that there is a significant correlation between the level of employees' satisfaction towards e-HRM and the benefit of e-HRM systems, such as simplifying work procedures, decreasing workload, increasing effective communication and achieving transparency. This finding is also in agreement with the finding of Saleh (2014), in a study conducted an investigation to the factors affecting the adoption of Electronic Human Resource management systems in Palestine and to develop an e-HRM framework that is adopted by Palestinian organizations to utilize technology effectively in their operations. The representative sample for this study were banks, government organizations, hospitals, insurance companies, internet service providers, logistics companies, telecommunication companies and universities in Palestine.

Furthermore, it was discovered that the relational Electronic Human Resource management was not highly carried out in SONARA. This could be exemplified by the fact that majority of respondents have hardly used any of the relational e- human resource. More to that this module is nonexistent. This finding is in line with the finding of Gonzalez. Koizumi. Daisaku, Kusiak

.Kinga (2011), who carried out a study on relational e-HRM in multinational companies. With the purpose to identify and explain the outcomes that multinational corporations experience by using Relational e-HRM and found out that that there was increase of speed in processes, standardization, elimination of distance constraints and possibilities for data archiving. This finding is also in line with the findings of Voermans et al., (2006), who in another study on "Attitude toward E-HRM found that there are multiple factors affecting the (E-HRM) system application, for instance a technological, organizational and human factors, all of which are important factors that each of them affect the application of the system, as well as each factor affects the other (mutual effect between factors).It also found that the attitude of the staff toward the application of (E-HRM) is inclined by several factors, with the two main factors to improve this situation, being the positive use of information technology practices, and preferences of staff for the role played by the human resources department within the organization and especially the strategic role of human resources

In addition, it was equally discovered that the Transformational Electronic Human Resource management practices were not effectively carried out in SONARA. This module has not been activated according to management. This finding of Ukandu et al., (2014) who carried a study on the Influence of e-HRM in decision making in selected tertiary institutions in South Africa to uncover the benefits and challenges of using this technology in the HR Department. It was found that e-HRM would indeed improve the levels of efficiency and effectiveness in the organizations. Enable top management in taking fast and good decisions. The major challenge was that not all manager were willing to use this technology.

From that of objective three it was realized that SONARA still face a lot of challenges with regards to e-HRM practices. Some of this challenges includes; lack of training, difficulty to use the software, data security, no available software manual for self-training, bureaucratic hurdles, no innovation since the implementation of e-HRM system in 2012, which has led to difficulties to customize Oracle e-HRM packages to organizational requirement. This can be justified by the fact that since 2012 SONARA has only implemented this software in four departments with six still pending Also not all the modules are implemented This in line with a study carried by Tatulici, C. G., N. E., & C. A. (2016), "to examine the effect of e-hrm systems in assisting human resource practitioners to execute their duties and responsibilities". It was found that information technology adoption in sub-Saharan Africa has not been without certain glitches.

Some of the factors that are responsible for these include poor need identification, sustainable funding, and insufficient skills.

4.4 Implication of findings

4.4.1 Implications of finding for socio demographic characteristics of respondents

The finding of this research reveal that most of the employees in the study sample are female 93(53.14), while 82(46.86) are male. This can be an indicator of gender bias. Majority of the workers 83(47.43) in SONARA are in the age range 36-50 this indicate that SONARA has vigorous workforce. According to the education qualification, 94 (53.71%) have Post graduate degree. This indicate that they are educated and qualified personnel. According to working experience the majority of respondents 119 (67.99%) had 6 years and above work experience in SONARA. This may be an indication of a favorable working conditions.

4.4.2 Implication of finding for objective one

From the result of findings it can be deduce that majority of respondents 113(64.6%) very frequently used Operational e-HRM in SONARA, while Relational and Transformational e-HRM practices are rarely used. This indicate that all the three e-HRM tiers are available but only Operational is highly identified by the users.

4.4.3 Implication of finding for objective two

Base on the finding of research objective two of this study it was revealed that Operational Electronic Human Resource management Practices is highly effective in SONARA. With over 161(92%) of employees who strongly agree or agreed that the ORACLE E-Business has ensured an effective salary administration system. Also majority of the respondent strongly agree or agree that, the pay structure has been clearly defined in the Oracle E-Business and that the pay cheques reach on time to the employees since the implementation of this technology. They strongly agree that the recording of employee absences and vacation is reflected in the ORACLE e-HRM system and equally that employee sickness is reflected in the ORACLE e-HRM technology The ORACLE e-HRM process has enabled employees to enroll for flexible benefit administration effectively. The compensation framework implemented by the ORACLE e-HRM allows managers to calculate incentives, assessment of employee performance, performance related pay and rewards effectively online. Employee can be able to print their pay slip and certificate through the ORACLE system. Employee address, joining dates, total tenure are maintained through the ORACLE system. This implies that employees are satisfied with operational e-HRM and management need to match up with the evolution of this technology to maintain this level of effectiveness.

Furthermore, it was discovered that the relational Electronic Human Resource management practices was not carried out in SONARA. This could be exemplified by the fact that majority of respondents have hardly used any of the relational e- human resource. This implies that SONARA need to activate this module in all the departments in other to liberate the HR department to concentrate on strategic issues. This will enable the organization to be competitive.

Also it was equally discovered that the Transformational Electronic Human Resource management practices were not effectively carried out in SONARA. This module has not been activated according to management. This implies that SONARA need to activate the Transformational e-HRM practice which is concern with strategic HR activities such as knowledge management, strategic re-orientation. This will go a long way to improve human resource management in SONARA and liberate human resources from it administrative shackles and provides the foundation for a collegial, flexible work place where employees have easy access to communication tools.

4.4.4 Implication of finding for objective Three

From the findings of objective three it was realized that SOANRA face a lot of challenges of e-HRM practice which include; lack of training, difficulty to use the software, data security, no available software manual for self-training, administrative bottlenecks, no innovation since the implementation of e-HRM system, lack of technical support from in-house. It implies therefore r that SONARA should develop an e-HRM strategy that will include all HR functions and technical support. The Oracle E business suite should be deploy in all departments and run on one portal with all the modules included (Operational, Relational and Transformational e-HRM). Staff training should be taken seriously since majority of the issues like data security is caused as a result of lack of training in the use of the e-HR technology.

4.5 Limitations and difficulties encountered

There was limited finance to pay for the numerous trips to SONARA Limbe on a daily basis. This made the work to be tedious because the researcher had to walk round the selected departments to meet workers and get feedbacks.

Time constraint was a problem. This is because with the given population, the researcher needed to spend adequate time at all the department of SONARA which was not the case. SONARA gave a dateline for the researcher to administer the questionnaires ‘which was not

adequate as many of the respondents could not respect the time limit, which made the researcher to encounter a lot of issues.

The constant rainfall during this period (September) in Limbe was an issue because it had to prevented some staffs from coming to work and also prevented the researcher from getting to other departments on time.

The fact that questionnaires were not made available in French language was the biggest issue because most of the employees were more French oriented.

Inadequate information was a limitation too because in some situations, most of the employees thought that it was a trap for them. So some of them did not feel safe to disclose some confidential information about the organisation and what concerns them.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

The study covered all the four department of SONARA using e-HRM practices with a total population of 321 employees and a sample size of 178 employees used. 178 questionnaires were given out to respondents but only 175 were return. This study how ever represented all the four departments of study in terms of gender, age and other demographic factors with the result indicating that Operational e-HRM is highly effective in SONARA as compared to both Relational and Transformational e-HRM that are almost absent.

5.1.1 Summary of Findings in Relation to Objective One

The findings of objective one indicates that, Operational e-HRM is very frequently used by employees of the four department of SONARA, while Relational and Transformational e-HRM are lacking behind.

5.1.2 Summary of Findings in Relation to Objective two

As for the finding of research objective two it was revealed that Operational Electronic Human Resource management Practices is one of the most effective e-HRM tier that is carried out in SONARA. This could be noted as most of the respondents accepted the fact that they are able to use some of the operational electronic human resource tools for purpose stated by SONARA for the installation of this technology.

Furthermore, it was discovered that the relational Electronic Human Resource management was not highly carried out in SONARA. This could be exemplified by the fact that majority of respondents have hardly used any of the relational e- human resource. More to that this module is nonexistent.

Also it was equally discovered that the Transformational Electronic Human Resource management practices were not effectively carried out in SONARA. This module has not been activated according to management.

5.1.3 Summary of Findings in Relation to Objective three

As per the third objective the challenges of E-HRM practice in SONARA include; lack of training, difficulty to use the software, data security, no available software manual for self-

training, administrative bottlenecks, no innovation since the implementation of e-HRM system, lack of technical support from in-house and difficulties to customize the software to local realities

5.2 Conclusion

Based on the findings obtained from this study, the study recommended operational electronic human resource management practices is one of the most effective e-HRM practice carried out in SONARA. As could be noted most of the respondents accepted the fact that they are able to use some of the operational electronic human resource management tools. Also, the relational Electronic Human Resource management was not highly carried out in SONARA. This could be exemplified by the fact that majority of the respondents hardly used any of the relational e-HRM resources; the Transformational Electronic Human Resource management was not effectively carried out in SONARA as well.

The challenges of E-HRM in SONARA include; lack of training, difficulty to use the software, data security, no available software manual for self-training, bureaucratic hurdles, no innovation since the implementation of e-HRM system in 2012, which has led to difficulties to customize Oracle e-HRM packages to organizational requirement. This can be justified by the fact that since 2012 SONARA has only implemented this software in four departments with six still pending Also not all the modules are implemented.

5.3. Recommendations

Base on the result of the study the researcher outline recommendations which will address some of the issues identified with the use of e-HRM technology in SONARA.

5.3.1 Specific objective one

SONARA should develop an e-HRM strategy that will include all HR functions and activities. The Oracle E-business suite should be deployed in all the departments and run on one portal with all the modules included (Operational, Relational and Transformational e-HRM).

5.3.2 Specific objective two

The management of SONARA should improve on the deployment of Operational, Relational and Transformational e-HRM modules in all the ten department of SONARA.

5.3.3 Specific Objective three

The technical support should equally be improved in other to take care of the e-HRM users, facilitate communication between users and the technical support staff to guarantee a quick response.

Increase training on e-HRM application for all employees on the use of various modules installed. It was realized that training on this technology was not taken seriously in the implementation phase of this project. It is therefore imperative for training on the use of this technology to be implemented in all departments and not only the HR department.

Management should facilitate regular meetings with e-HRM users to get a continuous feedback about problems they face in the use of this technology.

The E-HRM software should be aligned to organizational perspectives, Oracle E-business is of international standard and base on best practices. Therefore, it should be customized to the local realities of SONARA.

There is equally need for a change of mentality or mindset of the employees in SONARA, most of the older employees do not take e-HR technology seriously. The HR department needs to encourage these employees by using this technology themselves. If the HR department is not comfortable with it then the entire organization cannot see the value.

5.4 Suggested Areas for Further Research

A comparative study can be conducted on this same topic using multinational and National Corporation as case studies.

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APPENDICES

APPENDIX 1

PAN-AFRICAN INSTITUTE FOR DEVELOPMENT WEST AFRICA
(PAID-WA) BUEA CAMEROON

Dear Sir/Madam,

A research undertaken by **Julius Gisi Wisiy**, Bachelors of Science student in Human Resource Management in the Department of Business and Management studies, Pan African Institute for Development West Africa entitled;

"Assessment of the effectiveness of electronic human resource management practices (ORACLE E-BUSINESS SUITE) in SONARA".

Dear respondents, the purpose of this questionnaire is to collect data about Electronic Human Resource Practices in SONARA. Responding to the questions will not create any harm & will be kept confidentially and to be used for no other purpose except for the intended academic research purpose. Your identity is therefore not needed since your names are not required. Consequently, I would be most grateful should you provide truthful and factual responses to questions below. I count on your co-operation to make this research endeavor a success.

SECTION A

INSTRUCTIONS:
Please Tick (√) the appropriate answers to the corresponding questions

1. Sex (a) □ Male (b) □ Female

2. Level of Education:

a) □ FSL b) □ O/L c) □ A/L d) □ Diploma e) □undergraduate d) □ Graduate

3. Age: A) □18-35yrs B) □36-50 yrs. C) □51-60 yrs.

4. How many years have you been working with SONARA _____

SECTION B
To identify the e-HRM practices used by SONARA
(Please tick in box)

What type of e- HRM practice does SONARA use	highly Frequent	Frequent	Rarely	Not at All
Operational				
Relational				

Transformational				

SECTION C

To examine the extent to which these e-HRM practices are effective in SONARA

INSTRUCTIONS:

*Please kindly **Tick (√)*** the letter that correspond to the extent of your agreement with each statement using the following scale **(A= Agree, SA =strongly agree D= Disagree SD= strongly disagree N= Neutral)**

1. **OPERATIONAL e-HRM**

((PAYROLL AND EMPLOYEE PERSONAL DATA, BENEFIT)

S.N.	**STATEMENTS**	**A**	**SA**	**D**	**SD**	**N**
1	The ORACLE E-Business has ensured an effective salary administration system.					
2	The pay structure has been clearly defined in the Oracle E-Business.					
3	The pay cheques reach on time to the employees since implementation of ORACLE E- business technology.					
4	The recording of employee absences is reflected in the ORACLE e-HRM system.					
5	The recording of employee vacation is reflected in the ORACLE e-HRM system.					
	The recording of employee sickness is reflected in the ORACLE e-HRM technology					
5	The ORACLE e-HRM process has enabled employees to enroll for flexible benefit administration effectively.					
6	The compensation framework implemented by the ORACLE e-HRM allows managers to calculate incentives and rewards for the employees online.					
7	ORACLE enables the assessment of employee performance online and helps to calculate performance related pay effectively.					
8	Employee can be able to print their pay slip and certificate through the ORACLE system					
9	Employee history are maintained through HR system					
10	Annual pay review are systematically adjusted through ORACLE E system					
11	Employee address, joining dates, total tenure are maintained through the ORACLE system.					

2. RELATIONAL e-HRM (e-learning, e-recruitment, e-performance management etc.)

S.N.	STATEMENTS	**A**	**SA**	**D**	**SD**	**N**
1	The ORACLE e-HRM process has enabled SONARA to identify and nurture individual talents and help to raise their performance.					
2	The ORACLE, E-Business self-service e-learning opportunities have supported employees of SONARA to keep their knowledge and skills up-to-date.					
3	The candidate application maintained and recorded online has made the applicant tracking system easily accessible.					

4	The e-learning strategies have brought about effective change in leadership development in SONARA.					
5	E-HRM has provided sufficient opportunities for employees' career planning and development in SONARA.					
6	Training through e-HRM helps in recommending candidates for promotion and individual compensation awards.					
7	The self-service e-learning opportunities have supported employees to keep their knowledge and skills up-to-date.					
8	Manager & employee can jointly review & discuss on performance					
9	There is online training manual, course in system					
10	Managers can submit employee training need through HR system					

3. TRANFORMATIONAL e-HRM

S.N.	STATEMENTS	A	SA	D	SD	N
1	The intranet delivered communication system has provided opportunity for employees to participate in communication and consultation activities.					
2	The e-HRM system is geared to understanding and following grievance, disciplinary and poor performance issues in a timely and compliant manner.					
3	The e-HRM has increased employee commitment with the organization by boosting their motivation and confidence levels.					
4	The e-HRM process ensures compliance with policy and procedures.					
5	Working with ORACLE E e-HRM is clear and understandable.					
6	Policies formulated under ORACLE E e-HRM technology are easy to comprehend, credible and are user friendly.					
7	Since the implementation of ORACLE E e-HRM technology the HR department is increasingly involved in strategic HR activities.					
8	ORACLE E-HRM technology is compatible with other systems in use.					
9	ORACLE E-HRM has been an effective change agent for positively molding the employees' attitudes towards the use of technology.					

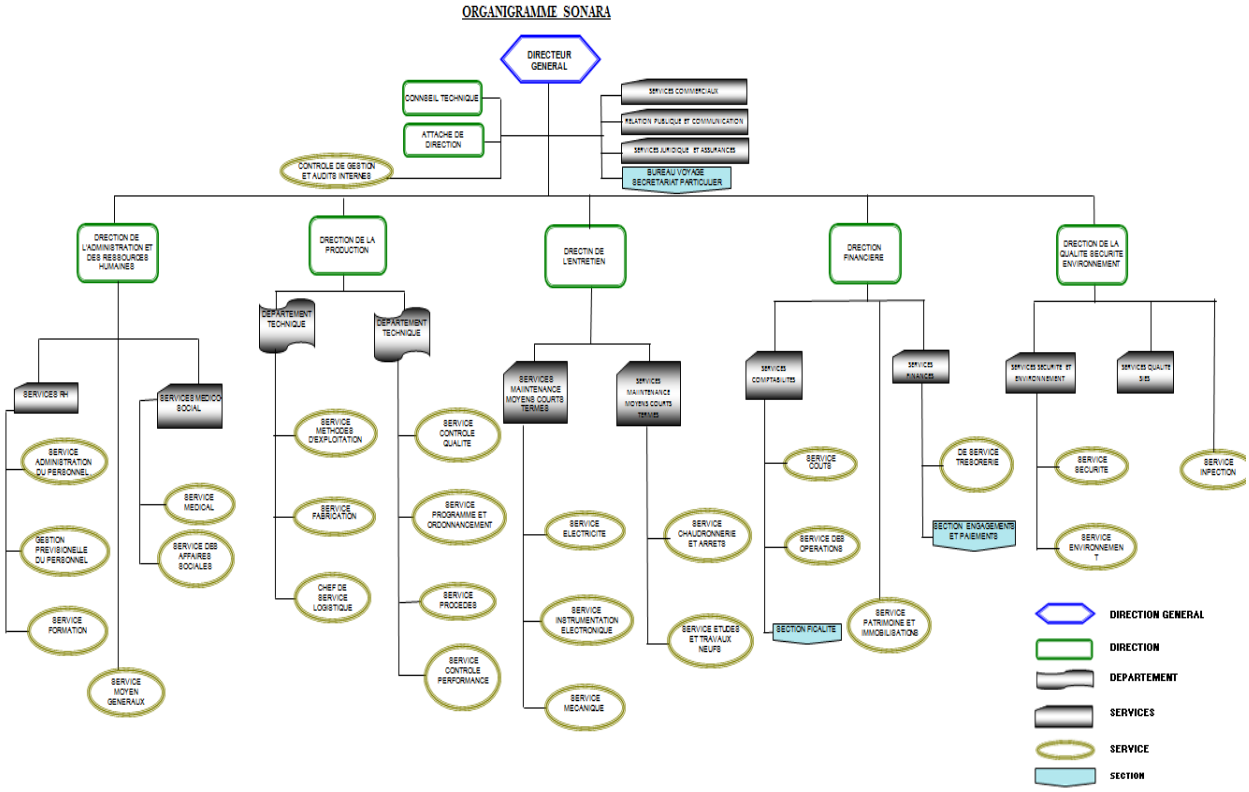
SECTION D
CHALLENGES

The challenges faced by SONARA in the use of Electronic-Human Resource management?

S.N	STATEMENTS	A	SA	D	SD	N
1.	The e-HRM system is user friendly.					
2.	The e-HRM system provides timely information.					
3.	The e-HRM system provides up-to-date information.					
4.	The e-HRM system has ensured a clear fit between business and HR strategy.					
5.	Inadequate Financial Resources					
6.	Resistance to change as a result of the introduction of e-HRM					
7.	Lack of top management support of the HR system					
8.	Inadequate Training on the use of e-HRM					
9.	Poor technical infrastructure					
10.	Issues with Security of data					
11.	Insufficient tangible benefits					
12.	Lack of innovation					
13.	Inability to overcome bureaucratic hurdles					
14.	Difficulty in converting standardized packages into customized					
15.	Inadequate training to use the new technology					

APPENDIX 2

ORGANIGRAM SONARA



APPENDIX 3

ACCEPTANCE LETTER

SONARA
Fueling ambitions

SOCIETE NATIONALE DE RAFFINAGE S.A.
NATIONAL REFINING COMPANY LTD.

Our reference / Notre Référence: DARH/DRH/GPEC/LOG/ha/

Your reference / Votre Référence: V/Demande d'accord pour étude complémentaire auprès du personnel SONARA

Subject / Objet: Accord pour accès à la SONARA

M. JULIUS GISI WISIY

S/C DARH

Limbe, le _____

Monsieur,

Par correspondance datée du 25 septembre 2017 et dont l'objet est rappelé en marge, vous nous avez saisi à l'effet de mener une enquête d'opinion au sein de la SONARA pour la rédaction de votre mémoire.

Y faisant suite, nous avons l'honneur de vous marquer notre accord de principe pour la période à votre convenance et pour une durée d'un (1) mois non renouvelable.

Vous voudrez bien prendre attache avec le Service GPEC pour les modalités pratiques avec votre programme et planification de travail, le questionnaire et votre photo 4*4.

Veuillez agréer, Monsieur, nos salutations distinguées.

POUR LE DIRECTEUR GENERAL ET PAR DELEGATION LE DIRECTEUR DE L'ADMINISTRATION ET DES RESSOURCES HUMAINES

SOCIETE NATIONALE DE RAFFINAGE S.A. SONARA DARH Direction de l'Administration et des Ressources Humaines NATIONAL REFINING COMPANY LTD.

BOUBA MOHAMADOU

CERTIFICATION DE SYSTEME QUALITE DNV·GL ISO 9001

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Société Anonyme au Capital de 32 540 227 500 F CFA - TPPRR/RC/LBE/2002/B/033 - N° de contribuable: M 1276 0000 0247 N