

UNIVERSITY OF CAPE COAST

THE IMPLEMENTATION OF HUMAN RESOURCE INFORMATION
SYSTEM: THE CASE OF GHANA COMMERCIAL BANK LIMITED

BY

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DISSERTATION SUBMITTED TO THE INSTITUTE FOR DEVELOPMENT
STUDIES OF THE FACULTY OF SOCIAL SCIENCES, UNIVERSITY OF
CAPE COAST IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR
AWARD OF MASTER OF ARTS DEGREE IN HUMAN RESOURCE
MANAGEMENT

JUNE 2010

UNIVERSITY OF CAPE COAST

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SYSTEM: THE CASE OF GHANA COMMERCIAL BANK LIMITED**

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2010

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature:.....

Date:.....

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Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

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ABSTRACT

In recent years, Information Systems (IS) have been deployed by organisations for achieving efficiency, effectiveness, enhancing quality and gaining competitive advantage. Ghana Commercial Bank has had challenging moments and difficult times in implementing a successful Human Resource Information System (HRIS) in recent years. The study examines the information needs for the organisation and problems associated with HRIS implementations. Critical factors that needed to be considered were highlighted and some examples of failed and successful implementations in some organisations also cited.

The study also examines how the software can be acquired. Primary data for the study were collected through the administration of questionnaires to General managers, Human resource staff, Area managers, Branch managers and clerical staff. The information collected was analysed using descriptive statistics. Also, the study used secondary data mainly from published sources, Bank records and the internet where applicable.

The findings indicate problems such as lack of management support, inadequate funding, and low staff involvement in the previous implementation processes. Based on the findings and conclusions it is recommended that management should be committed, and that there should also be a Project management committee which would supervise a project team made up of selected members of relevant departments identified in the needs analysis so as to ensure a successful HRIS implementation in the Bank.

ACKNOWLEDGEMENTS

My heartfelt regards go to my supervisor, Drs. N.K.T. Ghartey who, inspite of his busy schedules, devoted time to guide, review, heavily critique and offer valuable contributions to enrich my work. My regards also go to Mr. Alex Asante (UCC Data Processing Centre) and his wife for all the encouragement when the going was tough.

My regards also go to all my classmates for their love and friendly company that made the course great, and also to all the lecturers who spent their precious time to impart their knowledge. May the good Lord bless them all. To my colleagues at work, Dominic Cobbinah (Head Clustering Department), Mr. Simon Ocloo (GCB Ho Area Manager), Miss Kate Effah and Mrs. Elizabeth Boadu-Dampare, I say a big thank you for your prayers and support and pray that God replenishes you for your loss in the course of sacrificing for the success of this dissertation.

My deepest gratitude also goes out to my wife Doris and my beloved children Edem and Enyonam. Lebene, wherever you may be the family still remembers you. I thank you for your support as well as sacrifice towards the successful completion of this dissertation. God richly bless you.

DEDICATION

To my wife, Doris and children Edem and Enoyam Akpaloo

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ACRONYMS

ERP	-	Enterprise Resource Planning
FINSAP	-	Financial Sector Adjustment Programme
GCB	-	Ghana Commercial Bank
ICT	-	Information and Communication Technology
IT	-	Information Technology
IS	-	Information Systems
HR		Human Resource
HRIS	-	Human Resource Information System
HRM	-	Human Resource Management
ROI		Return On Investment
SAP		Systems, Applications and Products
UK		United Kingdom
USA	-	United States of America

CHAPTER ONE

INTRODUCTION

Background to the study

Human Resource Management (HRM) issues have been a major concern for managers at all levels, because they all meet their goals through the efforts of others, which require the effective and efficient management of people (Dessler, Cole & Sutherland, 1999). Human Resource managers functions such as planning, recruiting, selection, and training, help to analyse job requirements, labour needs, select employees, orient and train employees, manage compensation, communicate (which includes counselling and disciplining), and maintain employee commitment to achieve the organisational objectives. To ensure fair treatment of employees, appraising performance, ensuring employee health and safety, building and maintaining good employee/labour relations, handling complaints and grievances, and ensuring compliance with human rights, occupational health and safety, labour relations, and other legislation affecting the workplace, there is the need for effective HRM practices in the organisation. However, according to Steward (1996), the human resource management function has faced a scuffle in justifying its position in organisations. Firms easily justify expenditures on training, staffing, reward, and employee involvement systems in favourable conditions, but when faced with financial difficulties, such human

resource (HR) systems become prime target for cutbacks which Ghana Commercial Bank is no exception. Nonetheless, introducing Human Resource Information Systems (HRIS), and exploring HR's supportive role in business strategy, enable the organisation to achieve its objectives.

Early human resource, then called personnel, were limited to employee record keeping and were provided as a service to the organisation. There was no HRIS as we know it today – Personnel record keeping was done by hand, oftentimes utilising a system as simple as an index card file. The personnel department was typically small with little power and limited interaction with the organisation's business mission. After World War II, between 1945 and 1960, organisations became more aware of human capital issues recognising the importance of employee morale in the success of organisations. Formal selection and development processes were developed but there was no real change from the original responsibility of the personnel department whose main role was record keeping. As record keeping was still done by hand, human resource information systems before 1960, hardly gave a hint of what they would become with the advent of workplace technology.

In the late 1960's and 1970's the term human resource management gained common usage in place of the term "personnel" and by 1974 the new term, human resource management, was appearing in media headlines and was eventually shortened to just "HR". From the 60's to the 80's organisations firmly integrated human resource into their core business missions. At the same time regulatory reporting requirements for employees increased significantly. Large

organisations used mainframe computers to maintain organisation data bases and technology based Human Resource Information Systems (HRIS) provided an efficient solution for the increased record-keeping and reporting required by government regulation. The human resources department became one of the most important users of the organisation's computer systems, though the primary task was still record-keeping.

In summary, HRIS is seen to facilitate the provision of quality information to management for informed decision-making. Most notably, it supports the provision of executive reports and summaries for senior management and is crucial for learning organisations that see their human resource as providing a major competitive advantage.

Ghana Commercial Bank, formerly Bank of the Gold Coast, was established in 1953 and charged with the provision of banking services to the emerging nation for socio-economic development. In particular, the Bank was to pay special attention to the requirements of Ghanaian traders, businessmen and farmers who hitherto lacked the needed financial support from the expatriate Banks. In addition, the Bank was to function as a Central Bank. When the country achieved political independence in 1957, Bank of Ghana was established to be responsible for Central Banking needs of the country. The Bank of the Gold Coast was then renamed Ghana Commercial Bank to focus solely on commercial banking services (GCB, 2003).

Ghana Commercial Bank, which was originally wholly owned by the Government of Ghana, has grown remarkably to become the largest commercial

bank in Ghana with a network of 130 Branches. In 1996 part of the Government ownership was divested under the Financial Sector Adjustment Programme (FINSAP) which was an integral part of the Economic Recovery Programme (ERP) and Structural Adjustment Programme (SAP). Under the divestiture, thirty per cent (30%) of the shares were put on the Ghana Stock Exchange for the public and a further thirty per cent (30%) earmarked for a strategic investor which had not materialised. The Government then decided to increase the prospective strategic investor shareholding to forty per cent (40%) to enable the strategic investor have a commanding control over the Bank. The shares of the Bank have since been trading on the Ghana Stock Exchange. This phenomenon transformed the Bank into a new entity, with a new name known as Ghana Commercial Bank and with a new sense of responsibility towards all of its stakeholders (GCB, 2003).

Besides the banking functions, it also spearheads the development and growth of priority sectors of the economy such as cocoa financing and marketing, crude oil import financing, road and infrastructure construction and tourism related projects. Added to the Bank's lending to the agricultural sector is her involvement in the administration of Private Enterprise Export Development Project (PEED) from the promotion of non-traditional exports (GCB, 2000).

The period following the Financial Sector Reforms in 1997, saw the entry of more Banks and other non-bank financial institutions in Ghana. This development brought in increased competition and as a result, GCB had to focus its strengths and experience on strategies towards beating the competition.

Therefore, it became necessary to close some branches and open new ones which were better placed and equipped to compete with others. GCB had a total branch network of 131 as at 2007.

With the growing trends of computerisation, the bank has one hundred and fifty (154) of its branches on a wide area networking given its customers the opportunity of transacting banking activities at any of its branches nationwide. GCB also has installed 80 Automatic Teller Machines across the country, giving customers the chance to withdraw money at any convenient time (GCB, 2007).

The Bank's customers during the first five years were small Ghanaian Traders and other nationals who were expected to maintain credit balance accounts only because the Bank was at the time not adequately capitalised. From the small trader as customers, GCB now has a customer profile that ranges from students, salaried workers, small and medium scale entrepreneurs to large trading concerns, quasi-governmental institutions, off-shore, financing petroleum sector and corporate customers (GCB, 2007).

State of human resource information system at Ghana Commercial Bank

The problem with HRIS at GCB is that the organisation had not been able to implement HRIS system successfully. This had lead to system add-ons by different vendors making system integration very difficult. Information on staff no longer with the organisation at times is difficult to be retrieved. Since the HRIS in not fully integrated, staff have different files on them at the various branches and departments that they had worked due to transfers and upgrades.

Staff information updates takes a long time to reflect on their records and this affects decision making using these data.

Statement of the problem

Since the emergence of the Personal Computers (PC) throughout the world, many business functions have been transformed. Apart from accounting, finance, and marketing, many banking organisations are shifting their attention to find a better way of monitoring their Human Resource Management (HRM) functions. Many organisations are transforming the HRM functions from manual to computerised workflows. Computers have been used to reduce the tasks of analysing the tremendous amount of human resource data into a simple process. Computer hardware, software, and databases help organisations to maintain and retrieve human resource records better and quicker (Hendrickson, 2003).

According to Gallagher (1991) most of the HRIS used by the Human Resource Managers do not cover most of the needs of the practitioners and organisational decision making and there are few researchers who are looking at these trends.

Objectives of the study

The general objective of the study was to assess the HRIS management and implementation at GCB in relation to how well it addresses the needs of human resource practitioners and departmental managers in the organisation.

The specific activities carried out in the study to achieve the main objective are to:

- determine the role of HRIS in the functions of the human resource department.
- identify the critical factors for successful HRIS implementation.
- assess stages and barriers for successful HRIS implementation.
- evaluate the HRIS software selection methods.

Research questions

The following research questions were posed in relation to the specific objectives.

- What role can HRIS play in the human resource department functions?
- What are the critical factors for implementing a successful HRIS system?
- How successful are the various stages of HRIS implementation?
- What are the best ways to select HRIS Software?

Significance of the study

- The study would help identify current state of HRIS in the Bank
- It will identify the critical factors that will help the Bank in its implementation.
- The study would also discuss and explore ways to adapt the needs analysis to benefit of the Bank in HRIS implementation.

- The outcome of this study could also lead to increase in knowledge acquisition in general, especially if the findings from the study reveal certain information concerning the status of HRIS in the Bank that hitherto were unknown.
- The study would also identify and find solution to issues hampering achieving an HRIS environment that would help the Bank.
- The findings of this study can serve as input to the vision for the Bank in banking industry.
- Other researchers interested in the same or related topics would find this work relevant as a basis for further research.

Limitation of the study

This study is subject to a number of threats that limit both external and internal validity. It was intended to explore and explain current perceptions of management, supervisors and staff towards the implementation of HRIS in the context of Ghana Commercial Bank Ltd. External validity is limited because the results are mostly relevant to the Bank itself and therefore generalising of the result to other organisations is limited. That being said, it can be argued that the results have some relevance to other organisations who intends to implement HRIS.

Organisation of the study

This study is organised into five chapters. The first chapter, that is, the introductory chapter comprises the background to the study, the statement of the problem, the objectives, research questions, and organisation of the study.

The second chapter is the literature review of the critical issues pertaining to the study. In this regard the definition of HRIS, benefits of HRIS in human resource management, role and impact of HRIS, some HRIS applications, barriers to the implementation of HRIS, HRIS development and implementation are discussed.

The third chapter consists of the methodology. This includes the study organisation, study design, study population, sample size, data collection techniques and methods of analysis. The fourth chapter dwells on data analysis that reviews the findings made in the course of the study. The fifth and final chapter discusses the summary of findings, conclusions and recommendations.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

This chapter contains a review of literature on the various definitions of HRIS. In addition, the section will review the benefits of utilising HRIS in an organisation, role and impact of HRIS in an organisation, barriers to the implementation of HRIS and critical success factors (CSF) in implementing HRIS. Other discussions will focus on HRIS development and implementation.

Definition of human resource information system

An HRIS can be defined as a system used to acquire, store, manipulate, analyse, retrieve, and distribute information regarding an organisation's human resource (Kavanagh, Gueutal & Tannenbaum, 1990). It is an organisational tool for preparing relevant information for the users and managers to assist with decision-making about human resources of the organisation. The HRIS includes employee format forms, policies and procedures. The HRIS is to provide an easy access to a series of data in readable and understandable form to the users. The information provided is also expected to facilitate any users especially the operational and managerial levels of the organisation to review the personnel's performance, and for any important decision-making.

Tannenbaum (1990) defines an HRIS as one which is used to acquire, store, manipulate, analyse, retrieve and distribute information about an organisation's human resources. HRIS is also defined as a computer based application for assembling and processing data related to the human resource management (HRM) function.

According to Broderick and Boudreau (1992), HRIS is defined as the composite of databases, computer applications, and hardware and software necessary to collect, record, store, manage, deliver, present, and manipulate data for human resources. By this definition it is very important to note that the HRIS is not only concerned with what it will be doing, but also the hardware and the software are very important. As in other types of information systems, an HRIS consists of a database, which contains one or more files in which the data relevant to the system are maintained, and a database management system, which provides the means by which users of the system access and utilise these data. The HRIS thus contains tools that allow users to input new data and edit existing data and in addition, such software provide users with the opportunity to select from an array of predefined reports that may either be printed or displayed on a monitor. Such reports may address a number of different HRM issues (e.g., succession planning, compensation planning, equal employment opportunity monitoring).

HRISs also generally include tools by which users or system administrators may generate ad hoc reports and select specific cases or subsets of cases for display. Cohen (1989) noted that, without relatively accurate data about employees, few effective human resource decisions can be made. Similarly,

without the facility to report and represent the data in appropriate formats, the information hungry processes of audit (quality assessment) will not be satisfied easily. Lederer (1984) adds to this dimension in suggesting that improved reporting is necessitated by complex governmental requirements. Therefore, it can be concluded that HRIS is a system which enables human resource practitioners to store, access or retrieve data in the performance of their duties.

Benefits of human resource information system in human resource management

Businesses are usually prepared to undertake changes provided that they see a competitive advantage for doing so. However, many companies have problems implementing new technologies, including HRIS, due to a lack of sufficient capital and skills. Therefore, companies are reluctant to implement HRIS unless they are convinced of the benefits that this would bring to their organisations. The common benefits of HRIS frequently cited in studies include improved accuracy, the provision of timely and quick access to information, and the saving of costs (Wille & Hammond, 1981). Broderick and Boudreau (1992) also examine how a HRIS might contribute to three human resource competitive objectives which are cost reduction, service improvement and innovation.

Cost reduction can be achieved through automation of routine activities and the subsequent economies of scale. Consequently, human resource thus becomes the low cost provider for critical administrative work, as well as a more accurate and timely provision of human resource information. Similarly, Kossek, Young,

Gash & Nichol (1994) argued that a HRIS enables human resource to cost and demonstrate the value added from its activities to management and shift from a reactive to a proactive stance.

Service improvement involves changing existing work methods and relations with line and other specialist managers including the delegation of some decisions to these groups. Personnel can play the role of “internal power broker” using common language to act as an interface, allowing them to collaborate with line managers and other clients to become more responsive to their needs (Broderick & Boudreau, 1992).

Innovation emphasises the development of new methods, technologies, products and services. Personnel use information technology to develop new ways of working by freeing up staff from routine activities to allow exploratory, creative projects with uncertain, short-term pay-offs (Broderick & Boudreau, 1992). The increased access to more integrated employee data has the potential to reshape human resource jobs by developing more generalists, thereby lowering the need for extreme specialists (Kossek et al., 1994).

Lederer (1984) also discusses why the accuracy and timeliness of HRIS is very important in terms of operating, controlling, and planning activities in human resource. Similarly, Martinsons (1994) classified different types of HRIS usage according to its degree of sophistication. He argues that payroll administration benefits by keeping employee attendance and absence records electronically because it is able to eliminate duplication of employee records as in the case filing cabinet. In addition, Kovach and Cathcart (1999) noted that HRIS information

could be used, first for administrative purposes which reduce costs and time and for the more analytical decision support. On the other hand, the use of IT in recruitment and selection, training and development, human resource planning and performance appraisal is classified as sophisticated, because of the information it can generate to support decisions which involve expert judgment, and more manipulation of information about the human resources of organisations.

Similarly, Beckers and Bsai (2002) point out at least four reasons why companies should use HRIS. These are that HRIS can:

- increase competitiveness by improving human resource operations
- produce a greater number and variety of human resource -related reports
- shift the focus of human resource from the processing of transactions to strategic HRM
- make employees part of HRIS; and re-engineer the entire human resource function of companies.

The establishment of an HRIS in an organisation also looks towards the integration and support for three essential corporate processes such as strategic planning, operational planning and human resource planning, including career planning. Lederer (1984) propose four broad benefits for implementing HRIS which include accuracy, timelines, reporting and controlling of information in the organisation.

Specifically, this means that the building of capabilities for succession planning, position control, management development, career planning and action

research can be supported by implementing HRIS (Burack, 1985). Associateship Management of Information Technology (1995) indicates that information should be accurate because using incorrect information could have serious and damaging consequences and therefore, information should only be accurate enough for its purpose. The timing of information is also important for good decision-making since if it is not available until decision is made, it will be useful only for comparison and longer-term control, and may serve no purpose even then. The time value of information may be gauged by the latest event which the information covers and the comparison and control stage for which it will be used.

According to Anthony, Perrewe and Kacmar (1999), the human resources (HR) department in an organisation is supposed to manage a variety of activities associated with employees like recruiting, training, promoting, terminating, record keeping, and meeting various legal requirements. In addition, it supports a company's effort to develop and utilise the workforce, and maintain an environment conducive to full participation, continuous improvement, and personal and organisational growth. It is an open secret that in the past, the human resource function within an organisation did not have the same priorities as other functions. But now, management of human resources has been acknowledged as an important factor in developing sustainable competitive advantage as stated by Gratton, Hope-Hailey, Stiles and Truss (1999).

A study conducted by the Gartner Group suggests that companies that use technology effectively to manage the human resource function will have a tremendous advantage over those that do not (Greengard, 1999). In spite of this,

less than 20% of the human resource managers in a survey conducted by Deloitte and Touche and Lawson Software in 1998 indicated that their organisation has the technology to provide expeditious human resource information for business planning (Greengard, 1999). An important offshoot of such findings coupled with developments in database management systems, has been the increased sophistication of human resource information systems (HRIS) application. Automated solutions are no longer limited to large employers with big budgets. There are numerous options that fall within the budget of small and medium-sized companies as well (Martinez, 1999).

Benefits of HRIS include incremental leaps in efficiency and response time of various traditionally labour-intensive human resource activities. Not only is work duplication eliminated, but also various processes are streamlined and become more efficient. Human resource staff can spend less time on day-to-day administrative issues, and more time on strategic decision making and planning. This has a direct impact on productivity and profitability of an organisation. Secondly, there is better knowledge management which leads to a firm's better competitive advantage in the marketplace and better stakeholders' satisfaction and, thirdly, the use of HRIS for various business performance calculations like returns on training, turnover costs, and human-value addition. These calculations can be used to impress upon top management the fact that human resource function is an equal strategic partner and is critical to meeting various organisational objectives (Fox, 1998). It has also been noted that to achieve

organisational objectives it is very important to link business planning and human resource planning.

The role and impact of human resource information system

Huselid, Jackson, and Schuler (1997) studied ‘the use and impact of human resource information systems on human resource management professionals’. The aim was to assess and compare the specific areas of use and to introduce a taxonomy that provides a framework for academicians. They also sought to determine whether HRIS usage was strategic, a perceived value-added for the organisation, and its impact on professional standing for human resource professionals.

The researchers used two techniques to investigate the information systems impact on HRM. Both a questionnaire survey and in-depth semi-structured interviews were used. While the former was used to obtain responses from human resource professionals in the UK organisations, the latter targeted a small number of senior executives, such as directors, in order to gain deeper insights into emerging issues.

Questionnaires were sent to human resource managers at 450 organisations located in the UK. A stratified random sampling from the UK business directory was used and it covered the different sectors of the economy. Of the responses received, 101 were from senior human resource professionals, representing a (22%) return; and these were used in the subsequent analysis. The results showed that, on average, few differences existed between SME and large

company HRIS' usage. Further, the authors observed that the professional standing had been enhanced by the specific HRIS usage for strategic collaborating, but cautioned that it was not as pronounced as that experienced by those other professions. In conclusion, the researchers noted that for senior human resource professionals, strategic use of HRIS was increasingly the norm, irrespective of company size. In addition, they observe that strategic use of HRIS enhanced the perceived standing of HR professionals within organisations; senior non-HR executives however did not share this view.

Gardner, Lepak and Bartol (2003) in their research work, 'Virtual HR: the impact of information technology on human resource professional', investigated the extensive use of IT influence on jobs in one professional occupational segment like human resources (HR). They sought to examine how HR professionals handled HR information as well as the expectations placed on them resulting from an increased reliance on IT. The study used primary data about HR professionals working for a sample of HR executives. The Society for Human Resource Management (SHRM) provided these names and contact information. In addition, they obtained IT information usage from the HR executives. Moreover, they mailed surveys to 1969 HR executives in various organisations from a total sample of 2019. Of these, there were 155 returns marked as undeliverable, reducing the sample size to 1814 members. A total of 455 HR executives completed surveys for a response rate of (25.1%).

The results indicated that extensive use of IT enabled HR professionals, to have more information autonomy. Furthermore, extensive use of IT is positively

associated with HR professional spending more time on IT support activities. In addition, functional specialists report increases in time demands for both transformational activities and IT support activities. Moreover, the result supported the theorised impact suggesting that with more IT, HR tasks are further automated (Broderick & Boudreau, 1992). The study also suggested that IT relates to two distinct aspects of HR professional roles: enabling aspects as well as time shifting aspects. The study however noted the likelihood that additional factors may influence the relationship between IT use and the job of HR professionals.

Some human resource information system applications

This sub section illustrates the processes involved in executing the HRM functions which the HRIS can be effectively be used to perform. Each of the functions such as: personnel records, planning, recruitment, selection, orientation and training, performance appraisal etc. goes through a process which the HRIS can easily handle.

Personnel information and record systems

The quality of decisions made about people and the quality of the services provided by the personnel department are largely dependent on the quality of information and records available. A personnel record includes personal details, job details, employment contracts, salary details, performance appraisal, contracts and addresses and employee transactional data. The latter includes all the special

items of information a company may need for its employees including qualifications, special skills and competencies, training, absence, medical history and discipline (Associateship Management of Information Technology, 1995).

Human resource planning

Human resource planning is now an important organisational function which helps an organisation to fulfil its future human resource needs. This function requires considerable time and effort in order to be accomplished effectively. The recent use of computers has helped in the planning of personnel management. An HRIS can be used to model the effects on groups of people within the organisation of change over time in the numbers and structure of each group and movements into, through and out of each group. Such a model looks at the organisation, using a manpower system consisting of grades and flows. The user has considerable freedom in defining the number and type of flows required whether into, through, or out of each level of the system, i.e. the flow-in includes recruitment, transfers within the organisation and flow-out which deals with transfers out, retirement, resignation (uncontrolled losses) and early retirement (controlled losses) (Gross, 1977).

Employee scheduling

A HRIS can be used to provide an integral system for matching the number of employees to business needs. The process of scheduling human resources to meet output in processing targets is becoming increasingly complex

with the availability of more flexible ways of deploying people. They include multi-skilling (employees who are capable of carrying out different tasks and are not subject to trade-union-imposed constraints in doing so), the use of contract workers, the use of outworkers (people working at home or in another centre, a process which is facilitated by computer networking and electronic mailing), twilight shifts, more part-timers and job sharing.

Human resource planning is an interactive process which is always using output from one part of the process to influence another part of the process. Thus, assessments of the demand and supply of people, scheduling policies and possibilities, and the scope for flexing work-loads and the use of people all influence the human resource supply policies adopted by the organisation (Mondy & Noe, 1981).

Recruitment

A HRIS recruitment system can carry out four basic administrative tasks which are storage of applicant's details, retrieval and amendment of those details, letter writing (linking the system to word-processing facilities) which includes acknowledgements, invitations to interview, offers and rejections and management reports such as analysis of response by media and monitoring recruitment costs (Laudon, 1994).

Similarly, Kovach and Cathcart (1999) state that computerised recruitment control packages not only automate recruitment correspondence (coupling the HRIS with word processors) but also enable users to determine instantly who has

applied for which post, track progress in recruiting for a specific post and match and process internal candidates. The HRIS database can be used in more advance applications to assist in establishing selection profiles for the standards to be matched against potential job holders in order that the right people can be appointed or promoted to the right jobs.

Reward management

According to Broderick and Boudreau (1992), an HRIS can be used for pay modelling and to carry out a number of reward administration activities and job evaluation. It is used to analyse and report on average pay distributions by job, grade, age or length of service, calculate comparative ratios to show how average pay in a range differs from the target pay. It can also be used to calculate the effects of attrition and assist in job evaluation.

Performance management

A HRIS helps in operating performance management by generating forms, analysing and reporting on the result of performance reviews showing the distribution of people with different degrees of potential, and highlights individuals with particular skills or special promise. This system can be linked to others to provide an integrated basis for creating and implementing human resource management policies.

Absenteeism control

The control of staff absenteeism can be carried out with the help of computerised time recoding and attendance systems which can record clocking-in or out time and the hours actually worked on each day by each employee. The absence control also enables employees to record the time spent on particular jobs and this can help them to assess themselves if the task is too big for them or they will need future training to equip them perform the job earlier than required. It will help the HR department to get employees to explain the reason for late arrival, early departure, or any other absence from work without permission. It can be linked to the payroll system for pay and bonus calculation purposes and to a flexible working hour's system. It can also provide team leaders with a statement showing the length and reasons for absence from queried employees. Advance systems linked information obtained from clocking-on or –out direct to a screen in the team leader's office so that they can have instant information on how many people are at work and on the incidence of lateness.

Barriers to the implementation of human resource information system

Despite the numerous benefits HRIS can offer, extensive debate exists in relation to the profitable implementation and application of HRIS in practice. It has been found out that cost and deadline overruns are common when new HR systems are implemented in most organisations.

According to Walker (1982) and Simon (1985) the most common problems in HRIS implementation include:

- lack of management commitment, leading to inadequate resources and personnel. This can be a serious concern if a protracted development process is anticipated.
- failure to assign a project team for the duration of the project. It is important that the core project team members stay with the project from its inception to implementation.
- political intrigue, conflict, and hidden agendas. Power struggles can lead to dysfunctional behaviour by all involved.
- poorly written or incomplete needs analysis reports might lead to faulty decisions and a costly system that does not fit the needs of the organisation.
- failure to include key personnel on the project team. This can exacerbate political problems and reduce “perceived ownership” to a small group.
- failure to survey or interview key groups in the organisation. For example, overlooking the accounting/payroll group in the needs analysis could lead to a system incompatible with the general ledger system of the organisation.

Kovach and Cathcart (1999) stated that the lack of money and support from top management were the biggest barriers to achieving the full potential of HRIS. They further indicated that other challenges were lack of HR knowledge by system designers and the lack of applications and solutions for HR users.

Similarly, Beckers and Bstat (2000) pointed out that the cost of setting up and maintaining a HRIS can be high, which is the major obstacle in the

implementation of a HRIS. A survey conducted by the Institute of Management and Administration (2000) indicated that the biggest problems or obstacles to managing a HRIS include the following:

- the lack of staff
- the lack of a budget
- problems with time management
- the need to work with other departments and
- the lack of information technology (IT) support.

Critical Success Factors (CSF)

Despite that enterprise resource planning (ERP) systems have proved to provide organisations with the opportunity to integrate individual, functionally oriented information systems, organisations will not gain the benefit expected unless these systems are implemented successfully. The identification of CSF before the start of the project is rather critical for the successful implementation of ERP systems (Tannenbaum, 1990).

Information system implementation failures and success by some organisations

There have been numerous cases of HRIS failures reported in the literature (Hirschheim & Lytinen, 1987). Therefore, a significant number of information systems research papers in the 1990s were published attempting to discover the reasons for information systems project failures and how to ensure projects

success (Gorla & Lin, 1998). According to Stedman (1998) the implementation of ERP at Purina Mills failed because the cost of the project became so high that management could no longer afford to support it. The consultant employed to lead the project lacked the necessary background information which would have served as a guide to the successful implementation. Stedman (1999) explains the cause of ERP failure at Reebok organisation. The author indicates that the organisation ignored the needs analysis which would have enabled it to know the scope of work to be done and how the system will be beneficial to the needs of the organisation. Lack of staff involvement also contributed to the failure of the project.

Pender (2000) also indicates that Siemens Power Transmission project failed because of cost. Lawnham (2001) indicates that the University of South West in Australia failed in its ERP implementation because it lacked the needed funds due to under estimation, and human resource to undertake the project. Finally, Hirt and Swanson (2001) indicate that A-dec Incorporated ERP project failed because the organisation lacks the needed funds to support the training needs of its employees.

Similarly, some ERP implementations in some organisations were successful. According to Martin (1998) Compaq Computers ERP implementation was successful because the organisation was able to define clearly what its needs were and the departments which will use the system, so the modules that were installed benefited the organisation. Davenport (2000) also indicates that Earth Gains which produces bakery products was successful with their implementation

because the critical issues were taken care of at every stage of the project. The organisation had a clear strategy since the needs analysis was well conducted. The necessary user departments were involved and had their inputs captured and considered in the implementation phase. Due to good interpersonal skills, the project team members were able to discuss issues fairly by accepting opposing view to enhance the project. According to Grygo (2000) U.S. Mint, a Coin Production organisation was successful with its ERP implementation because there was a clear objective for the project and all the requirements indicated in the needs analysis before the start of the project were met. User departments also made inputs towards the success of the project. Senior management was fully involved in the execution of the project and this help in cash flows to the project. There was also effective training programme which also help the users to use the system effectively and efficiently, since they were involved in its implementation, they were willing to accept ownership of the system.

Human resource information system development and implementation

An HRIS can be seen as a system that integrates all information that runs through an organisation (Davenport, 1998) and can be categorised as a large information system. It is important then to look at some of the modules that help in the implementation of HRIS. These are as follows;

- Information Systems (IS)
- Management Information Systems (MIS)
- Decision Support Systems (DSS)

- Transaction Processing Systems (TPS)
- Executive Support Systems (ESS)

Information systems

This research adopts a definition of an information system that supports the fundamental concepts of what constitutes an HRIS. An information system is defined as a collection of subsystems defined by functional or organisational boundaries (Iivari, 1991), that supports decision-making and control in an organisation (Lucas, 1981) by utilising information technology to capture, transmit, store, retrieve, manipulate, or display information used in one or more business processes (Alter, 1996). The term information systems also covers hardware and software used for storing, processing or communicating information and it is through information systems that organisations may be able to get smooth flow of information. Information systems may help managers to administer and control decision making but not to lead.

Rapid changes in information systems in the last five decades have strongly influenced modern organisations (Chaffey, 1999). Many organisations are using information systems as tools for enhancing efficiency. This is consistent with the ideas of information systems writers like Laudon and Laudon (1999). The use of information systems such as HRIS has become widespread as more employees and departments in all types of organisations rely heavily on such systems. A contemporary use of information systems has become advanced and

enables organisations to make a more strategic use of them (Broderick & Boudreau, 1992).

Transaction processing systems (TPS)

These are the basic business systems that serve the operational level of the organisation. A transaction processing system is a computerised system that performs and records the daily routine transactions necessary to the conduct of the business (Broderick & Boudreau, 1992). An TPS records a non-inquiry transaction itself, as well as all of its effects, in the database and produces documents relating to the transaction. Typical examples of TPS include the following like payroll, employee record keeping and sales order entry. TPS are used to process all the routine transactions generated by the major functional areas of an organisation such as marketing, finance, accounting, production and personnel. Transaction processing may be accomplished in one of two modes, namely an on-line mode or real-time and batch mode.

In on-line or real-time mode, data are processed immediately after a transaction occurs. The database is always up to date and always needs a fast storage device such as magnetic disk. In batch processing, transaction data are accumulated over a period of time and processed periodically. Batch processing is usually cyclic: daily, weekly, or monthly depending on the nature of the transactions. It is cheaper and easier to control than on-line processing. The database is constantly out of date since transactions need to be updated at a later day. Managers need TPS to monitor the status of internal operations and the organisation's relations with the external environment.

Management information systems (MIS)

MIS supports the management level of the organisation, by providing managers with reports and, in some cases, with on-line access to the organisation's current performance and historical records. MIS primarily serve the functions of planning, controlling, and decision making at the management level. Generally, they are dependent on underlying transaction processing system for data. It also assists management in making routine decisions although have little analytical capability.

MIS summarises and reports on basic daily operations of the organisation for decision marking. The basic transaction data from TPS are compressed and are usually presented in long reports that are produced on regular schedule. A typical MIS transforms transaction data from inventory, production, and accounting into MIS files that are used to provide managers with weekly, monthly, and yearly reports. MIS generally addresses structured questions that are known well in advance (Broderick & Boudreau, 1992).

Decision Support Systems (DSS)

According to Broderick & Boudreau (1992), decision support systems (DSS) are a subset of computer-based information system (CBIS). The term DSS is designed to produce information in a way to help managers make better decisions. The objective is to allow the manager to consider a number of alternatives and evaluate them under a variety of potential conditions. A key element in the usefulness of the systems is their ability to function interactively.

This feature helps managers to use these systems to develop scenarios using existing results to refine their understanding of the problem.

Decision support systems are composed of three elements which are a language subsystem used by the manager to communicate interactively with the decision support system, a problem processing subsystem which provides analytical techniques and presentation capabilities and a knowledge subsystem which holds internal data and can access any needed external data. These systems then combine to provide the capabilities required for an effective DSS. The main characteristics of a DSS can be identified as the computer providing support to the user, who uses his or her judgment to reach a decision.

Kovach et al (2002) emphasise that DSS are used by management to aid in making decisions on issues which are unstructured and complex. DSS are intended to provide a wide range of alternative information gathering and analytical tools with a major emphasis upon flexibility, user-friendliness and a quick response for managerial decision making.

Executive support systems (ESS)

According to Gallagher (1986), senior managers can also use a category of information systems called executive support systems (ESS) to make decisions. ESS serves the strategic level of the organisation. They address unstructured decisions, create a generalised computing and communications environment rather than providing any fixed application or specific capability. ESS is designed to incorporate data about external events such as new tax laws or competitors, but

they also draw summarised information from internal MIS and DSS. They filter, compress, and track critical data, emphasising the reduction of time and effort required to obtain information useful to executives (Laudon, 1994).

Greer (1995) also indicates that ESS can support all the major responsibilities and activities of senior executives, and strategic planning. ESS can be viewed as a means of attacking a critical business need in order to ensure the future well-being of the organisation.

Development and implementation of HRIS

Rodger, Pendharkar, Paper and Molnar (1998) contend that users, managers, and employees who are unaware of the value-added potential of the HRIS system will fail in HRIS development and implementation. They suggest that concentration on communicating and educating users to become aware of the value-added potential of HRIS is important for the development and implementation stages. Likewise, Gara (2001) emphasises that the key areas are getting people in the organisation informed, and educating management and staff. He recommends that a project team consisting of HR staff members, IT professionals, and consultant(s) who can communicate with each other well should be recruited into the team. A project manager who is an HR manager and has some technical ability is the most desirable person to lead this team. Including some staff members from field locations to give other perspectives that may not be obvious to staff members at the corporate level will lead to the success of the project (Gara, 2001).

The first stage of the HRIS development and implementation, according to Walker (1982) and Gara (2001), is the HRIS's needs analysis. They support that the needs analysis should be done first to ensure legal and government compliance, meet growing organisational needs, use technology to cut costs, and provide a long range view for the organisation. Moreover, gaining the support of top management in taking an assessment of the organisation's human resource needs and requirements is important for this stage. Many researches confirm that if the needs assessment is not done properly or is not well justified, the entire project will fail (Roger et al, 1998).

Furthermore, Gara (2001) recommends that the project team needs to be responsible for conducting the analysis as follows. The team should classify and clarify the human resource activities. The team should conduct interviews with HR staff, get the project team to interview the HR staff and get intimate with what they do to understand the process flows and functionality.

Gara (2001) suggests that the heart and soul of any HRIS system, and contribution to its efficiency are tied to the development of data tables such as Job Table, Salary Grades Table, Skill Code Table, and Benefits Plan Table. Security and privacy are also important issues for HRIS and IT systems. If the organisation enables Employee Self-Service or Management Self-Service Systems with an HRIS, the IT staff should develop a tight security plan and expertise to counter hackers. The second important issue to consider in an HRIS development and implementation is the Human Resource Information Centre (HRIC) team functional duties during the implementation. HRIC staff members are responsible

for daily activities for the HRIS system and are recognised as experts in the system. Some examples of functional duties of the Human Resource Information Centre (HRIC) are preparing data for entry into the system, editing data, troubleshooting errors, and handling requests for information (Gara, 2001).

Business and human resource information system strategy changes

According to Walker (1982), organisational growth through mergers, acquisitions, or business expansion may render a previously useful HRIS obsolete. Major changes in size and scope of the business can create new human resource information needs. HRIS strategies may be linked to business changes, but not always. Some organisations are changing their HRIS strategy by decentralising HRIS activities and distributing the processes throughout the organisation. Some may decide that payroll activities belong to Human Resource, not the Accounting Department, whilst other organisations might go in exactly the opposite direction. Nevertheless, changes in HRIS strategy may necessitate changing to a new system to accommodate those changes (Simon 1985).

Similarly, Burack (1985) makes it clear that at old age, systems become more expensive to maintain. Modifications accumulate as does the documentation necessary to support the system. As new needs arise some systems are “patched” to address the needs. These patchwork systems, while being creative solutions at the time, may become inefficient, requiring dual entry and so on. Over time the system can begin to experience performance decrements. At some point, a cost/benefit analysis would suggest that a new system should be developed.

Avison and Shah (1997), in their review on factors influencing the implementation and the use of HRIS in an organisation, make it clear that the stages of the system development and its life cycle are essential for having a successful implementation process, and also for the HRIS system to stand the test of time. This then leads to taking a critical look at how systems should be designed and further developed for successful implementation.

One can think of the systems approach as an organised way of dealing with a problem. System design and implementation processes mainly deal with software development activities as shown in the Figure 1.

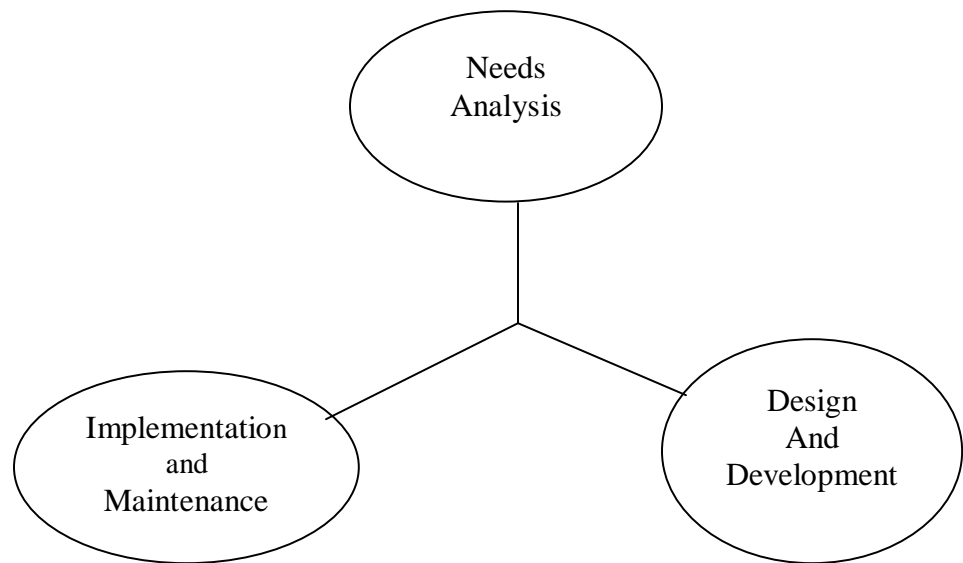


Figure 1: System development process

Source: Kavanagh et al (1990)

Figure 1 indicates some of the important processes involved in developing the HRIS in-house. The need analysis is an in-depth study of the information collection, processing, storage and reporting demands of an organisational unit

(Kavanagh, Gueutal & Tannenbaum, 1990). According to the authors, the needs analysis serves four main purposes which include allowing the HR and the project managers to evaluate critical information needs of each department and provides the needed justification for the funding of the HRIS. It also provides a clear set of specifications to guide the project manager in designing or purchasing a system. It helps the HR group to establish a strategic information plan for their department and provides the opportunity to develop information policy for the organisation.

The key decision of this process begins with the project team faced with a decision that will have long-term effects on the system. Although the focus here is on two of the most important decisions, it will become apparent that each decision involves other key considerations. The first decision deals with the purchase/development option selected. The second pertains to the type of technology configuration to choose. The initial focus will have to be on the software rather than hardware, since the softwares being developed these days are compatible with most hardware. The next topic discusses the software acquisition and their pros and cons.

How to choose a HRIS

Key elements in the process of choosing a HRIS are business needs and system requirements, involvement of representatives from all potential user groups, short listing providers, demonstrations, selection criteria and longevity.

Developing a system internally

Developing own system has traditionally been an option only for the largest, most technically sophisticated users. According to Mathys, LaVan, and

Nogal (1984), a survey of Fortune 500 companies showed that 46 percent had developed their own systems. Technical sophistication was required because large systems were primarily mainframe based and used arcane, difficult-to-use programming languages. The designers needed to be programmers with formal computer science or MIS education. In most HR departments such skills do not exist, consequently the internal design effort becomes the property of the MIS/DP group with the HR as onlookers. Although there are softwares which help nonprogrammers to develop sophisticated applications, it should be noted that system development is certainly more complicated than simply answering questions.

A chief advantage of an internally developed system is that the HR department ends up with an extensive and detailed knowledge of the system. In designing the software, the group will acquire a great deal of experience in system design and development. This experience will be invaluable, because modifications and enhancements are invariably added to the system (Corson, 1986). Internal development led by the HR staff can help make the function information independent.

Although there are compelling reasons to develop a system internally, there are also drawbacks. Internally developed systems are not less costly than vendor-developed ones. According to Corson (1986), building own systems can cost 400 percent more and takes 33 percent longer than vendor-developed system. Clearly, these estimates depend on the number of modules attempted and the way the system is costed.

Other potential problems in internally developed systems include difficulty in predicting development time and costs, unforeseen bugs and glitches in the system, lack of professionally developed documentation and training manuals, lower overall sophistication in the software, and lack of “expert” support when something goes wrong. However, when expertise is available and total customisation is required, an internally developed system can result in a superior fit with the needs of the organisation.

Purchasing a vendor-developed system

According to Harders and Wisniewski (1989), an option for virtually every organisation is to purchase a system from a vendor. There is a lot of HRIS software on the market. Indeed the most difficult choice facing the user is determining which of the many systems is the best suitable for the organisation. However, it should be noted that, many organisations make major modifications to their purchased software. The two authors indicated that the two major evaluations that must be done if an organisation is to select a vendor-supplied product, first concerns the product. Will it do what is required? The second is the vendor. Will the vendor be able to provide the amount and type of support required?

Evaluating the product

According to Mathys, LaVan and Nogal (1984), three key issues must be answered in evaluating any product. First, the product should do the task that the

needs analysis has determined. Second, the product should really perform the tasks it is designed for. That is, it should be able to handle the job in a way that is consistent with the organisation's policies and procedures and thirdly, it should be able to handle recent technology issues.

In dealing with product evaluation, some methods must be used to sort through the many system market. In reaction to Mathys et al's (1984) process, Harders and Wisniewski (1989) suggest that this can be done in several ways, including contracting vendors, reviewing publications, attending seminars, meeting with HR system users, and distributing a request for proposals (RFP). Most organisations will use some combination of approaches but should arrive at an RFP during this process. The RFP tells the vendor what the organisation expect the system to do.

According to Davenport (1998), there is also the need first develop a good RFP that will weed out many potential systems, and also discuss with current users of the remaining systems to help eliminate the boasts from the reality. He also stated that, there is also the need to have hands-on evaluation and demonstration of all the modules required by the organisation.

According to Harders and Wisniewski (1989) buyers of software should not accept the sales representative's assurances that the system can do all the tasks needed. If some tasks are difficult or impossible at first, it will probably be difficult later. It is often advisable to devise a standard set of reports, adhoc inquiries, forms and some for comparison across systems. It should also be noted that, the more systems that are evaluated, the better the focus on critical system

performance factors and the less likelihood for surprises later. In dealing with technical issues, Fox (1998) suggested that the system type, hardware requirements, storage and backup strategies should meet the specifications in the needs analysis. Documentation should be an area that the project team will have to consider as very important. Both technical and user manuals should be friendly and comprehensive enough to understand.

The project team should be able to have a better assessment of the vendor's weaknesses, before they become apparent during installation or utilisation of the software. Lastly, according to Laudon and Laudon (1999), the vendor is going to be a partner in the organisation's system and needs to be sure of the type of organisation it is forming partnership with.

Choosing computer hardware

In the years past only mainframes could handle the volume of HR records. This shifted HR operations to the Data Processing (DP) or MIS departments due to the complex nature of the mainframe. Today, many more computing options are available. The advent of microcomputers has changed the rules in data processing. Today's desktop microcomputer has several times the power and storage of the mainframe of decade ago.

The vendor should provide the minimum configuration of hardware that the software package can run on successfully (Armstrong, 2003). According to Armstrong the organisation needs to assess its data requirements and be able to acquire the right hardware specification for the organisation. The following items

needs to be considered in the hardware acquisition. These are hard disk size, memory, central processing unit (CPU) speed, network protocol and number of workstations. Selecting the type of hardware cannot be separated from selecting software and the results of the needs analysis. In many cases the information policy of the organisation may dictate the hardware to be used.

Selection of human resource information system project team

It was not uncommon in the past for management information system (MIS) specialists to run HRIS projects (Bortolus, 1998). The MIS staff took all the major decisions. They selected the software, hardware, and the platform. In addition they designed the business processes. Currently, in most organisations, cross-functional teams run HRIS projects (Bortolus, 1998). The traditional project manager now ensures that the process is working efficiently and acts as a process owner. Typically, the core team consists of not more than 10-12 members from different disciplines. The selection of team members and their ability to work together is critical to the project. Fox (1998) also confirmed that since there are people with different personalities and varying levels of knowledge, skills, and expertise working together in a team, many organisations invest in professional trainers to help build high performance teams.

Implementation strategies

There are two distinctive ways of implementing an HRIS. These ways are termed the 'phased' implementation and the 'Big Bang' approaches (O'Leary,

2000). According Markus, Tanis, and van Fenema (2000), depending on the organisational structure, the complexity of the organisation, economic issues, strategic partners, time constraints and geographical locations, the appropriate implementation approach should be selected. Markus et al (2000) further explained that the Big Bang approach requires simultaneous implementation of multiple modules of an HRIS package, while a phased implementation consists of designing, developing, testing and installing different modules of the same HRIS package. Holland and Light (2000) also talked about another approach that they called the 'Vanilla' implementation approach which focuses on minimal customisation of the HRIS package and has been found to be a common implementation approach in educational environments.

Implementation and maintenance

According to Simon (1995), the major problem faced by any organisation when implementing new technology or, for that matter, any change that affects the way employees do their work is to overcome employees' resistance to changing their work behaviour. The worst mistake an organisation can make in implementing an HRIS is to wait until it arrives on its doorstep to inform employees that it will be used tomorrow. Successful implementation of an HRIS depends on the involvement of everyone affected by the planning stages and needs analysis for the system.

Davenport (2000) also confirmed that rapid spread and acquisition of computer technology for HR operations has led to major changes in the operation

of the HR function in the organisations. These changes, however, are not limited to the HR department, but also affect numerous employees in a variety of ways. According to Davenport the employees affected by the HRIS are called stakeholders in the system and their needs are paramount to the successful implementation of the HRIS. In trying to bring about positive changes in organisational functioning, such as by computerising the HR function, managers are often frustrated by employees' resistance to change (Levasseur, 2001). According to Levasseur, the main change models that can be applied to overcome change resistance are the Action-Research Approach and Lewin's Three-Stage Model.

Conceptual framework

The steps taken to conduct needs analysis in system development have been termed as DECIDE by Walker (1982), consisting of six steps as follows.

- Develop a needs analysis plan;
- Early information inventory;
- Comprehensive information inventory;
- Information evaluation;
- Develop the HRIS strategy;
- Evaluate the effort (Implementation Stage).

The DECIDE process is a synthesis of past approaches which divides the project analysis into manageable chunks.

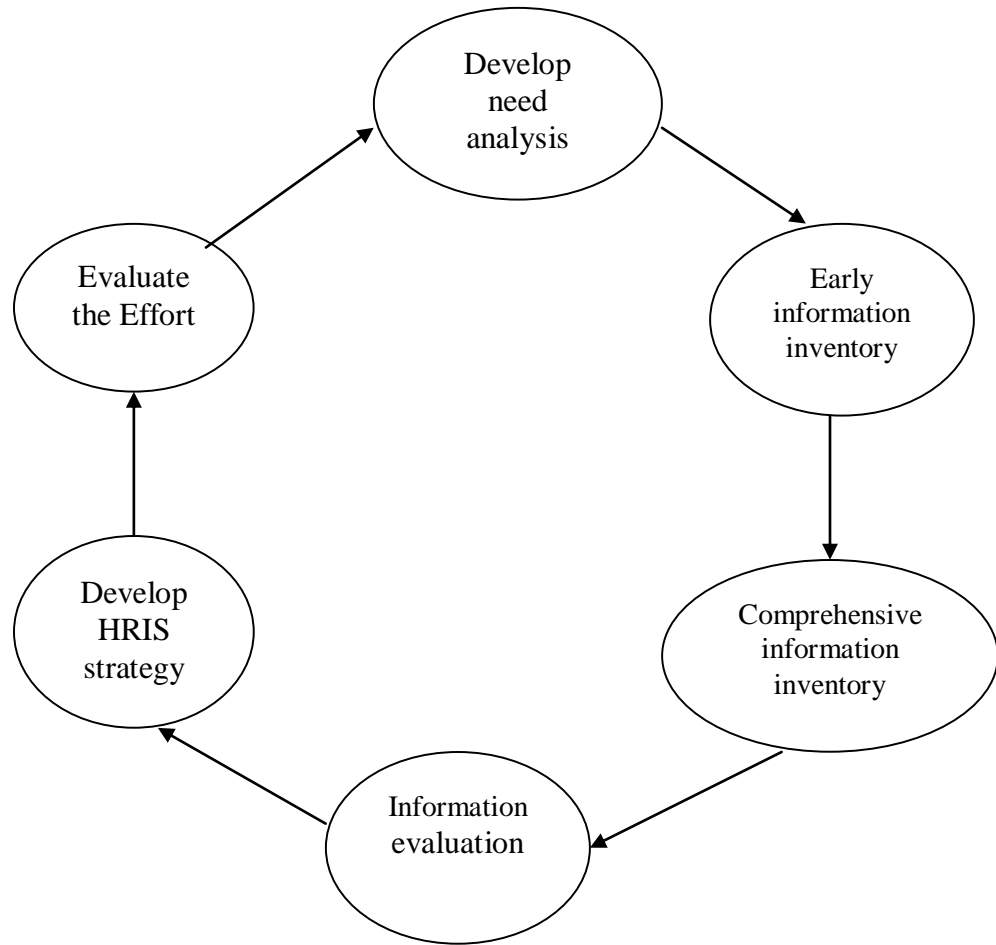


Figure 2: System development model

Source: Walker (1982)

According to Lederer (1984) the most critical step in developing an HRIS is well-thought-out needs analysis. All too often in the rush to get a system “up and running” the needs analysis gets short-changed or abbreviated and results in a system that does not meet the needs of the organisation. The needs analysis plan serves several objectives. It sets forth the purpose of the study and defines the products that will result, details the schedule of activities to be undertaken, and specifies the cost associated with the needs analysis effort. It also provides the background and support required to sell the needs analysis effort to management.

The early information inventory stage is designed to collect the information required to orient the initial project team members and facilitate planning the more intensive information inventory stage. It is at this time the initial project team is established. The members chosen will form the core of the final project team and should include the team leader, who will champion the system, HR staff members and other user department groups.

The comprehensive information inventory phase is targeted at collecting a large body of information upon which the final report will be based and the system designed. This is the most time intensive part of the needs analysis. Several classes of information should be examined which will include information input, data handling and HR processes, outputs and design issues.

The information evaluation phase can be intimidating. Even a team working in a small organisation will generate a substantial amount of data, reports, procedures and comments through the comprehensive information inventory stage. The task becomes more manageable, if information gathered are broken down into smaller chunks and handled.

The next stage is to develop the HRIS strategy and final reports. The first report is detailed and called operational document to guide system development. The second report is the executive summary, which focus on the strategic issues and provides key points for decision markers.

The final phase is the evaluation of the needs analysis effort. The objective here is to review the process just completed and determine what went well and what caused problems. Because maintaining a system is an ongoing process,

needs analysis is an ongoing process. In most cases, a small number of modules will be designed and implemented to get the system going. As the HR group and user departments gain experience with the system, additional modules will be added or existing ones enhanced. This phase also provides feedback for the entire process.

CHAPTER THREE

METHODOLOGY

Introduction

This chapter outlines the organisational structure of GCB and the procedures adopted in gathering information for the study. It specifies the population and the sample and the research instrument, as well as the data management processes.

The organisational structure of Ghana Commercial Bank

In order to understand the context within which the study was conducted, it is important to know the organisational structure of the Bank. The Bank has the Board of Directors made up of 12 members some of them are Government appointees. They are at the apex and charged with strategic and policy decisions. The next in command is the Management which comprises the Managing Director and two deputies for administration and operations. The Bank also has two executive members who serve as advisory members to the Management. The next line of command is made up of the General Managers and Heads of Departments for the various sections of the Bank. Some of them can be found at the Head Office and the rest at the various regional offices. Those at the regional offices are the Area Managers who supervise the activities of branches in their zone. The

Line Managers are the various Branch managers and Divisional Heads at the head office departments. The Inspection and Audit, Legal and Public Relations departments report directly to the Managing Director. The Accounts, Treasury and International banking divisions report to the Deputy Managing Director for Finance. Risk management, credit management, human resource, systems and technology, branch operations and the support services divisions also report to the deputy managing director of operations.

The research design

This research is a descriptive survey which sought to determine the implementation of HRIS in the organisation. The researcher found descriptive survey design apt since this study involves collecting data to answer questions concerning the current status of the subject of the study. A descriptive study determines and reports the way things are. In other to analyse the problem under study therefore questionnaires were used to elicit information.

The study mainly used qualitative techniques to obtain information for the topic under study which were then analysed quantitatively. Wikipedia, the free online encyclopaedia defines qualitative method as a research method that deliberately gives up on quantity in order to reach a depth in analysis of the object studied. Qualitative method uses different techniques such as focus groups, text analysis, participant observation and participation (Qualitative, 2005).

Quantitative method on the other hand, according to the wikipedia is concerned with numbers and anything that is quantifiable. They are therefore to

be distinguished from qualitative methods (Quantitative, 2005). Counting and measuring are common forms of quantitative methods. With quantitative method the result of the research is a number, or a series of numbers. These are often presented in tables, graphs or other forms of statistics.

The prevailing method is to use one method in conjunction with the other. Using qualitative methods, it is often possible to understand the meaning of the numbers produced by quantitative methods. In other words, using quantitative methods, it is possible to give precise and testable expression to qualitative ideas.

Population

The study comprised two target populations namely, the General Managers, Area Managers and Branch managers as one set and the staff of HR department and other members of staff from the various branches of the bank. With regard to the General Managers, Area Managers and Branch managers, the target population of 80 was also used as the accessible population. This figure was made up of 20, 10, and 50 from General Managers, Area Managers and Branch managers respectively. Concerning the clerical the target population totalled 800 comprising staff from HR all the staff from the 131 branches of the bank. However, the accessible population narrowed in to only staff from HR, Highstreet, Liberty, Ring Road, Cape coast Main, Sunyani, Kumasi Main, Tamale Main, Wa and Koforidu branches. The others branches were not included due to accessibility problems and the number of staff at the branch.

Table 1: Category of respondents

Category	Number	Sample size	Percentage
Head of departments	20	20	13.33
Area managers	10	10	6.67
Branch managers	131	50	33.33
Clerical staff	800	70	46.67
Total	961	150	100.00

Source: Field survey, 2006

Sample and sampling techniques

Because of inadequate resources and time constraint, stratified sampling and random sampling techniques were used to select samples for the study. To ensure guaranteed desired representation of the relevant subgroups, stratified sampling was used to select the sample for the two different population types. Gay (1992) wrote that stratified sampling is the process of selecting a sample in such a way that identified subgroups in the population are represented in the sample in the same proportion that they exist in the population.

Dillon, Madden & Firtle (1993) justified the unbiased nature of simple random sample when they wrote that it guarantees that every sample of a given size as well as every individual in the target population has equal chance of being selected. According to Gay (1992), a point in of favour random sampling is that it is required by inferential statistics, which is very important since inferential

statistics permit the researcher to make inferences about populations based on the behaviour of the samples.

Pertaining to this study, determining sample size was a very important issue because samples that are too large may waste time, resources and money, while samples that are too small may lead to inaccurate results. The size of the samples was therefore based on Krejcie and Morgan (1970) table for determining sample size from a given population. The accessible populations for the study were 80 and 70 for management and clerical staff respectively.

Having identified the population and determined the desired sample sizes, the researcher adopted the following process to select the samples for the clerical staff. For each of the branches within the population group, the researcher listed all members of the subgroup and assigned consecutive numbers to them. The researcher selected an arbitrary starting point from a table of random number and read the appropriate number. If the number corresponded to number assigned to an individual in the population, that individual was added to the sample, else, it was ignored. This process was repeated until the required number of subjects for the subgroup has been selected. It was expected that the responses, views and answers to the questionnaire of the sample would be true and fair representative of the entire population they represented.

Due to the size and locations of the branches, questionnaires were distributed to a sample sizes from the various category of staff. A total of 150 questionnaires were administered and a total of 140 were responded to. This represented a response rate of 93.33 percent which can be said to be significantly

high. The results and discussion that follow derive from the final responses to the questionnaire.

Instrument design

The instrument used in the investigation was the questionnaire which had open-ended items that allowed free response in the respondents own words. These also allowed respondents to express their views as far as details and thoughts were concerned. This was intended to eliminate the frustration that close-ended questions tended to induce among respondents. Secondary data were obtained from published materials like HRIS journals, magazines and annual reports and the internet. This was to give different perspectives to the study so as to enrich the investigation, and bring up issues that otherwise might have been ignored but which might be critical to the study.

Pre-testing of instrument

Copies of the questionnaires were given to the following for their comments and suggestions;

- Two members of general management were selected. They were the HR and system and technology managers.
- Two Area Managers from Accra and Kumasi regional offices, four Branch Managers from Sunyani, Ho, Koforidua and Cape Coast Main branches and ten clerical Staff from High street, Takoradi, Wa, Liberty and Tamale Main branches.

A few interviews were conducted with two of the HR staff to obtain information on the exact work that they do and how the current system work so as to serve as a guide to the implementation of the new system. Each interview lasted about an hour. Respondents' consent was also obtained on the scheduled dates and times for the interview. These preliminary interviews helped to restructure the questionnaire and determine the length of time for each interview to enable volunteers to continue with their official work. During the administration of questionnaires, respondents were encouraged at the onset to complete them within a week, however at the end of the 10th day only (50%) of respondents had completed their questionnaires. This necessitated subsequent follow-ups and at the end of the second week all the questionnaires were returned. Twenty questionnaires of the lot received had many unanswered portions and as a result they were returned to the respondents who were then assisted to answer them. The secondary source of data was obtained from HRIS documents and also from the internet.

Data collection

All selected Bank officials were informed of the purposes of the study and their consent to participate obtained. They were also assured of the confidentiality of their responses.

The questionnaire was hand-delivered to participants in the various departments, branches and the regional offices between 9th January, 2006 and 20th January, 2006. Those who could not finish immediately filled theirs and returned

them through the GCB mailing system while participants at the departments returned theirs by hand delivery. Telephone calls were made to several of them as a reminder. Ten of the participants misplaced their questionnaires. It took about four weeks and three days to receive the last questionnaire.

Problems encountered in the data collection

There were some factors which hindered this study from proceeding efficiently. Firstly, due to time constraints, respondents at times found it difficult to sit down and answer the questionnaire given to them. Secondly, since this research project only involved voluntary participation, it was a challenge to receive approval from some Heads of departments and Branch managers for the questionnaires to be administered as some of the managers expressed no enthusiasm or interest in the research.

Although the data can generally be reviewed as reliable, there are some limitations. Some of the questions might have required more information than respondents were willing to provide and therefore the output could not be best.

Data analysis

Having pre-tested the instrument, the researcher administered the questionnaires to the various categories of respondents. The responded questionnaires were coded and subsequently inputted into a Statistical Package for Social Sciences (SPSS) template and Microsoft Excel that had been designed in consistent with the research instrument. The descriptive nature of the study made

the researcher use descriptive statistical tools for the analysis of the data. The analysed data were then interpreted in relation to the research questions.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the findings of the study regarding the implementation of Human Resource Information System in Ghana Commercial Bank Ltd. The objective is to examine the approach to the implementation of the HRIS system and how the system will help management in decision making for the success of the organisation.

Background of respondents

To achieve this objective the various Head of Departments, Area Managers and Branch Managers and some senior and junior staff of various ranks were administered with questionnaires.

Table 2: Sex distribution of respondents

Sex	Frequency	Percentage
Male	58	41.43
Female	82	58.57
Total	140	100.0

Source: Field survey, 2006

Table 2 shows the sex distribution of respondents. Slightly more than 58 percent of the total numbers of respondents were females.

Role of human resource information system in the operations of the human resource department

According to Drucker (1993), the successful organisation is increasingly characterised as one with a growing emphasis on the organisational leveraging of knowledge assets, with organisational tasks posited as knowledge intensive and employees' knowledge and skills as the main source of competitive advantage. Of course, knowledge has always been significant and also it is the utilisation and management of the core competencies and capabilities of individuals and their ability to develop and use their knowledge that will be most important for the sustainability of many organisations in the twenty-first century (Pfeffer, 1994).

In order to understand the information basis of HR department by line management and the staff as a whole, respondents were questioned with respect to their knowledge about the HR practices at the bank based on how knowledgeable they are about the HR activities.

Table 3 shows that most respondents have knowledge about the HR practices in GCB. 42.86% responded as very good, and 36.43% also considered it as good and about (20.71%) felt it was poor. The indication of 79.29% which is the total of very good and good by respondents is in agreement with what Drucker (1993) stated. For the HR department to get more staff to be in line with their operations there is the need for the HR department to intensify their education in

getting most of the staff to have knowledge about their practices to win the competition in the industry as indicated by Pfeffer (1994), since over 20% of staff responded poor.

Table 3: Knowledge of human resource practice in the organisation

Knowledge	Sex					
	Male		Female		Total	
	Frequency	%	Frequency	%	Frequency	%
Poor	11	18.97	18	21.95	29	20.71
Good	22	37.93	29	35.37	51	36.43
Very good	25	43.1	35	42.68	60	42.86
Total	58	100	82	100	140	100.00

Source: Field survey, 2006

Table 4: Human resource policy on the use of the human resource information system

Response	Frequency	Percentages
Strongly agreed	10	7.14
Agree	30	21.43
Disagree	66	47.14
Strongly disagree	34	24.29
Total	140	100.00

Source: Field survey, 2006

To measure the degree of HR policy on the use of the HRIS, respondents were asked to demonstrate their level of knowledge of the policy on a scale of strongly agreed, agree, disagree and strongly disagree.

Table 4 shows the level of awareness that the respondents have about HR policy on the use of HRIS system in GCB. The table indicates that on the scale of strongly disagree and disagree over (71%) are not aware of any HR policy on the use of the HRIS system in the bank. The absence of a comprehensive policy on the use of the HRIS was not in conformity with the view of Anderson (1997) who reported that there should be an effective policy on the use of the HRIS in the organisation to enable HR professionals' to rely on the HRIS in fulfilling their job functions. Thus, for the HR professional there is an increasing reliance on the HRIS to fulfil even the most elementary job tasks. Consequently, because human capital plays a larger role in competitive advantage, functional managers expect the HRIS to provide functionality to meet departmental goals and objectives. Moreover, managers at all levels of the organisation structure rely on the HRIS' capabilities to provide superior data collection and analysis, especially for performance appraisal and performance management. HRIS provides management with strategic data not only in recruitment and retention strategies, but also in merging HRIS data into large-scale corporate strategy (Kovach et al., 2002). Table 4 also indicates that less than 30% of the respondents strongly agreed and agreed to the accession of Anderson (1997).

Table 5: Perceptions about the activities of the human resource department

Perception	Sex					
	Male		Female		Total	
	Frequency	%	Frequency	%	Frequency	%
Strategic	35	42.17	19	33.33	54	38.57
Administrative	48	57.83	38	66.67	86	61.43
Total	83	100	57	100	140	100

Source: Field survey, 2006

In recent years, there have been changes in the direction of the practices of the HR department in organisations from administrative roles to that of playing a more strategic role to support management and line managers. The job contents and the expectations from HR managers have changed over the last few years, with functional and strategic pressures ever growing on them (Ball, 2000), since economic pressures have resulted in structural changes taking place within organisations. Thus a strategic approach is characterised by the integration of both management and employee relations considerations into the business plan to facilitate the establishment and maintenance of competitive advantage in the industry.

About 61.43% were positive about the administrative role played by the HR department whilst 38.57% indicated that the role of the department as strategic in handling organisational issues. The minority were in agreement with the accession by Ball (2000), that the role of the HR department should be strategic, since these days HR practices are seen to be strategic, there is the need

for management to look at the functions of the department in order for it to play its strategic roles to enable the organisation achieve the best from the staff. It then means that, the HR department needs to reorganised itself to bring improvement in its strategy to get more line managers and other staff members to appreciate their role in the organisation. According to Davenport (2000), strategic management is concerned with policy decisions affecting the entire organisation, with the overall objective being to position the organisation to deal effectively with its environment, and is seen as a vital ingredient in achieving and maintaining effective performance in a changing environment.

Table 5 again shows that more female respondents (66.7%) had the perception that the HR functions are more administrative vis-à-vis the (57.8%) of the male. On the other hand more male respondents (42%) regarded the HR function as strategic thus in agreement with Ball (200) and Davenport (2000) as against the (33.3%) females.

Table 6: Staff access to their personal information

Perception	Frequency	Percentages
Strongly agree	20	14.29
Agree	10	7.14
Disagree	48	34.29
Strongly disagree	62	44.29
Total	140	100.00

Source: Field survey, 2006

In order to understand how effective and efficiently staff can access their personal information, so as to enable them to affect updates as necessary, participants were questioned to that effect and their responses revealed the following results as shown in Table 6.

With respect to access to their personal records 110 (78.58%) out of the 140 respondents indicated that they do not have access, while only 30 (21.43%) stated that they have access. This implies that errors cannot be easily identified and corrected for an effective HRIS. This finding contradicts the views of Kossek et al, (1994), which indicates that, the increased access to a more integrated employee data has the potential to reshape HR jobs by developing more generalists, thereby lowering the need for extreme specialists. Similarly it also contradicts the view of Associateship Management of information Technology (1995) which indicates that information should be accurate and timely to enable the organisation to make effective and efficient decision making.

Critical factors for implementing a successful human resource information system

In considering the critical factors in HRIS implementation, respondents were asked to state their effects on successful HRIS implementation. Table 7 indicates participants response to the critical factors involved in the successful implementing of HRIS. Out of the factors indicated, respondents indicated that teamwork and composition was the most critical. This was represented as (21.43%) comprising of 30 respondents. The results agreed with the view of Wee (2000), who stated that HRIS teamwork and composition is important throughout

the HRIS life cycle. Wee (200) indicated also that the HRIS team should consist of the best people in the organisation. Building a cross-functional team is also critical and the team should have a mix of consultants and internal staff, so that the internal staff can develop the necessary technical skills for design and implementation.

Out of the 140, 20 (14.29%) also indicated that top management support was also critical factor in HRIS implementation. According to Tannenbaum, (1990), top management support is needed throughout the implementation. The project must receive approval from top management and align with strategic business goals of the organisation. This can be achieved by tying management bonuses to project success and also top management needs to publicly and explicitly identify the project as a top priority (Wee, 2000). Senior management must be committed with its own involvement and willingness to allocate valuable resources to the implementation effort. This involves providing the needed people for the implementation and giving appropriate amount of time to get the job done. Managers should legitimise new goals and objectives. A shared vision of the organisation and the role of the new system and structures should be communicated to employees (Wee, 2000).

In the case of business plan and vision, 29 (20.71%) participants, out of the 140 were of the same view as Wee (2000). According to Wee, (2000), a clear business plan and vision to steer the direction of the project is needed throughout the ERP life cycle. A business plan that outlines proposed strategic and tangible benefits, resources, costs, risks and timeline is critical (Wee, 2000). This will help

keep focus on business benefits and also there should be a clear business model of how the organisation should operate behind the implementation effort. There should be a justification for the investment based on a problem and the change tied directly to the direction of the organisation (Ball, 2000).

Software development was also one of the critical factors that participants were asked to indicate their views. Out of the 140, 19 were of the same view as Wee (2000). Wee (2000) indicated that software development, testing and troubleshooting is essential at initial phase of the project. The overall HRIS architecture should be established before deployment, taking into account the most important requirements of the implementation. This prevents reconfiguration at every stage of implementation (Wee, 2000). There is a choice to be made on the level of functionality and approach to link the system to legacy systems. In addition, to best meet business needs, organisations may integrate other specialised software products with the HRIS suite. Interfaces for commercial software applications or legacy systems may need to be developed in-house if they are not available in the market (Ball, 2000).

Concerning project management, 22 (15.71%) respondents were of the same view as Ball (2000). According to Ball (2000), good project management is essential for any project implementation. An individual or group of people should be given responsibility to drive success in project management. First, scope should be established and controlled. The scope must also be clearly defined and be limited. This includes the amount of the systems implemented, involvement of business units, and amount of business process reengineering needed. Any

proposed changes should be evaluated against business benefits and, as far as possible, implemented at a later phase (Wee, 2000). Project management should be disciplined with coordinated training and active human resource department involvement and delivering early measures of success is important. A focus on results and constant tracking of schedules and budgets against targets are also important (Wee, 2000).

Table 7 indicates that 20 participants were of the view that change management programme and culture was also a critical factor which needs to be taken care off. Change management is important, starting at the project phase and continuing throughout the entire life cycle. Enterprise wide culture and structure change should be managed, which include people, organisation and culture change (Wee, 2000). A culture with shared values and common aims is conducive to success. Organisations should have a strong corporate identity that is open to change. An emphasis on quality, a strong computing ability, and a strong willingness to accept new technology would aid in implementation efforts.

Management should also have a strong commitment to use the system for achieving business aims. Users must be trained, and concerns must be addressed through regular communication, working with change agents, leveraging corporate culture and identifying job aids for different users (Rosario, 2000).

Table 7: Perception regarding human resource information system critical factors

Perception	Frequency	Percentages
HRIS Teamwork and composition	30	21.43
Top management support	20	14.29
Business plan and vision	29	20.71
Software development	19	13.57
Project management	22	15.71
Change management program and culture	20	14.29
Total	140	100.00

Source: Field survey, 2006

Table 8: Perception regarding staff involvement in the implementation of human resource information system

Perception	Frequency	Percentages
Strongly agree	30	21.43
Agree	13	9.29
Disagree	47	33.57
Strongly disagree	50	35.71
Total	140	100.00

Source: Field survey, 2006

Table 8 also shows perception of staff involvement in the implementation of the HRIS at the Bank. The table indicates that it was only (9.29%) who agreed to staff involvement as against (35.71%) who strongly disagree that staff were involved in the implementation. By taking a close look at Table 8, it indicates that the total respondents who agreed to staff involvement are 43 about (31%) and those who disagreed to staff involvement are 97 about (69%). This high level of perception of staff can lead to unacceptability of the system and no interest to contribute in making the system a perfect one for their own usage. As indicated in Table 8 which shows the critical success factors as indicated earlier in the literature, lack of staff involvement can led to unsuccessfully implementation of HRIS in organisations as it happened to Reekbok (Stedman, 1999). According to Broderick and Boudreau (1992) the implementation process the most important basis for any good HRIS, this implies that there is the need to involve all the necessary parties to have a successful HRIS implementation.

Table 9: Perception regarding human resource representation of staff at the highest level in management

Perception	Frequency	Percentages
Strongly agree	63	45.0
Agree	28	20.0
Disagree	17	12.14
Strongly disagree	32	22.86
Total	140	100.00

Source: Field survey, 2006

From Table 9 it shows that 63 (45%) of the respondents strongly agree that HR is represented at the highest level of management and 32 (22.86%) strongly disagree. Placing HR at the highest level of management is a good policy as this will enable the top management of the Bank to address HR issues very quickly and all policies can quickly be disseminate to all levels of the organisation. Since the human resource is the most critical resource in regard of the materials needed for the organisation to meet its objects. According to Kavanagh et al (1990) the recognition of the efficiency of the personnel administration could impact positively on the operating efficiency and profitability of the organisation. It gives staff confidence that most of their issues raised will be heard by Management and Board of Directors. An organisation gains competitive advantage by using its employees effectively, drawing on their expertise and ingenuity to meet the organisation's objectives (Torrington et al., 2005).

Table 10: Perception of respondents on provision of a good human resource information system software and its significance of achievement of organisational vision

Perception	Frequency	Percentages
Strongly agree	79	56.43
Agree	37	26.43
Disagree	15	10.71
Strongly disagree	9	6.43
Total	140	100.00

Source: Field survey, 2006

Table 10 shows that the majority of the respondents 116 (83%) strongly agreed that, the existence of good HRIS software could contribute positively to the achievement of the vision of the Bank. However, 24 (17%) of respondents disagreed. This attests to the fact that the acquisition of good software is of much concern to the staff.

According to Kanthawongs (2004), in the organisations where the implementation was done well, boosted the operations of these organisations. Torrington et al., (2005) identified the role of the human resource functions with the key objectives such as staffing, performance, change-management and administration which is the main cornerstone of all HR activities, therefore having software to perform these functions perfectly will enhance the organisation's performance.

Table 11: Benefit of human resource information system to overall business management

Benefit	Frequency	Percentages
Strongly Agree	86	61.43
Agree	30	21.43
Disagree	24	17.14
Total	140	100.00

Source: Field survey, 2006

The common benefits of HRIS to organisations frequently cited in studies include improved accuracy, the provision of timely and quick access to

information, and the saving of costs (Wille & Hammond, 1981). Similarly, Broderick and Boudreau (1992) also examine how a HRIS might contribute to three human resource competitive objectives which are provision of information to line managers, thereby enabling rapid resourcing decisions during projects, easier processing and control of employee records and performance data linked to reward systems, thus removing the need for managers to maintain unwieldy paper-based systems and also help in cost reduction in the workload of the personnel function in the organisation.

Also with an appropriate HRIS, the system enables employees to do their own benefits updates and address changes, thus freeing HR staff for more strategic functions. Additionally, data necessary for employee management, knowledge development, career growth and development, and equal treatment is facilitated. Finally, managers can access the information they need to legally, ethically, and effectively support the success of their reporting employees.

The results indicated by Table 11 shows that 116 or about (82%) of the respondents agreed that HRIS is relevant to the overall management of the business which is in agreement with Wille & Hammond (1981). Out of the 140 respondents 24 (17.14%) indicated that they do not agree. The finding agrees to the view of Ngai and Wat (2006), who stated that the overall benefits that organisations derived from HRIS includes very important terms of operating, controlling and planning activities of the organisation and also a competitive advantage in the industry.

Their thoughts are also consistent with findings of Beckers and Bsai (2002), who pointed out reasons why organisations should use HRIS. These reasons are that HRIS can increase competitiveness by improving HR operations, it can produce a great number and variety of HR-related reports, shift the focus of HR from the processing of transactions to strategic HRM, make employees part of HRIS; and reengineer the entire HR function of companies.

Table 12: Respondents perception regarding the enhanced roles of decision making by the human resource information system

Perception	Frequency	Percentages
Strongly agreed	80	57.14
Agree	40	28.57
Disagree	7	5.00
Strongly disagree	13	9.29
Total	140	100.00

Source: Field survey, 2006

Laudon & Laudon (1999) stated that when the HRIS function was computerised, faster decision making can be carried out on the development, planning, and administration of HR because data can be much easier to store, update, classify, and analyse to enable the organisation gain competitive advantage in the industry.

Table 12 shows that most of the respondents agreed that when HRIS is implemented, it will enhance the role played by the HR department in decision

making as indicated by 80 (57.14%) of the respondents who strongly agreed and 40 (28.57%) who agreed. However, 20 (14.29%) disagreed that the use of HRIS will enhance the role of decision making. According to Gerardine (1986) HRIS provides management with strategic data not only in recruitment and retention strategies, but also in merging HRIS data into large-scale corporate strategy. The data collected from HRIS provides management with decision-making tools. Through proper HR management, organisations are able to perform calculations that have effects on the business as a whole. Such calculations include health-care costs per employee, pay benefits as a percentage of operating expense, cost per hire, return on training, turnover rates and costs, time required to fill certain jobs, return on human capital invested, and human value added. Similarly, the responses confirms with the opinion of some researchers, who also found that HRIS provides timely and quick access to information for decision making (Lederer, 1984).

Implementation, according to other writers, can often involve the skillful maneuvering of certain decisions through the organisation. It is often difficult to be sure that a decision made at any level of the organisation will be able to overcome the barriers to implementation that may exist or arise until implementation has begun (Beckers and Bstat, 2000). Overcoming barriers to implementation will also involve an awareness and understanding of politics within the organisation, and knowledge of the location and strength of the various bases of power.

Table 13: Barriers to the implementation of human resource information system

Barrier	Frequency	Percentages
Financial	43	30.94
Staff participation	22	15.83
Management support	29	20.86
Training	19	13.67
IT support	16	11.15
Expert advice	11	7.19
Total	140	100.00

Source: Field survey, 2006

Table 13 indicates that out of 140 respondents, 43 (30.94%) indicated lack of funds as the main barrier to the implementation of the HRIS, 26 (20.86%) management support, (15.83%) staff participation, (13.67%) training, (11.15%) IT support and (7.19%) expert advice. These responses confirm the findings of Beckers and Bstat (2000), that the cost of setting up and maintaining HRIS can be high, which is the major obstacle in the implementation of a HRIS. In addition, they found that a comprehensive HRIS requires a sizeable budget to implement and maintain.

Similarly, Kovach and Cathcart (1999) indicated that lack of money and support from top management was the biggest barriers to achieving the full potential of HRIS as indicated earlier in the literature. Training is also very important barrier, if there are no right materials and trainers to educate the users

on the new system to be implemented. This confirms the views of Rodger *et al.* (1998) who contend that users, managers, and employees who are not aware of the value-added potential of the HRIS system will fail in HRIS development and implementation. They then suggest that concentration on communicating and educating users to become aware of the value-added potential of HRIS is important for the development and implementation stages. Likewise, Gara (2001) emphasises that the key areas are getting people in the organization informed and educating management and staff. Similar to Mathis and Jackson (2002), Gara (2001) recommends that a project team consisting of HR staff member(s), IT professional(s), and consultant(s) who can communicate with each other well should be recruited into the team.

According to Ngai *et al.*, (2004) most organisations perceived that the greatest benefits to the implementation of HRIS were the quick response and access to information that it brought, and the greatest barrier was insufficient financial support. Moreover, there was statistically significant difference between HRIS adopters and non adopters, and between small, medium and large companies, regarding some potential benefits and barriers to the implementation of HRIS. They revealed that the size of a company might have an impact on the achievement of a number of benefits and on the obstacles faced when implementing HRIS. Again, they indicated that support of top management was one of the most important factors in successful implementation of HRIS.

Khan and Martin (1989) declare that if users are involved in the design and implementation of the project, they are more likely need to accept the system

and change their working habits. Keil and Carmel (1995) also claim that user participation might result in ideas of new products or product improvements. Harders and Wisniewski (1989) indicate the benefits of user-involvement as getting the correct feedback about functional knowledge, increased commitment to the new system, and deciding about minor and major changes more efficiently. Gallivan and Keil (2003) also mention that user-participation improves the requirements determination process, which leads to greater buy-in, and keeps users informed about progress, leading to higher levels of user satisfaction, system quality, and system usage.

The findings also highlighted another requirement by Rodger *et al.* (1998), which centres on ensuring involvement of representatives from all potential user groups in the project team. This includes senior managers, HRM specialists, IT professionals, line management and employees. It is useful to involve everybody as early on as possible since the IT department can advise on technical requirements and ensure that there are no hardware or infrastructure issues that may impede the decision (Ball, 2000). IT professionals will also make sure that the software providers under consideration offer software that is compatible with the organisation's long-term IT strategy (Beckers & Bsat, 2002). Similarly, line managers can provide views on the compatibility of the software with the operational requirements and HRM specialists ensure alignment with HR strategy. Despite the clear advantages of multidisciplinary teams, majority of organisations tend to rely on directorate level decision-making in HRIS selection, although this is often carried out in HR-IT collaboration.

Table 14: Contribution of human resource information system to the vision of the organisation

Response	Frequency	Percentages
Strongly Agreed	60	42.86
Agree	40	28.57
Disagree	10	7.14
Strongly Disagree	30	21.43
Total	140	100.00

Source: Field survey, 2006

The finding of Table 14 indicates response from participants about the question that HRIS implementation could contribute positively to the vision of the organisation. The results presented by Table 14 indicate that out of the 140 respondents 100 (71.43%) strongly agreed that HRIS is contributing to the achievement of the vision of the organisation and this confirms the view of Ball (2000). Also 10 (7.14) out of 140 disagrees while 30 (21.43) strongly disagree which is in contrast with the views of Ball (2000). This implies that a successful implementation of an HRIS will be a good contributing factor for the growth of the organisation.

According to Ball (2000) HRIS usages has increased markedly among organisations these days due to the enhancing strategic role they have been playing in human resource management by enhancing the performance of organisations. Similarly, Broderick & Boudreau (1992) also stated that the strategic value-adding capability of the HRIS through its administrative,

operational and innovative roles facilitates the competitive use of human resources to achieve the organisational objectives and vision.

Human resource information system software selection process

The finding of Table 15 indicates response from participants concerning the use of best practice in the selection of HRIS software for the bank. Out of 140 respondents 90 (64.28%) indicated that the best practice was not used in the selection of the HRIS software. The result negates the view of Davenport (1998). According to Davenport (1998), common selection criteria for a HRIS software purchase include strategic fit, functionality, price, future flexibility, ease of use, implementation timeframe, reputation of supplier, client testimonials and technology platform, in order of importance. Davenport (1998), again emphasized on the importance of customer references. It is also imperative to make sure that the system meets any industry specific requirements.

It also should facilitate line management involvement in terms of devolved HRM responsibilities, and short-term timescales which demand quick decisions on resourcing issues and workforce flexibility. Since many of the HR systems require substantial investment, both in financial value and in time, it is important to make sure the HRIS is able to support changing business needs for many years ahead (Davenport, 1998). Therefore the 'future flexibility' aspect is an important element to consider when reviewing software suppliers, particularly in terms of the long-term strategy and vision for the product (Davenport, 1998).

Table 15: Human resource information system software selection process

Response	Frequency	Percentages
Strongly Agreed	30	21.43
Agree	20	14.29
Disagree	50	35.71
Strongly Disagree	40	28.57
Total	140	100.00

Source: Field survey, 2006

The respondents were asked about the modules of HRIS functionality that constituted the HRIS. HRIS can be very large systems that come with many different functions and modules, and not all organisations, at least in the past, used to purchase all the modules offered by such systems due to the expense involved. Some functionalities or modules are more advanced than the other and allow HR managers to accomplish more strategic tasks. Table 16 shows that, in general, the modules of the HRIS system are not widely known. The most known modules are salary structuring and analysis (18.34%), basic employee data (17.39%) and appraisal system (16.03%). The least known modules are occupational health (2.99%) and Holiday control (1.36%).

Table 16 shows that nearly all types of modules respondents are aware of are the ones used at the operational levels such as basic employee data and payroll. This is because most HRIS were initially used by organisations at operational level, and it was not until recently that a more strategic use of such systems is being made. In the case of appraisal system, respondents were of the

same view as Wille & Hammond (1981), who stated that one of the most powerful benefits of an electronic performance appraisal process is the automatic collection of organisation wide data on employee performance and competence. As managers are doing appraisals, they are in fact entering a treasure trove of previously untapped data on employee performance and competence. Executives, Managers, Supervisors, Human Resources and/or Training departments have the ability to analyse this quantitative data and implement learning initiatives based on actual employee and organisational needs. For organisations that operate in regulatory environments, electronic data gathering provides both relevant and timely information often needed for reporting requirements. For other organisations, whether regulated or not, a database of employee information can yield valuable information (Ball, 2000).

In addition to highlighting training opportunities, information regarding employee morale and productivity can be mined. The effectiveness of organisational goals and values can also be monitored through the HRIS software. Having everyone's appraisal contains the same competency or value makes it a lot easier to implement and monitor a culture change. Utilising an electronic performance appraisal system also makes it easier to integrate organisational values like attendance and punctuality into all employees' performance appraisals. An electronic performance appraisal and competency evaluation system is one of the most effective ways to communicate organisational standards to employees.

Sixty (60) out of the 736 respondents were of the same view as Ball (2000), who indicated that employee communication is directly linked with the

success of an organisation. Generally, effective employee communication is linked to productivity and morale of the employees. The effective the communication, the better is the performances, since employees, today, want to have access to more and better information. Researches have revealed that effective communication has a positive impact on employee satisfaction, productivity, turnover, and morale (Ball, 2000).

Ball (2000) again was of the view that when employees are most highly motivated they make their best contribution to the business when there is full and open communication at work. It is also proved that where there is an adequate flow of information and ideas among employees, productivity is enhanced and confusion, duplication, and unproductive conflict are minimised. Moreover, employee communication should not be seen as impersonal and a formality of dissemination information among the employees. It should be considered to be an empathetic transfer of understanding and deeper feelings.

Table 16 indicates that only 22 of the responses out of 736 were of the same view as Losey (1999), who stated that an important source of workplace change has been the desire to promote a safer and more healthful work environment. Legal, social and political pressures on organisations ensure that the health and safety of their employees continues to have great impact on HR activities and practices. Due to this organisations try to response to pressures and concern by instituting accident prevention programs and other programs designed to ensure the health and mental well-being of their employees.

Table 16: Respondents knowledge about the human resource information system modules

Knowledge	Frequency	Percentages
Appraisal system	118	16.03
Training & development	80	10.87
Salary structuring and analysis	135	18.34
Holiday control	10	1.36
Compensation and benefit	95	12.91
Occupational health	22	2.99
Applicant tracking and recruitment	88	11.96
Employee communication	60	8.15
Basic employee data	128	17.39
Total	736*	100.00

*Multiple responses

Source: Field survey, 2006

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter of the study is devoted to the summary of the findings and conclusions drawn from them. The summarised findings are derived from the analysis of response from 140 sample units. The study addressed four specific objectives which are:

- determining the information base of line management
- identifying the critical factors for successful HRIS implementation
- assess stages for successful HRIS implementation and
- evaluate the HRIS software selection methods.

Based on the conclusions, suggestions are made for appropriate policies to be adapted by the Bank, given the crucial role HRIS plays in the administration of any organisation.

Summary

The first objective addressed the role of HRIS in the functions of the HR department and the following key issues emerged:

- most of the respondents have a good knowledge about the functions of the HR department.

- The results also indicated that there is a low level knowledge about the HR policy on the use of HRIS in the organization
- The findings also indicated that most of the respondents perceived the HR practices as more administrative than strategic

The second objective addressed the critical factors for successful HRIS implementation and the following key issues emerged:

- HRIS Teamwork and composition was indicated as the most important critical factor that needed to be considered in the HRIS implementation
- The business plan and vision was considered as critical since it has to be related to the modules that had to be implement to enable the organization achieve it goals.
- Change management program and culture and software development were considered the least critical factors by respondents. Software development was considered very low because the bank decided to buy off the shelf software

The third objective addressed stages and barriers for successful HRIS implementation in the bank and again the following key issues emerged:

- The major implementation barriers indicated by respondents were financial which needs to be overcome to enable the organisation to achieve its required goals.
- Management support was also indentified to play a vital role in overcoming implementation barriers.

- Staff participation was also identified as an important factor for a successful HRIS implementation
- User training was ranked as the four important factor as per the ranking by the respondents.
- The results also revealed that Expert advice and IT support were very low and this can seriously affect the confidence of the user departments in the usage of the system

The fourth objective addressed the evaluation of the HRIS software selection method and again the following key issues emerged:

- The findings indicated that the best practices for selecting the HRIS software were not followed
- Line managers were not involved in the selection of the software.
- Respondents had little knowledge about the HRIS modules that were implemented by the bank

Conclusions

With respect to the first objective, the role of HRIS in the functions of the HR department it became evident that, the functions of the department was well understood by members of the bank but the role of the system automation in the activities of the department was much lacking to enhance individual information update for accurate decision making. Since there have been less automation of strategic information for decision making, staff members sees that activities of the department to be purely administrative rather strategic in the industry to enable

the organisation have competitive advantage in the industry. Staff access to personal data has been a problem and also leads to inaccurate information for apprising subordinates.

On issues critical factors for successful HRIS implementation, it was revealed that teamwork and composition in the HRIS implementer-vendor-consultant partnership is a key factor influencing HRIS implementation success. Good coordination and communication between the implementation partners are essential. Since HRIS covers a wide range of functional areas, it is also important to have a cross functional HRIS core team. It is extremely critical that partnership trust is present and the team members are working well together. Another very critical factor is change management program and culture. An organizational culture where the employees share common values and goals and are receptive to change is most likely to succeed in HRIS implementation. Furthermore, user training, education and support should be available and highly encouraged. Change agents should also play a major role in the implementation to facilitate change and communication, and to leverage the corporate culture. Other critical factors include top management support, business plan and vision. There is the need to coordinate these factors to a successful implementation.

In terms of the barriers facing the implementation of effective HRIS, although a wide range of possible barriers were included, the results of factor analysis indicated that the three major underlying factors were: financial, management attitudes and staff participation in HRIS implementation. This indicates that there is the need for the organisation to have a prudent financial

management team as part of the implementation team so that there will be over spending of resources. Management needs to show active support to the project and all staff included be make to get involved in the HRIS implementation for its success.

With respect to the fourth objective, the selection of HRIS software selection, it was established from the standpoint that such technology can enhance the organization culture transformation from the traditional ‘personnel management’ toward contemporary HRM-style people management practice. The advocated benefits of HRISs included electronic records, which allow for easy access to employee and organisational data and thus support better informed decision-making; process automation and the associated reduction in overhead costs and increases in the speed and quality of HR service; transparent facilities for integrating HR and business objectives. Most importantly, however, the key benefit of automating HRM processes was that it leaves HR professionals and line managers more time to focus on the organisational strategic activities.

Recommendations

Based on the conclusions drawn, the following recommendations are made to management of Ghana Commercial Bank to enable successful implementation of the HRIS in the Bank.

- HR modernisation in the form of functional automation using HRIS can produce greater HR effectiveness, efficiency, and timeliness of information for decision making. It should be noted that organisation that

have been able to implement HRIS successfully, derived more advantages from the system.

- The role of human resources management goes beyond mapping the human resources knowledge. In fact, a significant part of the HRM role lies in identifying the knowledge gaps and thus assisting in filling the strategic gaps of organisations. While effective knowledge management can be expensive, ineffective knowledge management is inevitably far more expensive. Although human resources management has played an increasingly important role in the structure of organisations in recent years, there are still areas where it can progress even further to improve the competitive position of organisations than been seen as purely administrative.
- Information technology is expected to drive Human Resource (HR)'s transition from a focus on human resource management to strategic human resource management. This strategic role not only adds a valuable dimension to the HR function, but also changes the competencies that define HR professional and practitioner success. Therefore with the installation of HRIS, there is the need for management to put in place measure which can help the HR department to play a strategic role in the organisation.
- The support of top management is one of the most important factors in the successful implementation of HRIS. Top management takes primary responsibility for providing sufficient financial support and adequate

resources for building a successful HRIS. The lack of financial support and adequate resources will inevitably lead to failure.

- The HRIS project team must track progress not only on the technical aspects of implementing the HRIS, but also on the softer side of managing the organisation as a whole to accept the new business processes that come with the HRIS, since most organisations typically underestimate this change management effort. From the very beginning there must be a focus on preparing the organisation and the employees for the new HRIS.
- In the evaluation of the software, the project team should be aware of the business processes and the changes that it will come with it. There is the need to have a strong change management team incorporated in the project team.
- Information technology departments play the role of IT consultants in order to help human resource departments run their HRIS. The role of a consultant is to provide knowledge and expertise and to point the organisation toward vendors whose software best meets its criteria. Consultants help determine the software to be integrated with the business plan of the organisation.
- During the implementation phase, the organisation should be able to determine the training needs for each user department. This will enable the project team to meet the cross-functional support teams' needs for a successful HRIS support for the new HRIS.

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APPENDICES

APPENDIX A

**QUESTIONNAIRE FOR THE GENERAL MANAGER, AREA
MANAGERS AND BRANCH MANAGERS**

Introduction

This survey is to seek your opinion on the implementation of human resource information systems in Ghana Commercial Bank. It will be appreciated if you could spare sometime and complete this questionnaire for me. Information provided will be used for academic work only. Strict confidentiality is assured.

Instruction

Please fill in the space provided and where answers have been provided, tick or underline where applicable.

1. Sex Male() Female ()
2. What is your current rank/position?
3. No. of employees per human resource manager?
[] under 50 [] 50 – 100 [] 200 or more
4. How would you rank the level of Human resource (HR) practice within your organisation?
[] Poor [] Good [] Very Good
5. How would you rank the level of human resource (HR) at your organisation?
[] Strategic [] Administrative

6. What are the challenges of implementing human resource information system (HRIS)?

.....

7. HRIS Implementation have been done more than once
[] Strongly Agreed [] Agree [] Disagree [] Strongly disagree

8. Has your organisation a policy that acts as a guideline regarding the use of HRIS?

[] Yes [] No

If yes, please outline briefly

.....
.....

If no, please outline briefly

.....
.....

9. Staff has access to the HRIS anytime needed.
[] Strongly Agreed [] Agree [] Disagree [] Strongly disagree

10. What does your organisation use HRIS for?
.....
.....

11. Implementation of HRIS will enable HR Department to perform new or enhanced roles of information brokers and decision making.

[] Strongly Agreed [] Agree [] Disagree [] Strongly disagree

12. Staff is trained on how to use the HRIS.

Strongly Agreed Agree Disagree Strongly disagree

13. Training on HRIS are conducted by external Information Technology (IT) professionals.

Strongly Agreed Agree Disagree Strongly disagree

14. How much budget was allocated to HR Manager in the last 5 years before computerisation?

.....
.....

15. How much budget is allocated to HR Manager this year?

.....

16. Compare with last year, is your HR Manager budget

increasing decreasing same

17. How readily available was organisational resources for the implementation of HRIS?

	Not Available	Fairly Available	Readily Available
	1	2	3
Money / Finance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Skills / Computer Literacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hardware / Software	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

18. Modules from the old system had been added to the new system to enhance performance of the new system.

Strongly Agreed Agree Disagree Strongly disagree

19. HRIS will contribute to the overall management of the business?

Strongly Agreed Agree Disagree Strongly disagree

Explain your answer

.....

20. Which of the following employees does the system cover?

All Staff Permanent Staff Temporary Staff Casuals

21. Concerns about confidentiality, privacy and security of personnel information have been taken care off in the HRIS.

Strongly Agreed Agree Disagree Strongly disagree

22. What barriers were faced during the implementation?

.....
.....
.....

23. The Record-Keeping and retrieval is tedious and ineffective.

Strongly Agreed Agree Disagree Strongly disagree

24. Which aspects of the HR Manager have been included in the HRIS?

Appraisal system applicant tracking & recruitment

Training & Development employee Communications

Salary structuring & analysis

holiday control Job evaluation

compensation & benefit basic employee data

occupational health

25. HR strategy is aligned with the business strategy
 Strongly Agreed Agree Disagree Strongly disagree
26. HR is represented at the highest level in your organisation
 Strongly Agreed Agree Disagree Strongly disagree
27. HRIS Project team had total control over the project.
 Strongly Agreed Agree Disagree Strongly disagree
28. HRIS implementation could contribute positively to the vision of the organisation.
 Strongly Agreed Agree Disagree Strongly disagree
29. Do you see the software selection process to be fair?
 Strongly Agreed Agree Disagree Strongly disagree
30. Which of these are the critical factors in HRIS implementation?
- HRIS Teamwork and composition
 - Top management support
 - Business plan and vision
 - Software development
 - Project management
 - Change management program and culture

APPENDIX B

QUESTIONNAIRE FOR THE CLERICAL STAFF

Introduction

This survey is to seek your opinion on the implementation of human resource information systems in Ghana Commercial Bank.

It will be appreciated if you could spare sometime and complete this questionnaire for me. Information provided will be used for academic work only. Strict confidentiality is assured.

Instruction

Please fill in the space provided and where answers have been provided, tick or underline where applicable.

1. Sex Male () Female ()
2. What is your current rank/position?
3. How would you rank the level of Human resource (HR) practice within your organisation?
 Poor Good Very Good
4. How would you rank the level of human resource (HR) at your organisation?
 Strategic Administrative
5. The implementing of human resource information system (HRIS) involved all staff.
 Strongly Agreed Agree Disagree Strongly disagree

6. The organisation has a policy that acts as a guideline regarding the use of employee information.

Strongly Agreed Agree Disagree Strongly disagree

7. Staff has access to their personal information.

Strongly Agreed Agree Disagree Strongly disagree

8. What does your organisation use HRIS for?

.....
.....

9. Has the implementation of HRIS enable HR Department to perform new or enhanced roles of information brokers and decision enabler?

Yes No

Explain your answer

.....
.....

10. HRIS will contribute to the overall management of the business?

Strongly Agreed Agree Disagree Strongly disagree

Explain your answer

.....

11. Which of the following employees does the system cover?

All Staff Permanent Staff Temporary Staff Casuals

12. How is your HR strategy aligned with business strategy?

.....
.....

13. Is HR represented at the highest level in the organisation?
- Yes No
- If yes, specify
-
14. How would you rate the contribution of HRIS to the vision of the organisation?
- Poor Good Very Good
15. A Good HRIS Software will contribute positively to the vision of the organisation.
- Strongly Agreed Agree Disagree strongly disagree
16. HRIS Project team had total control over the project.
- Strongly Agreed Agree Disagree Strongly disagree
17. Do you see the software selection process to be fair?
- Strongly Agreed Agree Disagree Strongly disagree
18. Which of these are the critical factors in HRIS implementation?
- HRIS Teamwork and composition
- Top management support
- Business plan and vision
- Software development
- Project management
- Change management program and culture