FACTORS INFLUENCING THE EFFECTIVENESS OF HUMAN RESOURCE INFORMATION SYSTEM AT THE NATIONAL CEREALS AND PRODUCE BOARD, KENYA

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DECLARATION

STUDENT'S DECLARATION

I declare that his research project is my original work and has not been presented to any other university for the award of a degree.

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SUPERVISOR'S DECLARATION

This research project has been submitted with my permission as the University Supervisor.

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DEDICATION

This research is dedicated to all my family members and friends for their inspiration, support, encouragement and understanding throughout the research period.

God bless you all.

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It is not easy to thank everyone who had an input into this research, for the list is almost inexhaustible. However, there are those individuals and institutions, without whom, the research consultation and interviews would have been near impossible to take place.

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ABSTRACT

The National Cereals and Produce Board (NCPB) has implemented HR1S in its operations. However, the effectiveness of the FIRIS in the organization has not been so pronounced. This may be attributed to various aspects such as lack of competence, lack of capital for infrastructure and user characteristics. Despite the fact that Human Resource Information Systems are being used with increasing frequency in organizations, there is still relatively little research on factors that influence the degree to which HRIS are effectively implemented in organizations resulting in functional versus dysfunctional consequences for individuals and organizations and in conjunction with the ever-increasing demand for HRIS, further research is still needed in this field.

The purpose of this study was to determine the factors influencing effectiveness of human resource information systems at the NCPB. This was a case study since the unit of analysis will be one organization. The population of interest was the management staffs who included top and middle level management staff in the NCPB. A sample of responding staffs was selected by picking 50% of the possible respondents. This generated 14 sample respondents for this study. Primary data was collected using face to face interviews. Being a case study, conceptual content analysis was most useful in analyzing the data. The data was presented in a continuous prose as a qualitative report on the factors influencing HRIS in the National Cereals and Produce Board.

This study concludes that HRIS is used simplify the decision making process by helping to provide information used in HR decision making such as administration, payroll, recruiting, training, and performance analysis. The study also concludes that user satisfaction criterion considers attitudes, beliefs, cultural, and behavioral issues as key areas that influence successful implementation of information systems. The study also established that mutual relationships with information technologies (IT), IS and organizational culture is relatively low among the employees hence slowing the intended effectiveness of the HRIS. The study recommends that the organization should adopt changes in human resources jobs, business plan and vision, careful selection of a third-party vendor, change management, clear communication, detailed requirements analysis, end-user involvement, leadership and project championship, project management, skill set of the implementation team members and support for users.

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Human Resource Management practices impact on an organization's performance and bottom-line results, contributing to overall effectiveness according to Nankervis and Debrah (1995). Particularly in the services industry, the effective utilization of human resources can give an organization its competitive edge as indicated by Scheider and Bowen (1993). This has led to an increased interdependency of corporate strategy with human resource management (HRM). By effectively linking HRM with organizational objectives and needs, human resources can be recruited, developed, motivated and retained towards gaining a competitive advantage.

The subject of the strategic relevance of human resource management in organizational plans and models provides a deep foray into one of the core success factors that effectively underpins the achievement of leadership and managerial objectives, human resource management (HRM) issues have been 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 in Dessler at el (1999). The spacious array of HRM activities for example, planning, recruiting, selection, and training just to mention but few place enormous responsibilities on supervisors and managers alike. These embrace analyzing jobs, planning labour needs, selecting employees, orienting and training employees, managing compensation, communicating (which includes counseling and disciplining), and maintaining employee commitment. In addition to the already mentioned activities are, ensuring fair treatment, appraising performance, ensuring employee health and safety, building and maintaining good employee/labour relations; handling complains and grievances, and ensuring compliance with human rights, occupational health and safety, labour relations, and other legislation affecting the workplace.

Regardless of field of expertise, from accounting to production control, learning about employee rights, employer responsibilities, and effective HRM practices may provide all managers with knowledge that enables them to perform more effectively. The contemporary approach as advocated by human resource information systems (HRIS) theorists views human resource information systems (HRIS) as a deliberate human resource intervention whose sole purpose is to align every employee's work efforts with the objectives of the organization, manage these efforts on a daily basis, measure employees performance, reward them accordingly and stimulate

individual development to enhance employees contribution to the organization's success (Armstrong, (1998). Managers are frequently advised that to enhance organizational effectiveness, they should establish effective data management systems that will facilitate decision making at strategic and operational levels in organizations, argues Doz and Prahalad, (1981). Those managing the human resource function have not ignored such advice and a widespread use of human resource information systems (HRIS) has occurred posits Beaumount at el (1992).

Richards-Carpenter (1991) has chartered the rise of the use of computers in human resource management back to the traumas of the late 1970's. The lack of suitable HR systems and the control of existing systems by data processing managers, who tended to have a low priority for manpower planning systems and a high level of desire for in-house development, made it difficult to utilize IT in the area of employment management. The existence of limited applications of 'old' technology (the day of the PC on each desk was to take several years to materialise), long development time scales and separate payroll systems that were difficult to integrate exacerbated the situation. In the current decade, a different, but still depressing, picture began to emerge.

1.1.1 Human Resource Information System

A Human Resource Management System (HRMS) or Human Resource Information System (HRIS) refers to the systems and processes at the intersection between human resource management (IIRM) and information technology. It refers to software packages that address HR needs with respect to planning, employee information access, and employer regulatory compliance in Ball (2001). The Human Resource Information System (HRIS) is a software or online solution for the data entry, data tracking, and data information needs of the Human Resources, payroll, management, and accounting functions within a business. It merges HRM as a discipline and in particular its basic HR activities and processes with the information technology field, whereas the programming of data processing systems evolved into standardized routines and packages of enterprise resource planning (ERP) software. On the whole, these ERP systems have their origin on software that integrates information from different applications into one universal database according to Ceriello and Freeman (1991). The linkage of its financial

and human resource modules through one database is the most important distinction to the individually and proprietary developed predecessors, which makes this software application both rigid and flexible.

In today's corporate world human resources has come to play a very critical role in a business. Whether it concerns the hiring and firing of employees or whether it concerns employee motivation, the Human Resources department of any organization now enjoys a very central role in not only formulating company policies, but also in streamlining the business process as indicated by Dessler (2004). Human Resource Information Systems (HRIS) have become one of the most important tools for many businesses. Even the small, 20-person office needs to realize the benefits of using HRIS to be more efficient. Many firms do not realize how much time and money they are wasting on manual human resource management (HRM) tasks until they sit down and inventory their time according to Gueutal and Dianna (2005). HRIS is advancing to become its own information technology (IT) field. It allows companies to cut costs and offer more information to employees in a faster and more efficient way. Especially in difficult economic times, it is critical for companies to become more efficient in every sector of their business; human resources (HR) are no exception.

The usual methods applied to information systems development are interest-based in nature. They tend to be formalized and mechanistic and ignore the wider social and organizational issues involved. This often results in dysfunctional outcomes that have negative consequences for those staff using the new systems and their organizations according to Brooke and Maguire, (1998). Human Resource information systems development inevitably involves certain assumptions to be made on the nature of organizations, who and what is involved in the design task and what is expected from the designers argue Hirschheim and Klein (1989). Effective human resource management, it is argued, requires an organization to adopt an effective information system constituted by specific sub-system elements. The computerized human resource information system is constructed as an unproblematic tool with the social exchange and political aspects of its devising and use rarely mentioned Liff (1997), Given such approaches it is hardly surprising that we do not understand the barriers to the successful design and implementation of systems, especially as it is a reasonable presupposition that many of the 'barriers' are likely to be in the human psychological, political and cultural spheres.

Information systems, like organizations themselves, are facets of the ongoing sense-making and social construction efforts of human beings co-operating with each other some of the time and coming into conflict with each other at other times. Such a broad relational perspective is apparent in the analysis of writers like Kiddler (1981), Zuboff (1988), and Kunda (1992). Many organizations have reported that their human resource information systems offer little or no value to them and are constantly searching for better ways so redesign their systems.

1.1.2 Application of Human Resource Information System in Organizations

With the changing world and constant new technology that is available, managers need to be aware of the technology that will increase effectiveness in their company. Human resource information systems (HRIS) have increasingly transformed since it was first introduced at General Electric in the 1950s according to Hannon et al, (2000). HRIS has gone from a basic process to convert manual information keeping systems into computerized systems, to the HRIS systems that are used today. Human resource professionals began to see the possibility of new applications for the computer. The idea was to integrate many of the different human resource functions. The result was the third generation of the computerized HRIS, a feature-rich, broad-based, self-contained HRIS. The third generation took systems far beyond being mere data repositories and created tools with which human resource professionals could do much more in Dyars (2004). Many companies have seen a need to transform the way Human Resource operations are performed in order to keep up with new technology and increasing numbers of employees.

The efficiency of HRIS, the systems are able to produce more effective and faster outcomes than can be done on paper. Some of the many applications of HRIS are: Clerical applications, applicant search expenditures, risk management, training management, training experiences, financial planning, turnover analysis, succession planning, flexible-benefits administration, compliance with government regulations, attendance reporting and analysis, human resource planning, accident reporting and prevention and strategic planning according to Losey et al (2005). With the many different applications of HRIS, it is difficult to understand how the programs benefit companies without looking at companies that have already benefited from such programs.

The evaluation should determine whether or not the HR1S has performed up to its expectations and if the HR1S is being used to its full advantage indicated Byars & Rue (2004). One of the most significant challenges faced by public personnel executives today is measuring the performance of their human resources information system (HRIS) In order to justify the value-added contribution of the HRIS to accomplishing the organization's mission posit Hagood & Friedma (2002). Implementing an HRIS program may seem a necessary stem for a company, but unless it will be an effective tool for HR operations, it will not help increase efficiency and may hinder it instead. A more comprehensive view of HRIS is thus achieved by arguing that the successful introduction of these systems can neither be understood nor practically achieved without attention to the strategic exchange processes engaged in both at the level of the organizational strategy and at the level of individual and group projects.

1.1.3 National Cereals and Produce Board

The origin of National Cereals and Produce Board is traced back to the early 20th century when farmers, mainly European settlers, formed Committees which later developed into regional marketing Boards to assist them in the procurement of inputs, market information, marketing their produce and lobbying the Government for better prices. In 1939, the colonial Government formed the Maize and Produce Control Board to regulate the operations of the regional Marketing Boards. In 1967, the new Kenyan Government consolidated the handling and marketing of maize and all produce, except wheat, by merging the Maize & Produce Marketing Board with all regional marketing Boards to form the Maize and Produce Board. Wheat, however, continued to be controlled by the Wheat Board of Kenya.

In 1979, the Government established the National Cereals and Produce Board (NCPB) by merging the Maize and Produce Board with the Wheat Board of Kenya in order to streamline the management, handling and marketing of all grains. The NCPB Act, Cap.338, that made NCPB a corporate body, was enacted in 1985. Under the Act, the Board was given monopoly powers to purchase, store, market and generally manage cereal grains and other produce in Kenya. As a legal monopoly, NCPB was empowered to regulate and control the collection, movement, storage, sale, purchase, transportation, marketing, processing, distribution, importation, exportation, and supply of maize, wheat and ether scheduled agricultural produce under a controlled price system. During this period of monopoly the NCPB worked very closely with

other established agricultural institutions to ensure that the needs of the farmers were met. These institutions included the Agricultural Finance Corporation (AFC), which was the main provider of credit and the Kenya Farmers Association (KFA) which was the main provider of farm inputs.

However, due to increased food production, the cost of managing such a subsidized cereal marketing system turned out to be a heavy burden on the Exchequer. This led to the need to undertake revolutionary reform processes aimed at restructuring the grains sub-sector through deliberate policy reforms on importation and domestic marketing of grains as well as improving the operational performance and efficiency at NCPB. Therefore, in 1988, the government commenced the Grains Sector reform program in which the monopoly powers of NCPB were reduced and the Grains sector was fully liberalized in 1993.

The last of these reform processes was undertaken during the implementation of Kenya Government/World Bank funded NCPB Commercialization Project that commenced in 1996 and ended in April 1998. The key objective of this program was to transform NCPB into a commercially viable entity, free to make independent commercial decisions. This process involved the engagement of Consultants (Technical Service Contractor - TSC). Its recommendations included further financial restructuring, enhancement of the private sector participation in grain trade, while de-linking NCPB from dependence on the Exchequer as from 1st July 1997.

Grain marketing is currently fully liberalized in Kenya allowing producers to dispose their produce to willing buyers at market driven prices for different regions depending on supply and demand. Commercialization has given the NCPB a new charter and vision that focuses on a commercial business role. In addition, the NCPB is occasionally contracted by the Government to carry out certain social roles. Plowever, there are clear demarcations between the commercial and social roles. With the latter being transacted at commercial rates.

NCPB has implemented HRIS in its operations. However, the effectiveness of the HRIS in the organization has not been so pronounced. This may be attributed to various aspects such as lack of competence, lack of capital for infrastructure and user characteristics.

1.2 Statement of the Problem

IIRIS provides management with strategic data not only in recruitment and retention strategies, but also in merging IIRIS data into large-scale corporate strategy. The goal of HRIS is to merge the different parts of human resources, including payroll, labor productivity, and benefit management into a less capital-intensive system than the mainframes used to manage activities in the past. Through proper IIR management, firms 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. It must be noted though, that, none of these calculations result in cost reduction in the HR function according to Gerardine (1986). The aforementioned areas however, may realize significant savings using more complete and current data made available to the appropriate decision makers. Consequently, HRIS are 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 organizations that see their human resource as providing a major competitive advantage. HRIS is therefore a medium that helps HR professionals perform their job roles more effectively.

Today, both public and private organizations in Kenya continually review and streamline their business functions and use them to gain competitive advantage. Human resources management in such organizations has undergone a transformation from administrative record keeping to automated processing, and now, to the provision of a new level of strategic value to the organization. NCPB is mandated to regulate the cereals industry in all aspects of growing, research, processing, trade and promotion in both the local and the international markets. The Board also disseminates information relating to cereals produce and advises the Government on all policy matters regarding the industry through the Ministry of Agriculture. In keeping with the economic changes, the Board regularly reassesses its business approach and practice in order to provide services that meet personalized and standardized needs of its clients (www.ncpb.co.ke). In response to changing business realities, the Board periodically takes bold and decisive steps to survey new frontiers to meet changing needs and further consolidate its eminent position as leaders in grain management and marketing. With the elaborate countrywide network of

facilities, the Board provides unrivaled handling, storage and preservation services ideal for both farm produce and a wider range of products from the food industry and beyond. Human resources information system (HRIS) should track all information on current and former employees, and reduce 1IR staffs workload. NCPB face many challenges in today's dynamic financial services marketplace. NCPB is continuously striving to enhance capabilities for risk and financial management to address market, credit, and operating environments that are increasingly complex. Thus, IT support for business strategies is crucial which is why integrated tools- are a must-have for financial accounting, cost controlling, risk management, asset-liability management and profitability analysis (Lee, 2008). More than ever, the organization is looking to transform human resources (HR) from a seemingly low-priority function into a strategic part of the business.

Various studies had offered a conclusive evidence to affirm the role HRIS plays in support of strategic decision-making in organizations. For example, Lawler and Mohrman (2001) in Hussain et al., (2007) established that the use of HRIS had consistently increased over the previous years, irrespective of the degree of strategic partnership held by the HR function. Other studies about HRIS in organizations include Asafo-Adjei's (2007) study on the role of Human Resource Information Systems (HRIS) in Strategic Human Resource Management (SHRM). The results of the survey revealed that HR professionals not only consider HRIS usage as a support for strategic HR tasks but also perceive it as an enabling technology. The study also found that large sized firms are most likely to experience considerable HRIS usage in support of strategic HR. Cheruto's (2003) study which was a survey of the use of human resource information systems in human resource management in the banking sector in Nairobi, Kenya. The study found that Human Resources staff enables employees to do their own benefits updates and address changes, thus freeing HR staff for more strategic functions and that changing structures of the organization, changing social values and developments in communication and information technologies are HRIS factors considered in the in banks. This is despite the fact that Human Resource Information Systems are being used with increasing frequency in organizations and still there is relatively little research on factors that influence the degree to which HRIS are effectively implemented in organizations resulting in functional versus dysfunctional consequences for individuals and organizations and in conjunction with the ever-increasing demand for HRIS, further research is still needed in this field. This study therefore aimed to

investigate the factors influencing HRIS in organizations with a special focus on the National Cereals and Produce Board.

1.3 Objective of the Study

i.   To determine the factors influencing effectiveness of human resource information systems at the National Cereals and Produce Board.

1.4 Significance of the study

The study would make a significant contribution to organizations in Kenya, as it would provide a lot of insight about what HRIS really is. Consequently the study will encourage and reinforce interest of managers in HRIS as tool for remaining competitive in today's rapidly changing workplace.

This study would benefit the NCPB as it would be able to know what Human Resource Information Systems to use in order to remain competitive and effective in the industry.

The results of this study would also be invaluable to researchers and scholars, as it would form a basis for further research. The students and academics would use this study as a basis for discussions on different aspects of HRIS adopted by organizations in Kenya.

<center>**CHAPTER TWO: LITERATURE REVIEW**</center>

2.1 Introduction

This chapter presents a review of the related literature on the subject under study presented by various researchers, scholars, analysts and authors. In this chapter, literature, which is related to and consistent with the objectives of this study, will be reviewed. Important theoretical and practical problems are brought out, relevant literature on the aspects pertaining to the factors influencing HRIS in organizations with a special focus on the National Cereals and Produce Board. The specific areas covered here are theoretical review, Technology Acceptance Model (TAM), Integrated Management Competency Models, Human Resource and Human Resource Information Systems, Human Resource Information Systems, Strategic role of Human Resource information Systems (HRIS), factors influencing effectiveness of HRIS in organizations and empirical studies.

2.2 Theoretical Review

2.2.1 Technology Acceptance Model (TAM)

The first theory that strikes a chord in the justification of IT adoption and use in RHCs is a theory referred to as the Technology Acceptance Model (TAM). This theory, or more appropriately, this model, has undergone relatively ongoing development since its inception according to Beresford, (2005); Holosko, Leslie and Cassano, (2001). Kondrup (2004) contend that TAM's unique feasibility in explaining the acceptable integration of various IT services in organizational environments is of high value to practitioners and scholars seeking to justify IT/HIT usage in their respective systems.

As a direct definition, Breen and Zhang (2008) explain TAM as a model that posits that the perceived usefulness and ease of use of an IT tend to determine one's (or an organization's) intention to utilize the respective IT/HIT technological system. In addition, the idea of perceived usefulness is equally important to the individual or organization with respect to perceived ease of use; in other words, the assessment of practicality and viability the technology demonstrates in a respective environment is an estimate, or a reflection, of the IT/HIT perceived ease of use. If both perceived usefulness and perceived ease of use are satisfied criteria among those evaluating the compatibility of the IT/HIT, then attitudes are likely to change and be in favor of implementing the IT/HIT. As implementation is seriously considered, there lies a behavioral

intention to embrace the IT/HIT. If embraced, actual use is bound to follow. Simply put, if the technology fits the purpose of the task at hand and works effectively and efficiently in the process, then acceptance of that technology is likely to ensue in the respective environment.

2.2.2 Integrated Management Competency Models

According to Lucia and Lepsinger (1999) a competency model is a descriptive tool that identifies the knowledge, skills, abilities, and behavior needed to perform effectively in an organization. The noted benefits are many. These identified competencies form a basis for the planning and development of all the management activities. Furthermore, they help in the communication of a company's strategic intentions and needs, and give organizations a "common language" that can be used to discuss performance, selection, development, advancement and succession planning. However, competence models have also been subject to criticism. Indeed, they have been criticized for producing idealized lists of qualities, which contain almost everything. There also have been questions raised concerning attempts to disaggregate lists of managerial competences that may have universal application contends Burgoyne (1990). There are typically implicit assumptions made in research that a common set of competencies is required from all managers. There is research evidence, however, that the demands for certain competencies vary considerably, not least depending on the variety of job-related demands according to Hayes et al., (2000). Garavan and McGuire (2001) have pointed out through a thorough investigation that certain weaknesses exist concerning some of the philosophical and epistemological dimensions of competency and their usage. First, the competencies are usually seen as a specific set of attributes that are context-free. The meaning of internal organizational context is in this sense often ignored. Second, many descriptions of competency do not consider the role of the employee and their experience.

In spite of the variance in priorities and emphasis on different competencies in different management contexts, it can be assumed that some degree of generalizability exists. Indeed, it is argued that many of the competencies managers need are transferable and generic in nature, which subsequently forms the basis for all organized management development as pointed by Mumford, Zaccaro, Connelly and Marks, (2000). Competency models have been organized in a variety of ways. They have been categorized, for example, in terms of two broad skill categories, three types of skills, four competency domains, six competencies and ten skill categories argues

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Carrington (1994). In the relevant literature, it is even evident that the terms competence and skills arc used interchangeably. Nevertheless, there exists considerable doubt surrounding whether competencies can be extensively categorized and labeled as they often overlap, and thus commonly suffer from over ambiguity. On the other hand, even more confusion and mystification may arise in any further discussion about managers' capabilities and performance, if there is no agreement as to the elements that support them.

2.3 Human Resource Information Systems

The focus of Human Resource Information Systems (HRIS) has been on Management of all employee information, Reporting and analysis of employee information, Company-related documents such as employee handbooks, emergency evacuation procedures, and safety guidelines, Benefits administration including enrollment, status changes, and personal information updating, Complete integration with payroll and other company financial software and accounting systems and, Applicant and resume management. With an appropriate HRIS, Human Resources staff 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.

There are different views on what human resource information system (HRIS) is. It can be regarded simply as a software or online solution for the data entry, data tracking, and data information needs of the Human Resources, payroll, management, and accounting functions within a business. According to the online encyclopedia wikipedia (www.wikipedia.com, 2007), Human Resource Management Systems (IIRMS, EHRMS), Human Resource Information Systems (HRIS), HR Technology or also called HR modules, shape an intersection in between human resource management (HRM) and information technology. It merges HRM as a discipline and in. particular its basic HR activities and processes with the information technology field, whereas the planning and programming of data processing systems evolved into standardized routines and packages of enterprise resource planning (ERP) software. On the whole, these ERP systems have their origin on software that integrates information from different applications into one universal database. Hie linkage of its financial and human resource modules through one

database is the most important distinction to the individually and proprietary developed predecessors, which makes this software application both rigid and flexible. A more comprehensive view of HRIS is thus achieved by arguing that the successful introduction of these systems can neither be understood nor practically achieved without attention to the strategic exchange processes engaged in both at the level of the organizational strategy and at the level of individual and group projects.

Businesses are usually prepared to undertake changes provided that they see a competitive advantage to 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 organizations. The common benefits of HRIS frequently cited in studies included improved accuracy, the provision of timely and quick access to information, and the saving of costs according to Lederer (1984) in the study planning and developing a human resource information system. Lederer discussed why the accuracy and timeliness of HRIS is very important in terms of operating, controlling, and planning activities in HR. other studies on HRIS in businesses include Tetz's (1973) study on evaluating computer-based human resource information systems: costs vs benefits and the study by Wille and Hammond (1981) on the computer in personnel work.

How can the preceding competitive strategy concepts be applied to the strategic role of information systems in an organization? Put another way, how can managers use investments in information technology to directly support a firm's competitive strategies? These questions can be answered in terms of the key strategic roles that information technology can be used to implement a variety of competitive strategies. These include not only the five basic competitive strategies, but also other ways that companies can use information systems strategically to gain a competitive edge. Broderick and Boudreau (1992) examined how HRIS can contribute to cost reductions, quality/customer satisfaction, and innovation. Sadri and Chatterjee (2003) stated that when the HRIS function was computerized, 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 analyze. In addition, they noted that HRIS can strengthen an organization's character. Strategic management process first analyzes a company's competitive situation,

develops its strategic goals and mission, it's external opportunities and threats, and its internal strength and weaknesses to generate alternatives. In his second phase, strategic management process determines a plan of actions and deployment of resources to achieve the pre-specified goals. This kind of strategic approach should be emphasized in human resources management.

2.4 Factors Influencing Effectiveness of HRIS in Organizations

Beckers and Bsat (2002) stated that the cost of setting up and maintaining a HRIS can be high, which is the major obstacle in the implementation of a HRIS. Similarly, Kovach and Cathcart (1999) pointed out that a 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 a lack of FIR knowledge by system designers and the lack of applications/solutions for FIR users. The current study reviews the available literature with regard to the various factors that influence HRIS in organizations. These factors include the influence of user satisfaction, cost effectiveness, system acceptance/adaptability, cost-effectiveness and system competence on effectiveness of HRIS in organizations.

2.4.1 Influence of User Satisfaction on the Effectiveness of HRIS

Andersen (2000) argues that when basic administrative systems were being developed it was often just a case of computerizing a well-documented manual system. However, where systems require a forecasting element, encompass unknown elements, or require some envisioning of the future, the information requirements analysis may become increasingly complex. This can be likened to moving upwards from operational control, through management control, to strategic planning in Anthony's (1965) model. Transaction processing systems, i.e. sales order processing, that many organisations have adopted, correspond to the operational control level.

Argyris and Schon (1992) viewed modern organizations as being characterized by management that employ a theory of action emphasizing top-down, hierarchically structured control mechanisms. This emphasized management domination and worker subordination. It could be argued that the role of the systems analyst may sometimes be seen as a reinforcement of this view. It would be unfortunate if the whole system development process is undertaken in a conservative way as there is often the need to question the status quo. It is argued that the only real successes in business process reengineering (BPR) have been revolutionary rather than

evolutionary. With the possibilities for developing information systems across organizational boundaries there may be an increasing need to incorporate a more creative and visionary approach to the whole process. Within manufacturing during the 1980s it was generally accepted that the implementation of new IT would automatically lead to increased productivity. However, there are also many issues surrounding the area of technology transfer.

Several writers have identified the need to view organizational, cultural, and behavioral issues as key areas that need to be addressed for the successful implementation of information systems. As Keen (1980), pointed out the field has been driven by changes in technology, rather than by issues of management, information and systems that are independent of specific technologies. It may be necessary to broaden out the scope of system development and involve other groups of staff within the process. Strassman (1990) argues that information systems management should be an inseparable element of every manager's daily work. The goal of these groups should be the development of information systems that enable the organization to function effectively both internally and externally. Technology should not be the overriding focus within the organization. It is important that a balance is achieved to take account of the issues that need to be incorporated in the development process, i.e. strategy, technology, education and training, etc. HR is often see as the guardian of the organizations culture and could help in the alignment of IS development and culture management.

2.4.2 Influence of Cost Effectiveness on the Effectiveness of HRIS

HRIS is expected to drive Human Resource (I-IR)'s transition from a focus on Human Resource Management (HRM) to Strategic Human Resource Management (SHRM). 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. Most large businesses introduce 'Human Resources Information Systems' (HRIS) in combination with re-engineering (the buzzword of the time), this enable them to "replace antiquated, time-consuming personnel processes with automation as indicated by Weitzner et al, (1990).

An HRIS system represents a large investment decision for companies of all sizes. Therefore, a convincing case to persuade decision makers about the HRIS benefits is necessary. The common benefits of HRIS frequently cited in studies included, improved accuracy, the provision of timely

and quick access to information, and the saving of costs notes Lederer (1984); Wille and Hammond (1981). Lederer (1984) discussed why the accuracy and timeliness of HRIS is very important in terms of operating, controlling, and planning activities in HR. In their 2002, HRIS survey, Watson and Wyatt found that the top four metrics used in formal business cases supporting HRIS were improved productivity within HR organization, cost reductions, return on investment, and enhanced employee communications. However, companies realize many of these cost reductions and efficiency gains early in the implementation of an HRIS system, so they provide compelling evidence needing to get a project up and running. In fact, the payback period, or the time it takes to recoup the investment, may be as short as one to three years as indicated by Lego (2001). HRIS contribute to cost reductions, quality/customer satisfaction, and innovation as argued by Broderick and Boudreau (1992). According to Sadri and Chatterjee (2003) computerized HRIS function enable, faster decision making, development, planning, and administration of HR because data is much easier to store, update, classify, and analyze.

The type of support plays an important role in the user acceptance and the user satisfaction of the technology. This might on its turn affect the effectiveness of the HRIS. It is important to choose the right type of support for every activity. The provision of sophisticated HRIS activities is useless when no good policies exist and the support for the HRM activity is poor. Many well-known examples of the use of information technology for competitive advantage involve systems that link an organization to suppliers, distribution channels, or customers. In general, these systems use information or processing capabilities in one organization to improve the performance of another or to improve relationships among organizations. Declining costs of capturing and using information have joined with increasing competitive pressures to spur numerous innovations in use of information to create value. The ideas do not constitute a procedure leading inexorably to competitive advantage. Walker (2001) states that if HR technology is to be considered successful, it must achieve the following objectives: It must provide the user with relevant information and data, answer questions, and inspire new insights and learning.

2.4.3 Contribution of System Acceptance/Adaptability on the Effectiveness of HRIS

Johnson and Scholes (2002) stated that HRIS development must support an organization's strategies. Tools and workflows can be complex to implement, especially for large enterprises.

While some companies report great success, initiatives have also been known to fail mainly owing to poor planning, a mismatch between software tools and company needs, roadblocks to collaboration between departments, and a lack of workforce buy-in and adoption. Previously these tools were generally limited to contact management: monitoring and recording interactions and communications with customers. Software solutions then expanded to embrace deal tracking and the management of accounts, territories, opportunities, and at the managerial level the sales pipeline itself.

HRIS has been, and still is, offered as on-premises software that companies purchase and run on their own IT infrastructure. In contrast with conventional on-premises software, cloud-computing applications are sold by subscription, accessed via a secure Internet connection, and displayed on a Web browser. Companies don't incur the initial capital expense of purchasing software; neither must they buy and maintain IT hardware to run it on according to Jeff (2007). Compatibility and respectively compatibility will affect adoption implementation of the change management differently. Similarly, Rogers (1995) affirms that certain innovations are closely interlinked, and, therefore, there exists a strong correlation between the previous experience of the subject with particular tools and the subsequent use of other applications. This idea leads to the introduction of the concept of "technology clustering" employed by various authors, as per Leung (2001); Eastin (2002), and defined as the set of technologies perceived by the user as interrelated and determinants of the subsequent degree of acceptance of others. Thus, those subjects with greater experience of a particular IT modify positively their perception of other similar technologies and increase their level of use and even come to observe a pattern of conduct differentiated between them according to Reed et al. (2000).

Shirani et al. (1994) establish a series of variables which are relevant for the prediction of company behavior. The first of these represents experience in the technology field, while the second, called external organizational culture, alludes to the compatibility which must be established between the general structure of a company and the new technological systems which are introduced. On occasions, both variables have been grouped together under the name of intra- and extra-organizational characteristics; these refer to the conditions of the company itself which produce the application of a particular innovation argued Igbaria et al., (1997). Equally, what for individuals has been called the ability to manage technological aspects, in the case of the

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company has been termed cultural capabilities, which permit the adaptation of its activities to the new opportunities provided by technology.

2.4.4 Influence of System Competence on the Effectiveness of HRIS

McClelland (1976) described competency as the characteristics underlying superior performance. In the US, traditionally, the competency modeling starts from observing successful job performers to determining how these individuals differ from less successful performers. However, some researchers argued that, this approach in identifying competencies tended to produce competencies that were too generic and abstract, therefore, of limited value in competency development according to Sandberg, (2000). Competency should be viewed as a function of the context in which it was applied and competency should be constituted by the meaning of one's work rather than a specific set of attributes. In recent years, competency study has gained more and more interest and attention. Numerous attempts have been made by scholars to study competency according to Boyatzis, 1982). Competency modeling, in addition to being regarded as a focal point for planning, organizing, integrating and improving all aspects of human resource management systems), is also regarded as an approach focused on improving organizational performance as indicated by Rothwell and Lindholm (1999).

Human resource information systems development inevitably involves certain assumptions to be made on the nature of organizations, who and what is involved in the design task and what is expected from the designers as indicated by Hirschheim and Klein (1989). An effective HRIS provides information on just about anything the company needs to track and analyze about employees, former employees, and applicants. An effective HRIS manager plans, implements, maintains and updates software and hardware for human resource information systems run in a network and mainframe environment. Determining the most efficient data base placement for increasing numbers of personnel data sets, maintaining the security and confidentiality of sensitive personnel information and information relating to collective bargaining and serving as the department's chief computing resource are significant aspects of the HRIS managers duties.

Doyle's (2000) presents management development as being influenced by organizational and external contexts, including political activities and institutional frameworks. In support of this view, Wexley and Baldwin (1986) argue that management development is multi-faceted, that

there is no one-best-way of doing it. Rather it is contingent on managerial roles, individual needs and abilities, and the organizational context. Indeed, many academic studies focusing on management development in practice at an organizational level highlight the contextual nature of management development posits Garavan *et al.,* 1999). Doyle (2000) argues that this perspective allows the influence of management development on an organization to be realized with objective measures of its performance. Although this makes it easier to analyze, it may not reflect the fluid and relational nature of management development in practice. Indeed, recent works on management development portray it as a dynamic, changing concept according to Cullen and Turnbull (2005).

2.5 Empirical Studies

IIRIS is an effective and efficient catalyst for integrating human resource management and Information Technology. This was common with all the various definitions of HRIS. HRIS as a system support HR functional applications such as employee selection and placement, payroll, pension and benefits management, intake and training projections just to mention but a few. The composition of HRIS includes input, maintenance, and output. Input function enters personnel information into the HRIS. The maintenance function updates and adds new data to the database having entered data into the information system. The output is considered the most visible function of an HRIS. HRIS process that output, adjust it in such a way that it is understandable.

A number of studies related to HRIS have been done. Hussain et al., (2006) 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 organization, and its impact on professional standing for HR professionals. The researchers used two techniques to investigate the IS impact on HRM. Both a questionnaire survey and in-depth semi-structured interviews were used. Whiles the former was used to obtain responses from HR professionals in the UK organizations, the latter targeted a small number of senior executives, such as directors, in order to gain deeper insights into emerging issues.

In the recent past, Florkowski (2006) in his study, 'The diffusion of human-resource information technology innovations in US and non-US firms', evaluated the diffusion of eight information technologies that are transforming HR service-delivery in North America and Europe. Such information technologies include HR functional applications, integrated IiR suits, IVR1 systems, 1IR intranets, employee and manager self-service applications, HR extranets, and HR portals. The study applied external, internal, and mixed-influence models of Human Resource Information Technology (HRIT) -adoption decisions of cross-sectional sample of US, Canada, UK and Irish firms. Senior HR executives provided the underlying data by means of a dynamically branching, web-based survey. The researcher reviewed that overall diffusion was best characterized as an outgrowth of internal influences, fueled primarily by contacts among members in the social system of potential adopters. Similar results were obtained when controls were introduced for national setting, targeted end-user, and technology type.

It is noted that the majority of studies have focused on the status of the use of HRIS and on the IIR applications/features that have been integrated as part of HRIS. The available studies show that many organizations do not have a computerized HRIS. Little research has been done to address the factors influencing effectiveness of HRIS in organizations. This study therefore aimed to fill this gap by investigating the factors influencing effectiveness of HRIS in organizations with a special focus on the National Cereals and Produce Board.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter sets out various stages and phases that were followed in completing the study. It involves a blueprint for the collection, measurement and analysis of data. In this stage, most decisions about how research was executed and how respondents were approached, as well as when, where and how the research was completed. Therefore in this section the research identified the procedures and techniques that were used in the collection, processing and analysis of data. Specifically the following subsections were included; research design, target population, sampling design, data collection instruments, data collection procedures and finally data analysis.

3.2 Research Design

This was a case study since the unit of analysis will be one organization. This was a case study aimed at getting detailed information regarding the factors influencing HRIS in organizations with a special focus on the National Cereals and Produce Board. According to Yin (1994) a case study allows an investigation to retain the holistic and meaningful characteristics of real life events. Kothari, (2004) noted that a case study involves a careful and complete observation of social units. It is a method of study in depth rather than breadth and places more emphasis on the full analysis of a limited number of events or conditions and other interrelations. Primarily data collectcd from such a study is more reliable and up to date.

3.3 Sampling

According to Ngechu (2004), a population is a well defined or set of people, services, elements, events, group of things or households that are being investigated. A sample is finite part of a statistical population whose properties are studied to gain information about the whole. The population of interest was the management staffs who included top and middle level management staff since they were the ones conversant with the factors influencing the effectiveness of HRIS in the National Cereals and Produce Board. According to the NCPB HR Manual of year 2010, there were approximately 27 top and middle level management staffs working in the head offices of NCPB in Nairobi. These were involved in heading the various departments, assistant heads of departments, payroll and procurement among others. As such, since this study was a case study, a sample of responding staffs was selected by picking 50% of the possible respondents. This generated 14 sample respondents for this study.

3.4 Data Collection Method

The researcher used both primary and secondary data. Primary data was collected using face to face interviews on the factors influencing effectiveness of HRIS in the National Cereals and Produce Board while secondary data was collected by use of desk search techniques from published reports and other documents. Secondary data included the companies' publications, journals, periodicals and information obtained from the internet.

The interview guides contained mainly the open-ended questions. The open-ended questions enabled the researcher to collect qualitative data. This was used in order to gain a belter understanding and enable a better and more insightful interpretation of the results from the study. The interview guides designed in this study comprised of two sections. The first part included the demographic and operational characteristics designed to determine fundamental issues including the demographic characteristics of the interviewees. The second part was devoted to the identification of the factors influencing effectiveness of HRIS in organizations in the National Cereals and Produce Board where the main issues of the study were put into focus.

3.5 Data Analysis

Before processing the responses, the completed interview guides were edited for completeness and consistency. Being a case study, conceptual content analysis was most useful in analyzing the data. Content analysis is defined by Creswell (2003) as a technique for making inferences by systematically and objectively identifying specific characteristic of messages and using the same approach to relate trends. Bryman and Bell, (2003) describe it as a technique used to make inferences by systematically and objectively identifying specific characteristics and messages. The content analysis was used to analyze the interviewees' views about the factors influencing effectiveness of HRIS in organizations with a special focus on the National Cereals and Produce Board. The data was then presented in a continuous prose as a qualitative report on the factors influencing HRIS in the National Cereals and Produce Board.

<p style="text-align: center;">CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATIONS</p>

4.1 Introduction

This chapter presents the analysis and interpretations of the data from the field. It presents analysis and findings of the study as set out in the research methodology on the factors influencing effectiveness of human resource information systems at the National Cereals and Produce Board. The data was gathered exclusively from an interview guide as the research instrument. The interview guide was designed in line with the objectives of the study. To enhance quality of data obtained, unstructured questions were used whereby respondents indicated their views and opinions about the factors influencing effectiveness of human resource information systems at the National Cereals and Produce Board.

Table 4.1: Response Rate

Rate	Frequency	Percent (%)
Responded	11	73
Not responded	3	27
Total	14	100

Source: Author, 2011

The study targeted to 14 sample respondents drawn from the top and middle level management staff working in the head offices of NCPB in Nairobi. 11 out of the 14 respondents targeted completed the interview guide making a response rate of 73%. This commendable response rate was made a reality after the researcher made personal visits to request the respondents to avail themselves for the interview as well as insisting on the importance of participating in the study.

4.2 General Information

The study sought to establish the distribution of the interviewees in terms of age, gender, departments, designation and the duration in years that the organization had been in operation.

4.2.1 Gender Distribution

Tabic 4.2: Gender of the Respondents

Gender	Frequency	Percent
Male	8	74.4
Female	3	25.6
Total	11	100

Source: Author, 2011

On the gender distribution of the respondents, majority of them were male as shown by 74.4% while 25.6% of the respondents were females.

4.2.2 Age of the Respondents

From the study, most of the respondents were aged between 30 to 39 years as shown by 29.9%,25.2% were aged between 40 to 49 years, 18% were aged between 20 to 29 years,, 15.7% were aged over 60 years, whereas 11.2% were aged between 50 to 59 years.

Tabic 4.3: Age of the Respondents

Age bracket	Frequency	Percentage
20-29	2	18
30-39	3	29.9
40-49	3	25.2
50-59	1	11.2
Above 60 years	2	15.7
Total	11	100

Source: Author, 2011

4.2.3 Level of Education

On the respondents' highest level of education the study found that most of the respondents as shown by 34.8% had attained O' level, 21.3% had attained College certificate, those who had College diploma and A' level were shown by 18% in each case, 5.6% had attained Undergraduate Degree and 2.2% indicated that they had attained masters level.

Table 4.4: Respondents' Level of Education

Education level	Frequency	Percent
O' level	4	34.8
College certificate	2	21.3
College diploma	2	18
A' level	2	18
Undergraduate Degree	1	5.6
Masters Degree	0	2.2
Total	11	100

Source: Research Data, 2011

4.2.4 Response Rate Based on the Respondents' Departments

The study sought to investigate the Respondents' Departments in the company. From the results, 29.2% of the respondents of the study worked in the Human Resource/administration, 18% of the respondents of the study worked in the Finance/Accounting, 16% of the respondents were in IT departments, 15.7% of the respondents were in Production, 11.2% were in Strategic department while 9% of the respondents of the study worked in the Corporate /Marketing.

Table 4.5: Departments

Department	Frequency	Percentage
Operations	0	0
Corporate /Marketing	1	9
Human Resource/administration	3	29.2
Production	2	15.7
IT department	2	16.9
Strategic department	1	11.2
Finance/Accounting	2	18
TOTAL	11	100

Source: Research Data, 2011

The respondents were also requested to indicate their position in the department. According to the study, most of the respondents as shown by 34.2% reported that they work as assistant manager/Asst. head of department, 28.9% of the respondents work in supervisory, 23.7% of the respondents manager/head of department, while 13.2% of the respondents said that they work as support.

Table 4.6: Respondents' Designation

Position	Frequency	Percentage
Support	1	13.2
Supervisory	3	28.9
Assistant manager/Asst. head of department	4	34.2
Manager/head of department	3	23.7
Total	**11**	**100**

Source: Research Data, 2011

4.2.5 Years Worked at NCPB

The interviewees were requested to indicate the length of time they had worked at NCPB. 37.5% of the respondents had worked at NCPB for a period of Six to seven years, *22.5%* of the

respondents had worked at NCPB for a period of four to five years, 17.5% of the respondents had worked at NCPB for a period of Two to three years, 12.5% of the respondents had worked at NCPB for a period of More than seven years, while 10% of the respondents had worked at NCPB for a period of six months to one year.

Table 4.7: Length of Time Worked in the Current Positions

Working Period	Frequency	Percent
Less than six months	0	0
six months to one year	1	10
Two to three years	2	17.5
four to five years	2	22.5
Six to seven years	4	37.5
More than seven years	1	12.5
Total	11	100

Source: Research Data, 2011

4.3 Effectiveness of Human Resource Information Systems at NCPB

4.3.1 Types of Human Resource Information System Used in Organization

The interviewees were required to mention several types of human resource information system that are used in this organization. Majority of them mentioned the sub-system components such as the employee information system, position control system, applicant selection and placement information system, performance management information system, reporting and compliance information system, job analysis and design information system, recruiting information system, compensation and benefits information system, employee training and development system, information system supporting workforce planning information systems supporting labour negotiations.

4.3.2 Areas of Operations that mainly make Use of HRIS in the Organization

On the areas of operations that mainly make use of HRIS in this organization, majority of the interviewees indicated that it has mainly been on management which involve Clerical applications, applicant search expenditures, risk management, training management, training experiences, financial planning, turnover analysis, succession planning, flexible-benefits administration, compliance with government regulations, attendance reporting and analysis, human resource planning, accident reporting and prevention and strategic planning.

4.3.3 Reasons for using Human Resource Information System (IIRIS)

The interviewees were requested the reasons for using Human Resource Information System. Majority of the interviewees indicated that it simplifies the decision making process by helping to provide information used in HR decision making such as administration, payroll, recruiting, training, and performance analysis. It is also used to facilitate HR Managers to become strategic partners, in making analysis of important matters such as the HR costs, for effective communication channel, to complement the employee manual or written HR polices, to facilitate better decision making, employee satisfaction and productivity, to implements "paperless" HR initiatives. Also to enable employees to do their own benefits updates and address changes, thus freeing HR staff for more strategic functions. The respondents also indicate that HRIS is used for knowledge development, career growth and development, and equal treatment is facilitated. It is also used by managers to access the information they need to legally, ethically, and effectively support the success of their reporting employees.

4.3.4 Benefits Realized so Far from the use of HRIS in the Organization

The interviewees were to indicate the benefits realized so far from the use of HRIS in the organization. They pointed out that HRIS improve accuracy, the provision of timely and quick access to information, and the saving of costs. They also indicated that HRIS has been on Management of all employee information, it is used on reporting and analysis of employee information, also in company-related documents such as employee handbooks, emergency evacuation procedures, and safety guidelines, it is also used in benefits administration including enrollment, status changes, and personal information updating, complete integration with payroll and other company financial software and accounting systems and, applicant and resume management. HRIS is also used by human resources staff to enable employees to do their own benefits updates and address changes, thus freeing HR staff for more strategic functions.

4.4 User Satisfaction and Effectiveness of Human Resource Information System

On influence of user satisfaction on the human resource information systems in the organization, the interviewees indicated that user satisfaction is the only criterion which considers attitudes, beliefs; cultural, and behavioral issues as key areas that influence successful implementation of information systems. The respondents also indicated that data necessary for employee management, knowledge development, career growth and development, and equal treatment is

facilitated. It is also used by managers to access the information they need to legally, ethically, and effectively support the success of their reporting employees. Other benefits were in payroll is that it automates the entire payroll process by gathering and updating employee payroll data on a regular basis. It also gathers information such as employee attendance, calculating various deductions and taxes on salaries, generating automatic periodic paychecks and handling employee tax reports. With updated information this system makes the job of the human resource department very easy and simple as everything is available any time, and all the information is just a click away. In time and labor management it lets human resource personnel apply new technologies to effectively gather and appraise employee time and work information. It lets an employee's information be easily tracked so that it can be assessed on a more scientific level whether an employee is performing to their full potential or not, and if there are any improvements that can be made to make an employee feel more secure, in employee benefits, the human resource department is able to keep better track of which benefits are being availed by which employee and how each employee is profiting from the benefits provided, in HR management because it curtails time and cost consuming activities leading to a more efficient HR department. This system reduces the long HR paper trail that is often found in most HR divisions of companies and leads to more productive and conducive department on the whole.

The interviewees were requested to give the various aspects of user satisfaction that influence the effectiveness of HRIS in the organization. Majority of them indicated various aspects of user satisfaction as and behavioral user perceptions attitudes, beliefs, cultural, user profiles and user values that influence user satisfaction on the effectiveness of human resource information systems in the organization.

4.5 Cost Effectiveness and Human Resource Information System

On how cost effectiveness affect human resource information systems in the organization, majority of interviewees indicated that declining costs of capturing and using information have joined with increasing competitive pressures to spur numerous innovations in use of information to create value efficiency of HRIS. The systems are able to produce more effective and faster outcomes than can be done on paper, simplification process, accuracy of information, minimization of space usage, improved productivity within HR organization reduction in labour costs.

On the ways in which technological systems, training on HRIS and returns on HRIS affect the effectiveness of HRIS, the interviewees indicated that it affects through benchmarking different companies we can leara how other companies have handled certain human resources issues related to information technology, information systems, new technology, and data security. The Internet is an increasingly popular way to recruit applicants, research technologies and perform other essential functions in business, to make the workforce function on a much higher level by keeping records of all employees reducing costs, playing a more strategic role, providing better service to employees or improving productivity, employees best practices can help to realize returns that meet or exceed those found by other customers.

4.6 System Acceptance/Adaptability

The study sought to establish how system acceptance/adaptability influences the effectiveness of Human resource information systems in the organization. The interviewees reiterated that mutual relationships with information technologies (IT), IS and organizational culture is relatively low among the employees hence slowing the intended effectiveness of the HRIS. They indicated that social side of organizational change is the most important factors that affect user satisfaction, user participation in the development process is crucial for user satisfaction. This is involvement in the design and implementation phases' affects appreciation of the system, which in turn affects user involvement in actual use of the system.

On how various aspects of system acceptance and adaptability influence the effectiveness of Human resource information systems in the organization, majority of the interviewees indicated that HRIS generally helps meet the needs of a number of organizational stakeholders. The interviewees also indicated that organizational structure causes resistance among some employees, organization culture influence the effectiveness of HRIS in the institution to a great extent.

4.7 Other Factors Influencing Effectiveness of Human Resource Information System

The interviewees were requested to indicate other factors influence the effectiveness of Human resource information systems in the organization, they indicated that technology as one of the factors influence the effectiveness of Human resource information systems in the organization, company knowledge base, information sensitivity, company information ethos, the state of the

market, the nature of the industry, changes in legislation/government regulations, changes in the nature of competition and the CEO's information ethos.

4.8 Challenges that Inhibit the Effectiveness of Human Resource Information System

On various challenges that inhibit the effectiveness of Human resource information systems in the organization, the interviewees indicated that usability and complexity which may led to increasing user training needs, decreasing program stability and the possibility of overwhelming users with extraneous features and also increase the likelihood of inertia and misspecification in the implementation, stating that more complex technologies have association to lower user satisfaction of information systems. They stated that the cost of setting up and maintaining a HRIS can be high, which is the major obstacle in the implementation of a HRIS. Similarly, lack of money and support from top management were the biggest barriers to achieving the full potential of HRIS. They further indicated that otner challenges were a lack of HR knowledge by system designers and the lack of applications/solutions for HR users. They also indicated that user values is also a challenge meaning that users may not have a positive approach for the new system regardless of its properties, user profiles propose a challenge to the implementation and the process suffers from inertia, user perceptions is also challenge they have a tendency to perceive the new system as something bad and stay at a distance as much as possible

The interviewees indicated that the possible measures to enhance the effectiveness of Human resource information systems in the organization is to adopt changes in human resources jobs, business plan and vision, careful selection of a third-party vendor, change management, clear
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communication, detailed requirements analysis, end-user involvement, leadership and project championship, project management, skill set of the implementation team members and support for users.

CHAPTER FIVE: SUMMARY OF THE FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the summary of the findings from chapter four, and also it gives the conclusions and recommendations of the study based on the objective of the study. The objective of this study was to determine the factors influencing effectiveness of human resource information systems at the National Cereals and Produce Board.

5.2 Summary of the Findings

The study found that HRIS improves accuracy, the provision of timely and quick access to information, and the saving of costs, HRIS has been on Management of all employee information, it is used on reporting and analysis of employee information, also in company-related documents such as employee handbooks, emergency evacuation procedures, and safety guidelines, it is also used in benefits administration including enrollment, status changes, and personal information updating, complete integration with payroll and other company financial software and accounting systems and, applicant and resume management.

The study also found that declining costs of capturing and using information have joined with increasing competitive pressures to spur numerous innovations in use of information to create value efficiency of HRIS. The systems are able to produce more effective and faster outcomes than can be done on paper, simplification process, accuracy of information, minimization of space usage, improved productivity within HR organization reduction in labour cost. Training on HRIS and returns on HRIS affect the effectiveness of HRIS, the interviewees indicated that it affects through benchmarking different companies we can learn how other companies have handled certain human resources issues related to information technology, information systems, new technology, and data security. The interviewees reiterated that mutual relationships with information technologies (IT), IS and organizational culture is relatively low among the employees hence slowing the intended effectiveness of the HRIS. They indicated that social side of organizational change is the most important factors that affect user satisfaction, User participation in the development process is crucial for user satisfaction. Technology as one of the factors influence the effectiveness of Human resource information systems in the organization, company knowledge base, information sensitivity, company information ethos, the state of the

market, the nature of the industry, changes in legislation/government regulations, changes in the nature of competition and the CEO's information ethos. The interviewees indicated that usability and complexity which may lead to increasing user training needs, decreasing program stability and the possibility of overwhelming users with extraneous features and also increase the likelihood of inertia and misspecification in the implementation, stating that more complex technologies have association to lower user satisfaction of information systems. They stated that the cost of setting up and maintaining a HRIS can be high, which is the major obstacle in the implementation of a HRIS. Similarly, 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 a lack of HR knowledge by system designers and the lack of applications/solutions for HR users.

5.3 Conclusion

The study concludes that HRIS improves accuracy, the provision of timely and quick access to information, and the saving of costs, HRIS has been on Management of all employee information, it is used on reporting and analysis of employee information, also in company-related documents such as employee handbooks, emergency evacuation procedures, and safety guidelines, it is also used in benefits administration including enrollment, status changes, and personal information updating, complete integration with payroll and other company financial software and accounting systems and, applicant and resume management.

The study also concludes that user satisfaction criterion considers attitudes, beliefs, cultural, and behavioral issues as key areas that influence successful implementation of information systems. As such data necessary for employee management, knowledge development, career growth and development, and equal treatment is facilitated using HRIS. With updated information this system makes the job of the human resource department very easy and simple as everything is available any time, and all the information is just a click away.

The study also established that mutual relationships with information technologies (IT), IS and organizational culture is relatively low among the employees hence slowing the intended effectiveness of the HRIS. The social side of organizational change is the most important factors that affect user satisfaction, user participation in the development process is crucial for user

satisfaction. Technology as one of the factors influence the effectiveness of Human resource information systems in the organization, company knowledge base, information sensitivity, company information ethos, the state of the market, the nature of the industry, changes in legislation/government regulations, changes in the nature of competition and the CEO's information ethos.

5.4 Recommendations

The study recommends that the organization should adopt changes in jobs, business plan and vision, careful selection of a third-party vendor, change management, clear communication, detailed requirements analysis, end-user involvement, leadership and project championship, project management, skill set of the implementation team members and support for users.

5.5 Recommendations for Further Studies

This study has explored the factors influencing effectiveness of human resource information system at the National Cereals and Produce Board. The study found and analyzed data with a focus on NCPB which is a corporation in Kenya. There are other states corporations in Kenya whose orientation in the public sector is close to that of NCPB but differ in their human resource information system and their approaches in human resource management as a whole. This warrants the need for another study which would ensure generalization of the study findings for all the organizations in the public sector in Kenya and hence pave way for new policies. The study' therefore recommends another study be done with an aim to investigate the factors influencing effectiveness of human resource information system at the public sector organizations in Kenya.

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Appendix I: Letter of Introduction

Janet Nyamoita Atika

University of Nairobi

Master of business Administration

RE: FACTORS INFLUENCING EFFECTIVENESS OF HRIS AT THE NATIONAL CERtALS AND PRODUCE BOARD (NCPB), KENYA

I am a student at the University of Nairobi (UON) pursuing a Masters of Business Administration (MBA) Degree. I'm undertaking the above research project in partial fulfillment of the requirement of the stated degree. Pursuant to the pre-requisite course work, 1 am conducting a research project on **FACTORS INFLUENCING EFFECTIVENESS OF HRIS AT THE NATIONAL CEREALS AND PRODUCE BOARD (NCPB), KENYA.** The focus of my research will be National Cereals and Produce Board and this will involve use of questionnaires administered to Management staff members.

You have been chosen to participate in this study. I kindly request you to take a few minutes to respond to a few questions to facilitate the completion of this study. The information collected will be treated with utmost confidentiality and is for academic purpose only. The finding and recommendations of the research will be availed to you upon completion of the research

Thanks you in advance

JANET NYAMOITA ATIKA

MBA STUDENT, UON

Appendix II: Interview Guide for Management Staff

FACTORS INFLUENCING HUMAN RESOURCE INFORMATION SYSTEMS

PART A: BACKGROUND INFORMATION

1) What is your gender?

   Male   ( )   Female   ( )

2) Indicate your age bracket

   20-29   ()   30-39   ( )

   ' 40-49   ( )   50-59   ( )

   Above 60 years   ( )

3) What is your highest level of education?

   O' level   ( )   A' level   ( )

   College certificate ( )   Undergraduate Degree ( )

   College diploma   ( )   Masters Degree   ( )

   Others (Specify………………………)   ( )

4) What department do you work in?

   Finance/Accounting   ( )   IT department   ( )

   Corporate /Marketing   ( )   Strategic department ( )

   Human Resource/administration ( )   Operations   ( )

   Production   ( )   Other (Specify…………………) ( )

5) What is your position in the department?

   Support   ( )   Supervisory   ( )

   Assistant manager/Asst. head of department ( )   Manager/head of department ( )

   Other (specify)   ( )

6) How long have you worked at NCPB?

   Less than six months   ( )   six months to one year ( )

   Two to three years   ( )   four to five years   ( )

   Six to seven years   ( )   More than seven years   ( )

PART B: FACTORS INFLUENCING THE EFFECTIVENESS OF HRIS AT NCPB

1. Which are the various types of human resource information systems that used in this organization?

2. Which areas of operations mainly make use of HRIS in this organization?

3. What are reasons for using Human Resource Information Systems (IiRIS)?

4. What are the benefits realized so far from the use of HRIS in the organization?

5. What is the influence of user satisfaction on the Human resource information systems in the organization?

6. Kindly give the various aspects of user satisfaction that influence the effectiveness of HRIS in the organization?

7. How does cost effectiveness the effectiveness of Human resource information systems in the organization?

8. In which ways do technological systems, training on HRIS and returns on HRIS affect the effectiveness of HRIS?

9. How does system acceptance/adaptability influence the effectiveness of Human resource information systems in the organization?

10. Which aspects of system acceptance and adaptability influence the effectiveness of Human resource information systems in the organization?

11. Which other factors influence the effectiveness of Human resource information systems in the organization?

12. What are the various challenges that inhibit the effectiveness of Human resource information systems in the organization?

13. What are the possible measures to enhance the effectiveness of Human resource information systems in the organization?