

# Challenges and Strategies in the Implementation of Human Resource Information Systems in Kenyan Universities

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## Abstract

The need for quality service delivery and enhanced outputs in organizations has led to the need for a streamlined and efficient workforce. This is clearly illustrated by the numerous strategies that organisations are putting in place in order to satisfy their clients' needs. One such strategy that has gained popularity in many organisations is the entry of Human Resource Information Systems. Even though most of these strategies have propelled organizations in fulfilling their objectives, limited information exists on HRIS in Kenya, more so in the higher education sector. This study therefore examined the challenges and strategies in the implementation of human resource information systems in Kenyan universities. The specific objectives of the study were: to establish the challenges associated with the usage of HRIS on service delivery and; to explore appropriate strategies for sustained usage of HRIS on service delivery in Public and Private Universities in Kenya. The study used the survey research design. The targeted population for the study was 88 and was drawn from departments of Human Resource, Information and Communications Technology and Finance from the two Universities. The three departments were purposively selected since they were involved with HR matters. The entire population participated in the study since it was small and manageable. The researcher used questionnaires and an interview schedule to collect data from the respondents. Collected data was analyzed descriptively and presented through tables. It was established that there were challenges in the usage of HRIS as most employees resisted the changeover from the manual system to the automated system. Lack of skilled Staff, High cost of setting up and maintaining a HRIS and resistance to change of the organizational culture were other challenges stated. In order to effectively implement HRIS, the respondents opined that there should be mobilization of resources required to set up HRIS, acquisition of a suitable HRIS software, the organization should focus on their goals and objectives in order to enhance usage and HRIS performance, recruitment of trained and qualified HRIS staff and continuous in-house training for existing staff on HRIS implementation. The findings revealed that there were a number of benefits associated with adoption of HRIS which included easy access of staff information, improved data management, and improved data input process among others. Therefore, there is need to expand the use of HRIS in the universities. This will enable the Universities to efficiently and effectively handle HR functions.

**Key words:** *HRIS, HRIS Implementation Challenges, HRIS Implementation Strategies, Kenyan Universities, ICT, Service Delivery*

## 1.1 Introduction

Human resource information system is one of the most important management information systems which contribute to human resource service delivery of an organization. Human resource information system is described by (Hendrickson, 2003), as a computer system used to acquire, store, manipulate, analyze, retrieve, and distribute information related to human resources. Human Resource Information System helps organizations by automating most of the human resource planning functions. The system has become an important strategic tool since it collects, manages and reports information for decision-making. Fully integrated HRIS ought to interface with other systems to enhance the communication between departments such as payroll system with accounting system. Since the system deals with employees' personal data, which are sensitive, it should ensure data security while transferring information from one place to another. HRIS improves communication between employers and employees and builds strong relationship with unions and management committees (Armstrong, 2006). Therefore, the use of a HRIS would cut down HR costs by automating information and reducing the need for large numbers of HR employees; by helping employees to control their own personal information; and by

allowing managers to access relevant information and data, conduct analysis, make decisions and communicate with others without consulting an HR professional (Awazu & Desouza, 2003; Ball, 2001).

Despite the widespread application of HRIS over the years, the implementation of human resource information systems continues to be faced with problems. As noted by (Strohmeier, 2001), the main factors that cause failure of information technology systems are mainly human as opposed to materialistic or malfunction of the actual systems. Ngai and Wat (2006) in a study on human resource information system implementation found out that many organizations have problems when implementing new technologies including human resource information system due to many barriers. These barriers include lack of sufficient capital and skills, cost of setting up and maintaining the system, lack top management support and commitment, lack of human resource knowledge by system designers and lack of applications for human resource users (Kovach & Cathcart, 1999).

An effective human resources information system (HRIS) can be an invaluable tool to help administration effectively responds to economic challenges and to comply with the many reporting requirements from outside agencies. For example, there is an increasing demand from governmental agencies to supply information on organizational efforts in the areas of affirmative action, veteran status of employees, and equal employment opportunity compliance. In order to meet these needs, it is now more important than ever for Human Resources departments to maintain an efficient information system. Although the initial design of a good system that works well within a university's organizational structure can be challenging to establish, once in place, a well-run HRIS can be effectively used in almost every specialty area of Human Resources. From Compensation to Employee Relations to Benefits and beyond, HR managers in higher education should learn to make the most of their information systems.

Most public and private institutions have weaknesses in human resource service delivery because of the continued use of manual human resource systems in developing countries, especially Kenya. This explains the limitations faced during acquiring, storing, manipulating, analyzing, retrieval and distribution of critical human resource information. Although HRIS helps constitute activities involved in human resource management, not all organizations consider investing in it. An audit report of the public service payroll has revealed that Kenyan taxpayers are losing more than Sh1.8 billion annually in salary payments to ghost workers in the Civil Service (Herblin, 2014). This is due to the poor payroll management systems. This is a replica of what is happening in the Kenyan Universities. Some of the higher leaning institutions which have taken the step to implement HRIS, they have been met with a lot of resistance and fear of losing jobs by both the members of staff and the HR professionals.

For any organization to be successful, administration needs to be able to make quality decisions based on accurate data. Too often in higher education, decisions are made without the benefit of a comprehensive analysis of the current state of the university (Hooten, 2013). These decisions can lead to misusing existing funds, continuation of ineffective programs, or overlooking ways to create positive change for the universities.

Studies have focused on the status of HRIS and its uses, benefit, implementation and barriers in most parts of the world. However, there is inadequate literature available concerning the utilization of HRIS in Kenya. This study therefore combines some of the factors observed by the other scholars to assess the challenges facing universities in the implementation of Human Resource management Information Systems and the strategies that have been put in place to deal with the challenges.

## **1.2 Statement of the problem**

Absence of a well-established human resource information system has led to poor record keeping, delayed personal data aggregation, poor talent management and poor staff files management which in turn has continued to hinder human resource service delivery in the Universities. The undependable HR manual systems may explain why significant decisions are not based on accurate and timely information which compromises performance of these institutions. This has also led to loss of personnel information as well as loss of millions of money in paying non existing employees.

Human Resource Information Systems implementation procedures appear to be disjointed and disorganized in Kenya. The manner in which information and communication technology was introduced in Kenyan universities was initially piecemeal, uncoordinated, and in most cases haphazard. Problems associated with introduction of the technology, include low computer literacy, difficult in changing organizational culture, poor infrastructure and lack of resources. Use of HRIS as a strategic management tool has not been fully acknowledged, and this is preventing the system to be used to its fullest potential. Interestingly, little is known about the challenges facing universities in implementing HRIS systems in Kenyan Universities. As the need to shift from HRM to Strategic

HRM keeps on mounting, coupling with severe global competition and with the ever-increasing demand for HRIS, there is need for further research in this field. The current study sought to establish the challenges facing universities in Kenya and the strategies that have been put in place to deal with the challenges.

### 1.3 Purpose of the study

The study sought to establish the challenges facing universities in the implementation of Human Resource management Information Systems and the strategies that have been put in place to deal with the challenges.

### 1.4 Research Objectives

The specific objectives of the study are:

1. To establish the challenges associated with the usage of HRIS on Service Delivery in Public and Private Universities.
2. To explore appropriate strategies for sustained usage of HRIS on Service Delivery in Public and Private Universities.

### 1.5 Research Questions

1. What challenges are associated with the usage of HRIS on service delivery?
2. What are the appropriate strategies for sustained usage of HRIS on service delivery?

## 2.0 Methods and Materials

The study was conducted in Egerton and Kabarak Universities. Egerton University is one of the public universities in Kenya with its main campus located in Njoro, Nakuru County while Kabarak University is a private Chartered University located to the north of Nakuru County, along the Nakuru-Eldama Ravine highway. These two universities have earned a reputation as institutions of higher learning due to their dedicated staff, modern facilities, state-of-the-art technology and innovation and their roles in research. These two universities were selected because they were in the same geographical region.

### 2.1 Research Design

This study used the **exploratory** method, incorporating a self-administered questionnaire and face to face interviews. According to Stebbins (2001), exploratory research is a methodological approach that is primarily concerned with discovery and with generating or building a theory. Its focus is on the discovery of ideas and insights as opposed to collecting statistically accurate data. It is most commonly used for further defining organizational issues, areas for potential growth, alternative courses of action and prioritizing areas that require statistical research. In this study, the researcher perceived that majority of Kenyan universities are still facing the problems associated with implementation and usage of human resource information systems hence are unable to realize their full potential in carrying out their core mandate. It is for this reason that the researcher used the exploratory design.

### 2.2 Target Population

The study population included staff from the departments of Human resource, finance and ICT in Egerton and Kabarak Universities. The population constituted all general staff, Administrators and Secretaries. The target population was 88 and was distributed as per Table 1.

**Table 1: Target population**

| Department           | Universities |           | Total     |
|----------------------|--------------|-----------|-----------|
|                      | Egerton      | Kabarak   |           |
| HR                   | 30           | 12        | 42        |
| Finance and Accounts | 10           | 16        | 26        |
| ICT                  | 10           | 10        | 20        |
| <b>Total</b>         | <b>50</b>    | <b>38</b> | <b>88</b> |

*Source: Staff Establishment Document, 2013 (Egerton & Kabarak University)*

### 2.3 Sample Size and Sampling Technique

The study adopted purposive sampling technique to select the two universities, a public and a private university. According to Kombo and Tromp (2006) in this type of sampling, items for the sample are selected deliberately

by researcher; her choice concerning the items remains for supreme. Purposive sampling technique was employed to select departments of HR, ICT and Finance since these are the departments which are involve in Human Resource matters. Patton (1990) highlighted that purposive sampling is based on the researcher's judgment. This researcher further indicates that the sample should be composed of elements that contain the most characteristic that represents a given population.

Since the target population was small the researcher used census technique to select all members of the three departments from the two universities to participate in the study. According to (Kothari, 2004)A census study occurs if the entire population is very small or it is reasonable to include the entire population.

### **2.5 Data Collection Instruments**

The study utilized questionnaires and an interview schedule for data collection. The self-administered questionnaires consisted of 2 sections where the first section collected demographic data of the respondents while the second section collected thematic data. This sought to assess challenges associated with usage of HRIS and to explore appropriate strategies for sustained HRIS on service delivery. The interview schedule was used because as it gave the researcher the ability to ensure that the same general areas of information were collected from each interviewee (McNamara, 2009). It provided more focus than the questionnaire approach, but still allowed a degree of freedom and adaptability in getting information from the interviewee. The interview guide was developed from literature and based on the research aims and objectives.

### **2.7 Data analysis**

Quantitative data was analysed using descriptive statistics and was presented as percentages through tables. Similarly, qualitative data was analysed using inferential statistics and presented through narratives.

### **3.0 Results and Discussion**

The study's main objective was to to establish the challenges facing universities in the implementation of Human Resource management Information Systems and the strategies that have been put in place to deal with the challenges. The researcher also sought to establish appropriate strategies for sustained usage of HRIS on Service delivery in public and private universities. Out of the 88 respondents for the study, 79 participated in the study. Thus the overall response rate was 90%.

#### **3.1 Challenges associated with the usage of HRIS on service delivery in the University**

From the findings, 48.7% of respondents stated that lack of skilled Staff is a challenge as regards the HRIS in public university. 43.8% of the respondents were of a similar opinion in private from universities. The high cost of setting up and maintaining a HRIS was stated as a challenge by 44.4% 46.9% of respondents from both the public and private universities respectively. However, lack of support from top management was not regarded as a challenge as 41.3% and 37.6% of respondents from public and private universities disagreed with this statement. The respondents also disagreed with the opinion that there was lack of IT support which undermined the adoption of HRIS as 41.3% and 56.3% if the respondents from the public and private universities respectively indicated this.

Reluctant to change of the organizational culture was indicated as a challenge as 69.6% and 65.7% of respondents from public and private universities stated. 52.3% of respondents in the public university and 51.6% of respondents from the private university were in agreement that HRIS was not being perceived as an advantage hence hindering the learning institution from achieving their full potential on service delivery through the use of HRIS. Table 2 presents this.

**Table 2: Challenges associated with usage of HRIS**

| Statement  | Type    | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|--|---------|-------------------|----------|---------|-------|----------------|
| Lack of skilled Staff as regards the HRIS  | Both    | 8.2               | 20.5     | 24.7    | 39.7  | 6.8            |
|  | Public  | 4.9               | 19.5     | 26.8    | 46.3  | 2.4            |
|  | Private | 12.5              | 21.9     | 21.9    | 31.3  | 12.5           |
| High cost of setting up and maintaining a HRIS hinders the adoption of a HRIS            | Both    | 2.6               | 31.2     | 20.8    | 36.4  | 9.1            |
|  | Public  | 0                 | 28.9     | 26.7    | 40    | 4.4            |
|  | Private | 6.3               | 34.4     | 12.5    | 31.3  | 15.6           |
| Lack of support from top management  | Both    | 11.5              | 28.2     | 25.6    | 25.6  | 9              |
|  | Public  | 6.5               | 34.8     | 23.9    | 23.9  | 10.9           |
|  | Private | 18.8              | 18.8     | 28.1    | 28.1  | 6.3            |
| The lack of IT support undermines HRIS adoption  | Both    | 17.9              | 29.5     | 17.9    | 26.9  | 7.7            |
|  | Public  | 15.2              | 26.1     | 19.6    | 32.6  | 6.5            |
|  | Private | 21.9              | 34.4     | 15.6    | 18.8  | 9.4            |
| Difficulty in changing organization culture hinders achieving the full potential of HRIS | Both    | 6.4               | 16.7     | 9       | 46.2  | 21.8           |
|  | Public  | 8.7               | 10.9     | 10.9    | 45.7  | 23.9           |
|  | Private | 3.1               | 25       | 6.3     | 46.9  | 18.8           |
| HRIS not being perceived as an advantage at all hinders achieving its full potential     | Both    | 5.3               | 20       | 22.7    | 38.7  | 13.3           |
|  | Public  | 4.5               | 18.2     | 25      | 36.4  | 15.9           |
|  | Private | 6.5               | 22.6     | 19.4    | 41.9  | 9.7            |

**Source: Primary data, 2014**

From the interviews with the respondents, one of the most challenging issues was the implementation of HRIS, since implementing the HRIS system had a short and tight schedule. One of the respondents from Egerton University stated that:

*“The project team had to plan and keep on the right track from the beginning” (P1-A4 Oral Interview, Egerton University, 12 March 2014).*

However, this HRIS process was in the high priority task for the University. As a result, top management supported and provided the resources needed. Due to the tight schedule, it was quite a challenge and the need to set up good strategic planning in order to achieve the goals effectively and efficiently.

Some of respondents mentioned that a great problem is that the education and training process is a big challenge for implementing HRIS. One of the respondents stated:

*“...Let’s say there is a need to train a thousand users before you go live. How should you do that?, that’s the challenge”. (P1-A3 Oral Interview, Egerton University, 12 March 2014).*

In addition, one of the interviewed respondents from Kabarak University mentioned how important training the people for HRIS is:

*“..I think that the training is very challenging. If a successful training is performed the system gives more value to the users and develop new features instead of discussing handling of the system on and on..” (P2-A4 Oral Interview, Egerton University, 18 March 2014).*

Another effect and consequence is that employees who are involved with this HRIS system have to change their organizational culture and working process in order to successfully implement the HRIS. One respondent who has been working with this system said:

*“..This changes organisational culture, we have our own routines in terms of maintenance processes. Conversely, when System was implemented in Egerton University we had to change our working process. This changed the way that I used to work before...” (P1-A6, Oral Interview, Egerton University, 12 March 2014).*

On the other hand, two respondents from Egerton University mentioned about the outcome of changing from the old system to the new information system (Paper based system to HRIS) saying that:

*“..Some people are not happy when they have to change the organisation structure. I think I am satisfied with the outcome of this systems. It makes my working easier...” (P1-A7& P1-A4, Oral Interview, Egerton University, 11 March 2014).*

Another challenge noted was that the HRIS is complex software with many functions since the maintenance of staff information is complicated. As a result, it was difficult for the users to understand the complexity of the system (Oral Interview, 14 March 2014). This resulted in a form of resistance to the adoption and implementation of the HRIS system. Lack of qualified and skilled personnel to operate the system was also mentioned as noted from the following interview excerpt from a respondent in Kabarak University.

*“..One of the problems of this system is lack of people to input the data into the system. Since they have to input the data from the files you can see here. Therefore, no reserved people do this task. Moreover, someone who can operate this system must have to be trained and get certificate..” (P2-A4, Oral Interview, 18 March 2014)*

The main problems identified by the interviewed respondents over the use of the HRIS were data insecurity, poor infrastructures, staff attitude and huge cost associated with implementation and maintenance of the system. On average, challenges associated with the usage of HRIS on service delivery in the University were rated at  $64.32 \pm 14.3\%$ , having a minimum of 31.43% and a Maximum of 88.57%. Public university  $67.1 \pm 14.3$ , min=31.4, max 88.6. Private University  $60.8 \pm 13.7$  min=37.1, 88.6.  $t(68) = 1.86$ ,  $p=0.67$ .

### **3.2 Strategies for sustained usage of HRIS on service delivery**

Having identified the challenges facing universities in the implementation of Human Resource management Information Systems, the researcher sought to establish the most workable strategies that have been adopted for sustained usage of HRIS on Service Delivery.

On the point that there should be mobilization of resources required to set up HRIS in public university, majority (82.6%) indicated they were in agreement, while in private university majority (96.9%) were in agreement. In conclusion, the analysis shows employees of universities are in agreement on the top management support in approval of implementation of HRIS project and aligning it to strategic goals, they also agreed that HRIS has enhanced decision making process, planning and coordination by managers. However the employees were not sure about top management committal to resources and allocation of a sizeable budget to cater for the HRIS implementation.

Based on the findings that Suitable HRIS software should be availed in order to achieve effective HRIS in public university majority (80.5%) indicated were in agreement while in private university majority (87.5%) indicated

they were in agreement. On the statement that in order to enhance the performance of HRIS there is focus on goals in public university majority (80.4%) indicated were in agreement while in private university majority (90.6%) were in agreement. On the point that in order to strengthen the effectiveness of the HRIS, there should be an effort to ensure proper record keeping in public university majority (84.8%) indicated were in agreement while in private university majority (90.6%) were also in agreement.

On the statement that adherence to standardized processes has done a lot in improving the effectiveness of the HRIS in public university majority (71.8%) indicated were in agreement while in private university majority (78.2%) indicated they were in agreement. Majority of the respondents (84.8%) agreed that trained and qualified HRIS staff is required for sustained HRIS in public universities. In private university (90.7%) were also in agreement with this statement. Also, majority of respondents from public university (82.6%) were in agreement that there should be continuous in house training for staff while in private university (84.4%) were in agreement. Table 3 presents this information.

**Table 3: Strategies for sustained usage of HRIS on Service Delivery**

| Statement  | Type    | Disagree | Neutral | Agree | Strongly Agree |
|--|---------|----------|---------|-------|----------------|
| There should be mobilization of resources required to set up HRIS                                      | Both    | 1.3      | 10.3    | 48.7  | 39.7           |
|  | Public  | 2.2      | 15.2    | 54.3  | 28.3           |
|  | Private | 0        | 3.1     | 40.6  | 56.3           |
| Suitable HRIS software should be availed in order to achieve effective HRIS                            | Both    | 3.8      | 12.8    | 37.2  | 46.2           |
|  | Public  | 6.5      | 13      | 43.5  | 37             |
|  | Private | 0        | 12.5    | 28.1  | 59.4           |
| In order to enhance the performance of HRIS there is focus on goals                                    | Both    | 2.6      | 12.8    | 60.3  | 24.4           |
|  | Public  | 0        | 19.6    | 58.7  | 21.7           |
|  | Private | 6.3      | 3.1     | 62.5  | 28.1           |
| To strengthen the effectiveness of the HRIS, there should be an effort to ensure proper record keeping | Both    | 2.6      | 10.3    | 46.2  | 41             |
|  | Public  | 2.2      | 13      | 52.2  | 32.6           |
|  | Private | 3.1      | 6.3     | 37.5  | 53.1           |
| Following a standardized process has improving the effectiveness of the HRIS                           | Both    | 5.1      | 20.5    | 46.2  | 28.2           |
|  | Public  | 2.2      | 26.1    | 45.7  | 26.1           |
|  | Private | 9.4      | 12.5    | 46.9  | 31.3           |
| Trained and qualified HRIS staff   | Both    | 3.8      | 9       | 48.7  | 38.5           |
|  | Public  | 4.3      | 10.9    | 52.2  | 32.6           |
|  | Private | 3.1      | 6.3     | 43.8  | 46.9           |
| Continuous in house training for staff   | Both    | 5.1      | 10.3    | 33.3  | 50             |
|  | Public  | 4.3      | 10.9    | 39.1  | 43.5           |
|  | Private | 6.3      | 9.4     | 25    | 59.4           |

**Source: Primary data, 2014**

Most of the respondents who were interviewed from Kabarak University stated that a significant success of HRIS is good coordination and cooperation. The main critical success factors of HRIS implementation was efficient and effective coordination and operation. Moreover, setting up the project team members with the right skills for the right job are critical success factors in the implementation project. One of the respondents stated:

*“..Project team with the right skills and their team work are the most important part to be successful in this project.” (P2-A2, Oral Interview, Kabarak University, 17 March 2014).*

In addition, the test and trials process is a very significant process and can be one of the critical success factors of HRIS implementation. In each system implementation, a test and trial period was conducted for three months in order to ensure that the system was working well. Also in Egerton University the test and trials process had been conducted for three months before deployment or “go-live”.

As one respondent said:

*“... Our system endured three months of rigorous testing procedures before the system went live Trials are important because when you test the system in a live situation, you will find the problems and get positive thinking before you go live...” (P1-A1, Oral Interview, Egerton University, 11 March 2014).*

On average strategies for sustained usage of HRIS on service delivery was rated at  $83.7 \pm 11.5\%$  with minimum rating of  $48.57\%$  and a Maximum of  $100\%$ . Public University  $81.8 \pm 11.4$  min= $48.6$ , max= $100$  compared to the Private University  $86.4 \pm 11.5$  min  $51.3$ , max  $100$ .  $t(76) = -1.764$ ,  $p=0.82$

One respondent from the Egerton University stated that:

*“.. HR department must develop policies and guidelines to protect the integrity and security of the HRIS so that private employee information does not fall into the wrong hands. To maintain the security and privacy of HRIS records, university should control access, develop policies and guidelines that govern the utilization of information, and allow employees to check their records. A combination of written policy and effective use of your system's security features is needed to manage issues of data integrity and privacy. Because employee records are increasingly maintained in computer files, the traditional recordkeeping policies and practices need to be reviewed and updated in light of these technological times. Often more complete than paper records, computer records are full of information that needs to be protected from inaccurate actions as well as from unwarranted use...” (P1-A3, Oral Interview, Egerton University, 11 March 2014)*

Staff development in regards to training and hiring of staff was identified as the main way to mitigate the problems experienced in the use of HRIS, followed by infrastructure improvement and maintenance of the system.

On average, the HRIS uses in the Universities was rated  $62.5\%$  in public university higher than in private Universities which was rated at  $59.3\%$ , however the difference in these means was not statistically significant  $t(71) = 1.034$ ,  $p=0.304$ .

Effect of HRIS on HR service delivery was rated  $71.3\%$  on average in Private Universities and  $70.6\%$  in Public Universities. The difference was not significant  $t(71) = -0.203$ ,  $p=0.84$

More ( $67.1\%$ ) respondents pointed challenges in the Public University than in the Private University ( $60.8\%$ ), however the difference in these means was not significant  $t(68) = 1.86$ ,  $p= 0.067$ . Also, the Private University was rate high ( $86.4\%$ ) on average in Strategies for sustained usage of HRIS on service delivery compared to the Public University ( $81.8\%$ ). This difference was not significant  $t(76) = -1.764$ ,  $p=0.082$

### 3.3 Summary of Findings

#### 3.3.1 Challenges associated with the usage of HRIS on service delivery in the University

The findings presented in Table 4.6 suggest that the greatest barriers to the implementation of HRIS were insufficient financial support; lack of commitment from top managers. That could be explained by the facts that most of Kenyan Universities confront financial crisis in general and they face a lack of budget, money to design and develop HRIS or any other HRM applications. The other important factors that need to be highlighted and

that could affect negatively most of managerial activities, including the implementation of HRIS in universities, are the social-cultural factors, which shape the way people think, act and behave. The findings are supported by Beckers and Bsat (2002), who assert that the cost of setting up and maintaining a HRIS can be high, which is the major obstacle in the implementation of a HRIS.

The respondents further indicated that other challenges were a lack of skilled staff as regards HRIS. However, the situation in the Universities is worrying since majority of the interviewees stated that the level of IT literacy is insufficient to enable HRIS adoption in HR function and further majority stated that they lack confidence in carrying out HR activities using HRIS, selecting appropriate HRIS, lack confidence that they have the necessary skills to use HRIS in HR function activities and lack confidence in helping other employees to solve HRIS problems. This can be attributed to the fact that there is lack of management support towards training and development on IT related subjects. The study findings according to the majority revealed that HR function within private universities had not organized IT training for its employees and those employees who had undergone IT training did it without assistance of their organization. Majority of the respondents stated that they would like the institution to provide on the job training. On-the-job training, which is an effective method for helping employees develop their knowledge, skills, and experience. It can be noted that personnel issues are one of the major problematic issues regarding the HRIS implementation process. For instance, even if an organization has a perfect information system, if the staffs do not know what to do with the information that it produces, it wastes time and money. Similarly, functional managers probably underestimate the cost because they have a vested interest in getting the project accepted. Technical staff in turn also under estimate training costs because being experts in the field they do not perceive the needs and difficulties of new users. Normally the best person to do the training is the individual's immediate supervisor as he or she will know how best, how long is required and the approach to take when instructing a particular individual. It is significant to ensure that all the users have been trained adequately. Another issue that also relates to the training process is staffing.

From the findings, resistance to change was seen as another challenge in implementing HRIS. Part of the resistance is performed as fear, such as fear of technologies, fear of being displaced by technology, and fear of the unfamiliar. Employers resist HRIS as they think that it increases cost of manpower as trade unions demand for employee based plans, more facilities and benefits including training and development. Consequently, individuals who have resistance to change can perform by putting off the extra work and effort needed in learning new information systems or technologies.

According to the interviews, most of respondents claimed that there was always a challenge when the organization replaces the old system with the new system. For instance, in the case of implementation of the HRIS in Egerton to replace the old system, called paper system, that had been used for almost 30 years, some of the users didn't want to change the way they had worked before. In addition, one of the respondents in Kabarak University also supported this phenomenon that when they recruit new system users in order to be trained, these people always show their resistance to change. The reason behind this seems to be the complexity of the system as one of the respondents mentioned. As a result, the users can act in a way that is resistant to change.

Another challenge found from the interviews is a lack of adequate communication to the operational level in order to make the users understand what the system is designed to do, what the system look like, and so forth. According to Beaumaster (2002), technical systems issues are primarily related to the impact information technology has on organizations and individuals. In addition, these issues include hardware and software considerations as well as the compatibility and life cycles of various information technologies.

However, the challenge for Private Universities, currently, is integration between HRIS and other Systems in the university. This is in agreement with (McNurnin *et al.*, 2006) who stated that connecting the different functions into a central location, data redundancy becomes much easier to control and eliminate. Enterprise Resource Planning is a potential source for salvation for most organizations. The modularity allows managers not just from human resources but from the entire organization to have access to the same data which is transformed into

information to suit the user's needs. The typical common database at the center of an HRIS usually contains some sort of database management system (DBMS) that acts as a data scrubber as well as a means of storage.

According to the findings the biggest problems or obstacles to managing a HRIS were lack of staff, lack of a budget, problems with time management, the need to work with other departments and the lack of information technology (IT) support. Likewise, there was a challenge to keep information protected all the time from being accessed by unauthorized persons, system hackers, and web spam and document viruses.

### **3.3.2 Strategies for sustained usage of HRIS on service delivery**

In regard to training, the employees of both universities agreed that training influences the HRIS implementation. They also agreed that training motivates them to embrace change during HRIS implementation. But they were neutral on administration of training programs being faster through HRIS and on whether they were given adequate training on how to use HRIS. The respondents disagreed to the fact that training on HRIS is done frequently in the universities.

The study revealed that respondents strongly agreed that for HR department to exist, ICT department should be responsible for the maintenance of the HRIS. This is because ICT plays a major role in facilitating the computerization of HRIS in the universities and that the department participates in planning and developmental stages of HRIS.

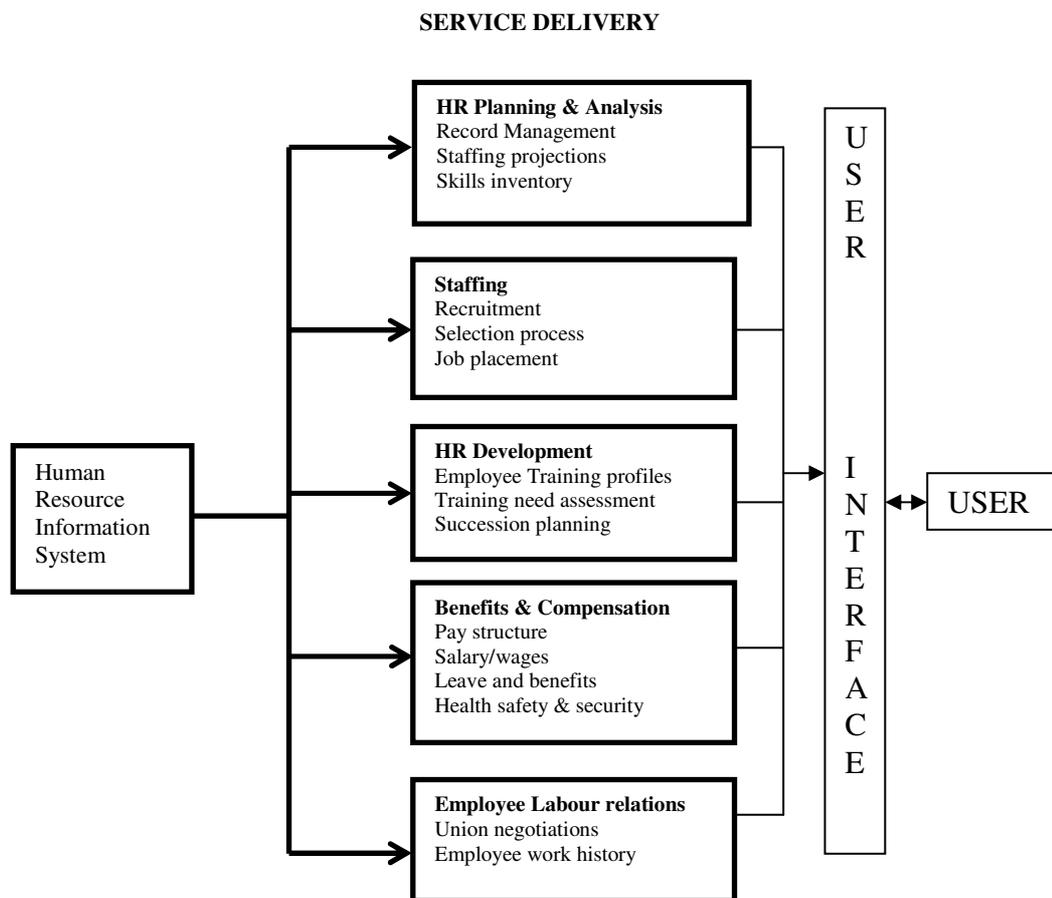
Therefore, in order to promote the smooth adoption of HRIS in universities, it is necessary to ensure the financial and non-financial support to set up a HRIS, a managerial commitment, compulsion and control are required to ensure a complete adoption of HRIS. Moreover, the support of top management is one of the most important factors for successful implementation of HRIS. The respondents agree that top management should take 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. A comprehensive HRIS requires a sizeable budget to implement and maintain. If top managements do not understand how the HRIS bring the benefits to the organization, they will not be willing to allocate valuable resources, time and efforts of implementation.

Another implementation strategy, the respondents argued that it is important to have tests and trials before the deployment of HRIS process. Test and trials of the system have proven to be the key components of success for some organizations. The findings from the interviews also indicate that the Egerton University system endured three month of rigorous testing procedures before the system went live. Moreover, this process also seems like an evaluation process before the system goes live (Oral Interview, 14 March 2014). This determination is best achieved by focusing on the ultimate objective, and asking how a particular situation will impact achievement of this final goal.

### **3.4 Model for Implementation and Use of the HRIS in Organizations**

Human Resource Management plays a vital role in implementing the strategic business objectives of the organization, and in running the daily functions effectively and efficiently to improve the productivity and proficiency. HRIS has been addressed as a tool that organizations use to solve and manage a variety of issues and processes connected to the management of people. On the one hand, technology may be used for different purposes within particular human resource functions: for recruitment and selection, performance evaluation, compensation and benefits, training and development, health and safety, employee relation and legal issues, retention and work life balance (Enshur *et al.*, 2002). On the other hand, a company that uses a complex mix of HRIS solutions enables the human resource function to manage in human resources as well as employees information flow in an integrated approach across the entire employment cycle of each individual, thus shifting the attention from a process centered human resource to a customer(employee)-centered human resource management. User interface creates the interaction with end users. Each sub system is attached to a user interface where the user can enter information to the relevant sub system and view information, provided by subsystems based on rules and facts. This model is shown below (Figure 1).

**Figure 1: Model for Implementation and Use of the HRIS in Organizations**



*Source: Author, 2014*

### 3.5 Conclusion

Based on the above-discussed findings, the following conclusions can be made. Despite the investment of HRIS in the surveyed universities, HRIS in Kenyan universities is adopted to automate HRM activities in order to obtain some general administrative routine purposes. It was revealed that vast majority of the survey respondents indicated that HRIS was used mainly for administrative purposes like payroll and employee record keeping, rather than strategic applications like succession planning, training and Development, Recruitment and selection. The results thus indicate a tremendous amount of unrealized HRIS potential as few respondents were using the HRIS strategically to directly improve their competitiveness.

A wide majority of the participants perceived that the HRIS provided improved data input process, data management and easy access of staff information with the effectiveness of the HR department by automating administrative tasks. However, other widely acclaimed benefits of reduced manpower, forecasting of staffing needs and improving training needs were least perceived by the organizations.

From the findings, several challenges were pointed out among which included inadequate funds, inadequate knowledge, lack of expertise(s) in IT to operate the HRIS, insufficient financial support, problems with time management of the HRIS implementation process and the need to work with other departments. Likewise, lack of information technology (IT) support, unavailability of suitable HRIS or software, difficulty in changing the organization’s culture, fear of changing the way staff do things, the HRIS not being perceived as an advantage, lack of commitment and involvement by all employees and lot of paper work that is difficult to computerize undermined the achievement of the full potential of HRIS.

Some of the strategies put forward to counteract the challenges were ensuring that the sources of funds to cover the costs of setting up and maintaining a HRIS, mobilization of financial resources, support from top management, training of staff on how to operate HRIS, staff attitude change towards the HRIS, sourcing for the required expertise(s) and timeliness during the implementation stage.

### 3.6 Recommendation

Based on above findings and discussions on the assessment of Human Resource Information Systems on service delivery, the researcher recommends that:

1. The management of Kenyan Universities allocates adequate resources for the implementation and maintenance of the system. HR managers should play a proactive role to support HRIS implementation in their organizations. They should convince top managers and other line managers of the importance of HRIS implementation, so that time and budget required for implementing HRIS could be gained. The top management needs to be convinced by the values and the strategic benefits of HRIS in order to grant the required financial and non-financial support for HRIS implementation.
2. The study findings indicate that Information Technology Literacy is the most important factor in HRIS adoption in Human Resource departments in Kenyan Universities. This being the case there is need for management to facilitate and support HRIS training among employees working in the HR Departments. The training should be geared towards enhancing the skills and knowledge of employers on how to integrate HRIS in Human Resource Management activities. Since skills in HRIS only will not necessarily lead to improvement of Human Resource Function.
3. There is need to diversify the use of Human Resource Information Systems in the Human Resource Department in public and private universities. This will enable the Universities to efficiently and effectively run Human Resource Management matters and many more benefits.
4. This study is expected to be helpful to the managers in planning, implementing and utilizing HRIS thus extensive attentions need be given to the applications of HRIS, to be focused on aspects required for supporting decision making process, rather than being just for administrative applications.
5. Since the Universities have adopted different types of Human Resource information systems, these systems need to be integrated and exchange data in order to increase availability and readiness of information to support top management and the operational level.

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