

**THE INFLUENCE OF HUMAN RESOURCE INFORMATION SYSTEMS ON SERVICE
DELIVERY IN KENYA'S TELECOMMUNICATION INDUSTRY**

(A Case of Safaricom Kenya Ltd)

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1. Abstract

The objective of the study was to find out the extent to which employees believe that adoption of HRIS has enhanced service delivery at Safaricom Kenya Ltd. The study envisaged perceived link between adoption of HRIS and service delivery as crucial to the success or failure of technological investment. The study design was descriptive census survey of perceived link between HRIS and service delivery in the Safaricom Kenya Ltd. The study findings recorded positive results in all the variables related to efficiency in service delivery. On the application of human resource information system in human resource functions, the findings revealed that HRIS was largely adopted in availing online payslips to employees, management of payroll, creating human resource database for human resource planning, posting job vacancies on the website, managing of personal numbers and use of online payment and salary processing. However, the study reflects key aspects of academic findings and practitioner opinions that the use of human resource information system was being adopted more on administrative ends rather than any sort of analytical or decision support ends.

Keywords: Human Resource, Human Resource Information System, Information System

2. Background to the Study

The modern business environment is characterized by turbulence spurred by globalization, technological change, more demanding customers and higher levels of uncertainty which have made management of organizations more challenging than before (Black et al., 2000). To meet the increasing demand, there is increasing pressure on human resource management to support strategic objectives and focus on value-adding activities. Shrivastava et al., (2003) and Stone et al., (2006) note that one of such changes is the wide contemporary use of Information Technology (IT) in supporting various human resource activities.

Amidst the explosion of knowledge and flows of information in the information age we live in, global business seek to improve or maintain their competitiveness in the increasingly challenging global market place. To improve customer service, shorten cycle times and reduce costs Information Systems are increasingly being used (Hitt et al., 2002). Organizations require an efficient planning and control system that synchronizes planning of all processes across the organization to improve business performance. Chien et al., (2010), notes that the key to success lies in a solid information system infrastructure. This should be seamlessly aligned with core business processes developed for the delivery of high quality products and services to customers within the best time.

Human Resource Information System

Human resource information system is described by Noe et al., (2007), as a computer system used to acquire, store, manipulate, analyze, retrieve, and distribute information related to human resources. Modern human resource information system needs to help organizations by automating most of the human resource planning functions. The system becomes an important strategic tool since it collects, manages and reports information for decision making.

Service Delivery

Service delivery in the telecommunications industry in Kenya has not been much effective for a long time. Customers have to wait for a long time especially for customer care personnel to handle their complaints which lead to a lot of time wastage (Budhiraja, 2005). Most of the telecommunication firms are marred with dismal performance in all the facets of service quality including reliability, responsiveness, tangibles assurance and empathy. Budhiraja (2005) further claims that there is lack of transparency, efficiency and unsecured delivery of service. He observes that HRIS can increase the quality of service provided by the firms departments.

Human Resource Information Systems and Service Delivery

By putting HRM services online, effectively managed HRIS system reduces bureaucracy and enhances the quality of services in terms of time, content and accessibility. This results in high quality services to the customer from the firm (Heeks, 2002).

Safaricom Kenya LTD

Safaricom is one of the leading integrated telecommunications companies in Africa with over 17 million subscribers. Safaricom provides a comprehensive range of services under one roof: mobile and fixed voice as well as data services on a variety of platforms (www.safaricom.com). To maintain and upgrade operations with advancing global mobile telecommunication, an inventiveness scenario has been created by having strategic business associations; association which adds a value to global mobile communication initiative which helps in meeting the dynamic challenges of modern a mobile telecommunication. The strategic association with well-established telecommunication companies such as Vodafone in a mobile telephony has created a niche in the Kenyan market.

3. Statement of the Problem

The Safaricom Kenya Limited human resource has witnessed tremendous growth both in terms of numbers and the variety of functions. The major challenge facing the Safaricom employees is to provide services in an efficient and effective way. Human Resource Information Systems provide a framework for improved service delivery and enhanced communication and information provision within Safaricom, the customers it serves and the telecommunications industry (Safaricom, 2012).

4. General Objective of the study

This study sought to assess the influence of Human Resource Information System on Service Delivery in the Telecommunication Industry in Kenya with special focus on Safaricom LTD, Kenya.

5. Specific Objectives

- i. To determine the types of HRIS in use at Safaricom Kenya LTD.
- ii. To assess the influence of HRIS on service delivery in Safaricom Kenya LTD.
- iii. To identify the challenges of HRIS on service delivery in Safaricom Kenya LTD.

Research questions were derived from the research objectives

6. Significance of the Study

The findings of this research will be important in providing insight into how the management can shape the perceptions of employees while investing in technology.

The study will be useful to human resource managers in integrating HRIS in the human resource functions to improve service delivery. It will provide insights on the factors to consider when integrating technology in the various functions. It will also address an area in human resource management which has previously been overlooked and therefore contribute to the existing knowledge on human resource management.

The study will also generate a new framework for further research pertaining HRM practices and technological changes. It will open up for more studies and excavate more fertile ground to cultivate what will in future help organizations to make a balance scorecard between human resource service delivery and technology.

7. Scope of the Study

This study was limited to human resource information systems use, and their influence on service delivery in Safaricom Kenya Ltd. It was conducted at Safaricom Ltd headquarters in Nairobi, targeting 200 employees, at the top and middle levels of management, who have knowledge of human resource information systems.

8. Research Design

This study was quantitative in nature and descriptive research was used incorporating the case study design in the study. The main reason behind using this design was to establish the extent to which the variables under study influence the service delivery of firms within the telecommunication industry. Additionally, what happens at Safaricom Kenya Ltd is generally a reflection of what happens in the other firms within the communication industry in the Kenya.

9. Sample Design

In this study, stratified random sampling technique was used to select respondents. It involved dividing the target population into strata then picking the desired number of respondents from each group randomly to come up with a sample size. The sample size consisted of 25% of the target population. This is represented in table 1 below.

Table 1

Sample Size

Level of Management	Population (n)	Sample (25% of n)
Top (Strategic)	50	13
Middle	150	37
Total	200	50

Source: Authors (2015)

Out of the 50 questionnaires issued for data collection, 45 responses were received back, indicating a 90% response rate. The response rate of 90.0% gave the study a high degree of representativeness that could be relied upon to generalize the respondents' perception on the influence of Human Resource Information Systems on service delivery in Safaricom Kenya Ltd.

10. Respondents Work Experience

The findings in table 2 show that majority (50%) of the respondents had over 10 years experience while 30% had between 5-10 years. It was also established that 20% of the respondents had an experience not exceeding 5 years. This is a commendable group of respondents as they have served the Safaricom Kenya Ltd for a longer duration and therefore are likely to give more accurate information. These groups of respondents also have a good background of various Human Resources initiatives which have been implemented by the Safaricom Kenya Ltd including human Resources Information System and therefore their input was deemed to be valuable.

Table 2

Work Experience of the Respondents

Work Experience	Frequency	Percentage
< 5 Years	9	20.0
5-10 Years	14	30.0
> 10 Years	22	50.0
Total	45	100.0

11. Level of Usage of Human Resource Information System

Using a five point Likert scale (Very Large Extent, Large Extent, Moderate Extent, Small Extent, No Extent), respondents were asked about the extent to which they use the Human Resources Information System for their day to day work. The choices 'Small Extent' and 'No Extent' represent a variable which shows little or no use of the system equivalent to the scale of $0 \leq 2.4$. The choices 'Moderate Extent' represents a variable which is agreed upon moderately and is equivalent to the scale of $2.5 \leq 3.4$. The choices of 'Very Large Extent' and 'Large Extent' represent a variable which was highly agreed upon equivalent to the scale of $3.5 \leq 5.4$. The standard deviation describes the distribution of responses in relation to mean. The standard deviation provides an indication of how far the individual responses to each factor vary from mean. A standard deviation of 1 indicates that the responses are further spread out; a standard deviation of more than 1 indicates that there is no consensus on the responses obtained. Table 3 below shows responses on the level of usage of the Human Resources Information system among the respondents.

Table 3
Level of Usage of HRIS

	N	Mean	Standard Deviation
Level of usage Training & Development	45	3.02	1.297
Level of usage Performance Management	45	3.10	1.397
Level of usage Workforce Planning	45	3.33	1.342
Level of usage Recruitment	45	3.70	1.373
Level of usage Benefits and Compensation	45	3.60	1.428
Level of usage Promotion	45	3.36	1.206

Source: Authors (2015)

From these research statistics findings, the study revealed that Safaricom Kenya Ltd uses the system mostly for recruitment purposes. This represent mean of 3.70 showing a large extent usage of the system. The research also portrayed a large extent of usage in benefits and compensation having a mean of 3.60 followed by Promotion which has a mean of 3.36. The research study also revealed that there is moderate usage of the system in both workforce

planning having a mean of 3.33, Performance Management having a mean of 3.10 and Training and Development having a mean of 3.02.

The respondents were further asked to indicate their perceptions on the level of application of Human Resource Information Systems to support various human resource functions in their Departments. A likert scale was used to rate the perceptions of respondents. The ratings ranged from 1 representing not at all (lowest), to 2 representing to a small extent, 3 representing to a moderate extent, 4 representing to a large extent and 5 representing to a very great extent (highest). The study findings are summarized in table 4 which indicate the mean score of each variable under study and the standard deviation. The cut off mean was set as 3.0. Any factor which scored 3 and above as a mean score was considered to have a favourable perception while the ones below were considered to have low perception. The standard deviation describes the distribution of responses in relation to mean. The standard deviation provides an indication of how far the individual responses to each factor vary from mean. A standard deviation of 1 indicates that the responses are further spread out; a standard deviation of more than 1 indicates that there is no consensus on the responses obtained.

Table 4

Use of HRIS in Human Resource Functions

Variables	Mean	Std. Deviation
My Department uses Human Resource Management Information System to create human resource database for human resource planning.	4.73	1.264
Job vacancies in my Department are posted on the website.	4.46	1.155
Training and development in my Department is facilitated by use of internet	3.71	1.200
My Department manages payroll by use of Human Resource Information System.	3.91	1.080
Employees in my Department obtain monthly payslips online by use of e-payslips.	3.96	1.208

My Department uses online payment and salary processing.	3.77	1.134
Personal Numbers in my Department are managed using Human Resource Information System.	3.43	1.140
Leave requests are processed using Human Resource Information System.	3.65	1.125
Staff Performance Appraisals in my Department are administered online using HRIS.	3.24	1.126
There are online health and safety manuals in my Department.	3.24	1.078
Employees' health programmes in my Department are Communicated online.	3.32	1.094
Job Evaluation in my Department is undertaken using Human Resource Information System.	3.40	1.044
Human resource management decisions are communicated by use of internet.	3.39	.975
We have employee call monitoring where we listen to live phone calls and record observation.	4.46	1.155
We have Video surveillance which uses of video cameras placed throughout the facility.	4.46	1.155
Concealed video surveillance is often the quickest and most cost-effective method of service tracking.	3.98	1.080
Our electronic mail monitoring tracks the errors made, length of time, internet access, and views the e-mail accounts.	3.91	.975

Source: Authors (2015)

As shown in table 4 above, human resource information system was largely adopted in creating a human resource database for human resource planning scored at 4.73. This was attributed to the fact that employee personal data was controlled electronically by use of a personal number and details of service period including date of retirement. This also agreed with the rating of respondents on the aspect of managing personal numbers using the human resource information system which scored a mean of 3.43 and online payment and salary processing which had a mean of 3.77. Use of HRIS in availing online payslips to employees which scored also a higher

mean score of 3.96 as well as the management of payroll which had a mean score of 3.91. The result reflects key aspects of academic findings and practitioner opinions that human resource information system adopted was used on administrative ends, rather than any sort of analytical or decision support ends. In this case, core personnel information - that which is involved in the day-to-day running of the organization were the most cited areas of human resource function information which was availed electronically. This agrees with the assertion of Ulrich (2001) that technology has been used in payroll, flexible benefits administration, and health benefits processing.

Safaricom Kenya Ltd has launched websites in order to provide clients with useful information concerning its services. The websites were used to post job vacancies in the various departments. This was in line with perceptions of respondents who gave a very favorable perception rating of 4.46 on the aspect of posting job vacancies on the website. This is in line with the assertions of Galanaki (2002) that e-recruitment has replaced the traditional method of indicating job postings through advertisements.

The lowest mean ratings were obtained from assessing the perception of training and development in departments with a mean score of 3.71, processing leave requests had a mean score of 3.65, online job evaluation programme with a mean score of 3.40, communication of human resource decisions with a mean of 3.39, posting of online health and safety manuals with a mean score of 3.32, and administering staff performance and presence of online health and safety manuals had a mean of 3.24 respectively. The study results showed that human resource information system was largely used for administrative purpose but not to support human resource functions. HRIS is a system used to acquire, store, manipulate, analyze, retrieve and distribute pertinent information regarding an organization's human resources. It is increasingly recognized as a crucial determinant of effective HRM and a strategic advantage. In the same line of argument, Ashbaugh and Miranda (2002) says that IT hold the promise of meeting many of the challenges of HRM such as attracting, retaining, and motivating employees, meeting the demands for a more strategic HR function, and managing the human element of technological change in the future. Broderick and Boudreau (1992) asserted that information technology has enormous potential to make human resources more competitive. However, there is need for organizations to ensure that there is strategic use of HRIS for it to reap the much desired benefits.

12. Influence of HRIS on Service Delivery in Safaricom Kenya Ltd

Respondents were asked to rate, on a five point scale, the extent to which they agreed or disagreed with statements describing perceived link between adoption of HRIS and service delivery in Safaricom Kenya LTD. The ratings ranged from 1 representing not at all (lowest), to 2 representing to a small extent, 3 representing to a moderate extent, 4 representing to a large extent and 5 representing to a very great extent (highest). The study used mean score to determine the highly rated factors. The cut off mean was set as 3.0. Any factor which scored 3 and above as a mean score was considered to have a favorable perception while those which scored below 3 were considered to have low perception. The standard deviation describes the distribution of responses in relation to mean. The standard deviation provides an indication of how far the individual responses to each factor vary from mean. A standard deviation of 1 indicates that the responses are further spread out; a standard deviation of more than 1 indicates that there is no consensus on the responses obtained.

As depicted in table 5, the aspect of HRIS leading to improved communication had the highest mean score of 4.27%. This agreed with some researchers, who also found that HRIS provides timely and quick access to information (Lederer, 1984; Tetz, 1973). This indicated that HRIS had played a major role in improving communication through the use of e-mails and organization's website. With the use of HRIS it was possible to reach a wider audience at the same time.

Table 5

Influence of HRIS on Service Delivery

Variable	Mean	Std Deviation
HRIS adoption has led to improved communication collaboration and teamwork.	4.27	.767
HRIS adoption has enabled employees in the Company to share information and knowledge.	3.83	.865
Adoption of HRIS has resulted in cost saving in work performance.	3.59	1.022
HRIS adoption has facilitated the culture of	3.54	.904

transparency.		
HRIS adoption has improved the quality of customer service in the Company.	3.68	.908
HRIS adoption has enhanced increased consistency in information.	3.82	.840
There has been improved productivity with increased adoption of HRIS.	3.78	.914
HRIS adoption has helped to reduce the time taken in recruitment and selection process.	3.65	1.125
HRIS adoption has led to reduction of operational costs especially manpower requirements, and other overhead costs.	3.60	.994
The adoption of HRIS has transformed the way we interact inside the organization and also with the public.	3.61	.880
There has been personalized feedback to clients with adoption of HRIS.	3.41	1.1006
HRIS employee monitoring has lead to greater organizational security.	3.83	.865
HRIS employee monitoring has lessened employer liability for employee actions.	3.59	1.022
HRIS employee monitoring has lead to greater creativity.	3.54	.904
HRIS employee monitoring has lead to an increase in social control.	3.68	.908
Implementation of HRIS has assisted our Company in improving on webometrics ranking.	3.6	1.2
Implementation of HRIS has assisted our Company in improving on rankings on performance contracting reports.	3.4	0.90

Source: Authors (2015)

Respondents also rated the aspect of enabling employees to share information and knowledge high with a mean score of 3.83%. This agrees with the assertion of Zuboff (1988) that HRIS automates the manual systems and reduce the need for personnel to perform routine activities. This is because HRIS enables an organization to create a database with information which can be shared by many people according to the need.

On the aspect of increased consistency in information, respondents mean score was at 3.82. This showed that HRIS provided increased effectiveness on the information provided as long as correct information was captured from the beginning. According to Ulrich (2001), rapid computing technology has allowed more transactions to occur with fewer fixed resources. These sentiments are in line with perceptions of respondents regarding the aspect of improved productivity with increased adoption of HRIS. The variable had a mean score of 3.78.

The Safaricom Kenya Ltd endeavors to provide high quality service to its clients. In this regard the company established HRIS as a tool to improve internal efficiency and quality of service delivery. HRIS focus on redefining the relationship between Safaricom and its clients with the objective of empowering them through increased and better access to Safaricom services. This has been perceived positively by respondents having rated the aspect of HRIS improving quality of customer service high with a mean score of 3.68.

Respondents rated high on the aspect of HRIS having transformed the way employees interact inside the organization and also with the public with a mean score of 3.61. This was in agreement with the observation of Gardener et al., (2003) that investing in HRIS offers prospects for conducting business in ways that are radically different from the past. HRIS had provided many benefits to the users and changed the way clients consume Safaricom services. This also agrees with the perception of respondents that HRIS has enabled clients an opportunity to benefit from personalized feedback which had a mean score of 3.41.

The use of technology in Human Resource Management provides an organization with a platform where it can store information in an electronic database which could be accessed any time by anyone. This benefits the organization through reduction of printing costs as well as cost of information delivery. This was well agreed by respondents whose perception rating on the aspect of HRIS adoption resulting to cost saving in work performance scored a mean of 3.59. This also agreed with the perception of respondents on the aspect of technology adoption reducing operational costs which scored a mean of 3.60.

Respondents felt that HRIS facilitated a culture of transparency with a mean of 3.59. With the use of HRIS, clients could easily follow up on their service requirement like in the case of tracking services requested, following up on service requests which had been published online. This was found to have enhanced the level of transparency by the service providers and at the same time ensuring high customer satisfaction.

Respondents' perception indicated that HRIS adoption had led to an increase in service delivery in all the aspects studied. The findings were in line with Branzei and Thornhill (2006) who asserted that HRIS intervention lies in its potential to promote above-average increase in firm level performance, add value to human capital endowments, and enhance the performance gains derived from specialized training.

13. Challenges of HRIS in Safaricom Kenya Ltd

The study sought to identify the key challenges faced by Human Resource Information System in the Safaricom Kenya LTD. The question was administered through yes or no response to determine the challenges the users face while using Human Resource Information System. The results are presented in Table 6 below.

Table 6 Challenges of HRIS

Challenge	Total Respondents	
	No	Yes
Lack of proper IT equipment is a challenge in using the system.	45	0
Lack of skilled personnel to implement the system.	40	5
Staff in my department do not have the right skills to use the system.	35	10
Lack of financial resources and capacity to implement the system.	45	0
The system is not easily accessible.	40	5
The system has poor data quality.	40	5
Poor user acceptance and ownership of the system.	20	25
The system is not integrated with other systems which makes it difficult to use.	30	15

Source: Authors (2015)

The study revealed that majority of the Safaricom Kenya Ltd management staff are of the opinion that poor user acceptance and ownership of the system is the main challenge facing implementation and use of Human Resources Information System at the Company with 55.5% of the respondents citing it as a challenge. The HRIS not being integrated with other systems and lack of enough skills among the Safaricom employee's were also cited as major challenges with 33.3% and 22.2% of the respondents respectively agreeing with them as major challenges affecting the system. Lack of finances and capacity to implement the system as well as lack of proper IT equipment were not cited as challenges since Safaricom Kenya Ltd is a leader in use of current technologies in Kenya and invests heavily to stay ahead of its competitors in terms of technology.

14. Summary of Findings

The study's general objective was to assess the influence of Human Resource Information System on Service Delivery in the Telecommunication Industry in Kenya with special focus on Safaricom Ltd, Kenya. The study involved a total of forty five (45) respondents. The summary of the findings showed that the population under study held a positive perception that adoption of HRIS resulted in better service delivery in Safaricom. All the studied variables on perceived service delivery associated with adoption of technology scored a mean of >3. Furthermore, the use of HRIS on the human resource functions was found to be positive in administrative aspects of creation of human resource database for human resource planning, posting of jobs in the website, management of payroll, processing of online pay-slips and salary, and management of personal numbers. The study sought to identify the key challenges faced by Human Resource Information System in the Ministry of Health. The study further revealed that majority of the management staff of Safaricom Kenya Ltd are of the opinion that poor user acceptance and ownership of the system, HRIS not being integrated with other systems and lack of enough skills among the Safaricom employee's are the major challenges facing HRIS implementation in the company with 55.5%, 33.3% and 22.2% respectively of the respondents citing these as the major challenges.

15. Conclusions

The Safaricom Kenya Ltd has been carrying out HR reforms over the past decade. In line with the said reforms it has developed an ICT policy to progressively transform into HRIS in a

coordinated manner. This is in recognition of the economic value and benefits of information and communications technology services. HRIS is important to the realization of the required improvement in productivity and empowerment of the employees and thus better service delivery to its clients. HRIS is seen as an enabling agent through which organizations can improve their operational efficiency and strategic position in an increasing competitive business environment through better service delivery to their customers. At times the decision to invest in HRIS is based on the fear of being left behind by competitors rather than on the genuine understanding of the real benefits that HRIS can bring to the organization. Lack of understanding can lead to the organization's inability to generate a shared vision among employees on how to leverage the real potential of HRIS in its processes. On the other hand, HRIS developed in the departments may not be mature enough to have the capacity of properly incorporated human resource functions. Although HRIS appears to have tremendous promise, it has not been fully utilized according to its potential.

The study has particularly provided empirical evidence that indeed HRIS adoption in the telecommunications industry has largely impacted on the service delivery in administrative areas. However, Safaricom Ltd should invest more in the use of technology in core human resource functions. It is worth noting that human resource information system has not been fully utilized in the major human resource functions like job evaluation, undertaking succession management, the use of online training and development programmes among others which contribute to competitive advantage. Also, Departments should use HR IT tools in all HR processes which will sustain all parts of HR from 'recruit to retire' functions.

The research presents that the importance of HR – IT usage is getting more and more important not only due to the fact that HR productivity and service delivery increases but at the same time, the value of the organization increases, including the most important asset – human capital. On the other hand employee perception on technology impacts investment in information technology.

16. Recommendations

Use of human resource information system has been advocated as an opportunity for human resource function to be more competitive. Thus all organizations in the telecommunications industry in Kenya should adopt these strategic human resource management practices in order to improve their organization performance and service delivery. An important assertion is that the

changing nature of a firm's IT human resource has an impact on effectiveness of a firm's competences and thus improved service delivery.

In examining the benefits to be derived from use of technology like HRIS Safaricom should consider two extremes, the pure administrative use of HRIS and its strategic use. The goal of both would be to increase organizational value. The basic form of HRIS is a system used for gaining, storing, manipulating, analyzing, retrieving and distributing pertinent information about an organization's human resources. It is often regarded as a service provided to an organization in the form of information (Tannenbaum, 1990). There need to evolve higher level of HRIS. Lengnick-Hall and Moritz (2003) says that implementation of HRIS will be at three levels which is: information publishing; transactions automation; and changing human resource management to strategic business partner. Overall efficiency, effectiveness and service delivery of an organization can only be reached through strategic deployment of the information provided by an HRIS.

In order to exploit the full potential of the HRIS System, the study recommends that the Human Resource Information Systems in Safaricom Kenya Ltd should be designed in such a way that it is interoperable with other existing systems. This will enable the Company to have a robust and an integrated telecommunication information system which will contain all the telecommunications sector information in a single data warehouse and subsequently improving policy and planning. The study also recommends that in order to expand the usage of the system, the company should rollout the system to all its shops spread in various counties in Kenya.

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