EFFECT OF STRATEGIC MANAGEMENT PRACTICES ON PERFORMANCE OF PUBLIC HEALTH CARE FACILITIES IN KIRINYAGA COUNTY

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ABSTRACT

While strategic management is widely practiced by firms and other profit oriented organizations in this country, its adoption by public sector particularly in health care service delivery at operational level is less understood. Strategic planning practices in Kenya are still insubstantial and unknown in the sense that there is an absence of documented proof of its practice. It was imperative to study on how strategic management was being adopted by government agencies as a tool of enhancing performance. The study sought to determine the effect of strategic management practices on performance of public healthcare facilities in Kenya with specific reference to Kirinyaga County. The specific objectives of the study were to analyze the effect of adoption of ICT, service differentiation, human resource management and stakeholder involvement on performance of public health facilities in Kirinyaga County. The study adopted a descriptive survey research design where the research was carried out among all the 60 public health facilities in Kirinyaga County. Correlation results revealed that adoption of ICT, service differentiation, and HRM and stakeholder involvement had a positive and significant relationship with the performance of public health facilities. Regression results also indicated that adoption of ICT, HRM and stakeholder involvement had a positive and significant association with the performance of public health facilities. Regression findings also indicated that service differentiation had a weak but positive and significant effect on the performance of public health facilities. The study concluded that the adoption of ICT, service differentiation, stakeholder involvement and HRM positively and significantly affects the performance of public health sector. The study recommends the public health sector to invest in ICT systems to aide in record keeping. The study also recommends the public health sector to adopt payroll system to aid in management of finances. There is also need to have tailored services to meet the needs of the customers. Moreover, the study recommends the public health sector to regularly train their staff particularly on arising medical issues.

Key Words: ICT adoption, Service differentiation, Human Resource Management, Stakeholder Involvement
Introduction

Burnes (2009) describes strategy as a consistent stream of actions which an organization takes in order to move towards its vision. The actions can be centrally planned and driven or delegated and distributed throughout the organization. Therefore, strategy is the direction and scope of an organization over a long term which achieves advantage in changing the environment through its configuration of resources and competences with the aim of fulfilling stakeholders’ expectations. According to Cameron (2014), strategic management practices are strategies put in practice by organizations in the process of formulating and implementation of plans designed to achieve set objectives.

Strategic management process consists of developing a strategic vision and mission, setting objectives, situation analysis, developing a strategy, implementation of the strategy and monitoring, evaluation and control. This process is dynamic and continuous; a change in one component can necessitate a change in the entire strategy (Finkl & Ploder, 2009). Therefore, the success of organizations performance depends on the adoption of various strategic management practices; effectiveness of strategy formulation, implementation, and strategy evaluation (Njanja, 2009). Kvint (2009) recommends strategic management practices as they are key for any organization in determining the organization’s direction over the next year or years and how it is going to get there.

Besanko, Dranove, Schaefer and Shanley (2012) states that firms that have adopted strategic management practices are able to assess their competitors and set goals and strategies to meet all their existing and potential competitors, reassess their strategies periodically to determine whether it has been successfully implemented or needs replacement with a new strategy to meet the changed circumstances like new technology, new economic environment, new competitors among others. Birinci and Eren (2013) study on universities in Turkey concluded that the lack of strategic management practices was behind the poor management of universities in Turkey. In Serbia, the health care system has declined during the past two decades due to the country’s unstable political situation and long-term, weak economic development (McCarthy & Lancet, 2013). Currently in UK, public and private efforts to report on hospital performance have mostly utilized process and outcome measures of quality (Joint Commission: Accreditation, Health Care, Certification (JACHO), The Healthcare Effectiveness Data and Information Set (HEDIS). Outcome measures are predominant and include mortality, complication rates, costs, etc.; process measures include evidence-based care guidelines (Palmer, 2007). For instance, HEDIS indicators demonstrate effective disease management, access to preventative and follow-up care, and medication compliance in treating depression (Thakur, Hsu & Fontenot, 2012).

Public sectors in African countries differ due to diverse cultural settings but they share a common challenge of weak strategic management practices like weak performance in service delivery. Effective management of service delivery not only requires public sectors to have skilled human resource in place but also appropriate work place values (Okeke-Uzodike & Chitakunye, 2014). Lawal, Omone & Oludayo (2012) found evidence that adoption of strategic management techniques improved the performance and relative standing of organizations that have different societal and political issues. Bloom et al (2009) have stated that management in hospitals in Uganda is very poor compared to that of other institutions; it is even worse in public than private hospitals. In the few months of the 2012/13 fiscal year, the performance of the health sector in general and hospitals in particular emerged as an issue of national concern. The outcry has been on lack of funds; the mass media relayed realities of appalling facilities, rundown equipment and apathy among health workers.
Statement of the Problem

The effect of strategic management practices on performance of public institutions has been appreciated by various scholars including Lawal et al., (2012), Muogbo (2013), Njanja (2009), Otieno (2013) and Yunus (2010) who have argued that one of the panaceas to the poor performance in the public sector is better strategic management practices such as adoption of ICT, service differentiation, human resource management and stakeholder involvement. The service delivery improvement report by the KSG (2015) indicated that poor human resource management practices in the public sector led to decline in the customer satisfaction level in the Kenyan Public Sector from 73% in the year 2012/2013 to 65% in the year 2014/2015. Volker (2012) also argued that stakeholder involvement in project leads to success and improvement in performance of an organization. Yunus (2010) indicated that with adoption of ICT in the public sector, delivery of services improves. This reiterates the importance of strategic management practices on performance hence the need for strategic management practices on performance of public healthcare facilities in the county.

Performance of public health care facilities is mixed with a range from shortages of doctors as indicated by the ratio of doctors to patients of 5 doctors per 100,000 people in the year 2016, a decrease from 12 doctors per 100,000 people in the year 2012 which is still below the national rate of 10 doctors per 100,000 people (KNBS, 2016). They also face erratic supplies with 38.6% of the patients in Kirinyaga County hospital alone being asked to buy their own drugs and equipment to access healthcare. This poor performance of public health facilities in Kirinyaga County leads to asking questions of whether the strategic management practices being implemented by the management has a significant influence on their performance.

Various scholars for instance, Lawal et al., (2012), Muogbo (2013), Njanja (2009), Otieno (2013) and Yunus (2010) have all supported and appreciated the positive role of strategic management practices on performance of organizations. Proper implementation of strategic management practices improves the performance of an organization. It was hence in order to establish the effect of strategic management practices on performance of public healthcare facilities in the county.

This study was also motivated by existing conceptual and contextual knowledge gaps in previous studies on the topic such as a study by Juma and Okibo (2016); Maroa and Muturi (2015); Tesot (2013); Omar (2014). The studies were conducted in sector other than the public health sector thus presenting contextual knowledge gaps. Contextual knowledge gaps presented by these studies motivated this study to focus on the effect of strategic management practices on performance of public healthcare facilities in Kenya.

Research Objectives

i. To analyze the effect of ICT adoption on performance of public healthcare facilities in Kenya

ii. To evaluate the effect of service differentiation on performance of public healthcare facilities in Kenya

iii. To examine the effect of human resource management on performance of public healthcare facilities in Kenya

iv. To determine the effect of stakeholder involvement on performance of public healthcare facilities in Kenya
Literature Review

Theoretical Review

Contingency theory of Fit
The theory was proposed by Drazin and Van de Ven (1985). This theory is also known as cultural fit theory. This theory observes that “no one acts alone” and everyone placed in his environment has technical and nontechnical elements that shape or influence the innovation of technology. This theory is dependent on the perfect mix of strategy, technology, task, organizational size, structure, and culture of the organization as there is no universal way to management for maximum efficiency and optimal performance to form a proper 'fit' with the environment and its systems (Reinking, 2012). Hence, there must be congruence between the information system and the organizational as information systems become more and more integral to the business. The institution must strive to find a system that is a good fit for the organization that quickly and naturally fall into the rhythm with the organization.

Stakeholders Theory
The stakeholders’ theory was developed by Freeman R. Edward in 1984. It is a theory that addresses morals and values in managing an organization. It attempts to address the principle of whom or what really counts (Freeman, 1984). Traditionally, the company only viewed the shareholders as the only important party and thus did what it had to do to increase value for them. This theory argues that there are other parties involved including the customers, employees, suppliers, creditors, government, trade unions and competitors. It ensures that organizations are accountable to their stakeholders and that they balance different interests among them (Samantha, 2012).

The theory has three aspects: instrumental power is the first aspect that that creates a framework for checking the connection between the practice of stakeholder management and the performance of the organization. The other aspect is normative approach which is used to describe the purpose of the organization majorly on are profitability and efficiency goals. The descriptive approach is the third aspect and it is used in research to explain the characteristics and behaviors of organizations; how they are managed, the thinking of the managers and the nature of the organization (Thomas &Lee, 1995).

Resource Based View
Penrose (1959) came up with the view to link competitive advantage of a firm to its resources. Barney (1991) formalized this theory, although it was Wernerfelt (1984) who introduced the idea of resource position barriers being roughly analogous to entry barriers in the positioning school. RBV proposed that firms are heterogeneous because they possess heterogeneous resources. The RBV school of thought explains the role played by resources owned and possessed by an organization in differentiating it from other organizations in the industry (Baumol, Litan & Schramm, 2009). These resources take different forms including total assets expressed in monetary terms, experience of key human resources and the overall personnel adequacy. Other measures include networks among other variables (Bhide, 2000).

According to Spanos and Lioukas (2001), the RBV can be used to explain the differences in competitive positions enjoyed by different organizations in a given industry. Through the resources owned and utilized in the production process, organizations are able to outperform their competitors and emerge winners (Rumelt, 1984; Barney, 1986). The RBV is founded on the premise that organizations compete based on the basis of their resources and capabilities (Peteraf & Bergen, 2003).
General Theory of Innovation

The General Theory of Innovation (GIT) was created by Greg Yezersky in 1988. Its aim was to identify capabilities that would create various business applications that would meet and address the needs of the customers (Gregory, 1990). The world is witnessing today profound transformations and acceleration as a result of the tremendous development of information technology and the steady growth of volume of information, which has led to the emergence of new types of transactions and activities in various fields (Joseph et al., 2005).

Various sectors have adopted many electronic applications to improve performance and gain a competitive advantage strategy. In light of the extensive use of information and communication technologies, the sectors have provided new systems and applications that maximize the use of modern technology and are now available. Therefore, it has become necessary for organizations to change the concept of traditional way of giving services to remote services.

Strategic Triangle Theory

Before the development of the strategic triangle theory, the public value theory was previously developed. The public value theory argues that the creation of public value is the ultimate goal of public sector programmes and activities – the value proposition that should guide public organizations (Moore, 1995; Moore, 2000). Moore (1995) formulated the Public Value framework to imbue public sector managers with a greater understanding of the constraints and opportunities within which they work, and the challenge to create publically valuable outcomes. His central proposition was that public resources should be used to increase value not only in an economic sense but also more broadly in terms of what is valued by citizens and communities.

Moore (1995) then developed a ‘strategic framework’ in an attempt to capture the aims and constraints of public sector management and to help align goals, authorization and operational capability (Moore, 1995). The Public Value approach envisages a manager’s purpose as going beyond implementation of policy and adherence to institutional norms. It includes seeking out opportunities to make significant improvements to the lives of the public. The role is envisaged as a strategic decision maker who works at the intersection between three imperatives of value, legitimacy and feasibility.
Conceptual Framework

Adoption of ICT
- Record keeping systems
- Payroll Systems
- Information transmission systems

Service Differentiation
- Service variety
- Skilled personnel variety
- Customer capacity

Human Resource Management
- Performance management strategies
- Rewards management strategies
- Capacity development practices

Stakeholder Involvement
- Supplier management
- Corporate Social Responsibilities
- Donor involvement

Performance of County Hospitals
- Cost effective care delivery
- Operational costs
- Customer satisfaction

Independent Variables

Dependent Variable

Figure 1: Conceptual Framework

Adoption of information communication technology

New technologies in sensing, medical imaging and wireless data communications are allowing telemedicine, the practice of healthcare at a distance, to be done at a much lower cost than in the past, enabling the development of new widespread remote medicine initiatives. These advances in technology have the potential to transform the way healthcare is provided throughout the world. It is widely known that information technologies will revolutionize patient care, medical research, medical education and the administration of health services. Information technology is increasingly recognized as important in clinical practice, but much remains to be done to implement its use (Duncan & Sally, 2012).

Craig (2013), shows that most hospitals use technology for consultations and imaging, but is also used in Diagnostics, Monitoring and Emergency. The use of technology enables specialists to communicate with patients using a variety of communications and information technologies to exchange medical information. These technologies may range from complex live, interactive videoconferencing equipment and associated devices, to simple image capture and transmission devices for storage and review of medical information. The specialist examines a patient’s medical report and orders for additional diagnostic test, if necessary, then provide direct treatment. Otherwise if treatment isn’t direct, the specialist will instead create a consultation report for the referring physician (Craig, 2013),
Service Differentiation

Service differentiation is to secure a measure of control over demand for a service or service by advertising or promoting differences between a company's service and that of competing sellers (Scatton & Zakacco, 2010). Firms that follow a differentiation strategy strive to create and market unique products for varied customer groups (Morshett et al, 2008). Their aim is to create superior fulfillment of customer needs in one or several product attributes in order to develop customer satisfaction and loyalty which can often be used to charge a minimum price for the products.

According to Kasemsap (2016), Service differentiation strategy can be based on many dimensions such as brand image, innovativeness, product quality, firm reputation. However successful differentiation must be based on features that are difficult for rival firms to imitate. Pertusa-Ortega, Molina-Azorín and Claver-Cortés (2010) argue that differentiation helps firm build customer loyalty by offering unique products or services thus helping them to perform better than competitors.

Human Resource Management

For companies, strategic human resource management practices can be thought as a tool to achieve competitive advantage, because strategic human resource management practices are aligned with firm strategy to achieve higher organizational performance (Lengnick-Hall, Andrade & Drake, 2009). SHRM is related to effective use of human resources of companies to achieve strategic needs of organizations.

According to Truss and Gratton (2014) SHRM acts as a linkage between HR functions, strategic goals and organizational objectives to improve organization performance and cultivate an organizational culture that fosters innovation and flexibility. However, in the absence of a consistent definition, scholars broadly agree that the central feature of SHRM involves designing and implementing a set of internally consistent policies and practices to ensure that firm human capital contributes to achieving business objectives (Grattonc & Hope-Hailey, 2011).

Stakeholder Involvement

Stakeholder involvement is considered an integral part of an organization stepwise process of decision making aimed at ensuring there is a broad support for the organizations policy and activities, to avoid conflicts and to generate as much support as possible for the success of the plan over time (Obonyo, 2013). Involvement in decision-making improves the understanding of the issues involved by those who must carry out the decisions. Sawyer (2011) argued that people are more committed to actions where they have involved in the relevant decision-making and planning. When people make strategic plans together, the social commitment to one another is greater and thus increases their commitment to the implementation Yukl (2012). A participative leader, rather than taking autocratic decisions, seeks to involve other people in the process, possibly including subordinates, peers, superiors and other stakeholders.

According to Ng’ethe, Namusonge and Iravo (2012), group or participatory decision making is recommended because: a lot of knowledge and facts can be gathered very easily since groups have a broader perspective and can collectively consider more alternative solutions, individuals who participate are usually more satisfied with the decision they have collectively made and they enthusiastically support it, helps stakeholders to communicate freely on matters concerning their profession thereby being motivated and satisfied.
Research Methodology

The study adopted a descriptive survey research design. The target population for this study comprised of all the 60 public health facilities in Kirinyaga County. The study adopted a census survey since the population of the study was small. Therefore, the respondents consisted of 60 administrative staffs from the county public health facilities. The study used quantitative primary data gathered by use of structured questionnaires and secondary data collected on performance using a secondary data collection sheet from the healthcare facilities records. Quantitative data was analyzed by the use of descriptive statistics especially by the use of percentages with the aim of consolidating the information that was given by the respondents. Data was analyzed using Statistical Package for Social Sciences SPSS version 21. A multiple regression models indicated below were used to determine the relationship between the variables;

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon \]

Where: \( Y = \) public sector performance, \( X_1 = \) ICT adoption, \( X_2 = \) Service Differentiation, \( X_3 = \) Human Resource Management, \( X_4 = \) Stakeholder Involvement, \( \epsilon = \) Error term, \( \beta_1, \beta_2, \beta_3, \beta_4 = \) Coefficients and \( \beta_0 = \) Constant

Results

The study administered 60 questionnaires to the respondents out of which 48 of them were duly filled and returned. This represents a successful response rate of 80%. The also conducted a pilot test on 5 respondents who were not included in the final study to check the reliability of the questionnaire before using it for the final data collection and adopted alpha of 0.7 and above. The Cronbach’s coefficient results for all the variables were above 0.7 therefore concluding that the questionnaire was reliable to be used for data collection.

Respondents Demographic Information

Table 1 Demographic Characteristics

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of education</td>
<td>Certificate</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>20.8%</td>
</tr>
<tr>
<td></td>
<td>Degree</td>
<td>25%</td>
</tr>
<tr>
<td></td>
<td>Post Graduate</td>
<td>29.2%</td>
</tr>
<tr>
<td>Work Experience</td>
<td>Less than a year</td>
<td>22.9%</td>
</tr>
<tr>
<td></td>
<td>Between 1-5 years</td>
<td>22.9%</td>
</tr>
<tr>
<td></td>
<td>Between 6-10 Years</td>
<td>22.9%</td>
</tr>
<tr>
<td></td>
<td>Between 11-20 years</td>
<td>10.4%</td>
</tr>
<tr>
<td></td>
<td>21 and above</td>
<td>20.8%</td>
</tr>
</tbody>
</table>

Descriptive Results of the study

This section of the study presents the findings of the descriptive analysis conducted by in form of percentages, mean and standard deviation. The findings were presented as per each objective.
Adoption of ICT

The findings revealed that majority 82.1% of the respondents strongly agreed that organization has invested in ICT systems to aide in record keeping while only 18.8% of them neither agreed nor disagreed. The findings of the study also showed that 100% of the respondents strongly agreed that there is a well adopted payroll system to aid in management of finances. The findings of the study further revealed that 14.6% of the respondents strongly agreed that there is a well adopted information transmission system to aide in transmission of medical information, those who indicated agree were 29.2%, 41.7% of them neither agreed nor disagreed while only 4.2% of them indicated disagree and 10.4% indicated strongly disagree. In addition, results of the study also revealed that 12.5% of the respondents strongly agreed that there is investment in telemedicine platforms like the use of communication gadgets like phones to transmit information, those who indicated agree were 33.3%, 25% of them neither agreed nor disagreed while 16.7% indicated disagree and 12.5% indicated strongly disagree. Finally, the findings of the study indicated that 27.2% of the respondents strongly agreed that there is investment in ICT to improve complex medical analysis, 29.2% of the respondents indicated agree, 22.9% of the respondents neither agreed nor disagreed while only 6.2% of them disagreed and 14.6% indicated strongly disagree.

The implication of the findings is that majority of the respondents indicated that they agree with the statements on the adoption of ICT at their facility as shown by a mean of 3.92. There was a small variation in the responses given by the respondents as indicated by a standard deviation of 0.90. The findings of the study are consistent with the findings of study by Nessa, Ameen, Ullah and Kwak (2008) which proposed a prototype telemedicine network for Bangladesh that can improve health facilities through telemedicine by making a connection between rural health facility providers and special hospitals.

Table 2 Adoption of ICT

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organization has invested in ICT systems to aide in record keeping</td>
<td>0.0%</td>
<td>0.0%</td>
<td>18.8%</td>
<td>0.0%</td>
<td>81.2%</td>
<td>4.63</td>
<td>0.79</td>
</tr>
<tr>
<td>There is a well adopted payroll system to aid in management of finances</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>100.0%</td>
<td>5.00</td>
<td>0.00</td>
</tr>
<tr>
<td>There is a well adopted information transmission system to aide in transmission of medical information</td>
<td>10.4%</td>
<td>4.2%</td>
<td>41.7%</td>
<td>29.2%</td>
<td>14.6%</td>
<td>3.33</td>
<td>1.12</td>
</tr>
<tr>
<td>There is investment in telemedicine platforms like the use of communication gadgets like phones to transmit information</td>
<td>12.5%</td>
<td>16.7%</td>
<td>25.0%</td>
<td>33.3%</td>
<td>12.5%</td>
<td>3.17</td>
<td>1.23</td>
</tr>
<tr>
<td>There is investment in ICT to improve complex medical analysis</td>
<td>14.6%</td>
<td>6.2%</td>
<td>22.9%</td>
<td>29.2%</td>
<td>27.1%</td>
<td>3.48</td>
<td>1.35</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.92</td>
<td>0.90</td>
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</tbody>
</table>
Service Differentiation

The findings revealed that majority 64.8% of the respondents strongly agreed that they offer variety of services to our clients, 20.8% of the respondents neither agreed nor disagreed while 10.4% of them indicated that they disagree and only 4.2% of them indicated strongly disagree. The findings of the study also showed that 50% of the respondents strongly agreed that their services are tailored to meet the needs of our customers, 18.8% of the respondents neither agreed nor disagreed while 22.9% of them indicated that they disagree and only 8.3% of them indicated strongly disagree. The findings of the study further revealed that 64.6% of the respondents strongly agreed that their organization has variety of skilled personnel, those who indicated agree were 14.6%, 6.2% of them neither agreed nor disagreed while only 8.3% of them indicated disagree and 6.2% indicated strongly disagree. Further, results of the study also revealed that 33.3% of the respondents strongly agreed that through their services they are able to attend to all their customers, those who indicated agree were 14.6%, 25% of them neither agreed nor disagreed while 16.7% indicated disagree and 10.4% indicated strongly disagree. Finally, the findings of the study indicated that 14.6% of the respondents strongly agreed that they are able to provide services to customers with different capacities, 47.9% of the respondents indicated agree, 27.1% of the respondents neither agreed nor disagreed while only 2.1% of them disagreed and 8.3% indicated strongly disagree.

The implication of the findings is that majority of the respondents indicated that they agree with the statements on service differentiation at their facility as shown by a mean of 3.79. There was a variation in the responses given by the respondents as indicated by a standard deviation of 1.30. The findings of the study are consistent with the findings of study by Onuong’a (2009) who concluded that service, personnel, image and channel differentiation strategies are used to a very large extent by G4S.

Table 3 Service Differentiation

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>We offer variety of services to our clients</td>
<td>4.2%</td>
<td>10.4%</td>
<td>20.8%</td>
<td>0.0%</td>
<td>64.6%</td>
<td>4.1</td>
<td>1.29</td>
</tr>
<tr>
<td>Our services are tailored to meet the needs of our customers</td>
<td>8.3%</td>
<td>22.9%</td>
<td>18.8%</td>
<td>0.0%</td>
<td>50.0%</td>
<td>3.6</td>
<td>1.5</td>
</tr>
<tr>
<td>Our organization has variety of skilled personnel</td>
<td>6.2%</td>
<td>8.3%</td>
<td>6.2%</td>
<td>14.6%</td>
<td>64.6%</td>
<td>4.23</td>
<td>1.26</td>
</tr>
<tr>
<td>Through our services, we are able to attend to all our customers.</td>
<td>10.4%</td>
<td>16.7%</td>
<td>25.0%</td>
<td>14.6%</td>
<td>33.3%</td>
<td>3.44</td>
<td>1.38</td>
</tr>
<tr>
<td>We are able to provide services to customers with different capacities</td>
<td>8.3%</td>
<td>2.1%</td>
<td>27.1%</td>
<td>47.9%</td>
<td>14.6%</td>
<td>3.58</td>
<td>1.05</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>3.79</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>1.30</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Human Resource Management

The findings revealed that majority 43.8% of the respondents strongly agreed that their staff receives regular training particularly on arising medical issues, 12.5% of the respondents indicated agree, 27.1% of the respondents neither agreed nor disagreed while 4.2% of them indicated that they disagree and only 12.5% of them indicated strongly disagree. The findings of the study also showed that 52.1% of the respondents strongly agreed that their services are tailored to meet the needs of our customers, 27.1% of them agreed, 8.3% of the respondents
neither agreed nor disagreed while 8.3% of them indicated that they disagree and only 4.2% of them indicated strongly disagree.

The findings of the study further revealed that 10.4% of the respondents strongly agreed that they have attractive remuneration package for their staff, those who indicated agree were 52.1%, 8.3% of them neither agreed nor disagreed while only 16.7% of them indicated disagree and 12.5% indicated strongly disagree. Further, results of the study also revealed that 31.2% of the respondents strongly agreed that their promotion strategy is performance-based, those who indicated agree were 22.9%, 12.5% of them neither agreed nor disagreed while 25% indicated disagree and 8.3% indicated strongly disagree. Finally, the findings of the study indicated that 43.8% of the respondents strongly agreed that they provide quality assurance appraisal to their employees. 12.5% of the respondents indicated agree, 27.1% of the respondents neither agreed nor disagreed while only 4.2% of them disagreed and 12.5% indicated strongly disagree.

The implication of the findings is that majority of the respondents indicated that they agree with the statements on human resource management at their facility as shown by a mean of 3.66. There was a variation in the responses given by the respondents as indicated by a standard deviation of 1.31. The findings of the study are consistent with the findings of study by Arthur (2014) which showed that the mills with commitment systems had higher productivity, lower scrap rates, and lower employee turnover than those with control systems.

### Table 4 Human Resource Management

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our staff receives regular training, particularly, on arising medical issues</td>
<td>12.5%</td>
<td>4.2%</td>
<td>27.1%</td>
<td>12.5%</td>
<td>43.8%</td>
<td>3.71</td>
<td>1.4</td>
</tr>
<tr>
<td>We have employees' empowerment programs in place, such as scholarships for further studies</td>
<td>4.2%</td>
<td>8.3%</td>
<td>8.3%</td>
<td>27.1%</td>
<td>52.1%</td>
<td>4.15</td>
<td>1.15</td>
</tr>
<tr>
<td>We have attractive remuneration package for our staff</td>
<td>12.5%</td>
<td>16.7%</td>
<td>8.3%</td>
<td>52.1%</td>
<td>10.4%</td>
<td>3.31</td>
<td>1.24</td>
</tr>
<tr>
<td>Our promotion strategy is performance-based</td>
<td>8.3%</td>
<td>25.0%</td>
<td>12.5%</td>
<td>22.9%</td>
<td>31.2%</td>
<td>3.44</td>
<td>1.38</td>
</tr>
<tr>
<td>We provide quality assurance appraisal to our employees</td>
<td>12.5%</td>
<td>4.2%</td>
<td>27.1%</td>
<td>12.5%</td>
<td>43.8%</td>
<td>3.71</td>
<td>1.4</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>3.66</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.31</td>
</tr>
</tbody>
</table>

### Stakeholder Involvement

The findings revealed that majority 81.2% of the respondents strongly agree that there is good working relationship with all our stakeholders while 18.8% of them indicated that they neither agree nor disagree. The findings of the study also showed that 79.2% of the respondents strongly agreed that they pay their suppliers on time while 20.8% of them indicated agree. The findings of the study further revealed that 56.2% of the respondents strongly agreed that they frequently communicate with their donors while those who indicated that they agree were 43.8%.

Further, results of the study also revealed that 56.3% of the respondents strongly agreed that they are involved in social corporate activities such as offering free medical camps while 22.9% 20.8%. Furthermore, the findings of the study indicated that 56.2% of the respondents strongly agreed that they have a platform where all the stakeholders can share and give
suggestions while 22.9% indicated that they agree and 20.9% of them indicated that they disagree. Finally, results of the study revealed that 41.7% of the respondents strongly agreed that there is good collaboration between the County and the National officials while majority of them indicated that they agree.

The implication of the findings is that majority of the respondents indicated that they strongly agree with the statements on stakeholder involvement at their facility as shown by a mean of 4.52. There was a small variation in the responses given by the respondents as indicated by a standard deviation of 0.64. The findings of the study are consistent with the findings of study by Jones (2015) argued that firms who develop relationships with primary stakeholders based on mutual trust and cooperation are in a better position to gain an advantage over firms that do not.

<table>
<thead>
<tr>
<th>Table 5 Stakeholder Involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statements</td>
</tr>
<tr>
<td>There is good working relationship with all our stakeholders</td>
</tr>
<tr>
<td>We pay our suppliers on time</td>
</tr>
<tr>
<td>We frequently communicate with our donors</td>
</tr>
<tr>
<td>We are involved in social corporate activities such as offering free medical camps</td>
</tr>
<tr>
<td>We have a platform where all the stakeholders can share and give suggestions</td>
</tr>
<tr>
<td>There is good collaboration between the County and the National officials</td>
</tr>
<tr>
<td>Average</td>
</tr>
</tbody>
</table>

**Performance of the Public Health Facility**

The study sought to establish the changes in operational costs of the public health facilities in Kirinyaga County. The trends indicated unsteady fluctuations in the operational costs of the public health facilities. For the last three years of the study period, there was an increase in the operational costs which can be attributed to the increase in scope of work. The results justify an argument by Yunus (2010) that the performance of the public health facilities is not good.
The study established the percentage changes in the time taken before attending to a patient among the public health facilities in Kirinyaga County. The findings revealed unsteady trends in the changes in time taken before attending to a patient. This reveals that the problem of poor performance of public health facilities is not fully solved as the patients still occasionally queue. This agrees with Otieno (2013) that there is poor performance of public health facilities.

The study also sought to establish the changes in the admission cases among public health facilities in Kirinyaga County. The results revealed that despite the fact that the changes in transfer cases were high, there was an increase in admission cases among public health facilities in Kirinyaga County.
Correlation Results

Results of the study showed that adoption of ICT had a positive and significant relationship with the performance of public health facilities in Kirinyaga County as indicated by a Pearson coefficient of 0.375 and significance level of 0.009. This implies that an increase in investment in ICT systems to aid in record keeping, presence of well adopted payroll system to aid in management of finances, having well adopted information transmission system to aid in transmission of medical information, investment in telemedicine platforms to transmit information and investment in ICT to improve complex medical analysis leads to a positive and significant effect on the performance of public health facilities in Kirinyaga County. The study findings are consistent with the findings of a study by Nessa, Ameen, Ullah and Kwak (2008) which proposed a prototype telemedicine network for Bangladesh that can improve health facilities through telemedicine by making a connection between rural health facility providers and special hospitals.

The findings of the study also revealed that service differentiation had a positive and significant relationship with the performance of public health facilities in Kirinyaga County as indicated by a Pearson coefficient of 0.295 and a significance level of 0.042. This implies that an increase in activities such as offering a variety of services to clients, having services that are tailored to meet the needs of the customers, having a variety of skilled personnel in the organization, ability to attend to all the customers through the services and the ability to provide services to customers with different capacities leads to a positive and significant effect on the performance of public health facilities in Kirinyaga County. The study findings are consistent with the findings of a study by Kotler (2013) who argues that service firms can differentiate their services by using three distinct service dimensions: Service offerings, Service delivery and Image.

Furthermore, the results revealed that human resource management had a positive and significant association with the performance of public health facilities in Kirinyaga County as shown by a person correlation value of 0.413 and a significance value of 0.004. The findings implies that regular training of staff particularly on arising medical issues, having employees' empowerment programs in place, having attractive remuneration package for the staff, promotion strategy based on performance, provision of quality assurance appraisal to employees leads to a positive and significant effect on the performance of public health facilities in Kirinyaga County. The findings are consistent with the results of a study by Berman, West and Wang (2011) who found that performance measurement is widely used but many measures reflect traditional concerns with compliance, but measures are also used to assess reforms in recruitment and compensation.
Finally, the results of the study indicated that stakeholder involvement had a positive and significant relationship with the performance of public health facilities in Kirinyaga County as shown by a person correlation value of 0.589 and a significance of 0.000. This implies that presence of good working relationship with all our stakeholders, paying of suppliers on time, frequent communication with donors, involvement in social corporate activities, having a platform where all the stakeholders can share and give suggestions and presence of good collaboration between the County and the National officials leads to a positive and significant effect on performance of public health facilities in Kirinyaga County. The findings are consistent with the results of a study by Lomunan (2014) which found out that proper stakeholder involvement led to increased efficiency and reduction of costs in their operations, as a result of greater cooperation and or reduced stakeholder conflicts.

### Table 6 Correlation Results

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Adoption of ICT</th>
<th>Service Differentiation</th>
<th>HRM</th>
<th>Stakeholder involvement</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adoption of ICT</strong></td>
<td>Pearson Correlation</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Service Differentiation</strong></td>
<td>Pearson Correlation</td>
<td>-0.109</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HRM</strong></td>
<td>Pearson Correlation</td>
<td>-0.243</td>
<td>-0.193</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Stakeholder involvement</strong></td>
<td>Pearson Correlation</td>
<td>0.129</td>
<td>.331*</td>
<td>0.281</td>
<td>1</td>
</tr>
<tr>
<td><strong>Performance</strong></td>
<td>Pearson Correlation</td>
<td>.375**</td>
<td>.295*</td>
<td>.413**</td>
<td>.589**</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>48</td>
<td>48</td>
<td>48</td>
<td>48</td>
<td>48</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

### Regression Results

The study findings revealed that adoption of ICT, service differentiation, HRM and stakeholder involvement accounts for 58.6% of the variation in the performance of public health facilities. This shows that the remaining 41.4% of the variation in performance is explained by other factors other than ICT, service differentiation, HRM and stakeholder involvement. This is indicated by an R-square value of 0.586. The regression results show that R was 0.766 which shows that the relationship between the independent variables and the dependent variable was positive.

### Table 7 Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.766</td>
<td>0.586</td>
<td>0.537</td>
<td>0.249971</td>
</tr>
</tbody>
</table>

a Predictors: (Constant), Stakeholder involvement, Adoption of ICT, Service Differentiation, Human Resource Management
The results of the study also indicated that the overall regression model linking ICT, service differentiation, HRM, stakeholder involvement and the performance of public health facilities was significant as indicated by a significant F (4,43) statistic as indicated by (0.000) significance level which was less than 0.05 at 5% level of significance. F calculated is 22.028 while F critical is 2.589. F calculated is greater than the F critical (22.028 > 2.589); this indicated that the overall model was statistically significant at 5% significance level. The results of the study are as presented in table 8.

Table 8 Analysis of Variance (ANOVA)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>5.506</td>
<td>4</td>
<td>1.376</td>
<td>22.028</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>2.687</td>
<td>43</td>
<td>0.062</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8.192</td>
<td>47</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Dependent Variable: Performance  
b Predictors: (Constant), Stakeholder involvement, Adoption of ICT , Service Differentiation, Human Resource Management

The study also detailed the regression coefficient findings to determine the effect of each study variable (strategic management practices) on the performance of public health facilities. The results of the study are as presented in table 9.

Table 9 Regression coefficients

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.522</td>
<td>0.475</td>
<td>1.099</td>
<td>0.278</td>
</tr>
<tr>
<td>Adoption of ICT</td>
<td>0.325</td>
<td>0.061</td>
<td>5.328</td>
<td>0.000</td>
</tr>
<tr>
<td>Service Differentiation</td>
<td>0.149</td>
<td>0.04</td>
<td>3.725</td>
<td>0.001</td>
</tr>
<tr>
<td>Human Resource Management</td>
<td>0.213</td>
<td>0.041</td>
<td>5.195</td>
<td>0.000</td>
</tr>
<tr>
<td>Stakeholder involvement</td>
<td>0.276</td>
<td>0.117</td>
<td>2.359</td>
<td>0.023</td>
</tr>
</tbody>
</table>

Dependent Variable: Performance

The optimal multivariate Regression Model for the study hence is as indicated below

**Performance of public health facilities = 0.522 + 0.325 Adoption of ICT + 0.276 stakeholder involvement + 0.213 Human Resource Management + 0.149 service differentiation**

The summary of the results of regression coefficients are as presented in table 4.10 above. Results of the study reveal that adoption of ICT positively and significantly influenced the performance of public health facilities in Kirinyaga County (β= 0.325, Sig = 0.000). This implies an increase in investment in ICT systems to aide in record keeping, presence of well adopted payroll system to aid in management of finances, having well adopted information transmission system to aide in transmission of medical information, investment in telemedicine platforms to transmit information and investment in ICT to improve complex medical analysis leads to 0.325 unit effect on the performance of public health facilities in Kirinyaga County. The findings agree with the findings of a study by Kituyi (2013) which indicated that lack of knowledge and skills, inadequate telemedicine laws and policies, lack of resources and resistance to change by members of staff were the main challenges hindering sustainability of telemedicine information systems.
Moreover, the results of the study revealed service differentiation had a weak but positive and significant effect on the performance of public health facilities in Kirinyaga county ($\beta=0.149$, $\text{Sig} = 0.001$). This implies that an increase in activities such as offering a variety of services to clients, having services that are tailored to meet the needs of the customers, having a variety of skilled personnel in the organization, ability to attend to all the customers through the services and the ability to provide services to customers with different capacities leads to 0.149 unit effect on the performance of public health facilities in Kirinyaga County.

The study findings are consistent with the findings of a study by Iron (2015) who points that to create a structure in which service can be effective it is necessary to have clear service segmentation around its chosen market so that it can deliver a seamless solution.

Furthermore, the findings of the study revealed that human resource management had a weak positive and significant relationship with the performance of public health facilities in Kirinyaga County ($\beta=0.213$, $\text{Sig} = 0.000$). This implies that regular training of staff particularly on arising medical issues, having employees' empowerment programs in place, having attractive remuneration package for the staff, promotion strategy based on performance, provision of quality assurance appraisal to employees leads 0.213 unit effect on the performance of public health facilities in Kirinyaga County. The findings are consistent with the results of a study by Kimani (2010) who found that the overall mean score for strategic human resource management practice was 4.08 suggesting that generally it was highly practiced in the industry.

Lastly, the results of the study indicated that stakeholder involvement had a positive and significant association with the performance of public health facilities in Kirinyaga County ($\beta=0.276$, $\text{Sig} = 0.023$). This implies that presence of good working relationship with all our stakeholders, paying of suppliers on time, frequent communication with donors, involvement in social corporate activities, having a platform where all the stakeholders can share and give suggestions and presence of good collaboration between the County and the National officials leads to 0.276 unit effect on the performance of public health facilities in Kirinyaga County. The findings are consistent with the results of a study by Obonyo (2013) who found that stakeholder involvement in the Ministry has had positive effects on the strategic process of the Ministry such as reduction in the process time for strategy implementation, reduced resistance from the public to implemented strategies, due to the reduction of resistance by the stakeholders, the improved cooperation has influenced the legislation, service charters and requirements of the Ministry, customer care policies and information sharing.

Conclusion

The study concluded that the adoption of ICT positively and significantly affects the performance of public health sector in Kirinyaga County. An increase investment in ICT systems to aide in record keeping, presence of well adopted payroll system to aid in management of finances, having well adopted information transmission system to aide in transmission of medical information, investment in telemedicine platforms to transmit information and investment in ICT to improve complex medical analysis positively affect the performance of public health sector in Kirinyaga County. Moreover, the study established that service differentiation had a positive and significant effect on the performance of public health sector in Kirinyaga County. An increase in variety of services offered to clients, having services that are tailored to meet the needs of the customers, having a variety of skilled personnel in the organization, ability to attend to all the customers through the services and the ability to provide services to customers with different capacities positively affect the performance of public health sector in Kirinyaga County.
Further, the study concluded that human resource management had a positive and significant effect on the performance of public health sector. Regular training of staff particularly on arising medical issues, having employees' empowerment programs in place, having attractive remuneration package for the staff, promotion strategy based on performance, provision of quality assurance appraisal to employees positively affect the performance of public health sector in Kirinyaga County. Finally, the study established that stakeholder involvement positively and significantly affects the performance of public health sector. Presence of a good working relationship with all the stakeholders, paying of suppliers on time, frequent communication with donors, involvement in social corporate activities, having a platform where all the stakeholders can share and give suggestions as well as presence of good collaboration between the County and the National officials positively affect the performance of public health sector in Kirinyaga County.

**Recommendations of the Study**

The study recommends that public health sector to invest in ICT systems to aide in record keeping. The study also recommends the public health sector to adopt payroll system to aid in management of finances. There is also a need to adopt information transmission system to aide in transmission of medical information. The study recommends public health sector to invest more in telemedicine platforms to transmit information and investment in ICT to improve complex medical analysis. The study further recommends the public health sector to offer a variety of services to their clients. There is also need to have tailored services to meet the needs of the customers. To do this, there is a need for the public health facilities to invest in skilled personnel so as to be able to offer diversified services. Furthermore, there is a need to invest in customer service practices which can enhance customer service.

Another recommendation made by the study is that public health sector to regularly train their staff particularly on arising medical issues. There is also need to have employees' empowerment programs in place. The study also recommends public health sector to have attractive remuneration package for the staff. The study further recommends for the promotion of strategies based on performance. Since stakeholder involvement positively affects performance of the public health facilities, the study recommends that the public health facilities in Kirinyaga and other counties to maintain communication with stakeholders such as donors. Lastly, there is need for public health facilities to have platforms where all the stakeholders can share and give suggestions for improvement.

**Acknowledgement**

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