INFLUENCE OF e-GOVERNMENT STRATEGY EVALUATION AUDITS ON THE PERFORMANCE OF PUBLIC SERVICE DELIVERY IN KENYA

Goga Kenneth Riany
College of Human Resource and Development, Jomo Kenyatta University of Agriculture and Technology
P. O. Box 62000, 00200 Nairobi, Kenya
Corresponding Author email: rianyken@gmail.com

Dr. Susan Were
College of Human Resource and Development, Jomo Kenyatta University of Agriculture and Technology
P. O. Box 62000, 00200 Nairobi, Kenya

Dr. Allan Kihara
College of Human Resource and Development, Jomo Kenyatta University of Agriculture and Technology
P. O. Box 62000, 00200 Nairobi, Kenya

ABSTRACT

Although previous studies have shown that e-Government has the potential to accelerate reforms in the public sector and improve public service delivery, it is not clear to what extent the Kenyan e-Government Strategy that was launched in 2003 has had an impact on the performance of public service delivery if at all as the success of this initiative is more verbalized than quantified. The purpose of the study was to assess the influence of e-Government strategy evaluation audits on the performance of the public service delivery in Kenya. The study further, highlighted, the e-Government projects, the role of projects on the Kenyan public service delivery performance, found out if the projects have resolved the issues surrounding public service delivery performance, and provided an understanding about the critical success factors, implications, benefits, challenges and look at the coping strategies of e-Government Service Delivery initiatives on the performance of public service delivery in Kenya. The study adopted a descriptive research design to collect data from the target population comprised of employees within the management cadre working at five specific government MDAs running e-Government projects portals as part of their core mandate and daily operations which totaled to 4163. Convenient sampling technique was used by the study to sample 423 respondents within the five key government institutions in Nairobi namely Kenya Revenue Authority for the I-Tax initiative, The National treasury for the IFMIS initiative, Ministry of Devolution and Planning for the Huduma centers programme and the GHRIS initiative and Ministry of Finance for the e-citizen portal. The study findings revealed that implementation of e-Government strategy evaluation audits leads to a significant improvement in the performance of the public sector in Kenya.

Key Words: e-Government strategy evaluation, Public service delivery, Kenya
Introduction

E-Government strategic initiatives are increasingly capturing the attention of policy makers, government development agencies, and even citizens. Governments worldwide are making huge strategic, human capital, technical and financial investments to establish and improve e-Government initiatives. The efforts are focused on developing service-oriented, citizen-centered e-Governments that are truly representative of the people (Accenture, 2004; Woolfson, 2004). It is argued that e-Government initiatives such as e-service, e-administration, and e-procurement eradicates corruption and improves performance in public sector (Bwalya, 2012). According to Srivastava (2011), e-Government research is classified into three broad areas: the evolution and development of e-Government initiatives, adoption and implementation perspectives, and the impact of e-Government. National governments worldwide are engaged in public service reform initiatives and e-Government strategic initiatives. The two initiatives; public service reform initiatives and e-Government strategic initiatives may run in parallel in some governments with very little overlap or coordination. The interaction between citizens or businesses with government, which traditionally occurred in an office, has been facilitated through ‘the use of ICT to improve the efficiency, effectiveness, transparency and accountability of government’ (WB, 2011).

A UN e-Government Survey of 2012 highlighted that 190 out of 193 UN members reported they developed strategies to leverage on the e-Government services compared to 2008 when they were 179 countries. This was pegged on the increasing power of ICT giving governments the flexibility of providing services and information to citizens through multi channels (UN, 2008; UN, 2012). The growing adoption of e-Government is evidence to its role as an effective public sector performance tool (Matavire et al., 2010). Past studies highlight benefits of implementing e-Government to be long term cost savings and improved service quality (Kaisara and Pather, 2009). Furthermore, in today's global economy, high quality e-Governmental services can provide a nation with competitive advantage for international business (Onyancha, 2007). It is estimated that, e-Government strategies are already helping save 2% of the annual US GDP (UNDP, 2001), however, the realized savings are still below what is potentially possible, and World Bank (2000) figures indicate that even the countries most advanced in the implementation of e-Government systems are able to capture only 20% of their real savings potential.

In a separate study conducted by the World Bank (2007) to determine the number of cities offering e-Government services in different regions globally, North America was ranked first at 62% followed by Asia at 36%, Western Europe at 34%, Middle East at 29%, Pacific Ocean Islands at 28%, Central America 22%, Russia 10% and Africa 9%. The UN e-Government Survey (2008), highlights that within Africa, Southern Africa leads followed by Northern Africa, Eastern Africa, Central Africa and West Africa respectively. Compared to other Eastern Africa countries, Kenya ranks third following Seychelles in second place and Mauritius in first. Studies reveal that Africa has been one of the most dynamic regions in terms of ICT growth over the last decade; thus it is in this context that e-Government in Africa has evolved (Burke, 2012).

Statement of the Problem

Previous strategic reforms aimed at improving public sector performance have achieved negligible results Lienert (2003). Kenya's public service has become a liability to the government due to dismal performance hindering the realization of sustainable economic growth, (ROK, 2005) , the sector’s poor service delivery and low productivity has strained the national budget
without equivalent results (Prajapati, 2009; Muthaura, 2007; GOK, 2005) affecting the achievement of the government's goal of spurring economic growth and improving the citizens living standards as defined in the ERC and Vision 2030 economic blue prints (GOK 2007). Before the e-Government strategy, the Kenyan government has equally undertaken a number of extensive strategic reforms on the public sector aimed at improved organizational performance and service delivery within the last three decades. Unfortunately the results expected are not so impressive. Such strategic reforms include; freezing of Employment and Structural Adjustment Program in the early 1990s, Voluntary Early Retirement and Retrenchment Program in the mid-1990s early 2000s and introduction of Integrated Payroll and Personnel Database, Salary Review and Strategies for uprooting corruption from the public service, (DPM, 2010) among others.

Statistics from the 2013 Kenya Institute for Public Policy Research and Analysis (KIPPRA) report highlights key sectors like energy, health, water and education facing serious challenges in service delivery whereas a survey by Transparency international (TI) (2013) reported that 41% of Kenyans were dissatisfied with the government’s service delivery. An exploratory survey by Crandal and Mutuku (2011) on Kenyan public service delivery performance, service delivery and government interaction indicates that 45 % of the respondents have negative comments, citing complaints in relation to efficient service delivery and customer care. An ACAL (2014) Citizens Satisfaction Survey commissioned by the GOK’s Ministry of Devolution and Planning-Performance Contracting Division (PCD) to assess the extent to which citizens are satisfied with performance of the National Government estimated that the overall Citizen Satisfaction Index (CSI) calculated through Principal Component Analysis (CPA) reveals a satisfaction level of 59.4%. Across the service sectors, Public information and communication, Finance and banking and trade, commerce and cooperatives were the three highest rated sectors at 65.4%, 64.2% and 63% respectively. Huduma services were assessed as a case study and citizens expressed highest satisfaction at 68.5%. Among the lowly rated public service delivery sectors include Water and Sanitation at 55.7%, Justice System at 56.0%, Immigration, Foreign affairs and Home affairs at 56.3%, and Security services at 56.3%

Overall, the findings reveal that citizens were satisfied with equity and dignity displayed by public servants in service delivery (66%), Reception and offices (63%), and staff courtesy, professionalism, knowledge and competence (61%) in service delivery. However, citizens indicated they were dissatisfied with the use of innovation and technology (53%) in delivery of public services, complaints handling and redress (57%) accessibility, location and convenience of service delivery stations or points, and state of public facilities (57%) in service delivery. A number of voids exist in the immature e-Government literature, regarding its adoption strategy and implementation process exposing a wide gap that needs to be filled with research in this field (Heeks and Bailur, 2007). Studies examining e-Government are rare, particularly in the case of developing countries like Kenya. E-Government is itself in its infancy; studies have been largely dominated by researchers from information systems disciplines and focused mainly on web portal development and other straightforward matters (Margetts, 2003; Heeks & Bailur, 2007). Schuppan (2009) concurs that most of these studies mainly focus on provision of online services and barely examine the strategic organizational changes resulting from the implementation of e-Government enabled performance. According to Lips & Schuppan (2009) studies on the impact of the internal workings of the public sector are lacking because this area is rarely accredited as an important part of e-Government–focused public management research.
Given that developing countries have limited resources available to them; they cannot afford to engage of resources without well-defined strategies. It is appropriate at this stage to establish the strategic challenges bedeviling the successful implementation of these e-Government initiatives.

Research Objective

The purpose of this study was to determine the influence of e-Government strategy evaluation audits on the performance of public service delivery in Kenya.

Research Hypothesis


Literature Review

Theoretical Review

New Public Management (NPM) Theory

The New Public Management theory was proposed by Hood (1991) in the 1980s and 1990s whilst arguing for the reconfiguration of the public sector along more cost efficient (and effective) lines. They recommended that the public sector be opened up to greater private sector influence. Mongkol (2011) asserts that NPM reforms was aimed at improving the quality of public services, saving public expenditure, increasing the efficiency of governmental operations and making policy implementation more effective. The belief that large and monopolistic public bureaucracies are inherently inefficient was a critical force driving the emergence of the new public management (Andrews, 2012). NPM represents a set of ideas, values and practices aimed at emulating private sector practices in the public sector (Bourgon, 2007). Gumede and Dipholo (2014) highlighted that there was a need to reinvent government and harness the entrepreneurial spirit to transform the public sector and later “banish the bureaucracy”. Bourgon (2007) suggests that the new public management theory takes its intellectual foundations from public choice theory, which looks at government from the standpoint of markets and productivity, and from managerialism, which focuses on management approaches to achieve productivity gains. The three underlying issues which new public management theory attempts to resolve includes: citizen-centered services; value for taxpayers’ money and a responsive public service workforce (Bourgon, 2007).

NPM supports the public service delivery variable and provides a unique perspective for exploring additional insight into the public service delivery challenges in line with emerging governance dynamics. The rationale of leveraging e-Government strategy is to ensure efficient public service delivery. In this regard, e-Government strategy is an important tool for new public management reforms in improving the quality public services and increasing the efficiency of governmental operations. NPM theory is, therefore, evident in the quality of services delivered by the public service sector. In addition, the new public management theory provides a foundation for predicting the link between e-government and the public service delivery variable.
Kaplan and Norton Balance Score Card Theory

The Balanced Scorecard is a theory and management approach first proposed in the Harvard Business Review by Kaplan & Norton (1996). According to Kaplan (2007) balanced scorecard transforms an organization’s strategic plan from an attractive but passive document into the "marching orders" for the organization on a daily basis. It provides a framework that not only provides performance measurements, but helps planners identify what should be done and measured. It enables executives to execute their strategies. The balanced scorecard provides a clear prescription as to what should be measure in order to 'balance' the financial perspective.

According to Kiboi (2006), Balanced Scorecard is the most successful driver of culture change organization-wide. Whereas according to Huotari and Iivonen, (2005) the balanced scorecard approach measures the implementation of the strategic plan across customers, finance, internal processes and learning. The measures are balanced between the external measures for customers, the measures of finance, the measures of internal processes, and the learning measures that drive future performance. The balanced scorecard provides information from many perspectives in a balanced combination. Therefore, the approach is ideal also for the evaluation of strategic plans even though the balanced scorecard approach has not been used in the planning of the strategies. The Kaplan and Norton BSC theory supports independent variable “e-Government strategy evaluation audits” given that the balanced scorecard is designed to be at the center of an organization’s control mechanisms to effectively deploy strategy and to link operational practices with strategic intent and this theory instigates the fourth research hypothesis: H04: e-Government strategy evaluation audits do not influence the performance of public service delivery in Kenya.

Conceptual Framework

![Conceptual Framework Diagram]

Figure 1: Conceptual framework

e-Government Strategy evaluation audits and Performance of Public Service Delivery

Strategy evaluation is as significant as strategy formulation because it throws light on the efficiency and effectiveness of the comprehensive plans in achieving the desired results (Gerry and Kevan, 2010). Strategy evaluation and control is the process of comparing the actual performance against the desired performance. Strategic evaluation and control involves not only evaluating strategy for deviations from intended course but also for flexibility towards responding to the new challenges and determining the effectiveness and the pace of the implementation (Johnson and Scholes, 2003). Strategy evaluation involves setting control processes to continuously review, evaluate and provide feedback concerning the implemented strategies to determine if the desired results are being accomplished such that corrective measures may be taken if warranted (Hill & Jones, 2001) whereas Strategic control is concerned with tracking the strategy as it is being implemented, detecting problems or changes when deemed necessary and making the necessary adjustments (Pearce and Robinson, 2008).
Aswathappa (2006), views strategy evaluation and control as the final phase in international strategic management and it is a necessary process if an organization is to assess how well it has performed and what corrective actions can be put in place in light of this performance. He further suggests that the processes of formulation and implementation of strategy are a prelude of evaluation and control. Wheelen and Hunger (2008) argue that the evaluation and control process ensures that a company does what it set out to. It compares performance with desired results and provides feedback necessary for management to evaluate results and take corrective action. Wheelen and hunger (2008) view the process of evaluation and control as a five step feedback process. The first step involves determining what to measure. The implementation processes and results that need to be monitored need to be specified and they must be capable of being measured in a reasonably objective and consistent manner. The second step is to establish the standards of performance. Standards are detailed expressions of strategic objectives. These standards are set not only for the final output but also for intermediate stages of output. The third step is to measure the actual performance at predetermined times. The forth step is to make a comparison between the actual performance and the standard that had been earlier set and the final step is to take corrective action if the actual performance results fall out of the desired tolerance range.

According to Pearce & Robinson (2011), strategy evaluation is the process by which an organization's activities and performance results are monitored and actual performance compared with desired performance. Managers try to ensure that the strategy chosen is properly implemented and is meeting the organization’s objectives. The process helps strategists monitor the progress of a plan as such evaluation processes are done to ensure that the variance between expected and desired objectives will be closed according to the strategy (Pearce & Robinson, 2011). Given that Strategy evaluation is the final step of strategy management process. The key strategy evaluation activities are: appraising internal and external factors that are the root of present strategies, measuring performance, and taking remedial / corrective actions. Evaluation makes sure that the organizational strategy as well as its implementation meets the organizational objectives. Sababu (2007) defines strategy evaluation as the process of monitoring the firm's activities and performance results so that actual results can be compared with the desired performances. It is vital for an organization to be able to identify and keep under check the negative effects of certain strategic decisions and even reverse them if identified in the early stages and this can only be done through timely, correct and objective evaluation (Sengupta & Chandan, 2003).

Basically there are four types of strategic evaluation. Premise evaluation is used to systematically check whether premises set during the planning and implementation stage are still valid. Implementation evaluation is designed to assess whether the overall strategy results relates with incremental steps and actions that implement the overall strategy. There is also the strategic surveillance/evaluation which is usually designed to monitor a broad range of events both internally and outside the organization that may threaten the firm's strategy, lastly there is the special alert evaluation that is needed to thoroughly and rapidly to reconsider the firm's basic strategy based on a sudden unexpected event (Miller & Dess, 2011). Though the above information may portray formality in strategic management, a number of factors determine how much formality is needed such as management style, complexity of the business environment and the organization size (Pearce & Robinson, 2011) and although evaluation is the final phase of strategic management, it can find weaknesses in previously implemented strategies and stimulate the entire process to begin again (Taiwo & Idumo, 2007).
Empirical Review

e-Government strategy evaluation audits

Recent articles on local and foreign companies confirm notable barriers to successful strategy evaluation and control about which there appears to be a degree of accord including Beer and Schelling (2003) who assert that six silent killers of strategy evaluation and control comprise: a top-down/laissez-faire management style; unclear strategic intentions and conflicting priorities; an ineffective management team; poor vertical communication; weak coordination across functions, businesses or borders; and inadequate down-the-line leadership skills development, insufficient resource allocation. A study by (Kariuki, 2008) reveals that unsuccessful implementation of strategies and lack of strategy evaluation mechanisms leads to underperformance of companies Though the importance of strategy evaluation has been recognized by most authors, Kariuki (2008) notes that evaluation and control is a very challenging and complex undertaking for most organizations. Ondera (2013) examined strategic management practices in Mbagathi District Hospital, Nairobi, Kenya. The study revealed that, the hospital formulates implements and evaluates the work plan by involving all staff working at the hospital and that the management allocated funds based on the work plan to facilitate the process of strategy implementation.

A study by Hinga (2007) notes that strategy evaluation can take place as an abstract analytical task, performed by consultants, but more often it is an integral part of the organization’s process of planning, review and control. In some organizations evaluation is informal, only occasional brief and cursory while others have elaborate systems containing periodic strategy review sessions. In either case, the quality of strategy evaluation and ultimately the quality of corporate performance will be determined by the organization’s capacity for self-appraisal and learning than by the particular analytical technique employed (Johnson & Scholes, 2004). It is evident from this that the practice of strategy evaluation is not uniform in all organizations. According to Rumelt (2000), strategy can neither be formulated nor adjusted to changing circumstances without the process of strategy evaluation. Whether performed by an individual or as part of an organization review procedure, strategy evaluation forms an essential step in the process of guiding an enterprise. Strategy evaluation practice adopted by an enterprise therefore plays a big role in determining success of the enterprise.

Mintzberg, Lampel, Quinn and Ghoshal (2003) suggest that strategy evaluation focuses on the separation between obvious current operating results and those factors which underlie success or failure in the chosen domain of activity resulting in the rejection, modification or ratification of existing strategies. Pearce and Robinson (2009) argue that strategic control is concerned with tracking a strategy as it is being implemented, detecting problems or changes in its underlying premises and making necessary adjustments. They thus portray strategic control to be that effort which is primarily concerned with guiding strategic actions as they happen way before the results of these actions are seen. Thompson et al. (2010) have recognized four problems associated with strategy evaluation and control namely: (1) the need for a clear fit between strategy and structure no matter which comes first as long as there is congruence in the operating environment. (2) The need for management style to be appropriate to the strategy being implemented. (3) Problematic goal setting and controls, with need for heightened control as uncertainty and change provide a volatile environment. (4) The difficulty of identifying coordinated targets at various levels in the organization.
Research Methodology

The study adopted a descriptive research design. In order to gather the information required, the study targeted employees within the management cadre from the specific government MDAs running e-Government portals as part of their core mandate and daily operations. They included; Kenya Revenue Authority for the I-Tax initiative, The National treasury for the IFMIS initiative, Ministry of Devolution and Planning for the Huduma Centre programme and the GHRIS initiative, Ministry of Finance e-citizen portal. A total of 4163 respondents were targeted. The study determined the sample size of 423 by use of a Taro Yamani formula since it is simple to use; it is scientific and can be used in cases of large populations. (Yamane, 1967)

\[
n = \frac{N}{1 + N \epsilon^2}
\]

Where

\[n = \text{sample size}\]
\[N = \text{population size},\]
\[\epsilon = \text{level of precision or margin of error at } 5\% \text{ (standard value of } 0.05).\]

The study adopted a questionnaire to collect primary data. Upon completion of the data collection exercise, all completed research instruments were assembled, coded, summarized, entered into the computer; and analyzed using the statistical package for social science (SPSS) version 21.0 to examine relationships between dependent and independent variables. The data was analyzed using descriptive and inferential statistics. Descriptive statistics include percentages, frequency tables, means, and standard deviations. The study applied inferential statistics by conducting ANOVA, regression, B-coefficient and correlation analysis. To predict the influence of e-Government strategy evaluation audits (Independent variable) on the performance of public service delivery (Dependent variable) the study used a univariate regression analysis below.

\[Y = \alpha_0 + \beta_1X_1 + \epsilon; \text{ where: } Y \text{ is Performance of public service delivery, } \alpha_0 \text{ is the constant, } X_1 \text{ is e-Government strategy evaluation audits, } \beta_1 \text{ is Coefficient and } \epsilon \text{ is error term}\]

Correlation analysis was used to determine the relationship between the research variables and to test the strength of the relationship between the variables through generation of the Pearson Correlation Coefficients (r). The r lies between -1 and 1 and the closer the r to 1 the strong the positive relationship and the closer the r to -1 the stronger the negative relationship between the independent and dependent variables. Diagnostic tests were conducted to ensure adherence to assumptions of ordinary least square regression model. Kolmgorov-Smirmov and Shapiro-Wilk test were used to test the normality of dependent variable (service delivery). Homogeneity variance of the study variable was tested using Levene tests.

Results

In this study, 205 questionnaires were administered. A total of 169 questionnaires were filled and returned. This represented an 82.4% response rate, which is quite suitable to make a finale for the study. According to Mugenda (2011) and also Kothari (2014) a response rate of above 50% is adequate for a descriptive study.

Results of Pilot Test
To check the validity and reliability of the questionnaires in gathering the data required for purposes of the study, pilot study was performed on the employees within the management cadre at the MDAs regional offices, within Kisumu County. The purpose of pilot testing was to establish the accuracy and appropriateness of the research design and instrumentation (Saunders, Lewis & Thornhill, 2007). Newing (2011) states that the importance of pilot testing cannot be overemphasized. A total of 21 questionnaires were distributed to respondents who were not part of the main study. They were then subjected to pilot study where tests of reliability and validity were carried out. The results of the same are as shown in the results as follows:

**Reliability of Research Instrument**

The reliability of an instrument refers to its ability to produce consistent and stable measurements. Cronbach (1951) explains that reliability can be seen from two sides: reliability (the extent of accuracy) and unreliability (the extent of inaccuracy). The most common reliability coefficient is the Cronbach’s alpha which estimates internal consistency by determining how all items on a test relate to all other items and to the total test - internal coherence of data. The reliability is expressed as a coefficient between 0 and 1.00. The higher the coefficient, the more reliable is the test.

Cronbach Alpha value which is widely used to verify the reliability of the constructs was used to test the reliability of the proposed constructs. Trochin (2010) accepted a Cronbach’s alpha of 0.8 and above, while Mugenda and Mugenda (2009) noted an alpha of 0.6 and below is considered to be poor. Cronbach (1951) indicated that a Cronbach Alpha value of 0.7 and above is reliable. The study used this threshold of 0.7 and above. All constructs depicted that the value of Cronbach’s Alpha are above the suggested value of 0.7 thus the study was reliable (Nunnally & Bernstein, 2009). On the basis of reliability test it was supposed that the scales used in this study were reliable to capture the constructs. Reliability of the constructs is shown in Table 1.

### Table 1 Reliability Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cronbach’s Alpha</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-Government strategy evaluation audits</td>
<td>0.702</td>
<td>Accepted</td>
</tr>
<tr>
<td>Performance of public service delivery</td>
<td>0.823</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

**Validity of the Instruments**

An assessment of what a questionnaire purports to capture can be established through a validity test (Newing, 2011). It captures the differences or congruence between the reality and the explanations. The study measured both content as well as construct validity. The content validity was established by seeking opinions of experts who are aware of e-Government strategy as well as performance of public service delivery. These were the supervisor as well as other lecturers of strategy and professionals. The experts gave their take on whether the questionnaire was suitable in measuring what it was supposed to capture. They basically gauged the meaningfulness, clarity / ambiguity and offense. Before using the questionnaire in the main survey, the opinions sort were established and adjusted to the questionnaire to enhance content validity.
Construct validity of the research instrument was also be tested. Construct validity is the extent to which the items in a scale measure the abstract or theoretical construct (Carmines and Zeller, 1979; Churchill, 1987). The study used a Factor analysis method to establish the construct validity of the research instrument. Factor analysis looks at the internal-correlations among data to come up with internally consistent surrogates of the variable (Churchill, 1987). These correlations helped the researcher to formulate an interpretation of the components (variables). Carmines and Zeller (1979) have indicated 0.7 to be an acceptable loading. Other researchers suggest that 0.4 is the minimum level for item loading. Costello and Osborne (2005) argues that if an item has loading of less than 0.4 it may either not be related to the other items or suggests an additional factor that should be explored. All factor loading of less than 0.4 were eliminated (Lavrakas, 2008).

The overall summary of the factor analysis for all the variables are indicated in Table 2. The results for the factors measuring the dependent variable, performance of public service delivery, shows that all the factor loadings for the items were above 55%. All the items were accepted based on the general rule of thumb for acceptable factor loading of 40% and above. No item was removed or expunged. The results of the factor analysis for the predictor variable that is e-government strategy evaluation audit had factor loadings above 66%. This implies that all items fall within the acceptable threshold based on the general rule of thumb as none of the item was dropped.

Table 2: Factor Analysis for all Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Overall Factor loading</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-Government strategy evaluation audits</td>
<td>66% and above</td>
<td>Accepted</td>
</tr>
<tr>
<td>Performance of public service delivery</td>
<td>55% and above</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

**Demographic Characteristics**

This section describes characteristics of the study population based on the data collected and analyzed. Every target population usually has its own characteristics. The section presents the descriptions of the respondents in terms of their gender, age, level of education, management cadre years of experience in the industry, name of organization and years of experience.

Table 1 Demographic Characteristics

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>78%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>22%</td>
</tr>
<tr>
<td>Age Bracket</td>
<td>21-30 Years</td>
<td>6.34%</td>
</tr>
</tbody>
</table>
Demographic Characteristic | Category | Percentage
--- | --- | ---
| 31-40 Years | 12.68%
| 41-50 Years | 35.61%
| 51 and above | 45.37%
Level of education | Primary School | 1.46%
| Secondary School | 3.41%
| College | 33.66%
| University | 61.47%
Work Experience | Less than 5 years | 7.1%
| 5-10 Years | 8.88%
| 11-15 Years | 36.68%
| 15-20 Years | 26.63%
| Over 20 Years | 20.71%
Management Cadre | Lower level | 25%
| Middle Level | 58%
| Senior / Executive Level | 17%
Institution | i-tax | 47.35%
| IFMIS | 6.5%
| Huduma Centre | 13.6%
| e-citizen | 18.95%
| GHRIS | 13.6%

**Descriptive Analysis of Study Variables**

Descriptive Analysis were performed per the study’s dependent and the independent variables; e-Government Strategy evaluation audit as well as performance of service delivery

**Descriptive Analysis for Performance of service delivery in the Public sector**

The study sought to examine the influence of e-Government strategy on the performance of public service delivery in Kenya. The measures of performance of public service delivery were customer satisfaction, accountability, cost efficiency as well as external return on investment. The table below provides a general overview of the various measurements of the performance of public service delivery in Kenya. The responses to the performance of public service delivery items are tabulated in Table 3.

On average, the findings of the study revealed that majority of the respondents indicated that return on investment is a good indicator of the performance of Kenyan public service delivery as shown by a mean of 3.51. Moreover, the results revealed that customer satisfaction is also a good indicator of the performance of Kenyan public service delivery as shown by a mean of 3.56. In addition, the findings of the study showed that accountability and cost efficiency are good indicators for the performance of Kenyan public service delivery 3.54 and 3.53 respectively.

**Table 3: Descriptive Analysis for the Dependent variable**

<table>
<thead>
<tr>
<th>Indicator of performance</th>
<th>Statements</th>
<th>Fair</th>
<th>Average</th>
<th>Good</th>
<th>Very Good</th>
<th>Mean</th>
<th>Average Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Return on Investment</td>
<td>26.0%</td>
<td>23.7%</td>
<td>27.2%</td>
<td>23.1%</td>
<td>3.47</td>
<td>3.51</td>
<td>1.11</td>
<td></td>
</tr>
<tr>
<td>Return on</td>
<td>Number of</td>
<td>23.7%</td>
<td>29.6%</td>
<td>21.9%</td>
<td>24.9%</td>
<td>3.48</td>
<td>1.11</td>
<td></td>
</tr>
</tbody>
</table>
## Indicators of performance

<table>
<thead>
<tr>
<th>Statements</th>
<th>Performance</th>
<th>Fair</th>
<th>Average</th>
<th>Good</th>
<th>Very Good</th>
<th>Mean</th>
<th>Average Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Investment</strong></td>
<td>customers/clients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross and Net Profit Margin</td>
<td></td>
<td>21.3%</td>
<td>24.3%</td>
<td>30.2%</td>
<td>24.3%</td>
<td>3.57</td>
<td></td>
<td>1.08</td>
</tr>
<tr>
<td>Reduced Turnaround time (TAT) – (Processing duration)</td>
<td></td>
<td>23.7%</td>
<td>20.7%</td>
<td>24.9%</td>
<td>30.7%</td>
<td>3.63</td>
<td></td>
<td>1.15</td>
</tr>
<tr>
<td><strong>Customer satisfaction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer satisfaction through provision of value-adding services or products</td>
<td></td>
<td>24.3%</td>
<td>24.3%</td>
<td>20.1%</td>
<td>31.3%</td>
<td>3.59</td>
<td></td>
<td>1.17</td>
</tr>
<tr>
<td>Performance Contracting rating</td>
<td></td>
<td>28.4%</td>
<td>21.9%</td>
<td>26.0%</td>
<td>23.7%</td>
<td>3.45</td>
<td></td>
<td>1.14</td>
</tr>
<tr>
<td>Administrative costs</td>
<td></td>
<td>25.4%</td>
<td>26.0%</td>
<td>20.8%</td>
<td>27.8%</td>
<td>3.51</td>
<td></td>
<td>1.15</td>
</tr>
<tr>
<td><strong>Accountability</strong></td>
<td>Efficiency in allocation of institutional resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18.9%</td>
<td>24.3%</td>
<td>30.2%</td>
<td>26.6%</td>
<td>3.64</td>
<td></td>
<td></td>
<td>1.07</td>
</tr>
<tr>
<td>Co-ordination and control of institutional activities</td>
<td></td>
<td>26.6%</td>
<td>23.1%</td>
<td>27.8%</td>
<td>22.5%</td>
<td>3.46</td>
<td></td>
<td>1.11</td>
</tr>
<tr>
<td>Offering timely goods and services</td>
<td></td>
<td>23.7%</td>
<td>27.8%</td>
<td>23.1%</td>
<td>25.4%</td>
<td>3.50</td>
<td></td>
<td>1.11</td>
</tr>
<tr>
<td><strong>Cost Efficiency</strong></td>
<td>Effective communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21.3%</td>
<td>19.5%</td>
<td>32.0%</td>
<td>27.2%</td>
<td>3.65</td>
<td></td>
<td></td>
<td>1.10</td>
</tr>
</tbody>
</table>

### Descriptive statistics of e-Government Strategy Evaluation Audits

The study sought to assess the influence of e-Government strategy evaluation audits on the performance of public service delivery in Kenya. The measures of e-Government strategy evaluation audits were appraising internal and external factors, measuring performance, feedback mechanisms as well taking remedial and corrective actions. The table below provides a general overview of the various measurements of e-Government strategy evaluation audits on the...
performance of public service delivery in Kenya. The responses to the e-government strategy evaluation audits items are tabulated in Table 4.

The results of the responses given by the respondents revealed that majority of the respondents agreed with the statements on e-government strategy implementation as indicated by a mean of 4.34. The responses provided by the respondents were also less varied (standard deviation= 0.73).

Table 4: Descriptive Analysis for the e-Government Strategy Evaluation Audits

<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>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease in evaluation of implemented strategies is available within the institute</td>
<td>3.00%</td>
<td>5.30%</td>
<td>5.20%</td>
<td>41.40%</td>
<td>45.10%</td>
<td>4.45</td>
<td>0.6</td>
</tr>
<tr>
<td>Appraising internal and external factors is constantly done within the institute</td>
<td>5%</td>
<td>9.35%</td>
<td>20.65%</td>
<td>30.10%</td>
<td>34.90%</td>
<td>4.09</td>
<td>0.82</td>
</tr>
<tr>
<td>Efficient performance measuring frameworks exist</td>
<td>5%</td>
<td>8.60%</td>
<td>13.40%</td>
<td>30.00%</td>
<td>43.00%</td>
<td>4.29</td>
<td>0.89</td>
</tr>
<tr>
<td>There are appropriate feedback mechanisms in place and strategic or policy decisions are cascaded to staff</td>
<td>2.90%</td>
<td>8.50%</td>
<td>11.10%</td>
<td>29.20%</td>
<td>48.30%</td>
<td>4.49</td>
<td>0.67</td>
</tr>
<tr>
<td>The strategies and plans executed are constantly monitored and evaluated</td>
<td>8%</td>
<td>10%</td>
<td>15.10%</td>
<td>30.70%</td>
<td>36.20%</td>
<td>4.01</td>
<td>0.57</td>
</tr>
<tr>
<td>As a result of the evaluation audits carried out, some of the strategies, systems, policies, and goals were revised in line with approved remedial and corrective actions</td>
<td>5.40%</td>
<td>9.60%</td>
<td>19.30%</td>
<td>24.90%</td>
<td>40.80%</td>
<td>4.33</td>
<td>0.81</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.34</td>
<td>0.73</td>
</tr>
</tbody>
</table>

The results of the study revealed that 45.1% of the respondents strongly agreed that ease in evaluation of implemented strategies is available within the institute, 41.4% of them agreed while 5.2% of the respondents’ neither agreed nor disagreed with the statement. The results also revealed that 5.3% of the respondents disagreed on the statement while 3% strongly disagreed. This finding is consistent with a case study one-government evaluation: Reflections on three organizations by Jones et al., (2007) who found out that there were concerns regarding the difficulty in assessing e-Government impact. Often senior management wants a financial return from initiatives such as e-Government. Respondents were equally concerned that responsibility for e-Government evaluation was unclear. Service managers and internal e-Government users need to understand e-Government ownership. Another important issue, as one interviewee commented, was ‘how to gauge stakeholder perception of e-government’. It was unclear how successful stakeholders, especially external stakeholders perceive e-Government deployment in the respective institutions.
The results of the study also revealed that 34.9% of the respondents strongly agreed that appraising internal and external factors is constantly done within the institute, 30.1% of agreed while 20.65% of the respondents’ neither agreed nor disagreed with the statement. It was also established that 9.35% of the respondents disagreed with the statement while 5% strongly disagreed. This finding is consistent with that of (Akinyi & Moturi, 2015) on application of IS-Balanced scorecard in performance measurement of e-Government services in Kenya. The study found that monitoring and evaluation of government programmes was generally difficult, given the frequent lack of clarity of objectives and associated factors owing to the different and often competing views held by different stakeholders. In addition, overlapping initiatives, policies and continuous fine-tuning of initiatives complicated the monitoring and evaluation efforts.

Furthermore, it was indicated that 43% of the respondents strongly agreed that efficient performance measuring frameworks exist, 30% of them agreed while 13.40% of the respondents’ neither agreed nor disagreed with the statement. Those who disagreed were 8.6% while those who strongly disagreed were 5%. This finding is consistent with that of Kumar & Best, (2006) on Impact and Sustainability of E-Government Services in Developing Countries: Lessons Learned from Tamil Nadu, India. The project was providing e-services to citizens in the rural areas via internet enabled kiosks. They found out that for projects to be successful consistent evaluation and monitoring frameworks had to be incorporated from its initial phases all the way to the end. The results of the study revealed that 48.3% of the respondents strongly agreed that there are appropriate feedback mechanisms in place and strategic or policy decisions are cascaded to staff, 29.2% of them agreed while 11.1% of the respondents’ neither agreed nor disagreed with the statement. It was also established that only 8.5% of the respondents disagreed with the statement while 2.9% strongly disagreed. This finding is consistent with that of Chepkwony (2016) on the influence of strategy implementation, evaluation and control on organization performance at the office of the auditor. When the study respondents were asked whether the organization had an effective feedback mechanism the responses were less consistent with the study observing that even though the organization had feedback systems, they were neither effective nor timely and this rendered the evaluation and control process ineffective.

The results of the study also showed revealed that 36.2% of the respondents strongly agreed that strategies and plans executed are constantly monitored and evaluated, 30.7% of them agreed while 15.1% of the respondents’ neither agreed nor disagreed with the statement. Those who disagreed were 10% while those who strongly disagreed were 8%. This finding is consistent with a study on measuring and evaluating e-government in Arab countries by OECD, (2007). It argued that measuring and evaluating e-government progress has become a priority for decision makers as governments are increasingly asked to demonstrate the benefit of using information and communication technologies such as e-Government in public administration to enable internal efficiencies and increase the effectiveness of government service delivery. To respond to this demand, a range of monitoring and evaluation tools have been developed and used by countries to justify e-government investments, assess impacts, and better meet citizen and business expectations.

The results of the study revealed that 40.8% of the respondents strongly agreed that as a result of the evaluation audits carried out, some of the strategies, systems, policies, and goals were revised in line with approved remedial and corrective actions, 24.9% of them agreed while 19.3% of the respondents’ neither agreed nor disagreed with the statement. On the other hand, it was established that 9.6% of the respondents disagreed while 5.4% strongly disagreed. This finding is
consistent with a study by Špaček and Nunvářová (2009) titled e-Government evaluation and its practice in the Czech Republic: challenges of synergies? They argued that since the e-Government represents an alternative to traditional service delivery and governance processes, the e-government complexity itself derives from specifics of public service delivery. For e-Government strategies to work fully continuous management and evaluation is unavoidable. Strategies plans, systems, policies, and goals should be continuously monitored and revised in line with changes in executive character of public service delivery, multi-layered character of governance systems, political decision-making and control, mutually exclusive functions which are assigned to public service delivery, multiple and (sometimes) mutually contradicting roles of citizens in their interactions / relationship with public service delivery, various stakeholders of public service delivery and government and their heterogeneous and sometimes contradictory requirements, perceived effects of some public services may be influenced by behaviour and capacities of their users (civil servants as well as citizens).

Diagnostic Tests

Statistical tests rely upon certain assumptions about the variables used in the analysis. When the assumptions are not met, the results may not be trustworthy resulting into either Type I or Type II error (Osborne et al., 2011) or over or under-estimation of significance or effect sizes. The assumptions of the regression analysis are of two kinds: those that are robust to violations and assumptions that are not robust to violations. This study addressed assumptions of multiple regressions that are not robust to violations. Data diagnostic tests such as normality of the dependent variable and homogeneity were done to test for statistical assumptions and determine if the data collected was properly modeled.

Normality Test of the Dependent Variable

The purpose of normality test was to assess whether the sample was obtained from a normally distributed population. Saunders (2007) posits that when this assumption is violated, the study results are likely to give biased estimates of the parameters. Kolmogorov-Smirnov and Shapiro-Wilk test were used to test the normality of dependent variable (service delivery). The null hypothesis in the Kolmogorov-Smirnov and Shapiro Wilk test of normality is that the data for the variable is normally distributed. The desirable outcome for this test is to fail to reject the null hypothesis. The tests fail to reject the hypothesis of normality when the p-value is greater than or equal to $\alpha=0.05$ (Shapiro - Wilk, 1965). The decision rule is such that fail to reject $H_0$ if P- value is greater than $\alpha = 0.05$ otherwise, reject $H_0$ if P-value is less than $\alpha = 0.05$. The hypotheses were stated as follows: $H_0$: The data is normal; $H_1$: The data is not normal.

<table>
<thead>
<tr>
<th>Table 5 Kolmogorov-Smirnov Test of Normality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kolmogorov-Smirnov</strong></td>
</tr>
<tr>
<td>Statistic</td>
</tr>
<tr>
<td>Performance of public service delivery</td>
</tr>
</tbody>
</table>
Table 5 shows that the Kolmogorov-Smirnov and Shapiro-Wilk statistics were 0.045 and 0.993 respectively whereas the associated p-value was 0.200 and 0.585 for Kolmogorov-Smirnov and Shapiro-Wilk statistics respectively. Since the p-values for both tests were greater than the $\alpha = 0.05$, we fail to reject the null hypothesis. The study therefore concluded that Performance of public service delivery variable is normal in distribution and hence subsequent analysis could be carried out. In addition, normal Quantile Quantile (Q-Q) plots of service delivery was obtained showing that the line representing actual data for the dependent variable closely follows the diagonal representing normally distributed data suggesting a normal distribution as shown in Figure 9. The observed values were found to coalesce along the line of best fit, which implies that the data was normally distributed. Confirmation of normal distribution was a critical prerequisite for carrying out subsequent parametric statistical tests such as regression analysis.

![Normal Q-Q Plot of Performance of Public Service Delivery](image)

**Figure 9: Normal Q-Q Plot of Performance of public service delivery**

**Test of Homogeneity variance**

Homogeneity variance of the study variables was tested using Levene tests. Homoscedasticity is a situation in which the variance of the dependent variable does not vary across the data whereas heteroscedasticity indicates that the variance of the dependent variable varies across the data (Kinuu, 2014). Levene's test is an inferential statistic used to assess the equality of variances for a variable calculated for two or more groups. It tests the null hypothesis that the population variances are equal (called homogeneity of variance or homoscedasticity). Levene tests results are shown in Table 6. The Levene statistics of e-Government strategy evaluation audits was 2.123. Since the Levene statistics were less than 5 (Kinuu, 2014; Njoroge 2015), then the research data was found to conform to assumptions of homogeneity of variances. A multivariate regression analysis was hence suitable for the study.

**Table 6: Test of Homogeneity (Levene Test)**

<table>
<thead>
<tr>
<th>Predictor Variable</th>
<th>Levene Statistic</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-Government strategy evaluation audits</td>
<td>2.123</td>
<td>.000</td>
</tr>
</tbody>
</table>
Regression Analysis

The study used a univariate linear regression model to determine the linear statistical relationship between the independent and dependent variables of this study. The model summary results revealed that e-Government strategy evaluation audits account for 60.9% variation in the performance of public service delivery in Kenya. This is indicated by an R-square value of 0.609. The regression results show that R was 0.780 which shows that the relationship between the independent variable and the dependent variable was positive.

### Table 6 Model Summary

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>.780</td>
<td>0.609</td>
<td>0.594</td>
<td>0.662877</td>
</tr>
</tbody>
</table>

Predictors: (Constant), e-government strategy evaluation audit

ANOVA results shown in Table 7 which indicates that F statistic = 94.207 and the p-value = 0.000 hence the model can be described as being statistically significant considering the P value is less than α = 0.05. This indicated that the overall model was statistically significant at 5% significance level. This implies that the model is a good fit and can successfully predict the dependent variable.

### Table 7 ANOVA Results

<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>Regression</td>
<td>29.313</td>
<td>2</td>
<td>7.328</td>
<td>94.207</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>12.758</td>
<td>167</td>
<td>0.078</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>42.071</td>
<td>168</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dependent Variable: Performance public service delivery

Predictors: (Constant), e-government strategy evaluation audit

The results of the model coefficients presented in Table 8 indicate that e-Government strategy evaluation audit has a positive and significant influence on the Performance of Public Service Delivery, (β=559, p-value=0.000). Availability of easy evaluation of implementation strategies within the institute, carrying out constant appraisal of internal and external factors within the institute, presence of efficient performance measuring frameworks, availability of appropriate feedback mechanisms in place and strategic or policy decisions cascaded to staff, constant monitoring and evaluation of strategies and plans being executed and revising in line with the approved remedial and corrective actions due to the results of the evaluation audits carried out some of the strategies, systems, policies as well as goals leads to 0.559 unit effect on Performance of Public Service Delivery in Kenya. The findings agree with the results of a study by Kariuki (2008) which reveals that unsuccessful implementation of strategies and lack of strategy evaluation mechanisms leads to underperformance of companies.

### Table 8 Regression Coefficients

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Beta</th>
<th>Std. Error</th>
<th>t statistic</th>
<th>Sig.</th>
</tr>
</thead>
</table>

http://www.ijsse.org  ISSN 2307-6305  Page | 65
The optimal regression model is as follows;

\[ Y = 1.817 + 0.559 \text{ (e-Government strategy evaluation audit)} \]

**Conclusions**

The study also concluded that implementation of e-government strategy evaluation audits practices can lead to a significant improvement in the performance of public service delivery in Kenya. This reveals that having ease in evaluation of implemented strategies, constantly appraising internal and external factors, having an efficient performance measuring frameworks, having appropriate feedback mechanisms in place and cascading strategic or policy decisions to staff, leads to a significant improvement in the performance of the public sector in Kenya.

**Recommendations of the Study**

The study also recommends the MDAs to continuously carry out audit evaluations so as to sheds light on the efficiency and effectiveness of the comprehensive strategies in achieving the desired results. The evaluation process should be easy and precise, involve thorough appraising internal and external factors if at all they have changed, measure performance and make amendments to fulfill set performance objectives through tools such as balance scorecard as well as annual review of performance based on the Performance Contract with the Government. Due to the constant monitoring and evaluation of strategies management of the government MDAs should equally develop appropriate feedback mechanisms such as sensitization forums, awareness colloquia, personalized direct mail, email distribution lists. Memos, circulars, web portals blogs, digital content/Repositories and social media platforms to communicate, cascade, coordinate and institutionalize the proposed corrective measures and remedial procedures.

**Acknowledgement**

I am grateful to all those who contributed significantly to the development of this research proposal. First and foremost, I wish to convey my sincere gratitude and appreciation to my supervisors; Dr. Susan Were and Dr. Allan Kihara who spent countless hours guiding me throughout the development and accomplishment of this work. I am deeply indebted to them for their unwavering support, patience and encouragement shown throughout their supervision. I am also grateful to the immense support received from my lecturers; Dr. Kennedy Ogolla, Dr. Margret Oloko, Dr. Wario Guyo, Dr. Willy Muturi, Dr. George Orwa, Dr. Hazel Gachunga and the entire staff of the college of human resource development for their contribution, support and encouragement throughout this course. My special appreciation also goes to my classmates particularly Ms. Sharon Kirai and Mr. Charles Kioko for their cooperation and encouragement throughout this study. The invaluable moral and financial support from my wife Zippy has also been deeply appreciated. My special appreciation also goes to my children; Isabelle and Shammah and my parents; Mr. Martin Riany and Mrs. Meracia Riany for their financial and moral support throughout this study. Last but not least, I wish to give special thanks to our almighty God for giving me the grace and the zeal to be patient towards the accomplishment of this study.
References


Boge, B.E. (2010). Effectiveness of the balanced scorecard in the implementation of corporate strategy at CFC Life Assurance Ltd. Unpublished MBA Project: University of Nairobi


Mukherjee, R., (2000), *Operational Inefficiency & Poor Service Delivery*


