OPERATIONS MODERNIZATION STRATEGIES AND SERVICE DELIVERY AMONG NON-COMMERCIAL STATE OWNED ENTITIES IN KENYA

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ABSTRACT: Purpose: Modern and robust operations modernization strategies are required to turn around or improve the efficiency of such non-commercial state owned entities. The study therefore aims to fill the gap by establishing the modernization strategies commonly used by non-commercial state owned entities in Kenya. Design/Research method: In conducting this study, descriptive design was adopted. The study relied on both primary and secondary data. Data analysis used both inferential and descriptive statistics. Finding: In order to achieve excellence in service delivery, the firms need to adopt strategies on operations modernization. From the research findings in this study, there is a positive relationship between the operations modernization strategies and the service delivery. Limitation: The study was able to establish the impact of such studies on the service delivery but there could be other factors such as legislation, political interference and funding constraints that would impact service delivery which need to be studied together with the identified operations modernization strategies. Implication: Improved service delivery measured by the customer satisfaction and the reduced number of customer complaints show could among other factors be influenced by modernization of operations.

Keywords: Operations Modernization, Service Delivery, Non-Commercial State Owned Entities, Kenya

1. INTRODUCTION

Globally the operations modernization element of firms is effectively the part of the day-to-day activities that changes the contribution to an association into the yield that gives extra an incentive to the end client than the entirety of the contributions to the framework. Associations that have concentrated on the improvement of the activities modernization are the ones that have possessed the capacity to indicate long haul development and accomplishment inside the commercial centre. Imperatively, in these circumstances, achievement has not been managed by a specific development, instead it is their ability to continuously satisfy their customers; this defines their level of service delivery (Kim and Suk-Bong, 2000; Kim H., 2011).

Technological changes are some of the factors necessitating operations modernization. The key to developing successful operation strategies lies in the creation or additional value to the firm. There are four fundamental competing priorities that explain the variety of processes that an organization can improve of it offering service delivery namely flexibility, service delivery, cost and quality Slack (2007).

State corporations are body corporates established under Section 3 of State Corporations Act, Cap 446 laws of Kenya. There are two hundred and twenty state corporations in Kenya under different ministries (Inspectorate of State Corporations (ISC), 2018). Most Commercial State corporations have employed modern operations modernization strategies in order to compete favourably with the private entities (Dickson, 2010). Non-commercial corporations do not have robust, competitive and modern operations modernization strategies. This is so because of the nature of goods and services they provide. They do not have to be competitive to stay in operation, as profitability is not one of their key objectives. The services they offer are monopolistic in nature. However, some non-commercial corporations are coming up with self-sustainability programs to help modernize their operations and to augment funding from the state.

1.1. Research Problem

Operations modernization strategies and service delivery refer to the ways and means of arrangement of social or open merchandise that will advance financial prosperity of the residents. Open
services offered by non-business state possessed substances are various and may incorporate the arrangement of open utilities, security, monetary advancement ventures, and the requirement of the law. Most non-commercial state owned entities face a lot of inefficiency in service delivery. Most of their operations are state funded, and therefore, do not dependent on their profitability for survival. Their focus is on delivery of certain essential services to the public and not sustainability (Angahar and Ivarave, 2016).

Locally, a number of studies on operations modernization strategies on service delivery of county governments include a study by Wamae (2014) which found that there is a significant positive relationship between the technology, staff competency, stakeholder influence and government policy with service delivery in non-commercial state owned entities. Mugambi and Theuri (2014) studied challenges experienced by reverted governments in Kenya in spending plan arrangements. The examination found that the arranging procedure was not enough done and should have been enhanced tasks in order to issue a substantial stage for setting up the financial plan.

Muriu (2013) found out that the non-business state claimed elements cooperation through has had negligible effect on the decentralized service delivery in nearby specialist by concluding that the choice of tasks had been restricted to a couple of assets and consequently the general impact even where completely applied could just have a little effect. Another study by Odalou (2015) on operations modernization strategies to improve service delivery in local authorities couldn’t clearly point out the specific operational intervention area that affects service delivery. They have all failed to address the tactful operations modernization strategies that can enhance service delivery. Finally a study by Henry (2016) on operations modernization strategies and its importance to performance of public firms in Kenya was unsuccessful to give the relationship between operations modernization strategies and its major contributions of performance in public firms and suggested that more studies should be carried out to come up with solutions to those problems.

World Bank (2013) asserts that many problems facing non-commercial state corporations are; inadequate financial resource allocation, lengthy procurement procedures, fragmented institutional frameworks, inefficient regulatory framework, poor maintenance, and rehabilitation of existing infrastructure. This could result in complacency by the staff and poor work ethic culture. There is also a widespread tendency not to invest in modern technology to improve service delivery. State corporations are prone to political interference. Such could include poor allocation of funds to carry out modernization reforms.

1.2. Research Focus

Service delivery entails meeting the customers’ needs within the operations competencies of cost, quality, speed and flexibility. Service delivery in a broader sense to the quality of customer service, reliability, service accessibility, affordability, speed of delivery, courtesy and completeness, and the measured appropriateness of assistance and support provided to a customer (Parasuraman et al., 1988).

The operations modernizations strategies can lead to improved customer satisfaction, which is central to the formulation of such strategies (Samra et al., 2009). The customer requirements tend to be dynamic hence the need to constantly modernize the operations of a firm.

Modern and robust operations modernization strategies are required to turn around or improve the efficiency of such non-commercial state owned entities. The modernization strategies employed by non-commercial state owned entities could only be speculative. The study therefore aims to fill the gap by establishing the modernization strategies commonly used by NCSOE in Kenya by answering the following question; what operations modernization strategies employed by the non-commercial state owned entities in Kenya? In addition, what is the relationship between the operations modernization strategies and service delivery among non-commercial state owned entities in Kenya.

The specific objectives of the study were:

i. To determine the Operations modernization Strategies used by Non-Commercial state owned entities in Kenya; and

ii. To establish the relationship between the Operations modernization Strategies and Service delivery in Kenya
2. LITERATURE REVIEW

Operations modernization strategies are important to an organization's quality of service delivery as it determines how the organization optimally puts to use its resources. This section reviews the theoretical literature on operations modernization strategies and service delivery. It will also look at the work of empirical reviewers on the same subject.

The trade-off concept and the sand cone model: This is one of the oldest models in the field of operations strategy. Skinner founded this model in 1969. The approach of this model based on specialization. The fundamental argument in the model is that firms may not excel in all the five competencies of operations: cost, quality, speed, dependability and flexibility. That a firm would select only some of the competencies to build competitive advantage on. Trade off would therefore occur for the competencies not focused on. That a firm will rely on the market analysis (customers’ needs) as a basis to the competencies to focus on. Skinner argued that operations cannot “be all things for all people”.

This theory is applicable to operations modernization strategies and service delivery as it emphasizes the need for an organization to focus on those operations competencies that they can excel in and trade of those they cannot. At no time will the organization be able to excel in all the operations objectives. Focusing in all will lead to suboptimal performance. This may lead to poor performance in both. Organizations therefore need to put in place those strategies, which will ensure the realization of the selected.

2.1. Operations Modernization Strategies and Service Delivery

Modernization is not a type of change, but the response of a firm to changes around it (Halpern, 1966). In the same vein, the operations modernization strategies are firms’ response to the environmental changes. Organizations do change after consider presentation of better approaches for considering, acting or working (Schalk et al., 1998). Associations change to adjust to the earth Leana and Barry (2000) and to enhance their execution.

Operations modernization strategies are worried about the diagram of vital activities and choice that decide the exercises capacities and targets in tasks (Cooper and Slack, 2015). Activities modernization strategies have much of the time been explored inside business elements (Cousins and Bourgeois, 2014) benefited an once-over demonstrating the associations between an organizations tasks and current management of non-commercial state owned entities. Now days the influence of operations modernization strategies has gone past the domain of task administrators to that of firms’ strategies (Payne and Holt, 2001). It additionally takes a gander at all the level of the organizations and the structures that can accomplish the organizations and eventually the corporate key goal and subsequently limits to issues of individuals, assets, forms, and so on. Task strategies are a long haul plan setting out how lion's share of the association that is used for a higher possibility of arrangement of assets to the corporate strategies (Cooper and Slack, 2015).

Entities face uncertainties in attainment of their objectives and this poses threat to their success (Cooke et al., 2007). In attempt to encounter these threats, they ought to think of better ways of carrying out their operations. Over the recent years, the nature and dynamics of operation management systems have changed drastically due to the advancement in technology. Entities formulate strategies to adapt to the developing recurrence and size of changes in innovation and administrative strategies (Lewis, 2019).

One of the goals of operations modernization is to ensure a firm strives to provide goods/services that have a distinguishing factor in market (Reilly et al., 2012). This is attainable if the products/services provided by the firm are completely different from what other firms are providing. The key factor for developing differentiation as an effective strategy method is identifying what exactly will make a particular firm's product unique from the rest through: enhancing the quality of service, boosting the image of the firm, contribution in customer associations, item, improved delivery framework, and the advertising approach to separate a firm (Davidson et al., 2012).

Performance contracting is a management tool used to measure the performance of organizations. It identifies an organization’s goals, and breaks down the strategic objectives into measurable performance indicators. The PC also spells out the methodology for performance measurement and the improvement to achieve the organizational goals. PC entails cascading of the organizational targets from organization, functional groups, up to individual level (Guerra-Lopez and Hutchinson, 2013). The most commonly employed models for performance measurement is Balance Score Card (BSC). However, BSC is not a tool to evaluate past performance but rather to communicate the strategy of the organization and to align individual, group goals to the business goal (Kaplan and Norton, 1996). Performance measurements leads
to continuous improvement as individuals and groups strive to achieve their goals. This results in innovations to modernize the organizations operations.

Certification is one ways organizations ensure standardization of organizations operations. One such internationally reputable standardization body is ISO certification. There was no formal quality standard until 1950s (Hoyles, 1997). The continuous review of the ISO standards after every five years helps align processes hence modernization of operations. State Owned Entities have adopted ISO 9001: 2008 certification as directed by the Ministry of Industrialization through Kenya Bureau of Standards to (KEBS, 2016). The main objective of ISO certification is to ensure that products and services conform to the customer requirements, achieve consistency and enhance consumer satisfaction through continuous improvement.

Service Charter is the commitment an organization gives to its customers outlining the quantity, quality and timelines it takes to deliver various services. Most of the time the customers realize the charter after or in the process of consuming the service. Organizations should therefore deliberately create awareness through various communications channels (Kenneth and Agarwal, 2000). Employees who deliver service so that they are realistic should own Service charters. Service charters can be used to measure the performance of NCSOE as this will set a basis of customer expectations.

Digital transformation is at the core of every firm in the world today (Kane et al., 2015). In general, business automation is a complex operations modernization strategy the need to consider all the aspects of a firm; internally, externally and holistically. If the firm addresses the technology implementation challenges, then for sure it will result into superior performance of an organization (Kaufman and Horton, 2015).

Most entities try to convey extraordinary client encounter, yet they are essential hampered by difficulties originating from inheritance advances. Bureaucracy caused by rigid organization structure is another challenge affecting firms’ performance. Organizations have recognized the need for transformational change in their operations processes and technology, to share information and respond to customer requirements more effectively (Jones, 1998). Business process alignment is concerned with the elimination of non-value add (NVA) activities along the service value chain. Several techniques are employed to achieve this. Businesses Process Management (BPM), Business Process innovation (BPI) and Business Process Re-engineering (BPR) have been the primary techniques organizations use to align their business process. BPM is the gathering of advances equipped for making an interpretation of business process models into PC upheld exercises, giving up routine administration and control assignments from the authoritative specialists (Antunes and Mourao, 2011).

Provision of quality service ought to surpass client's desire. Clients contrast the apparent service and the normal service and that if the apparent service is beneath desire; they lose enthusiasm with the supplier while the inverse makes dependability (Parasuraman et al., 1988). Thus, they discovered five determinants of service quality by request of significance that is; unwavering quality, responsiveness, (readiness to encourage clients and provoke service confirmation), the capacity to pass on trust, sympathy and individualized regard for clients. Studies have discovered that all around oversaw non-business state possessed elements have the accompanying practices; vital idea and best administration bolster, exclusive requirements of service delivery, service observing frameworks, fulfilling client's protests (Krejdl, 2006). (Njenga et al., 2014) supports that to numerous natives non-business state possessed elements is the most unmistakable, it is likewise the layer of government with which they have most contact in their regular day-to-day existence. The improvement of data innovation and media are having a verifiable effect on this relationship. They allow other government bodies to get closer to general society, yet the reality remains that they are non-business state.

3. RESEARCH METHODS

This section comprise the examination techniques employed to establish the operations modernization strategies and the impact on service delivery among non-commercial state owned entities in Kenya. It details research design, target population, sampling, data collection and data analysis.

3.1. Research Design

The study adopted a descriptive design. The Descriptive study provides qualitative data from respondents. The data was collected through the answered questions regarding the objective of the subject under study.
3.2. Population
The target population of the study comprise 183 non-commercial state owned entities in Kenya. The list of Non-Commercial State Owned Entities in Kenya (Inspectorate of State Corporations (ISC), 2018).

3.3. Sample Design
The sampling method employed is simple random sampling. Simple Random sampling is the most suitable for this study, as the population was considered homogeneous. The recommended sample size of 10% or more of the entire target population is representative of the population (Mugenda and Mugenda, 2003). The study settled for a sample of 30 non-commercial state owned entities in Kenya. This is approximately 16% of the target population.

3.4. Data Collection
The study relied on both primary and secondary data. Collection of primary data was done through questionnaires. Questionnaire enable the researcher to focus on the area of importance which address the research problem directly (Leedy and Ormrod, 2001; Magutu et al., 2015; Magutu et al., 2016; Mose et al., 2013). The questionnaires were administered to the Chief Executive Officer or the Chief Operations Officer of the sampled corporations. Pick and drop method was used. The secondary data was collected comprise performance evaluation reports of the NCSOE from the Inspectorate of State Corporation.

3.5. Data Analysis and Presentation
The collected data was cleaned of any errors and inconsistencies. Data analysis was conducted using both inferential and descriptive statistics. The descriptive statistics that were used include mean and frequencies. The descriptive statistics was used to establish the operations modernization strategies used by NCSOE. The inferential statistics used was to establish the relationship between operations modernization strategies and service delivery. Multiple regressions were used to analyse the relationship between the independent variables and the dependent variable. These were modelled as below:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 \]

Whereby:
- \( Y \) = the dependent variable;
- \( X_1, 2, 3...n \) = represent the independent variables;
- \( \alpha \) = represent a constant term; and
- \( \beta_1, 2, 3...n \) = represent the coefficient of the independent variables.

The purpose of \( \alpha \) and \( \beta \) is to measure the sensitivity of the dependent variable \( Y \) to the changes in the independent variables \( X_1, 2, 3...n \).

4. RESULTS AND DISCUSSIONS
4.1. Introduction
The section outlines the analysis of the data collected, presentation of the findings thereof and discussion to interpret the result. Descriptive and inferential statistics were used to analyse the data.

4.2. Response Rate
30 questionnaires were sent out to non-commercial state owned entities, 26 of them responded fully completed. This represent approximately 87% response rate, which according to Kothari (2008), a response rate of 70% and above is sufficient for data generalization. This was considered sufficient for the realization of the objectives of the study.

4.3. Demographic Information
Demographic Information entails the characteristics of the respondents. The information collected from the questionnaire comprises demographic information of the respondents. The respondents were asked to state the name of the corporation, which industry the corporation serves or operate in and the duration of service of the respondent. The respondents were also to indicate their role and duration of service in the organization. The findings were tabulated as indicated in Table 2 below.
From the findings, it is evident that most of the corporations were regulatory (27%), Social services (23%), advisory and regional development authorities (19%), tertiary learning institutions and research institutions (12%). The respondents were asked to indicate the duration of service and their current role in the respective organizations. Most of the respondents had worked for the organization between 5 to 10 years (46%), 11 to 20 years (23%), below 5 years (19%) and over 20 years (12%). Half of the respondents were the supervisors (50%), Operations Managers (19%). Very few senior manager responded at General Manager Operations (0.08%) and Chief Operations Office (0.04%).

The findings above imply that, non-commercial state owned entities generally provide regulatory and social services. A large number also perform regional development, training and research role. Most of the respondents are young middle management staff. The number of years they have worked and their role confirm this. Most of the senior management have spent longer durations in the organization. They were not readily available to fill in the questionnaires.

Non-Commercial State Owned Entities are those entities that do not engage in commercial activities. Hence, the industries identified from the responses above. The NCSOE are injecting new staff from college or other entities to boost their human resource capacity. This is supported by the high number of staff below 5 years duration of service. Most of the staff that has stayed long in the organization is in middle level management. Most senior managers were not available to fill in the questionnaires. They delegated the work to their junior staff.

4.4. Operations Modernization Strategies

This section of the questionnaire was meant to establish which operations modernization strategies commonly employed by the NCSOE s. The aim and manner in which the strategies are employed and if the strategies were deliberate and in line with the overall organizations strategy. The respondents were asked to indicate in the questionnaire whether the strategies were documented as part of the organizations strategy. They were also required to indicate the motivating factor they consider mostly contributed to the implementation of the strategies. The responses were from 26 NCSOE were captured in terms of frequency and percentage as indicated in table 2 below.

<table>
<thead>
<tr>
<th>Table 2. Operations Modernization Strategies Alignment</th>
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<tbody>
<tr>
<td>Response</td>
</tr>
<tr>
<td>YES</td>
</tr>
<tr>
<td>NO</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Motivating factors</td>
</tr>
<tr>
<td>Lessons from bench marking</td>
</tr>
</tbody>
</table>
From the findings above, 73% of the sample has actually operations strategies form part of the organization strategy that is 19 out of 26 respondents. The other 27% (7) do not have clearly documented operations strategy. Regarding the motivating factor, the respondents selected performance Contracting commitment by board as the major motivating factor at 42% followed by compliance to the laws and legislations. Presidential directives and benchmarking follow at 19% and 15% respectively. Most of the state corporations interviewed had operations strategies in place aimed at modernizing service delivery. Some of the corporations have operations modernization strategies in place but are not documented and only relied on their respective corporate strategies to implement their operations. Most of the entities have however adopted the documentation of operations modernization strategies. The common way of implementing operations modernization strategies among the entities is through implementation of performance contracting commitments by the board of directors of the various state corporations. Other ways are through legislation, presidential directives and bench marking with other corporations. Performance contracting has been driven by the customer satisfaction needs hence the most prominent motivating factor. The board of directors are appointed into office to drive the government agenda of service provision to the citizenry. They therefore have to come up with strategies to achieve this objective hence the operation modernization strategies.

4.5. Application of Operations Modernization Strategies by NCSOE

The study identified six operations modernization strategies commonly employed by the state owned entities to provide service delivery. The strategies include, automation of business processes, implementation of service charter, adoption of corporate governance and ethical practices, use of performance contracting to cascade the operation modernization objectives, adoption of standardizations such as ISO 9001 and use of business process re-engineering to radically change the operations of the entities. The respondents were asked to indicate the extent to which they consider the said operations modernization strategies have been implemented in various organizations. The questionnaire provided a range of score to select from 1 (not at all) to 5 (very large extent). Findings were then tabulated as indicated in the table 3 below showing the mean from the 26 responses for each strategy. The table also indicate the standard deviation from the mean.

<table>
<thead>
<tr>
<th>Operations Modernization Strategies</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Automation: The organization engagement in Automation of its operations such as system integration, intelligent machines, online services has addressed service delivery challenges</td>
<td>4.1923</td>
<td>0.810294</td>
</tr>
<tr>
<td>Service Charter Implementation: Organization’s commitment to its customers on the outlined quality, cost and timeline standards are being met</td>
<td>2.5769</td>
<td>0.584078</td>
</tr>
<tr>
<td>Corporate governance and Ethics: Introduction of corporate governance and ethics as best practice has led to improved accountability and adherence to code of conduct.</td>
<td>3.8077</td>
<td>0.713196</td>
</tr>
<tr>
<td>Performance Contracting: The organization employs Performance Contracting as service delivery performance measurement tool and is used effectively.</td>
<td>3.7692</td>
<td>0.704527</td>
</tr>
<tr>
<td>ISO Certification: The ISO 9001: Quality Management System certification has aligned the organizations operations and improved efficiency.</td>
<td>4.0385</td>
<td>0.769379</td>
</tr>
<tr>
<td>Business Process Re-engineering: The radical change in business process has been used to elimination redundant processes and simplified service delivery</td>
<td>2.4615</td>
<td>0.59105</td>
</tr>
</tbody>
</table>

Source: Research Data, 2018

There is greater appreciation of business process automation as key to service delivery (mean= 4.1923). Standardization by adoption of ISO certification through the alignment of business processes is also perceived to improved efficiency in service delivery (mean= 4.0385). Implementation of corporate governance and enforcement of ethical practices is perceived to result in greater accountability and adherence to code of conduct in state owned entities (mean =3.8077). Performance contracting is employed by all state owned entities as a measurement tool and is effective in ensuring service delivery by state owned entities (mean: 3.7692). Service charter adoption has not created a lot of impact in service
delivery (mean = 2.5769). Finally, the impact of deploying Business Process re-engineering (BPR) was considered to have minimal simplification of service delivery (mean= 2.4615).

As the business environment changes, NCSOE are forced to embrace technology and standardization such as ISO certification in order to do business with the commercial and private entities which have already adopted such strategies in order to gain competitive advantage. This is in concurrence with Cumps et al. (2006) observation that application of technology greatly affects one of the key concept of operations strategy. Similarly, BPR had less impact because most state owned entities are governed by legislation such as The Public Procurement and Disposal Act (2015). This limits the extent to which processes can be aligned.

4.6. Application of Operations Modernization Strategies by NCSOE

The study sought to establish the extent to which operations modernization strategies impact on service delivery. Service delivery was measured in terms of Customer satisfaction index, and; number of customer complaints. The study also sought to establish the trend in the said parameters over a period of five years for the organizations contacted.

The respondents were asked to indicate the extent to which they consider the operations modernization strategies identified have impacted the service delivery indicators in their respective organizations. On a scale of 1 to 5 the respondents scored the entities based on how they perceived each of the operations modernization strategies have impacted service delivery indicators. For instance, how the implementation of business processes has led to improvement of service delivery.

The findings of the impact of OMS on customer satisfaction and customer complaints were as tabulated in tables 5 to 10 below. The tables indicate levels of impact of OMSs on the service delivery in both dimensions of customer satisfaction index and the number of customer complaints.

4.6.1. Automation and Service Delivery

The findings indicate that automation of business processes have high impact on both the staff satisfaction and customer complaints indices among the respondents at (Mean = 4.307692 and 4.346154). The findings also indicated a standard deviation of 0.844673 and 0.856214 respectively. This finding is in concurrence with the findings of Mugambi and Theuri (2014) that e-government lead to reduction in transaction time, cost of service delivery and loss of customer records. This shows automation leads to higher customer satisfaction and reduction in customer complaints.

4.6.2. Service Charter and Service Delivery

The findings on the impact of Service Charter on service delivery indicate that adherence to the commitments leads to customer satisfaction. There was a moderate impact as established from the respondents (mean= 3.461538 and standard deviation: 0.652365). This was not very different from the reduction in customer complaints (mean= 3.384615 and SD: 0.6427). These findings agree with study by Mwania (2015) which established that for a greater impact of service charter on service delivery, there is need to create awareness among the staff and the customers. Jody and Ray (2004) point the same out that there is need for monitoring adherence, hence reducing the frequency of evaluation.

4.6.3. Corporate Governance and Ethics and Service Delivery

From the findings on the impact of corporate governance and ethics on service delivery, it was established that there is a considerable impact of ethics and corporate governance on service delivery (mean= 3.576923) for customer satisfaction index and (mean= 3.576923) for reduction in customer complaints. The findings are in line with those of Wainaina (2017) who established that corporate governance and ethical practices positively affect the performance of Kenya Commercial bank. This finding is relevant to this study as it was conducted for a Kenyan bank, which was previously government, owned. Corporate governance and ethics is gaining prominence in the running of SOE in Kenya. The presence of regulatory, legal and institutional frameworks has fueled the implementation of this strategy. A legislative framework for example governs the selection of board members. The various institutions set up to enforce transparency also emphasize accountability of the SOE.

4.6.4. Performance Contracting and Service Delivery

The findings on impact of performance contracting on service delivery indicate that largely impacts the service delivery by putting a lot of weight on customer focus (mean: 4.153846). The PC also largely affects service delivery through motivation of staff and improved accountability (mean= 3.461538). This
finding is in agreement with that of (Simitu, 2008) on the effectiveness of performance contracting on the performance of regulatory state owned entities in Kenya. The study established that the implementation of Performance contracting as a planning and control tool has led to the improvement in the efficiency of the entities. The strategy has a feedback mechanism, which promotes continuous improvement. Trivedi (2004) asserts that PC helps in accountability and responsibility by eliminating the “Not me” culture.

4.6.5. ISO certification and Ethics and Service Delivery

The findings on the impact of ISO certification on service delivery indicated that ISO certification impact quality of service delivered largely (mean = 3.846154) and reduction of faults, mistakes and errors (mean = 3.961538). (Hoyle, 2005) states that ISO certification benefits an entity by providing an independent external audit of the processes, formal document control and recognition in the market. The need for standardization through ISO certification has been on the rise and the impact of which on service delivery is high according to the findings of this study. The findings from this study mirrors that carried out by (Kiplagat, 2013) that there is statistical difference between the performance of commercial state owned entities before and after the implementation of ISO 9001.

4.6.6. Business Process Re-engineering and Service Delivery

From the findings on the impact of business processes re-engineering on service delivery, it shows that the respondents perceived that BPR impact service delivery but not to a large extent. The impact of elimination of redundant processes affects service delivery (mean = 3.346154 and SD: 0.638481) and the impact on alignment of processes to enable customers more visibility of the service provision (mean: 2.961538 and SD: 0.620403). BPR was found not to be very popular among NSCOE, most of the entities who responded did not indicate a very strong impact on service delivery because it is not commonly employed as an operations modernization strategy to improve service delivery. This finding agree, though lower, with the findings of (Ogada, 2017) finding on the study of Business Process re-engineering and performance of commercial of commercial state corporations in Kenya. Ogada (2017) established that there is a positive impact of BPR on the performance of CSOE in Kenya. He however, pointed out that the SOE needs to carry out proper market research in order to identify the best methodology to use in implementing the BPR. This if not done properly may lead to failure of the strategy, as the stakeholders are likely to resist and sabotage the radical changes that are a characteristic of BPR.

4.7. Correlation between OMS and service delivery

This analysis attempts to establish the relationship between the operation modernization strategies and service delivery. Regression analysis and correlation analysis was used to establish the relationship. The computation is as indicated in the tables 4 and 5 below.

<table>
<thead>
<tr>
<th>Table 4. Regression Analysis</th>
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<tbody>
<tr>
<td><strong>Coefficient</strong></td>
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<td>Intercept</td>
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<tr>
<td>Automation</td>
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<tr>
<td>Service Charter</td>
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<tr>
<td>Ethics and Governance</td>
</tr>
<tr>
<td>Performance Contracting</td>
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<tr>
<td>ISO Certification</td>
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<td>BPR</td>
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Source: Research Data, 2018

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<th>Table 5. Correlation Analysis</th>
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</thead>
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<tr>
<td><strong>Model</strong></td>
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<td>1</td>
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</table>

Source: Research Data, 2018

From the finding indicated in table 4 above, there is a positive relationship between the various operations modernization strategies and the service delivery. The mean of the customer satisfaction index (in percentages) obtained from the secondary data of the PC of various entities over a period of 5 years was regressed against the mean score of the 26 entities that responded. The relationship can therefore represented as:

\[ Y = 23.4896 + 0.8764X_1 + 2.0434X_2 + 2.9390X_3 + 0.6292X_4 + 2.8534X_5 + 0.8487X_6 \]
From the regression equation, seen that ethics and governance, service charter implementation and ISO certification have higher impact on service delivery compared to the other strategies. The intercept is positive and all the coefficient of the independent variables is positive. This implies that the increase in the extent of implementation of the operations modernization strategies results in increase in service delivery.

The table 6 above shows analysis of the regression statistics from the study findings. \( R^2 \) represent the changes in service delivery explained by the changes in extent of implementation of operations modernization strategies. This therefore means that 90.07 \% of the changes in services delivery explained by the changes in the strategies. However, for the sample of 26 the adjusted \( R^2 \) gives a lower percentage of 86.94\%. Evidently, there is a strong indication that the implementation of the OMS systematically has an impact on the service delivery.

5. CONCLUSIONS

The study established that implementation of sound operations modernization strategies influences the quality of service delivery. The study also revealed a trend in continuous improvement in service delivery among the entities that employed the strategies. There was a sustained customer satisfaction and declined or diminished customer complaints more so when the customer satisfaction recommendations were fully implemented. From the research findings in this study, there is a positive relationship between the operations modernization strategies and the service delivery. Entities need to embrace sound operations modernization strategies in order to improve service delivery to customers. The effect of the combined strategies in operations modernizations indicated impact on the quality of service delivery. Improved service delivery measured by the customer satisfaction and the reduced number of customer complaints are among other factors influenced by modernization of operations. The entities therefore need to not only come up with sound corporate strategies but also operations strategies modernized to cope with the changes in the environment.

6. RECOMMENDATIONS OF THE STUDY

The evidence from the study indicated that not all the operations modernization strategies have influence on the service delivery and therefore entities need to identify the operations modernization strategies, which they have strength in implementing. Entities should implement those strategies that address all aspects of the organization in terms of people, machine and processes. Automation will address machine, process aspects, ISO certification will help address processes and people, performance contracting, corporate governance, and ethics will help address people aspect of the organization. Business process re-engineering will address process aspect of the organization.

In order to achieve improvement in service delivery, organic transformation approach was recommended. This is less disruptive to business and has higher rate of buy in from various stakeholders. Radical strategies like BPR, though produces rapid results, they have higher failure rate and are disruptive hence usually lacks buy in from stakeholders.

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