EVALUATING MANAGEMENT OF STRATEGIC CHANGE IN HIV-RESEARCH LABORATORY AT THE KENYA MEDICAL RESEARCH INSTITUTE/CENTRE OF DISEASE CONTROL AND PREVENTION (KEMRI/CDC)

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ABSTRACT: *Organizations are a component of interconnected subsystems where a change in one subsystem impacts on the other subsystems that are in constant interaction with the environment where as evaluation is the process of gathering data and analyzing it in such a way that the resulting information can be used to determine whether an organization is effectively carrying out planned activities and the extent to which it is achieving its stated objectives and anticipated results. If the changes implemented do not impact the organization strategically, then there lacks the essence of overtaxing the limited and hard earned organizational resources. It is in this light that this study set out to evaluate management of strategic change within HIV- Research laboratory in KEMRI/CDC while focusing on factors that influence change, factors that affect or challenge the process of change management as well as to determine the impact of such strategic changes on the laboratory overtime. During the study both primary and secondary data were collected and conceptual content analysis was used. The study depicts that the change at HIV-R laboratory was influenced by both internal and external forces. There was an over emphasis on putting in place quality structures which has increased the total budget of the laboratory and the laboratory staff turnover. Both planned and emergent approaches to change management models were evident during the change process. The performance of the change management process was affected by various factors; mild resistance from the staff, systemic resistance, individual behavior, group dynamics, culture change and leadership. A major success of the strategic change management program was the achievement of ISO 15189, which catapulted the acquisition of other international accreditations that are prestigious. The study concludes that the management of HIV-R laboratory averagely performed on how they handled the change process following their clarity on the short term future state of the organization rather than the long term, hence, minimizing the positive impact that the change could have had.*

KEYWORDS: Organizations Strategic Change, HIV-Research Laboratory, KEMRI/CD, ISO 15189

INTRODUCTION

Background of the Study

Organizations are a component of interconnected subsystems where a change in one subsystem impacts on the other subsystems that are in constant interaction with the environment. The environment in which organizations operate is very dynamic and highly unpredictable. Due to constant change organizations are required to continuously adapt so as to strategically remain relevant (Gathungu, 2008). While managers may be able to control and manipulate the immediate environment the remote environment does pose uncontrollable challenges that managers have to cope with for the success of their organization (Pearce and Robinson 2003). Change is inevitable. Its relevance is however only achievable if the management of the organization steer it by evolving through the challenges, exploiting the emerging opportunities and ensuring its survival and success through evaluation (Gathungu, 2008).

Evaluation is measuring performance in the organization of the strategic changes that have taken place (Kaplan and Norton, 1996). Evaluation monitors how well changes put in place by management are working towards the achievement of business objectives. Otherwise it would be difficult to determine how well the change process was managed. Through evaluation areas of further improvements are identified so are areas (systemic or operational) and causes of failure. Therefore evaluation keeps the process of change moving forward.

The HIV-Research laboratory is under Centre of Disease Control (CDC) in collaboration with Kenya Medical Research Institute (KEMRI). The CDC is an internationally recognized United States of America (USA) government organization whereas KEMRI is a local parastatal under the ministry of health in the Kenya government. The laboratory has an undergone an evolution since its inception in 2003 following the strategic changes that it has brought on board. However a critical component of the change process that is evaluation of management has not been put on focus. It would therefore be of significance to find out how the change management process; adapting to change, controlling change, effecting change and evaluating change has been operationalized in HIV-Research laboratory despite the challenges which include change resistance whether behavioral or systemic, competitive funding opportunities, laboratory supply shortages within the country, routine inventions, limited income generating customer base, stake holder interference, politics and legal factors in the industry.

Management of Strategic Change

Change management is a systematic approach adopted by an organization when dealing with the environmental dynamics in an industry. It therefore focuses on two key aspects that are processes and people. A proactive approach to change management involves defining and implementing procedures and technologies to deal with changes in the business environment to seize opportunities (Todd, 1999). The change processes ought to be outlined in a guided direction, conducted in a most cost effective manner and completed within the targeted time

frame with the desired results (Davis and Holland, 2002).However, in order to archive such desired results, there should be a sustained change in human behavior within the organization (Todd, 1999). Organizational change creates opportunities for individuals by enriching there carriers and personal lives making change the surest way to grow and stay competitive (Burnes, 2004). This makes change be seen as a daily routine   and the management of it as a core capability that needs to be developed and in which all staff need to be competent (Burnes, 2004).

Since change has become an enduring feature of organizational life (Rose and Lawton, 1999), organizations may approach change through a series of preplanned steps moving from one fixed state to another that is planned change or via unpredictable open ended processes of aligning and realigning its self to the changing environment that is emergent change. The benefit of planned change is that it distinguishes change that is conscious as opposed to change that was brought about by impulse or accidents. On the other hand Emergent change is beneficial because it recognizes the need for the organization to align their internal practices to the external conditions (Otieno, 2011).

Evaluation of Strategic Change Management

Evaluation is the process of gathering data and analyzing it in such a way that the resulting information can be used to determine whether an organization is effectively carrying out planned activities, and the extent to which it is achieving its stated objectives and anticipated results (Martinez, 2005). Competitive advantage should be evidence based. If the changes implemented do not impact the organization strategically, then there lacks the essence of overtaxing the limited and hard earned organizational resources (Dawson, 1996). According to Martinez (2005), evaluation should be used as an ongoing management learning tool to improve an organization's effectiveness. Effective organizations are those that demonstrate the achievement of results. She further states that results are derived from good management which is based on good decision making. Good decision making entirely rely on good information derived from good data and careful analysis of the data. Therefore managers should conduct evaluations to get information about their organizations so that they can make sound decisions on change management and implementation (O'Connor, 2006).

 Evaluation should be conducted on an ongoing basis and applied conscientiously by managers at every level of an organization in all program areas. In addition, all of the participants (managers, staff, and beneficiaries) effecting or affected by the change process should be involved in the evaluation process appropriately. This type of a collaboration helps ensure that the evaluation is fully participatory and builds commitment on the part of all involved to use the results to make critical program improvements (Martinez, 2005). Evaluation of strategic change keeps the organization on course with regards to the objectives that the change ought to have achieved.

Evaluation of strategic change is important because it highlights cases of resistance to change. This is the reason for many failures in change initiatives. According to Ansoff and McDonell (1990), resistance is a phenomenon that affects the change process, delaying or slowing down its beginning, obstructing or hindering its implementation and increasing its cost.

HIV-Research Laboratory at KEMRI/CDC

The laboratory started its operations in March 2003 with its initial intention being to provide service to KEMRI/CDC sponsored HIV epidemiologic and clinical research. The laboratory has two main sections: the clinical laboratory department and the molecular diagnosis and research laboratory department. These departments are further subdivided into various sections in which a variety of HIV/AIDs and sexually transmitted infection diagnostics and monitoring tests are done. The clinical laboratory department is situated at the Clinical Research Centre (CRC) at the Jaramogi Oginga Odinga Teaching and Referral Hospital (JOOTRH) and it has various sections which include: Immunology, Hematology, Biochemistry, sample reception and Phlebotomy whereas the molecular diagnosis and research laboratory department consists of: Early infant diagnosis section-DNA, Viral load, RNA, NAAT, Drug resistance, sexually transmitted infection and HIV serology (Zeh et al, 2010). The role and scope of HIV-R laboratory has expanded with time to provision of the various services (provision of information to clinical laboratories, act as a reference facility, quality assurance of diagnostic products, disease surveillance and monitoring, development of new test, basic applied research for new insights and innovative solutions to health problems) to other local and international recognized collaborative groups.

World Health Organization (WHO) is one amongst the many key stakeholders of HIV-R laboratory. The WHO accredited HIV-R laboratory as a national HIV drug resistance testing facility in Kenya. The laboratory is privileged to have been recently appointed the Africa Society for Laboratory Medicine (ASLM) reference laboratory. The HIV- R laboratory is certified for Glaxo SmithKline (GSK) funded trials. The Kenya Medical Laboratory Technician and Technology Board (KMLTTB) which regulate the operations of medical laboratories in the country also certified the HIV-R lab for molecular assays. So did RUSH virology Quality Assurance program in Chicago, Illinois. The HIV-R laboratory holds the prestigious International Organization for Standardization (ISO) from the South Africa national accreditation System (SANAS) (Zeh et al, 2010). The HIV-Research laboratory has worked hand in hand with other partners towards building capacity and scaling up various interventions which support the ministries mission; to provide effective leadership and participate in provision of quality Public Health and Sanitation services that are: equitable, responsive, accessible and accountable to Kenyans.

Research Problem

Evaluation is a judgment of the value provisioned by an organization from the change that has been effected by its management. It is through assessment and measurement that effective planning, corrections and controls can be adopted for a greater efficiency and effectiveness. Heller (1998) points out that understanding and managing change are dominant themes of management today. Adapting to ever changing present is essential for the success of the organization in the unpredictable future. Strategic responsiveness can be institutionalized within a firm through a series of related measures (Ansoff and Mc Donnell, 1990). HIV-R laboratory has undergone a series of changes so as to keep up with the dynamic environment. Whether the changes in perspective have met the objective thereof envisaged by its management still remains a question that this study embarks on finding out. The values (if any) derived from the strategic changes adopted in HIV-R laboratory can only be quantified by conducting an evaluation. How impactful (positively or negatively) these changes have been to the operations and service delivery of the HIV–R laboratory team remains a lingering question that this study should be in a position to answer by the time it is finalized.

A number of studies on change management have been conducted in Kenya institutions and abroad. Whereas all these studies have been conducted a significant gap was left by not evaluating the management of strategic change. Secondly such an evaluation of strategic change management has not been conducted in the HIV/AIDS research sector in the country (Kenya). In the recent past evaluation of management of strategic change has not been conducted in HIV-R lab despite it being an integral part of regular organization planning and implementation, and collecting the different types of information needed by managers at different levels of the organization. This study is an effort towards addressing the existing gaps in knowledge. How has strategic change been managed in HIV-Research laboratory at KEMRI/CDC? And what has been its impact overtime?

THEORETICAL UNDERPINNINGS OF THE STUDY

Organizations are composed of a number of interconnected subsystems. A change in one subsystem impacts on the other subsystems. The environment interferes with organizations because they are open systems (Burnes, 2004). Such forces within the environment are regarded as drivers of change. The forces are of two types that are internal and external. Whereas the internal forces include change in size of the organization, performance gaps, employee needs, values and change in the top management the external forces include technology, business scenario and environment factors (Sengupta and Hattacharya, 2006). When organizations are operating on a volatile environment they may not always direct change in a planned fashion. Thus changes may occur spontaneously or randomly in an organization (Otieno, 2011).

Organizational development is a fabric of relationships, values and norms that bind people together and gives them a sense of belonging to the particular society. For an organization to achieve transition from a current state to a desired future state, individuals and teams must be involved. Individual behavior is learned through some external stimulus like rewards, punishment and reinforcement. Individual behavior affects the group environment because individuals behave in a way to conform to group pressures, norms, role and values. Change management therefore provides a framework for managing people. The most recent research points to a combination of organizational change management tools and individual change management models for effective change to take place (Hiatt, 2006).

Management of Strategic Change

Change is simply defined as a transition from one state to another. Change is the only constant in today's life. Strategic change is a difference in the form, quality, or state over time in an organization's alignment with its external environment (Rajagopalan and Spreitzer, 1997; Van de Ven and Pool, 1995). Hofer and Schendel (1978) defined it as changes in the content of an organization's strategy as outlined by its scope, resource deployments, competitive advantages and synergy. There are both objective and subjective conditions in making organizational transition.

According to Thompson and Strickland (2003) change management is a systematic method adopted by organizations to ensure that change is guided in a planned direction, conducted in a cost effective manner and completed within the targeted time frame with desired results. Hardy (2005) defined strategic change management as the actions, processes and decisions that are executed by an organization's members to realize strategic intentions. The change management can be classified as the planned approach to change management or emergent approach to change. Sometimes change is deliberate, a product of conscience reasoning and action (Otieno, 2011). The planned approach views organizational change as a process of moving from one state to another, through a series of preplanned steps.

In contrast, change may at times unfold in an apparently spontaneous, accidental and impulsive or forced on an organization. This is known as emergent change (Otieno, 2011).Change can be emergent rather than planned in two ways; one is that manager's make a number of decisions apparently unrelated to change that emerges and two External factors (such as economic behavior and political climate) or internal features (Such as relative power of different interest groups, distribution of knowledge and uncertainty) influence the change in directions outside the control of managers (Mintzberg 1989). In such cases the decisions may be based on unspoken and at times unconscious assumptions about the organization, its environment and the future. Such implicit assumptions dictate the direction of the seemingly desperate and unrelated decisions, there by shaping the change process by drift rather than by design.

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For effective change to take place, resistance to change should be curbed. Conner and Armitage (1998) argue that the human beings seek control, tend to fear and avoid ambiguity of disruptions, whether positive or negative. Hence what people resist in reality is not the change but the implications of the change (Gichobi, 2006). Burnes (2004) elaborates that one of the major mistakes a company can make when introducing change is to fail to recognizes, and deal with the real legitimate fears of the managers and staff. Chew, Cheng and Lazarevie (2006) adds that resistance to change is often perceived from the management angle as a behavior where organization members refuse to accept organizational change. Ansoff and McDonell (1990) note that resistance is not confined to strategic planning only, but occurs whenever there is a departure from historical behavior, culture and power structures. Resistance may be depicted by procrastinations and delays in kicking off the process of change, unforeseen implementation delays and inefficiencies which may slow down the change, to escalations of cost and presence within the organization which may sabotage the change efforts. Leadership must drive the process of change to alter the employees' perception and bring about revised personal impact.

Evaluating Management of Strategic Change

Evaluation and feedback goes hand in hand. Evaluation is the process of determining the merit or value of a change process and the outcome of the change process where as feedback is the process of giving back diagnostic information to the management by the change agents to guide further action (Scriven, 2007). Evaluation other wisely known as assessment is the systematic process of data collection and analysis. Data is gathered through various measurement methods in order to determine its merit and render a judgment about efficiency and effectiveness of a strategic change that has been brought on board in an organization (O'Connor, 2006).

There are various perspectives of evaluating management of strategic change. Amongst them are the formative and the summative. The formative perspective is an ongoing approach to evaluating management of strategic change whereas the summative evaluation is conducted at the end of the change process (O'Connor, 2006). Formative focuses on programs that are under development. It is used in the planning stages of a program to ensure the change program is developed based on stakeholders needs and that programs are using effective and appropriate materials and procedures (Van Marris and King 2007). The summative evaluation focuses on change programs that are already underway or completed. It investigates the effects of the program, both intended and unintended. It seeks impact made by the adopted change to (Van Marris and King 2007). It is perspective more of a feed-back oriented. In both aspects, evaluation can be conduct by use of qualitative and/or quantitative data (O'Connor, 2006).

Outcome based evaluation identifies whether a change program has been successful. The process based on the other hand identifies how a change program operates to deliver its results (Van

Marris and King, 2007). Outcome-based evaluation focuses on the results of services that were intended from the outset of the program. Scriven (2007) defines process evaluation as the assessment of the merit, worth and significance of everything that happens or applies before true outcomes emerge, especially the vision, design, planning, and operation of a change program. Process evaluation method is advantageous because it increases effectiveness, communicate program value, provide a logical framework and generate information for decision making. The process based evaluation look at what resources are required, (Saskatchewan Industry and Resources, 2004)

Evaluation of strategic change management is important because; it is a sound professional practice, it is a basis for organizational learning, evaluation is central to the development of evidence based practice, it is a widespread cynicism about fads and fashions, it influences social and governmental policies(Saskatchewan industry and Resources, 2004; Scriven 2007). Through evaluation, organizations are able to take control there by reducing uncertainty. O'Connor (2006) states that evaluation is used to determine the effectiveness of the change process and its accomplishment of the objectives of the institution identify and diagnose problems faced by manager during the change process. Through evaluations managers make decisions that are better informed with regards to the strategic changes adopted in the organization (Van Marris and King, 2007). Hence it is management guidance for change implementation process and a record of choice strategy and design. Evaluation help check whether the technical and social aspects of change have improved, leading to continuous process improvement and institutionalization (the process of making change a permanent part of the organization's culture and practices) of change in the organization.

Saskatchewan Industry and Resources (2004) elaborate the following as what to put on focus while conducting an evaluation: Identify the major levels of decision making to be served, for example lower, mid, and top level management. For each level of decision making, project the decision situations(whether to conduct a termination, continuation, or modification of the change process) to be served and describe each one in terms of its locus, focus, criticality, timing, and composition of alternatives. Specify the source of the information to be collected. Specify the instruments and methods for collecting the needed information. Designate a means for performing the analysis. Specify means for providing information to the audience. Specify means for meeting policy requirements. According to Scriven (2007) evaluation information should be presented to the decision makers in form that they can use effectively and that is designed to help.

RESEARCH METHODOLOGY

Research Design

This study was longitudinal and retrospective in nature, focusing on the time 2003 to 2013 that is time before change, time during change and the post change period. Mbwesa (2006) states that the longitudinal approach is the most appropriate research method when a researcher wants to study people or a phenomenon at several points in time because it picks up on both short term and long term changes. The method was the best for this study following its heightened validity. The respondents of this study were drawn from HIV-Research laboratory staffs who are forty in size by the condition that they must have been in the organization for at least two years. The length of time in the organization was important in that it ensures that the respondents are well versed with the organization and the changes in the industry.

Data Collection
The study used both primary data and secondary data. The primary data, which were collected through an interview by the aid of an interview guide containing open ended questions (See appendix 1). The guide was divided into three sections. Section I which captured information on the general background of organization. It was intended that Section II respond to the first objective of the study which is to establish how the changes at HIV-Research laboratory have been managed whereas section III sought to determine the impact of the strategic changes on the laboratories operations overtime.

The nature of data to be collected was both quantitative and qualitative. The quantitative aspect majorly focused on variables of measurement. Abbott (1994) indicates this by his statement that quantitative method involves simple quantification of activities such as employee turnover, customer retention, cost reductions and turn-around-time. The qualitative perspective of this study would address the why and how. It was intended to capture the descriptive findings of this study. Qualitative research produces observations, notes, and descriptions of behavior and motivation over the change period. Lincoln and Guba (2000) elaborate that qualitative research involves an interpretive and naturalistic meaning. The secondary data was used to capture historical data that respondents had forgotten. The sources of such data would be any official documents that would be deemed relevant to supply this study with substantive information. The two methods would complement each other so as to cover on areas that each of the methods may be disadvantage.

Data Analysis
After data collection, analysis was conducted through conceptual content analysis which is a flexible methodology in measuring the semantic   content while overriding the thematic issues in qualitative data. According to Berelson (1952) conceptual content analysis is a research technique for the objective, systematic and quantitative description of the manifest content in an organization. It was further advantaged in this project because it allows for both quantitative and qualitative operations while providing insight into complex models of human thought and behavior as is the case with management of change in an organization.

Conceptual content analysis has the ability to examine patterns of symbolic meaning by both observation and in text, and by allowing data to be transformed into numbers and be presented in form of tables, histograms, graph and pie charts. Kinuu, Maalu and Aosa (2012) used this valuable technique of analysis in their study because it was concerned with the analysis of data collected over time. The intent of conceptual content analysis was to discern whether there was some pattern in the values collected and the intention was to use the patterns for forecasting and as a basis of business decisions making.

FINDINGS AND DISCUSSION

Forces of Change in HIV-Research Laboratory

The management of the laboratory was in agreement that the forces of change were both internal and external. The internal force resulted from the need to have standardized systems in place after the founding of the laboratory. Secondly a new leadership was introduced. The new laboratory director introduced new management style. These two forces ignited a series of other changes which include a change in identity; a cultural change; change in the strategic direction of the laboratory business and a change in the services offered by the laboratory. A number of cultural changes were identified during this study. This follows the fact that the HIV-Research laboratory is funded by CDC (USA government institution) and it (the laboratory) is based in Kenya. Further still, the culture of incorporating and sustaining high quality standards amongst the employees while delivering service was instilled following the achievement of ISO accreditation. A culture of change was eminent amongst the staff. This depicted its self in the form of continuous improvements adopted from time to time and the speed at which change is implemented.

The respondents were requested to give their opinion in percentage on the extent to which changing technology, environment, competition, clients' needs and the need to plan ahead and remain relevant as external forces influenced the changes that took place in HIV-Research laboratory. The management felt that the need to plan ahead of time and remain relevant and the changing technology were the greatest external influencers of the changes that took place in HIV-R laboratory. Majority of the respondents felt that the laboratory was not transforming because of competition, they added that the other industry players are complementing their work. One of the respondents actually stated that, "The path towards a disease free globe is one." Politics was mentioned as one of the factors in the changing environment that has surfaced in the recent past. Internally there has been the Kenyanization politics where by the partners want key leadership positions held by foreigners to be given to locals. Externally, the health ministerial position is held by a political appointee. Every new leadership in this ministerial position

therefore comes with new and different laws and policies to be implemented. For instance, the requirements by the former minister to have all laboratory employees register with the KMLTTB. This would have led to a fatal collapse on human resource of the laboratory since majority of the staff are not registered.

Management of Strategic Change in HIV-R Laboratory

All the respondents indicated that they were aware of the changes that had taken place in the laboratory and that these changes had been fundamental in the business of the organization. The strategic changes were listed as; The ISO 15189 accreditation, WHO DRT accreditation, acquisition of infrastructure and the currently ongoing implementation of the Softech Quality management Web based system. All the respondents agreed that these changes by the laboratory had resulted in significant changes in three major areas; scope of service, resource deployment and organizational structure. With regards to scope of service, the laboratory's initial mandate was to provide service to HIV epidemiologic and clinical research to KEMRI/CDC sponsored studies. To date the laboratory offers these services to other external studies/programs. Having been pronounced the WHO national HIV drug resistance testing facility in Kenya and sub-Sahara Africa expanded its scope of service within the continent. The laboratory was identified by ASLM to be its reference laboratory and KMLTTB has appointed it for quality assurance of diagnostic products, laboratory consumable and reagent. Its status has therefore changed from a nationally recognized laboratory to that of an international one.

The respondents stated that the laboratory has been able to build its reputation following its being the first CDC laboratory in Africa to be accredited. Therefore it has attracted more funding and more collaborators in comparison to its peers. The boosting of its financial muscles has enabled it to invest in some of the most sophisticated technologies with regards to HIV research machineries. This has further increased its capacity and quality of work. It attracts trains and retains some of the best human resource in the country.

The management explained that the organization structure of the laboratory has changed to incorporate new sections as they are introduced. The implementation of ISO I5189 accreditation led the laboratory to adopting a functional matrix structure from a bureaucratic structure so as to have the existence of a quality assurance officer who is not reporting to the laboratory director but rather to the HIV research branch chief. The quality assurance officer acts as a prefect to the laboratory and therefore his status need not to be compromised. It was observed that the creation of the quality assurance team headed by the high profile positioned quality assurance officer who is deputized by two persons each from the two campuses was a right move in internalizing and managing the quality aspect of services delivered by the laboratory which has in turn drawn the number of clients attended to.

The respondents stated that the strategic change process was majorly implemented and supported along the following four pillars; Customer and stakeholder, financial performance, internal process and organizations capacity to continuously learn and grow. The quality of service rendered to customers and stakeholders are registered through internal and external customer satisfaction form. The assessment is done through in depth analysis of the number of complaints, frequent checks on turnaround time, overall level of experience that is; exceeded expectations, met expectation, did not meet expectation and rarely met expectations. Financial performance is examined to find out if the change process is helping the laboratory realize rapid financial growth and reduced operation cost, sustainability based on the return investment and increased harvests following cash flow analysis and revenue volumes. Internal process is cross examined for efficiency and effectiveness. Measurable yard sticks such as instrument performance, personnel competencies, internal and external audits are used to assess the degree of efficiency and effectiveness. The laboratory capacity to continuously learn and grow has been pegged on its intangible assets; human capital (jobs), information capital (systems) and organizational capital (climate). These have been the laboratories internal skills towards innovation and value creation.

Evaluating Management of Strategic Change
It was observed that both planned and emergent approaches to change management models were evident in the management of change process at HIV-Research laboratory. The changes have been smooth and incremental covering slow systematic evolutionary change without any major unexpected problems or interruptions to service delivery.

The management created a climate for change by continuously elaborating the urgent need of having standardized operating systems and procedures in order to realize the set vision which was and still is to be the lead standard bearer and excel in medical research, diagnosis, management and capacity building organization in HIV research in Africa and beyond. There after work teams were created and subjected to rigorous trainings. Consultants were engaged to build and guide the team. In the spirit of further facilitation the management poached the experts from other organizations. This empowered the whole Organization in the implementation face after the consultants had exited. Continuous communications, encouragement and recognition were conducted in order to reinforce the change process. Manipulation, coercion and co-option were also used so as to reaffirm the change and instill it amongst the staff as a culture.

Some aspects of force field analysis were also used by the management. The management at some instances increased the driving forces by; setting high performance goals to the work teams, new equipment's were bought to replace the old once. Whereas others were to be the backup in cases of break down, employees with skills were brought on board and increased influence through rewarding performance and recognition. The resisting forces such as group

norms, familiarity with the pre-change existing equipment's, need to learn new skill and fear of reduced influence were curbed by training, participation, involvement, support, encouragement and reassurance from the management of the laboratory. Therefore the then level of group performance was pushed to the desired level of performance and hence the achievement of the ISO 15189 accreditation. This spilled over to the achievement of the WHO accreditation.

Following the implementation of ISO certification, the laboratory underwent certain emergent changes. The laboratory had to seek certifications from KMLTTB and RUSH virology QA program for molecular assays. The ISO implementation came up with so much documentation which led to high rate of space consumption in the two campuses. In order to free space and economically manage the limited amount that was remaining, the leadership of the laboratory steered an online quality management system known as the SoftTech system. The system is being run parallel to the manual system so that any hitches can be ironed out comfortably before it is fully implemented. This approach of change has depicted the HIV-R laboratory as a learning organization, since it is perpetually seeking strategic change.

It was agreed that individual behavior took center stage. All the respondents agreed that it was a stimulus caused rather by reinforcement than by reward and punishment that facilitated the individual behavior. This was depicted in the way the staff implemented the changes that they were expected to implement in their sections after they had been trained by the consultants or the experts. This was an indication that indeed learning took place during the trainings. Respondents cited this as a factor that led to minimal deviations experienced from the original plan of change. On the other hand positive group dynamics was experienced following the development and cooperation of working teams that consistently archived the desired goals.

The management of the laboratory had to deal with the mild resistance experienced from the staff as a minor challenge. As matter of fact very few staff resisted. This was due to staff persistence on the status quo. Most of the respondents agreed that it was basically fear of the unknown. In cases where the delay in implementation was caused by hitches in the change process, a top down bottom up approach of communication was adopted in order to completely iron out any reasons for resistance. Systemic Resistance to change was experienced at the management level. When the changes required that a position for the quality assurance officer who acts as the prefect of the laboratory be created, this did not ogre well with the management of the laboratory since this authority was not going to be answerable to them but to an external overseer.

Impact of Strategic Change
The four pillars; Customer and stakeholder, financial performance, internal process and organizations capacity to continuously learn and grow were the objectives of the change process

that took place in HIV- R laboratory, therefore making them the suitable levers of evaluating the change aspects in the laboratory. Respondents were requested to give their views on whether the laboratory was meeting its predetermined objectives of the change program. Secondary data was analyzed to find out the exact degree of impact.

In order to improve the internal processes of the laboratory, technological and a cultural change was effected. Modern machinery with greater capacities were put in place to increase the quality of service delivered the major indicators were a decreased turnaround time, decreased sample rejection numbers and increased customer satisfaction. The "business as usual" culture was dropped for high standards of quality after the adoption of ISO 15189. Secondary data collected in this line reveled as follows;

Figure1: Post Change Annual Average Turnaround Time Per Section


Years
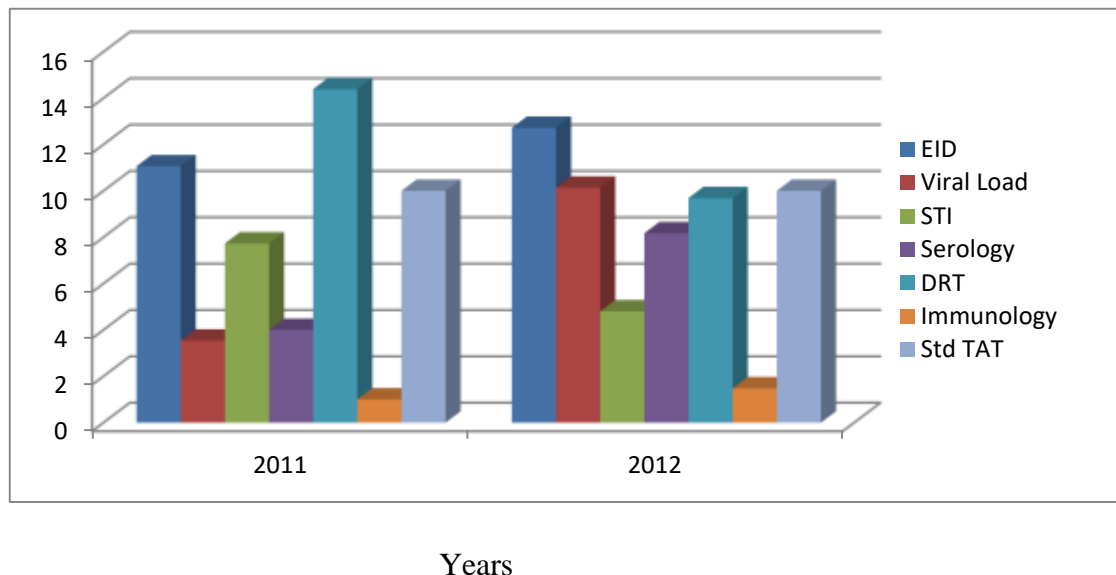
Source: Research Data from the Turnaround Time Monitoring Forms

In the previous periods, 2003-2010 that is the pre-change and the change implementation periods data on turnaround time was not being recorded. After the establishment of a turnaround time monitoring in late 2010, the 10 days standard turnaround time set by the laboratory was met by certain sections which include viral load, STI, serology and Immunology in 2011. However the opposite was experienced in EID and DRT sections. In 2012, EID and Viral load sections surpassed the standard 10 day turnaround requirement. In comparing the 2011 and 2012 section turnaround time, it was notable that the turnaround of most sections (EID, Viral load, Serology and immunology) in 2012 increased rather than decreasing. DRT and STI section however experienced a reduction.

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Data on number of samples rejected in the years 2003-2006 (change introduction period) were not captured in this diagram (Figure 2) following there in existence. Statistics from the sample rejected file indicated a sharp decrease from 2007 to 2008 that is 44 rejected sample to 24. There after an increase from 2009 through to 2010. After which there was a fall to 18 rejected samples in 2011. 2012 experienced the greatest number of sample rejected standing at 48. As at the time of study, 23 samples had been rejected in the year 2013. A standardized operating procedure on sample rejection is in force following a culture change on quality observation. The laboratory ought to play its role by training the clients on its requirements annually so as to reduce these figures to zero.

Figure2: Number of Sample Rejected per Annum

Service   Years
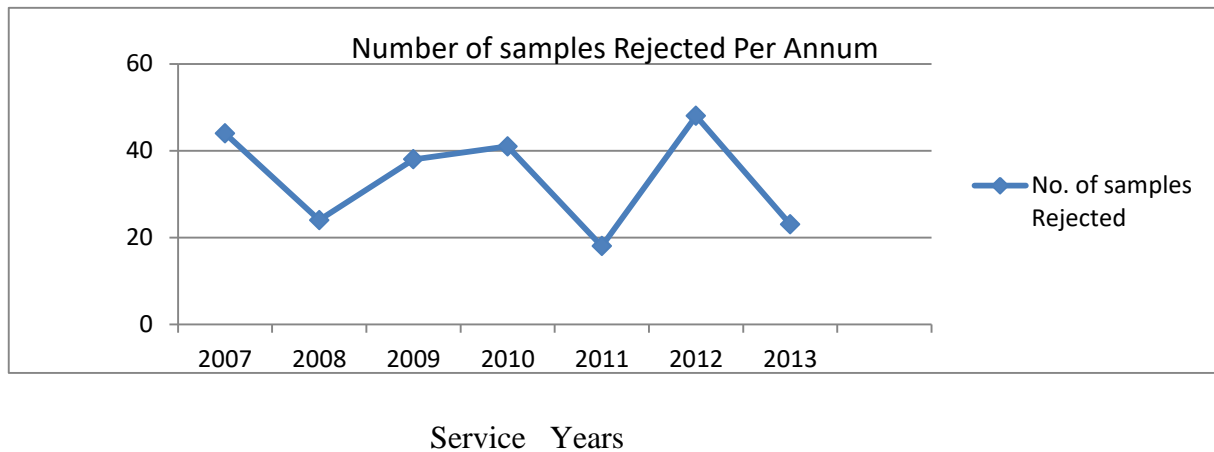
Source: Research Data from the Sample Rejected File.

**Figure 3: Number of Customers against why they choose on the HIV-R Laboratory**
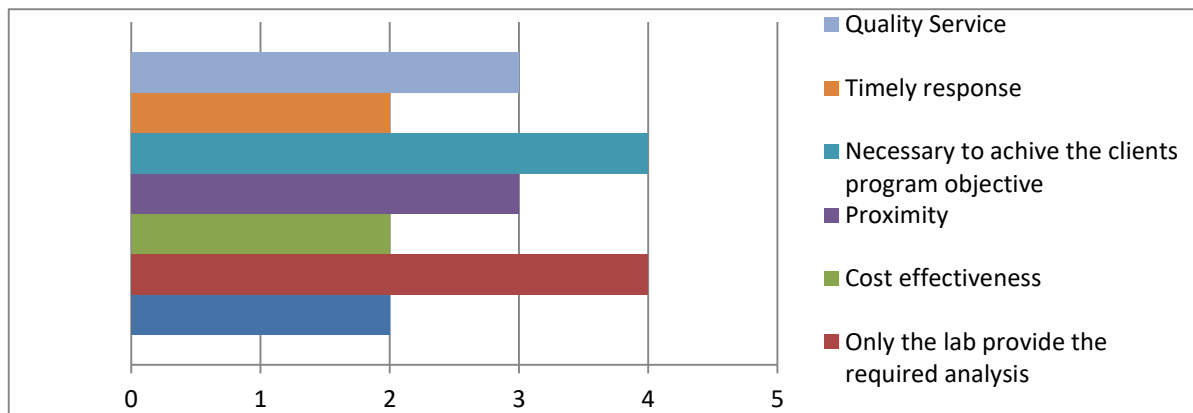
Why choose HIV-R Lab

Source: Research Data from Filed Customer Satisfaction Forms 2012

The HIV-R laboratory changed its strategic direction and focused on wanting to be a center of excellence in medical research. This meant changing its scope of service, resource deployment and organizational structure to help serve their customers and stakeholders in best way possible. It is in the same spirit that the laboratory formed a customer satisfaction forms that has been in use since 2012 to rate their services and the reasons why their clients prefer their services. Seven customers who had filled in a customer satisfaction survey form were asked among other things to tick a number of reasons why they choose HIV-R laboratory services. Two of the seven said it is because of the laboratories reputation, cost effectiveness and timely responses. Three of the seven clients stated its proximity and quality of services. Four of the seven stated that it was because it is only HIV-R laboratory that offers the services and that it was necessary in achieving the client's program objectives. When the clients were asked to rate their overall experience with the service provider, they unanimously agreed that their expectations were being met.

Figure 4: Comparison of Annual Total Number of Staff and the Annual Total Number of Trainings
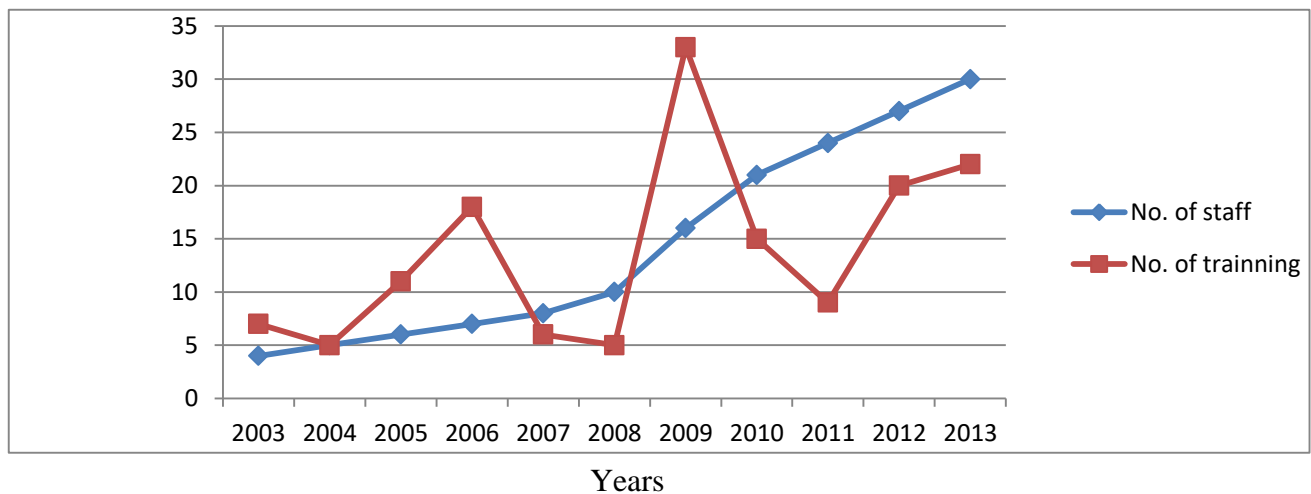

Source: Research Data. Filed Personnel Documentation

Amongst the change objectives of the laboratory was continuous learning and growth. The laboratory has endeavored to achieve this objective by gradually increasing the number of staff in the laboratory has been since its inception and growing their capacity through trainings. During the ISO 15189 change introduction and implementation that is between 2004, 2005 and 2006, the trainings figures were 5, 11 and 18 respectively. Hence, justifying that indeed the management was increasing driving forces in order to archive the desired change. However, the period 2008-2010 experienced the greatest numbers with of training. It is notable that at this same time (2008-2010) the 11 recruitments were conducted. This was a great number after the ISO implementation. Since then, the training figures have significantly dropped despite the fact that more and more staffs are being recruited by the HIV-R laboratory. The dynamic nature of

technology in medical research has led to frequent changes in machinery put in use their by requiring staff to be trained with the same vigor. The introduction of new services and the increase in size of the geographical areas that the laboratory serves has led to larger volumes of samples to be worked on hence a change in resource deployment especially the human resource.

The below figure 5 sought to assess the impact of strategic change on personnel, being that it is the greatest financial intangible asset that an organization can have. The average annual performance slightly increased during the change process to 4.16 out of the possible maximum score which is five. The respondents agreed to having learnt a lot from the consultants and experts who were brought on board to steer head the ISO 15189. During the interview, one of the respondents said; "There was positive attitude towards change, we were eager to achieve this milestone and it was our source of motivation."

Figure 5: Annual Staff Performance Indicator
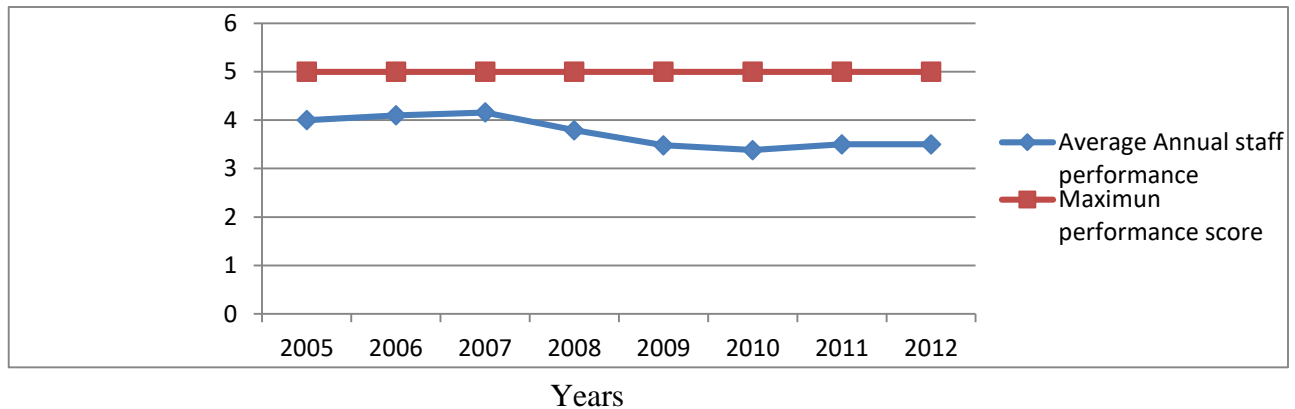
Source: Research Data. Filed Staff Appraisal Form

During the implementation face, the annual performance figure fell to 3.38. It is noticeable that is the period that the laboratory highly recruited as shown in figure 5. Since then there has been 0.12 an increase on the average annual staff performance. If this is the representation of the staff motivation levels, then it is in line with the respondents' perception when they were asked what their levels of motivation were with regards to change process. Most of them mentioned that they are currently less motivated as compared to when the change was being structured or rather when they joined the organization. The management agreed to having lost about four staff specialized in quality management between the 2007 through to 2010 to other better remunerated industry players. This diagram leaves out data between 2003 and 2004 which were not in existence.

DISCUSSION

The findings of this study are indeed in agreement with theory that change is the only constant in today's life and that organizations are composed of interconnected subsystems which constantly are interfered with by forces within the internal and external environments. The HIV-R laboratory was able to transform its status after it had recognized the urgency of putting its internal operating procedures up to internationally recognized standards. Externally, this would later meet the expectation of high caliber stakeholders, collaborators and clients and therefore attract and retain them. A true indication of how all subsystems of an organization can be interconnected. This further confirmed that strategic change is a difference in the form, quality or state over time in an organizations alignment with its external environment.

The study just like other empirical studies found out that for an organization to achieve a transition from a current state to a desired future state, individuals and teams must be involved. The HIV-R laboratory management involved its entire staff. Staff were placed in work teams and highlighted for desired achievements. Behavior change and individual learning was conducted through trainings, constant communications and reinforcements. At some point experts and consultants were involved. This helped to curb resistance, which was apparently a requirement for affective change to take place. It was evident, just as literature had revealed that what people resist in reality is not the change but its implications.

The study found out that indeed management of strategic change is a systemic method adopted by organizations to ensure change is guided in a planned direction, in a cost effective manner and completed in timely with desired results. The laboratory main purpose of change was to obtain ISO certification, of which in the process it intended to strengthen its four pillars; customer and stakeholder, financial performance, internal process, organizational capacity and continuous learning and growth.

RESULTS

Summary

In brief to answer the first objective of the study on how the changes at HIV-R were managed, the findings revealed that the management used a top down method of communication to transmit this type of information. Meetings were held in cases of stand of or where further clarity required. Hence change awareness was high amongst the staff. The findings further show that both planned and emergent change approaches were used. Consultants and experts were engaged in conducting the gap analysis, helped in training, building and guiding the team towards implementing and sustaining the required results. The management reinforced the implementation process by employing some experts who were a great deal of help when the consultants had left.

The staff responded that there was continuous communication, encouragement and recognition from the management. Cases of manipulation, coercion and co-option though minimal were used to reaffirm and instill the change amongst the staff. This was an indication of the force field analysis; where the management was increasing driving forces and reducing retraining forces. The change process was vaguely implemented along the four pillars; customer and stakeholder, financial performance, internal process and the organizations capacity to continuously learn and grow an aspect of the Balanced Score Card.

The findings indicate that the forces of change were both internal and external. The internal forces were the urgent need for standardized systems, new leadership and limited space. Need to plan ahead and remain relevant and changing technology were regarded as the greatest external force of changes. Changing competition was not regarded as a significant force behind the transition in HIV-R laboratory. These forces caused a change in organization culture, the strategic business direction of the laboratory, scope of service, resource deployment and the organization structure of the laboratory.

The culture of the laboratory was changed from a reactive one to a proactive culture that accommodates continuous improvement and advanced planning towards the remote environment. A restructure was conducted to include the quality assurance office and the newly developed sections. These new sections basically offered new services some of which were internationally needed with the sub Saharan Africa countries. Increased demand of service led to acquisition of modernized technology which would require a standing service maintenance contracts which are extremely costly, hence a lot more resources were deployed. Sustaining the attained accreditations require compliance in various forms including competency of the workforce, which has been put on check by conducting trainings and retraining which in some cases are challenging to find locally.

The findings relating to the impact of the strategic change on the laboratory was presented in the form of deliverable measurements; Turnaround time, Number of samples rejected, both internal and external customer satisfaction and staff performance levels. It was discovered that the 10 days Turnaround time was not being met in some sections. This was attributed to laboratory reagents and control shortages experienced in the country. The numbers of rejected samples have been fluctuating from one year to another with the lowest being in 2011 and the highest being the 2012. This may be due to lack of customer training amongst the new clients. Data on the customer satisfaction file clearly showed that the customers' needs were being met. The majority indicated that their reasons for choosing HIV-R laboratory services were because it helped them archive their own objective and because it is the only laboratory that offered the tests and analysis that they required. On the other hand staff trainings were found to be fluctuating year in

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year out following need arousal with the highest numbers being the period during the change process. Most respondents indicated that they were less motivated currently as compared to during the change period or when they joined the organization. Staff turnover has increased especially amongst the quality assurance and control staff.

The findings indicated that minimal challenges in form of individual resistance were experienced by the management. However some systemic resistance was experienced in line with the laboratory structures and resource that is space. Lack of competent local institutions which would train the staff on quality standard issues during the change process left the management with no option but to bring in expatriates which was a very expensive exercise. The other challenge was the frequent laboratory reagent and control shortages experienced in the country.

CONCLUSION

The management of HIV-R laboratory averagely performed on how they handled the change process. They professionally handled the communication of the change process from its contemplation, planning to its implementation there by reducing resistance. The management was able to positively influence individual behavior and group dynamics. The involvement of external experts and consultants brought objectivity on board. The change process was executed as planned without any major deviations. Driving forces were increased and restraining forces reduced. However, the management took understanding change from the perspective of their staff for granted, yet this perception is often different from the objective reality. The gap between perceptions and reality can substantially and unnecessarily increase the levels of resistance to change. During the post change period, assessment had not been conducted in order to know and help skip previous challenges encountered when change was being implemented.

The findings on the impact of change on the laboratory over time have been short lived because of lack of follow up and clarity on the four pillars around which the change process was built. The quality of service measured by turnaround time and sample rejections are not as impressive as expected. The impact of change on personnel is a high turnover, a decreasing performance as well as motivation.

The urgent need of standardized systems, new leadership and limited space brought about the need to plan ahead and remain relevant. So did changing technology. These forces led to changes in organization culture, organization structure, resource allocation, modernized technology, scope and quality of service. This confirms the open systems theory which has it that organizations are composed of a number of interconnected subsystems where by a change in one subsystem impacts on the other subsystems.

Recommendations for Policy and Practice

In order for the management to be able to perceive change from the employees' angle and bridge the gap between perceptions and objective reality, it would be necessary that they put in place annual team building and bonding sessions between management and staff from the two campuses to enhance teamwork and deliberate on emerging issues from time to time. In the same breath there is need to enhance communication on the change process to the entire body of the staff or even better still the management should adopt the open door policy. Very few staff had information that there were rewards for the best performers on the change. This disparity in information communication meant some members were motivated towards archiving the necessary goals were us others were dragging them behind.

The laboratory relied on external funding to finance its change process and does not generate its own income there for limiting its future sustainability. This has led the laboratory to lose on commercial opportunities that have arisen in the recent past. There is need for the laboratory to engage in revenue generating activities that are within its mandate-medical research, for it to be a centre of excellence and archive its long term objective. The HIV-R laboratory budget keep increasing and the best way to bring it down would be having it focus on reducing its operating costs and increasing the volume of samples process so as to obtain economies of scale. Quite a number of the newly purchased modern equipments have not been put in to use hence are holding the preciously required space which comes up with costs as well as tying down funds which could be used in other productive areas. Some staffs spend the organizations funds on trainings need to implement the relevant trainings in the organization as well as take time to retrain the others. This would reduce the training cost of the organization while have a multiplier effect on the employee skills.

Continuous evaluation of the four pillars that is customer and stakeholder, financial performance, internal process and organization capacity to continuously learn and grow should be practiced so that long term impact of the change process are enjoyed. The balanced score card is a yardstick of measurement that comes in with an all-round aspect of assessment. It should therefore be adopted, clearly structured in the form of a management information system which would aid in providing a ready processed data for timely decision making.

Limitations of the Study

The concept of evaluating strategic change management has not been widely and exclusively researched on therefore making the process of obtaining theory quite tedious and time consuming. Most available information on evaluation has not been linked to strategic change management. The HIV-R laboratory management had to look at the instruments of data collection and moderate them before the researcher could use them on the respondents. In some

cases, the custodians of the secondary data were too reluctant to furnish the researcher with the requested documents. The policy in place did not allow external parties to look in to the financial documents of the organization unless an approval from higher authorities was granted. Due to the busy schedule of the respondents and lack of enough time and financial the researcher did not interview all the expected respondents neither did she go through all the necessary files. Despite encouraging anonymous responses, some respondents sought not to furnish the researcher with some information where as others completely refused to be interviewed. Data from certain previous years could not be gotten for comparison use in the present years a factor that limited the longitudinal research method.

Suggestions for Further Study
Strategic change management involves transformation in an organization from one state to another with focus of being different. Organizational transformation is a constant in the dynamic nature of the environment within which organizations operate, hence the concept of evaluating such transformations for future relevance and theory building need to be widely embraced. Following the challenges experienced in conduct this study within the HIV-R laboratory in reference to policies on document access and instrument moderation, it is considerable that the scope of this study was considerably reduced leaving out a greater insight in management of strategic change therefore a replica of the same could be conducted in other organizations. A less time consuming method of data collection would have worked or better still with adequate time it would have been more desirable to interview all the people that took part in the change process and look through all the relevant documentations including those that have been archived. Data collection through observation during the period of change would have given a better insight.

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