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ABSTRACT
For organizations to remain in operational, they have to be in a state of change, this is done with the view to balance with the environment. Research has shown that managers who fail to adopt changes will ultimately be forced to shut down their operations. The purpose of the study was to determine influence of adaptive organization structure practices on performance of commercial based state parastatals in Kenya. The study adopted a cross section survey research design and the target population were the fifty five (55) commercial based state parastatals. A sample of forty eight (48) commercial based state parastatals was used for the study. These were identified through stratified random sampling. The respondents of this study constituted CEO’s, Finance Managers and HR Managers and finance managers of each of the sampled commercial based state parastatals. Data was collected with the aid of questionnaires and interviews. Collection of Secondary data was done from financial and audited statements. Questionnaires were hand delivered to the respondents in the respective institutions by the help of research assistants. The research assistants self-administered the questionnaires to the respondents of the sampled commercial based state parastatals under the supervision of the researcher. Data was analyzed using SPSS version 24 and Microsoft Excel. Regression models were fitted and hypothesis testing was carried using standard F and t tests. The study found that adaptive organization structure practices was found to positively and significantly influence performance of commercial based parastatals in Kenya. Board composition was found not to have a significant moderating influence on the relationship between strategic change practices and performance.

1. Introduction
For the purposes of sustaining their position in business, there is need for organizations to change to enable them to keep in balance with environmental changes. Organizations need to put change practices as core activities where managers are skilled and competent in scanning the environment to ensure the sustainability of a competitive edge in an environment that is changing at a very fast rate. The capability to practice change management will be more important in the future than ever before. It has been confirmed that whereas the future may unclear, organizational managers should be highly alert and responsive to the rapid changes or else their future in the society will be at stake. (Harper, 2004).

Chemengich (2013) claims that public sector organizations in the world are under intense pressure to improve efficiency while at the same time providing integrated and improved services. The public sector remains a key vehicle to deliver in both for developing and developed world, in a framework designed for realization of equality, effectiveness, justice, security and competitiveness. The main issue in various countries lies with the way public organizations are managed which emphasis is placed on effectiveness and efficiency. Melese et al. (2004) argue that public organizations continue being held more increasingly accountable for their performance hence they are expected to operate effectively and efficiently.

The implication is that Public Organizations will be forced to look for ways of improving their activities. He further noted that in an ever changing global economy, organizations should find ways of operating by designing new competences since old competencies gained are easily eroded resulting from changes on the environment.

Organizations have progressively become cognizant of the importance of change practices. Organizational performance depends on the awareness of the system dimension. The full awareness of the operation of the system is an aspect that is very critical to the performance of an organization (Rees, 2006). Actual life experiences have explained the assumption that it does not matter how advanced and modern business activities have become, the biggest task will be coming up with strategies that will complement the operations of the business so as to maintain growth stability and effectiveness.

State parastatals, are vehicles towards meeting the social and economic needs of its citizens. Kenyan parastatals therefore play a key role to the success of implementing important Government programmes that will help achieve the set objectives. The Kenyan government using sessional paper no. 10 of 1965 established state parastatals by an act of parliament for purposes of addressing commercial as well as social objectives. The parastatals were established to deal with market failure for purposes of exploiting social and political goals,
provision of health, education, and redistribution of income and development of marginal areas. Through performing the role some problems are experienced by the state parastatals.

The paper recommended the necessity for reforms in these parastatals so as to reap high economic growth. According to the sessions paper state parastatals in Kenya have been characterized by low productivity, inefficiency, lack of transparency and accountability towards delivering desired results over time. The Kenyan Vision 2030 aims to make Kenya a middle income country, newly industrialized, through providing quality life for all its citizens (KNBS, 2008).

Concerns over the performance of Kenyan State Parastatals have been growing over time because of the position they hold in the country's social - economic development agenda (Kobia & Mohamed, 2006). According to the Productivity Policy report (2010), contribution of corporate organizations in Kenya has stagnated at 12% for the last decade. This stagnation can partly be explained from concentration on a few commodities, namely the processing of food commodities and refining of petroleum products. Development of the Country has been possible through the major role of provision of public services by state parastatals. They have also become strong entities in Kenya and very vital organs to promoting development. State parastatals in Kenya account for 20% of the Gross Domestic Product, provided employment opportunities to over 300,000 and 3.7 million people in formal sector and informal sectors of the economy respectively (GoK, 2004).

Research Hypothesis

H1: Adaptive organization structure practices has no significant influence on performance of commercial based State Parastatals in Kenya.

2. Related Literature

Theoretical Framework

Resource Based Theory

The theory's perspective contends that continued competitive advantage is created by the distinct package of firm’s resources (Barney, 2001). The theory gives an explanation of the internal sources of the continued competitive advantage (Kraaijenbrink, Spender, & Groen, 2010). A resource based perspective comprises of a rising and dominant area of strategy literature which responds to the question of a firm’s identity and it’s primarily concerned with the nature and source of strategic capabilities (Theriou et al. 2009). The resource base theory of a firm emphasize the critical role of making of choices which are strategic which include the tasks of deploying and developing key resources of the firm in an endeavor of maximizing profits. The RBT theory has greatly contributed to the development of the theory of competitive advantage.

These resources may be financial, human, physical, technological and information. These may be valuable, rare and non-substitutable (Crook, Ketchen, Combs & Todd, 2008). The theory of competitive advantage contends that the organizational performance improves when the distinct resources are combined to engineer all the areas of the firm (David, 2009). The theory states a firm’s competitive advantage is gained through implementing strategies which cannot be imitated by competitors. Those resources that form sources of sustained competitive advantage should have the qualities of being scarce, non-imitable, non-substitutable, and strategic and appropriate (Ling & Jaw, 2011).

According to Alas and Sun (2007), the resource based view argues that the generation of continued competitive advantage of a firm is as a result of the key resources available to that firm. Resources become valuable when they are able to effectively and efficiently in a position to generate a market opportunity that brings value to the market segments. (Hunt & Derozier, 2004). It therefore calls for the effective management of firm’s resources in order to build and gain the peculiar capabilities and competitive advantage for value addition and creation (Sirmon, Hitt, & Ireland, 2007). Resource-based view is a crucial idea in strategy because it proposes the potential to elucidate on sustainable competitive advantage, or the delivery process of long run returns to shareholders (Tom, 2010).

The dynamic nature of firms calls for the development of dynamic capabilities which can be able to combine and regenerate both internal and external resources unique in creating the firm’s advantage. The Resource base theory combines the internal strengths of the firm with formulation of strategy to gain competitive advantage for the firm (Njuguna, 2009). The theory gives emphasis that firms can outdo others through development of resources that are unique and cannot be copied by its competitors. The resource based view (RBV) of the firm argues institutions are capable of developing peculiar capabilities that can in turn be transferred to new organization structures and management (Habershon & Williams, 2001).

It is expected that resource dependency theory will determine the extent to which environmental dependency and uncertainty act as drivers for an organization to embark on variety of controlling strategies to manage the competitive environment to improve organization performance (Nickol, 2006). The essence of environmental resource dependency emanates from the viewpoint that any meaningful success in a business is as a result of dealing with uncertainties. Ganley (2010) postulates that what makes an institution are the resources it has and therefore calling for careful allocation of these resources. Resource allocation is not an easy task but it’s through good practice that an institution can acquire resources it requires. Some of the resources are like technology, capital and people which are critical in the growth and performance of an organization. Ganley further states that people are crucial resources and hence people who are hardworking and have vast knowledge should be taken good care of. These people who are knowledgeable constitute the difference between success and failures in businesses hence should be allocated job in a competitive business environment.

Helfat and Peteraf (2003), contend that changing performance in businesses is caused by argue that varying performance in firms is a result of heterogeneity of assets with the reasons that lead to such differences to persist. The theory in general seeks to help Managers by looking at concerns such as resources like new technology adoption practices to sew how they can be adopted. The dynamic environment scan is key and this theory assists in recognizing it as a key resource that the commercial based parastatals have to depend on to gain competitive advantage. By scanning the environment, barriers shall be avoided and thus organizations shall be geared to the future in improving the performance.

In this study the resources are the stakeholders, technology, environment and organization structure which must be utilized by the commercial based parastatals to attain
competitive advantage. Board diversity which is one of the elements of composition of Board members is a resource since it is critical in strategic decision making, as a result of expertise and vast knowledge brought forth in execution of strategic roles.

Agency Theory

Mintzberg (2003) observes that the theory deals with the role of agents who are charged with the role of formulation of strategies by other stakeholders who have direct control of the firm. Gibbons (2004) refers to the agency theory as a very simple strategic management theory which deals with one person in charge called the principal and the worker or the agent on the other side. The shareholders are the principal in this case whereas the CEO is the agent, this explains the chain of command in business organizations. In this management theory the agent will take decisions and act on behalf of the principal and is expected to meet the goals of the principal (Jean et al. 2002). The agent therefore will meet his own interests as well as those of his principal in the organization.

There is need for the agent to create a balance in serving the various interests to enable the organization achieve its objectives. This is because the agent is in charge of all the resources of the organization. The agent is charged with the crucial role of strategic management and formulation. The management is linked to various stakeholders including employees suppliers, customers, trade unions and even the Government by the firm. Proper coordination should be achieved between the management and its stakeholders for the achievement of a common goal. The agent theory is explained as the central approach to managerial behaviour. Krueger (2004) noted that formulation of strategy depends on a team tactic approach which flows from the corporate to functional levels of the organization. For the process to flow all levels of management; top to bottom as well as bottom up should have their inputs.

The study observes that there should be involvement of all stakeholders by the CEO when formulating strategy for the firm. He should not work alone but need to get input from all levels of management in the organization. Information should be sought in task evaluation during strategy formulation after which the strategy should be proposed to the principals through the board for adoption then the carrying out the task that is strategy implementation as per the agreement for the attainment of competitive advantage. Chesbrough (2006) emphasizes that the agent must embrace synergy in his approach from strategy formulation to implementation in involvement of people of all levels of the organization. Strategic management programmes need the support of management without which they are bound to fail. This calls for the agent to synthesize his own goals with those of the organization.

Commercial based state parastatals in this case are the agents while the employees, customers, stockholders and even the Government are the Principals. There is thus an agreement made between the agent and principal on terms of service and the contract. This indicates that Commercial based state parastatals are expected to perform as per the agreement in the contract with the various stakeholders (principal). In line with the objectives of this study, state parastatals are seen to be responsible in portraying good strategic change practices which will be geared towards better performance. The theory will be very crucial to the public as key stakeholders in provision of important information that shall impact the operations of these state parastatals.

The involvement will reduce conflicts and delays that are normally very costly in addition to the encouragement of good will and positive cooperation between parties involved. The agency theory stresses the important relationship that is expected to exist between the owners and the CEO’s who are the agents of commercial based state parastatals in ensuring the success of the organizations.

In this study, commercial based parastatals with the central issue of strategic change practices, the Board will be a crucial monitoring device to ensure the problems that emanate from principal and agent relationship, are lessened through the mediating effect on the relationship between strategic change practices and performance of commercial based parastatals. Though Managers are supposed to be the agents of state parastatals, they should be monitored and checks and balances be instituted so that they do not abuse power in the process of their operations.

Adaptive Organization structure practices and performance

Understanding characteristics of organizations, enables alignment of the structure with the strategies. Structures of organizations should be adjusted to match with the environment if an organization is to survive. In addition all their decisions have an effect to the environment. Parastatals for instance would adopt organic structures to enhance their performance of corporate social responsibility in environments characterized by high uncertainty but were less beneficial to parastatals in a highly stable and simple environment which required mechanistic structure Little (2006) argues that the adaptive cycle was called the structural adaptation to regain fit model (SARFIT) which explained that a firm was always initially in fit, then increased in contingency variable which produced misfit and reduced performance, and then structure was changed adaptively from misfit to a new fit which restored equilibrium and facilitated performance.

Organizational structure refers to the internal design of authority, communication and interactions (Tompson, 2007). Goldhaber, Dennis, Richetto and Wiio (2004) considered organizational structure as a system of interactions and network of relationships and roles prevailing in the entire organization. Organizational structure therefore is portrayed as an essential aspect for achievement and maintenance of competitive advantage. This is attributed to the functions it performs of planning, organizing and coordination of all available resources aimed at fulfilling customer needs fully.

Organization structure being involved in distribution of duties among labour units and coordinating units is very relevant to the growth of the organization. Despite the fact that different authors describe distribution of duties, centralization, process of formalizing and departmentalizing are the commonly agreed dimensions that are used (Meijgaard,Brand, & Mosselman, 2005). Value of resources is gauged on amount of support they give to the strategy being pursued by the organization(Spanos & Lioukas, 2001). The argument implies that the influence of organization structure on the performance will be indirectly through competitive strategy pursued (Edelman, Brush & Manolova, 2005).

According to Meijgaard et al., (2005) Centralization refers to the extent through which decision making authorities are delegated through the entire organization. This is the contrast of decentralization.

Formalization denotes the extent in which organization rules, authority, procedures, communication lines and even norms are defined.
Organization procedures are optimized and controlled by formalization accompanied with standardization and coordination. Departmentalization is usually determined by number of departments that are handling organizational activities or number of management levels (Brand & Mosselman, 2005). A strong structure that is hierarchical constitutes ranks where managers determine the activities of subordinates towards achieving goals of the organization. More senior officers are responsible for supervising their junior staff. The structure supports the key tasks which eventually contribute to the organizational goals are accomplished (Geek, 2013)

**Concept of Performance**

Performance is the effectiveness of an object in producing outcomes in a manner determined in relation to a target/goal (Javier, 2002). When considering organizational performance; performance can be taken as an indicator in the financial fortunes of organization that occurs due to changes made by the management or the implementations of those decisions by members of that organization (Carton & Hofer, 2010). Performance correlates to effectiveness and efficiency of an organization (Machuki & Aosa, 2011). Organizational performance has been discerned as the most important outcome in strategic management research (Combs Crook & Shook, 2005).

Contemporary strategic management research tries to come up with explanations on the sustenance of superior performance of organizations. The leading argument is that sustainable competitive advantage can only be achieved when a firm is executing a value creation strategy that is not being simultaneously executed by existing or future competitors. Competitive advantage which is sustainable therefore can only be realized when a firm is implementing a value creation strategy that is not being simultaneously implemented by any existing or future competitors and the inability of other firms to replicate the advantages of this strategy. Organizational performance measurement has of late received considerable attention. For organizations to accurately gauge their performance, there is need to re-engineer their systems of measurements to ensure that they conform to their prevailing strategies and environment.

It is the circumstances of the organization being studied that determine the measures to use to represent performance. Most measures of organizational performance will however be based on profitability, financial, employee turnover, market based share (Carton & Hofer 2010), which are mostly inward looking. Many studies measure organizational performance on five perspectives as; profit; productivity; sales and market share; customer service and achievement of goals. In relation to profits many researchers use traditional accounting measures of profits. One of the most common indices of profitability is return on assets - ROA (Staw & Epstein, 2000).

The existence of change practices positively impacts on organizational performance as they tend to contribute significantly on organizational competencies which in turn greatly boosts enhancement of innovativeness. According to Anantharaman (2003), maximization of organization performance is attributed to change management practices.

Due to intensive competition, volatile product, market environments and shorter product life cycles, firms continuously look for newer sources to remain ahead of competitors, the most important one being variation in management practices, which have an impact in improving and determining an organization's continuity (Kelliher & Perrett, 2001).

The importance of Change Management practices has dawned on most contemporary organizations. This realization is a crucial factor in the performance of an organization. (Rees, 2006). The ideal situation is to assume that however complex or contemporary the undertakings of a firm becomes, it will always be hard to maintain its expansion without effective strategies that complement its continuity.

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**Conceptual frame work**

![Conceptual frame work diagram](image-url)
3. Methodology

The study adopted a cross sectional descriptive survey research design with both qualitative and quantitative approaches. Collection of data about phenomena is only possible through use of an appropriate research design that is applicable where there is time constraints which aid in description of occurrences of events or the provision of explanation of factors related to a particular organization (Saunders, Lewis, & Thornhill, 2009). A cross sectional descriptive survey research design is ideal to overcome budget and time constraints (Schindler & Cooper 2013).

Commercial based parastatals was the target population given that they play a critical role in enabling economic and social transformation in the economies they operate, improving public service delivery as well as employment opportunities in various jurisdictions and are useful conduit for international partnerships (RoK, 2013). These organizations therefore have an inherent potential for enhancement of productivity and profits. The respondents of this study constituted human resource department, finance manager and chief executive officers of the commercial based state parastatals who formed the unit of analysis. They were targeted as they are responsible for the smooth running of the corporations. This confirms the attribute of observable characteristics of the target population for which the researcher intends to generalize the study results (Mugenda & Mugenda, 2003).

The sample size was determined using the formula given by Miller and Brewer (2003) with a confidence interval of 95 percent as given below:

\[ n = \frac{N}{1 + N(\alpha)^2} \]  
\[ (3.5.1) \]

Where:

- \( n \) = sample size,
- \( N \) = sampling frame
- \( \alpha \) = margin of error (0.05%)

The formula gave us a sample size of 48 which was arrived at as follows:

\[ n = \frac{55}{1 + 55(0.05)^2} \]  
\[ (3.5.2) \]

Where:

- \( n \) = sample size,
- \( N \) = sampling frame
- \( \alpha \) = margin of error (0.05%)

The formula gave us a sample size of 48 which was arrived at as follows:

\[ n = \frac{55}{1 + 55(0.05)^2} \]  
\[ (3.5.3) \]

Table 3.1. Population Size.

<table>
<thead>
<tr>
<th>Type of Commercial based Parastatal</th>
<th>Population Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purely Commercial State Corporations</td>
<td>34</td>
</tr>
<tr>
<td>Strategic Commercial State Corporations</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
</tr>
</tbody>
</table>

Source: RoK (2013)

Table 3.2. Sample Size.

<table>
<thead>
<tr>
<th>Type of Commercial based Parastatal</th>
<th>Population Size</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purely Commercial State Corporations</td>
<td>34</td>
<td>30</td>
</tr>
<tr>
<td>Strategic Commercial State Corporations</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>48</td>
</tr>
</tbody>
</table>

Source: RoK (2013)

The regression model for the study was as follows:

\[ y = \beta_0 + \beta_1x_1 + \beta_1x_2 + \epsilon, \]  
\[ (3.5.4) \]

Where:

- \( Y \) = Dependent variable (Performance)
- \( X_1 \) = Adaptive organization structure

Table 4.1. Influence of Adaptive Organization Structure on Performance.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organization strictly operates routinely through formalized structures and processes</td>
<td>0.8%</td>
<td>3.1%</td>
<td>11.8%</td>
<td>42.5%</td>
<td>41.7%</td>
<td>4.21</td>
<td>0.832</td>
</tr>
<tr>
<td>our organization has a clear internal pattern of relationships, authority and communication</td>
<td>7.1%</td>
<td>16.5%</td>
<td>11.0%</td>
<td>38.6%</td>
<td>26.8%</td>
<td>3.61</td>
<td>1.241</td>
</tr>
<tr>
<td>All departments should be allowed to have their own structures which are unique</td>
<td>3.9%</td>
<td>3.9%</td>
<td>17.3%</td>
<td>48%</td>
<td>26.8%</td>
<td>3.90</td>
<td>0.975</td>
</tr>
<tr>
<td>duties and tasks within the organization are clearly indicated and boundaries set</td>
<td>3.1%</td>
<td>7.1%</td>
<td>17.3%</td>
<td>45.7%</td>
<td>26.8%</td>
<td>3.86</td>
<td>0.998</td>
</tr>
<tr>
<td>In our institution each employee holding a position of authority is responsible for a few subordinates</td>
<td>4.7%</td>
<td>0.8%</td>
<td>20.5%</td>
<td>57.5%</td>
<td>16.5%</td>
<td>3.80</td>
<td>0.891</td>
</tr>
<tr>
<td>The organization structures responds to changes in its environment effectively</td>
<td>3.9%</td>
<td>4.7%</td>
<td>20.5%</td>
<td>53.5%</td>
<td>17.3%</td>
<td>3.76</td>
<td>0.932</td>
</tr>
<tr>
<td>This structure of the organization supports the tasks hence ultimately contribute to the performance</td>
<td>3.1%</td>
<td>3.9%</td>
<td>18.9%</td>
<td>48%</td>
<td>26%</td>
<td>3.9</td>
<td>0.941</td>
</tr>
</tbody>
</table>
\[ \beta_i = \text{Regression coefficient for the Independent variable} \]
\[ \beta_0 = \text{Constant or intercept (value of dependent variable when an independent variables are zero)} \]
\[ \epsilon = \text{Error term} \]
\[ XZ = \text{Product term/interaction term of Board members composition the independent variables (X1γ).} \]

### 4. Research Findings

#### Influence of Adaptive Organization Structure on Performance

To test on the influence of adaptive organization structure practices on organizational performance, the respondents were asked to indicate their level of agreement with different statements on technology adoption practices. The respondents were required to use a scale of 1 to 5 where 1 is strongly disagree, 2 disagree, 3 neither agree or disagree, 4 agree and 5 strongly agree. The purpose of this data was to determine whether the respondents felt that adaptive organization structure practices in place were sufficient to improve on the performance of the organizations. The findings of the study are as presented in Table 4.1.

Table 4.1 represents the findings of influence of adaptive organization structure practices on performance of commercial based parastatals in Kenya. On whether the organization strictly operates routinely through formalized structures and processes, 42.5% agreed while 41.7% strongly agreed to the statement. A total of 38.6% of the respondents agreed to the statement that the organization has a clear internal pattern of relationships, authority and communication which are understandable to all employees. 57.5% agreed that the organization structures respond to changes in its environment effectively.

On whether all departments should be allowed to have their own structures which are unique, 48% of the respondents agreed to the statement while 26.8 strongly agreed. 45.7% agreed that duties and tasks within the organization are clearly indicated and boundaries set. 57.5% agreed that each employee holding a position of authority in their organization is responsible for a few subordinates. A total of 53.5% of the respondents agreed to the statement that the organization structures responds to changes in its environment effectively. On whether the structure of the organization supports the tasks hence ultimately contribute to the performance 48% of the respondents were in agreement with this statement. Overall, the results indicate that majority of the respondents are in agreement with the statements used to measure adaptive organization practices. This is given by the evidence of means ranging between 3.61 and 4.21. Similarly, standard deviation are in the range of 0.832 and 1.241. This indicates that the responses showed little deviations from the mean.

#### Organizational Performance

To test the indicators for organization performance, the respondents were asked to indicate their level of agreement with different statements on the organization performance. The purpose of this data was to determine whether the respondents understood the procedures and processes that impacted on organization performance. The findings of the study are as presented in Table 4.2.

Table 4.2 represents the findings of indicators on the organization performance. Our firm has experienced increased sales growth over the last five years, 28.3% agreed to the statement. A total of 28.3 % of the respondents agreed to the statement that the number of employees in the organization has increased over the last five years. On whether their organization has experienced an increase in number of branches over the last 5 years, 30.7% strongly disagreed to this statement while 28.3% disagreed.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our firm profitability has increased over the last five years</td>
<td>11%</td>
<td>17.3%</td>
<td>23.6%</td>
<td>28.3%</td>
<td>19.7%</td>
<td>3.28</td>
<td>1.272</td>
</tr>
<tr>
<td>The number of employees has increased over the last five years</td>
<td>8.7%</td>
<td>26%</td>
<td>14.2%</td>
<td>28.3%</td>
<td>22.8%</td>
<td>3.31</td>
<td>1.312</td>
</tr>
<tr>
<td>Our firm has experienced an increase in number of branches over the last 5 years</td>
<td>30.7%</td>
<td>28.3%</td>
<td>15.7%</td>
<td>15%</td>
<td>10.2%</td>
<td>2.46</td>
<td>1.338</td>
</tr>
<tr>
<td>Our firm has experienced increased sales growth over the last 5 years</td>
<td>11%</td>
<td>14.2%</td>
<td>15%</td>
<td>40.9%</td>
<td>18.9%</td>
<td>3.43</td>
<td>1.257</td>
</tr>
<tr>
<td>Our firm has increased number of products over the last 5 years</td>
<td>8.7%</td>
<td>11.8%</td>
<td>18.9%</td>
<td>41.7%</td>
<td>18.9%</td>
<td>3.50</td>
<td>1.181</td>
</tr>
<tr>
<td>Our firm has experienced increased market share over the last 5 years</td>
<td>10.2%</td>
<td>19.7%</td>
<td>20.5%</td>
<td>37.8%</td>
<td>11.8%</td>
<td>3.21</td>
<td>1.193</td>
</tr>
<tr>
<td>Our firm has experienced increased annual running expenditure over the last five years</td>
<td>8.7%</td>
<td>12.6%</td>
<td>16.5%</td>
<td>41.7%</td>
<td>20.5%</td>
<td>3.53</td>
<td>1.201</td>
</tr>
<tr>
<td>Over the last five years your organization has been able to achieve its goals in relation to organizational performance</td>
<td>7.9%</td>
<td>15.7%</td>
<td>17.3%</td>
<td>37.8%</td>
<td>21.3%</td>
<td>3.49</td>
<td>1.214</td>
</tr>
</tbody>
</table>

### Table 4.3. Rotated Component Matrix for Adaptive Organization Structure practices.

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>726</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>762</td>
</tr>
<tr>
<td>3</td>
<td>813</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>858</td>
</tr>
<tr>
<td>5</td>
<td>907</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>891</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.
In regard to the organization experiencing increased sales growth over the last 5 years, 40.9% of the respondents agreed to this statement. 41.7% agreed to the statement that their organization has increased number of products over the last 5 years. 37.8% of the respondents agreed that their organization has experienced increased annual running expenditure over the last five years. 37.8% agreed that over the last five years your organization has been able to achieve its goals in relation to performance.

A large number of the informants in the interviews indicated that they were satisfied with the organizations performance though a few expressed their dissatisfaction with the performance of their organizations. These informants cited that better performance would have been realized if they were allowed to go fully commercial. Majority of those interviewed came up with the following ways of enhancing organizations performance; intensifying employee training programmes, motivation among the staff in terms of improved working conditions and remuneration. Also engaging in aggressive advertisement to boost revenue and enhance survival in the competitive market conditions in addition to engaging in research and innovation of products geared towards consumer satisfaction.

Adaptive Organization Structure practices Rotated Component Matrix Results

Table 4.3 gives the rotated component matrix for determinants of Formalization, Departmentalization and Span of Control. Component 1 was identified to be Departmentalization while Component 2 was seen to be formalization.

Descriptive Results of retained sub variables of Adaptive Organization Structure practices

Adaptive Organization Structure practices were assessed by two measures namely departmentalization and formalization. Descriptive data is given by Table 4.3 on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree).

Table 4.4. Descriptive Results of retained sub variables of Adaptive Organization Structure practices.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Departmentalization</td>
<td>8.8287</td>
<td>8.302</td>
<td>905</td>
</tr>
<tr>
<td>Formalization</td>
<td>5.7559</td>
<td>8.401</td>
<td>763</td>
</tr>
</tbody>
</table>

Table 4.4 shows that respondents on average agreed that departmentalization affect Adaptive Organization Structure practices with a mean of 3.8287. Respondents also agreed that formalization affects Adaptive Organization Structure practices with a mean of 3.7559.

Cronbach’s alpha was used to test the reliability of the selected variables. Departmentalization had a coefficient of 0.905. On the other hand formalization had a coefficient of 0.763. Since the Cronbach’s coefficient is more than 0.7 the data is reliable.

Adaptive Organization Structure practices and Performance Correlations Results

One of the tools used to determine the nature of the relationship between variables and to measure the strength of relationship between variables is Correlation analysis. In this research Pearson correlation coefficient was used to establish the relationship between departmentalization, formalization and performance of state parastatals. Table 4.5 gives correlation matrix between the measures of Adaptive Organization Structure practices and performance.

Results show a significant positive relationship between departmentalization and performance, formalization and performance with a correlation coefficient of 0.288 and 0.532 respectively and p-values of 0.001 and 0.000 respectively. This implies that Adaptive Organization Structure practices influence performance of state parastatals.

Adaptive Organization Structure practices Data Normality Test Results

One of the assumptions of linear regression is that the sample data must have come from a population that follows normal distribution. Several normality tests exist in the literature. However in this research the Kolmogorov Smirnov (K-S) one sample test will be used. In Kolmogorov Smirnov test the null hypothesis is that the data came from a normal distribution and the alternative is that the data didn’t come from a normal distribution. The rule is to reject the null hypothesis when the p value is less than 0.05 (the proposed level of significance). Table 4.6 presents the results of the K-S test.

Table 4.6. One-Sample Kolmogorov-Smirnov Test for Adaptive Organization Structure practices.

<table>
<thead>
<tr>
<th>N</th>
<th>Departmentalization</th>
<th>Formalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>126</td>
<td>8.8287</td>
<td>3.7559</td>
</tr>
</tbody>
</table>

Table 4.5. Adaptive Organization Structure practices and Performance Correlations results.

<table>
<thead>
<tr>
<th></th>
<th>Pearson Correlation</th>
<th>1</th>
<th>N</th>
<th>127</th>
</tr>
</thead>
<tbody>
<tr>
<td>performance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>departmentalization</td>
<td>288*</td>
<td>1</td>
<td>001</td>
<td></td>
</tr>
<tr>
<td>Formalization</td>
<td>532</td>
<td>150</td>
<td>092</td>
<td></td>
</tr>
<tr>
<td></td>
<td>127</td>
<td>127</td>
<td>127</td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
One of the tests used for auto correlation is Durbin Watson test which checks for serial correlation (Yupitun, 2008).

Durbin Watson test takes values of between 0 to 4. A value of 2 shows that errors are not correlated. However, values from 1.75 to 2.25 are considered acceptable. Other scholars argue that value between 1.5 and 2.5 may be considered to indicate no presence of collinearity (Makori & Jagongo, 2013). Durbin-Watson value of 1.864 indicates that there is no autocorrelation.

Adaptive Organization Structure practices and performance ANOVA Results

Table 4.8 gives the analysis of variance of the study on Adaptive Organization Structure practices and performance of state parastatals. The results show that at least one of the measures of Adaptive Organization Structure practices (departmentalization and formalization) has a significant relationship with performance ($F = 30.149$, $p = 0.000$) as indicated in Model 1.

When moderating variable (board composition) was introduced, the $F$ value reduced ($F = 18.039$ with a $p$ value of $0.000$) as indicated in Model 2. However the model still showed a significant relationship between the measures of Adaptive Organization Structure practices and performance.

Table 4.8. Adaptive Organization Structure practices and performance ANOVA Results.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Regression</td>
<td>31.065</td>
<td>2</td>
<td>15.532</td>
<td>30.149</td>
</tr>
<tr>
<td>Residual</td>
<td>63.883</td>
<td>124</td>
<td>515</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>94.948</td>
<td>126</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 2Regression | 35.286 | 4 | 8.821 | 18.039 | 0.000 |
| Residual | 59.662 | 122 | 489 |
| Total | 94.948 | 126 |

a. Dependent Variable: performance
b. Predictors: (Constant), departmentalization, formalization
c. Predictors: (Constant), departmentalization, formalization, departmentalization & board composition, formalization & board composition

Adaptive Organization Structure practices Goodness-of-fit Model Results

Table 4.9 shows measures of Adaptive Organization Structure practices (departmentalization and Formalization) explains 32.7% of the variation in Performance of State parastatals. Other factors explain 67.3% of the changes on performance. This implies that the measures have a predictive power on the performance.

Table 4.9. Adaptive Organization Structure practices Goodness-of-fit Model Results.

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>Adjusted Square</th>
<th>R Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.572</td>
<td>0.327</td>
<td>0.316</td>
</tr>
<tr>
<td>2</td>
<td>0.610</td>
<td>0.372</td>
<td>0.351</td>
</tr>
</tbody>
</table>

The introduction of the moderating variable Board composition increases the coefficient of determination by 4.5% to 37.2%. This implies the moderating variable influence is not very significant.

Adaptive Organization Structure practices and Performance

To determine the influence of Adaptive Organization Structure practices measures (departmentalization and formalization) the following hypotheses were stated:

Hypothesis four

$H_{04}$: There is no statistically significant influence of Adaptive Organization Structure practices on the performance of commercial based state parastatals in Kenya.

$H_{A4}$: There is statistically significant influence of Adaptive Organization Structure practices on the performance of commercial based state parastatals in Kenya.

Regression analysis was conducted to determine the probable form of the relationship between departmentalization, formalization and performance. The regression model will also show whether the measures have significant influence on performance. The results are given by Table 4.10

### Table 4.10. Coefficients for adaptive organization practices sub-variables.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>281</td>
<td>408</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Departmentalization</td>
<td>223</td>
<td>078</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formalization</td>
<td>584</td>
<td>087</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: performance

Table 4.11 shows the regression coefficients results of the Adaptive Organization Structure practices measures (departmentalization and formalization). Both measures were found to be significant at 5% level of significance with coefficients of 0.223 and 0.584 respectively and $p$-values of 0.005 and 0.000 respectively. The resultant regression model is given by equation 4.3 as

$$Y = 0.223X_1 + 0.584X_2$$

When the two sub variables are combined into one variable, Adaptive Organization Structure practices, the resultant regression results are given by Table 4.11

### Table 4.11. Coefficients for Adaptive organization Structure Practices.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>382</td>
<td>418</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptive</td>
<td>772</td>
<td>110</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: performance

This implies that the null hypothesis is rejected and the alternative hypothesis is accepted. i.e. $H_{04}$ is accepted since $β ≠ 0$ and $p$-value<0.05. The regression model is summarized by equation 4.4

$$Y = 0.772X_1$$

Where, $X_1$ – Adaptive Organization Structure practices.

It can be concluded that there is statistically significant relationship between Adaptive Organization Structure practices and performance of State Parastatals in Kenya. The findings are in tandem with Warui (2016) who carried out a study on human resource information systems usage determinants in the Teachers Service Commission of Kenya and ascertained that organizational structure had a significant effect on its usage in its operations.

To determine the moderation effect of Board composition on Adaptive Organization Structure practices and performance of commercial state parastatals, the following hypotheses were tested:

Hypothesis Five

$H_{05}$: There is no statistically significant moderating effect of board composition on the Adaptive Organization Structure practices and performance of commercial based state parastatals in Kenya.

$H_{A5}$: There is statistically significant moderating effect of board composition on the Adaptive Organization Structure practices and performance of commercial based state parastatals in Kenya.

Moderated regression was done to Adaptive Organization Structure practices to find if measures
moderated with board composition have any significant influence on the performance of commercial based state parastatals in Kenya. Table 4.12 gives the results


<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>281</td>
<td>408</td>
<td>.689</td>
<td>.492</td>
</tr>
<tr>
<td>Departmentalization</td>
<td>223</td>
<td>.078</td>
<td>213</td>
<td>2.863</td>
</tr>
<tr>
<td>Formalization</td>
<td>584</td>
<td>.087</td>
<td>500</td>
<td>6.706</td>
</tr>
<tr>
<td>(Constant)</td>
<td>435</td>
<td>.419</td>
<td>1.039</td>
<td>.301</td>
</tr>
<tr>
<td>Departmentalization</td>
<td>-.153</td>
<td>.411</td>
<td>-.147</td>
<td>.372</td>
</tr>
<tr>
<td>Formalization</td>
<td>630</td>
<td>.473</td>
<td>539</td>
<td>1.330</td>
</tr>
<tr>
<td>Departmentalization &amp; board composition</td>
<td>0.094</td>
<td>.123</td>
<td>.460</td>
<td>.770</td>
</tr>
<tr>
<td>Formalization &amp; board composition</td>
<td>-.020</td>
<td>.133</td>
<td>-.085</td>
<td>-.150</td>
</tr>
</tbody>
</table>

a. Dependent Variable: performance

Results in Table 4.56 shows that the interaction variables have a p value of more than 0.05. This implies that the null hypothesis is not rejected.

It can be concluded that there is no moderation effect of board composition on the Adaptive Organization Structure practices measures (participation in the change and support from stakeholders) and performance of commercial based state parastatals in Kenya.

Conclusion

The study results shows that adaptive organization structure practices has a significant and positive influence on performance of commercial based state parastatals in Kenya. Therefore adaptive organization structure practices of formalization and departmentalization are quite useful in organizations which are taking strategic change practices. Organizations therefore should operate routinely through formalized structures and processes and departments should be allowed to have their own structures which are unique to themselves in strategy. Duties and tasks within the organization should be clearly indicated and boundaries set such that every employee knows what is required of him.

Recommendations

Management Recommendations

The study established a significant and positive relationship between adaptive organization structure practices and performance of commercial based state parastatals in Kenya. Formalization and departmentalization were noted to be the most important sub variables. Since the organizations strictly operates routinely through formalized structures and processes then it’s critical that clearer internal pattern of relationships, authority and communication which are understandable to all employees are established. Tasks within the organizations should be clearly indicated and boundaries set such that every employee knows what is required of him.

Recommendation for Policy

The study found that strategic change practices improves performance among commercial based state parastatals in Kenya. Therefore, commercial based state parastatals need to come up with policy guidelines that will lead to adoption of strategic change practices in order to cope with environmental uncertainties in the business organizations. Appropriate strategies should be designed to cope with changes and thus the organizations would be ensured improvement in their performance. The Government need to relook Boards appointments in order to have individuals who will add value and devote more time in the affairs of the organizations. The Government should also consider having more inside directors than outside who will be more keen in the activities of commercial based parastatals. This will definitely improve their role in these parastatals.

Areas for Further Research

There is need of identifying a suitable combination of strategic change practices to enhance further performance. Hence there is need for a study to be carried out to explore other strategic change practices which would form a rich base for research results to determine if it will result in some different influence on organizational performance. Future studies could also shift the emphasis to single strategic change practices to derive more specific evidence regarding the influence of Strategic change practices on organizational performance

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