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Strategic Management Practices and Performance of Public Health Institutions in Mandera County, Kenya

1* Ibrahim Ahmed Issack and 2Stephen M. A. Muathe
1&2Department of Business Administration,
School of Business,
Kenyatta University

Abstract

The general objective of this study was to look at strategic management practices on performance of public health institutions in Mandera County. The general objective of this study was to investigate the effect of strategic management practices on performance of public health institutions in Mandera County. Specifically the study sought to examine the influence of environmental analysis on performance of public health institutions, to establish the effect of strategy formulation on performance of public health institutions, to determine the impact of strategy implementation on performance of public health institutions and to find out the effect of strategy evaluation on performance of public health institutions in Mandera County. This study adopted a mixed research design method. Mandera County has a total of Fifty (50) public health institution. The study therefore target one hospital administrators from each of the five (5) Sub-county Hospitals, Two (2) staff from Mandera Referral Hospital (Director of Medical Service and Administrator), nineteen (19) Health Administrators from each Health Centres and twenty five (25) nursing officer in charge of dispensaries thus totaling to Fifty one (51) respondents. The findings revealed that environmental analysis, strategy formulation, strategy implementation, strategy evaluation and performance of public health institutions in Mandera County are positively and significantly related. Correlation analysis showed that environmental analysis, strategy formulation, strategy implementation and strategy evaluation are significantly and positively related to performance of public health institutions in Mandera County. Based on the findings the study concluded that environmental analysis, strategy formulation, strategy implementation, strategy evaluation affects performance of public health institutions. The study recommends that public health institutions formulates strategies that can enable them to define their corporate mission, specifying achievable objectives, develop strategies and setting policy guidelines.

Key words: Strategic management practice, environmental analysis, strategy formulation, and strategy implementation.

1.0 Introduction

Strategic management practice as an effective tool in strengthening the performance of health care has become a subject of interest. Strategic management has been touted as one of the effective management
tools in strengthening organization performance through effective decision making and systematic strategic formulation and implementation. Although, strategic management was more prevalent in the private sector since the concept was first developed, the interest of using strategic management in the public sector has increased over the last decade (Smith, 1994). Since 1980’s there have been a series of reforms taking shape in the public sector resulting from increased awareness on the importance of quality in the public sector.

Barnely and Hesterly (2008) suggested that a good strategy is one that actually generates a competitive advantage that differentiate an organization with its competitors by giving it sustainable edge that is valuable, rare and not easy to imitate. Strategy should therefore be unique in order to create a competitive advantage. Porter (1998) in competitive advantage of nations aptly states that at the heart of positioning is competitive advantage. Thompson and Strickland (2003) defined strategy as consisting of moves and approaches devised by management to produce successful organizational performance while Wheelen and Hunger (2008) stated that a strategy is a plan that provides direction on how the organization will achieve its mission and objectives.

Proper strategic management practices enable the organization to avoid a mismatch with the environment, it provides a link between an organization and its environment and must be consistent with the goals, values, the external environment, resources, organizational structures and systems (Ansoff & McDonnell, 1990). According to Hussey (1991) strategy is the heart of strategic management because it helps the organization to formulate and implement various tasks to remain competitive in a turbulent environment. An organizational strategy define its unique image, provides its purpose and direction to its activities and to the people within and outside the organization (Grant, 1998).

Mintzberg (1998) distinguishes between intended, realized and emergent strategy by defining intended strategy as deliberate strategy that is planned and conceived by the management, emergent strategy is the strategy that becomes apparent through passage of time while realized strategy is that observed and is influenced by both the intended and emergent strategy. Mintzberg goes on to state that in practice strategic decisions that are key ingredient of strategic management can be made by a powerful individual, mostly the founder with growth as the dominant goal at the inception of the organization. Strategic management is not linear in practice since firms must be ready for upsets and surprises any time requiring more flexibility. Mintzberg (as cited in Abbot, 2010) advocates for planning i.e. hard data for informing the intellect but it is the soft data i.e. intuition and experience that generates wisdom.

The business environment in which firms operates is dynamic and turbulent with constant and fast paced changes that often render yester-years strategies irrelevant. Top management and decision makers of firms must constantly think strategically about the future of their organizations. The environmental turbulence necessitate an equal need for rapid recognition of appropriate strengths, opportunities to be exploited, threats to be countered and weakness to be overcome (Pearce & Robinson, 2000). Strategic planning calls for the determination of the basic long term goals and objectives of an enterprise and the adoption of courses of action and allocation of resources necessary to carry out the goals. Planning is a conscious systematic process during which decisions are made about mission, values, goals, strategies, priorities and activities that an organization, and by extension industry players will pursue if they are to survive and remain relevant in the future, amidst a constantly volatile environment. Strategic planning therefore is not a matter of
coming up with a detailed plan or program but it is a unifying theme that gives coherence and direction to actions and decisions (Grant, 1998).

The use of strategic management practices enables firms to define their strategies which provide a central purpose and direction to its activities to people who work in the firm and often to the outside world. Strategic planning and implementation enable firms to adapt under conditions of external pressure caused by changes in environment. Firms can and often do create their environment besides reacting to it. Strategic planning and management helps firms develop competitive strategies (Johnson & Scholes, 2002). In developing strategy, firms carry out an analysis of their environment, their industry and competitors and gauge how they can outperform their competitors. Strategic planning also helps firms focus their efforts and resources on their key success factors and cultivate a culture of being proactive. By implementing strategic plans, firms are able to respond to the turbulent environment in an appropriate manner, to ensure their continued survival and profitability hence providing the shareholders with value for money invested (Porter, 1998).

Abraham and Leavy (2007) argued that the success of theories, concepts and tools in the practice of strategic management is exhibited in careful analysis of industry and competitive conditions, behavior and how managers tackle the task of crafting and executing strategies as opposed to using high powered quantitative techniques. As the pace of change accelerates, Pearce and Robinson (2007) observed that the nature of strategy planning work has shifted from emphasizing analysis and forecasting to communication, co-ordination, and control. Researchers have associated business strategies with performance, distinguishing between strategies associated with high and low performance (Chell et al., 1991). Strategies which result in high performance are identified with activities that generally lead to success in the industry; that is key success factors. These activities are associated with initiatives in industry. Researchers have identified such initiatives to include emphasis on product quality, product and service innovations, development of new operating technologies, and discovery of new markets. Activities associated with high performing strategies also include emphasis on customer service and support, extensive advertising, and use of external finance (Covin, 1991).

Strategic management practices contribute to performance by generating relevant information, creating a better understanding of the environment and reducing uncertainty. (Porter (2004) states that organizational performance is determined by the ability of the firm to find its unique position and strategic management practice is the tool to enable the firm acquire that strategic position. Ofunya (2013) examined the relationship of strategic management practices and firm performance in Post bank in Kenya. The study revealed that the strategies adopted by Post bank so as to cope with the competitive environment included vigorous pursuit of cost reductions, providing outstanding customer service, improving operational efficiency, among other.

Firm’s performance need to be able to measure prescribed indicators of effectiveness, efficiency, and environmental responsibility such as, cycle time, productivity, waste reduction, and regulatory compliance. Performance metrics relating to how a particular request is handled, or the act of performing; of doing something successfully; using knowledge as distinguished from merely possessing it is an important aspect.
for organizations. It should be the outcome of all of the organization’s operations and strategies (Venkatraman & Ramanujam, 1986).

Performance of public health institutions has not had consensus among scholars. Provan (1985) has outlined performance in hospitals in terms of bed occupancy, costs, mortality rate, payroll ratios, accreditation, growth, resource acquisition. He however concedes that these measures lack generalizability. Bloom et al., (2009) state that management in hospitals is poorly alike with that of manufacturing firms. What is more, public hospitals have worse practices than private ones. In the public hospitals, hospital administrators must make decisions that foster the highest standards of patient care and achieve financial performance, as measured by more traditional metrics such as return on equity, return on assets, occupancy rates. Hence, strategic decisions made by hospital administrators have considerable consequences. Healthcare institutions pose unique problems for management since organizational decision makers must consider elements such as patient access to services, reliability and quality of care. These elements distinguish hospitals from other types of consumer organizations since failures in these areas, even on a small scale, could result in the loss of life. Furthermore, hospitals are further distinguished by diverse training, experiences, and responsibilities; inherently present issues about how to work together (Ashmos, Huonker & McDaniel, 1998).

Mandera County is located in the North Eastern part of Kenya. It borders Ethiopia to the North, Republic of Somalia to the East, and Wajir County to the South and South West. Mandera County has the highest mortality rate in the world recording 3,795 deaths per 100,000 live births, more than seven times higher than the national average of 488 deaths per 100,000 live births. This is attributed to poor health infrastructure, unskilled and inadequate workforce and cultural practices that discourages deliveries at the hospitals. Mandera County hospitals lack infrastructure to qualify it to operate as a referral hospital. Causes of increasing maternal deaths in the county as per the report are poor health seeking behaviour by the locals, cultural values and practices that do not allow women to be attended to by male health workers and long distances traveled en route the referral hospital (Mandera county, 2016).

For any well-being of a nation, public health institutions must be on the forefront to ensure that citizens receive the best health care. This can best be achieved through strategic management practices which ensure that performance of these institutions is top notch. Strategic management practices are expected to translate into improved service delivery, efficiency and effectiveness in any organizational context. Management practices are interconnected in such ways that they enable efficient functioning of organizations. Management is a wide field with specific disciplines of organizational endeavor and practices varying across firms and industries. Management practices cut across organizational functionality in any discipline. There is inadequate research that has focused specifically on management practices that can sustain efficiency and effectiveness in African organizations (Bagire & Namada, 2015).

While strategic management is widely practiced by firms and other profit oriented organizations in this country, its adoption by public sector particularly in health care service delivery at operational level is less understood. Strategic planning practices in Kenya are still insubstantial and unknown in the sense that there is an absence of documented proof of its practice (Ghosal, 2005). This study is undertaken to fill this
knowledge gap. It is imperative to study on how strategic management practices are being adopted by government agencies as a tool of enhancing performance.

Various studies have been carried out in this area of study for example Mutuma (2011) studied the challenges facing the implementation of hospital management information systems in hospitals in Nairobi whereas Chepkurui (2011) studied the human capital planning practices in faith base hospitals in Kenya. Studies in private hospitals were carried out by Gichane (2011) who studied the adoption of social marketing concept by private hospitals in Kenya and Mbugua (2010) studied the competitive strategies adopted by private hospitals in Kenya. Some studies have also been conducted in public hospitals; Ongayo (2005) covered human resource issues, Mutugi (2008) determined the challenges of strategy implementation.

On the other hand Obaga (2009) explored performance contracting Kamuri (2010) studied the challenges facing the implementation of outsourcing strategy at the KNH. While the above studies were able to look at strategy implementation and performance they did not specifically look at strategic management practices and performance of public health institutions in Mandera County, Kenya. With this in mind there is a knowledge gap that the current study seeks to fill. This study addressed: strategic management practices and performance of public health institutions in Mandera County.

The study fills this gap by reviewing the process of formulating the strategic management practices in this area and this trend shows that the county is lagging behind in providing health care. Therefore research investigated the types of strategic management practices on the performance of public health institutions in Mandera County by bringing in strategies of improving service delivery in the public health care sector in the county.

This study was guided by the following objectives. Each of the independent variable is stated and linked to the dependent variable.

i. To examine the influence of environmental analysis on performance of public health institutions in Mandera County.

ii. To establish the effect of strategy formulation on performance of public health institutions in Mandera County.

iii. To determine the impact of strategy implementation on performance of public health institutions in Mandera County.

iv. To find out the effect of strategy evaluation on performance of public health institutions in Mandera County.

2.0 Literature Review

2.1 Theoretical Literature Review

The current study was guided by two theories covering management of strategic change: these are resource-based theory or view and configurational theory.

2.1.1 Resource-Based Theory or View (RBV)
This theory was developed by Birge Wenefeldt in 1984. It is a method of analyzing and identifying a firm’s strategic advantages based on examining its distinct combination of assets, skills, capabilities and intangibles as an organization. The RBV’s underlying premise is that a firm differ in fundamental ways because each firm possess a unique bundle of resources-tangible and intangible assets and organizational capabilities to make use of those assets. Each firm develops competencies from these resources, and when developed especially well, these become the source of the firm’s competitive advantage; (Pearce & Robinson, 2007). In the context of this theory, it is evident that the resources that a firm has will play a big role in the strategic implementation process. This is because no matter how good the strategies are, without the necessary resources to enable the implementation, they remain in the planning phase.

The resource-based approach sees firms with superior systems and structures being profitable not because they engage in strategic investments that may deter entry and raise prices above long run costs, but because they have markedly lower costs, or offer markedly higher quality or product performance. This approach focuses on the rents accruing to the owners of scarce firm-specific resources rather than the economic profits from product market positioning. Competitive advantage lies 'upstream' of product markets and rests on the firm's idiosyncratic and difficult-to imitate resources.

2.2 Empirical Literature Review

Dorling, Scott and Deakins (2006) examined the relationship between industry environment and organizational performance using Porter’s (1980) five-force model of competition. Their findings supported the notion that as the power of five forces increases, this tends to limit the ability of firms to boost profitability. In examining the relationship between a firm’s resources and strategy, Benedetto and Song (2003) argued that different types of strategy should be related to different sets of firm resources. Certain sets of firm resources will be relatively more important depending on the type of strategy adopted. Camelo-Ordaz, Martin-Alcazar and Valle-Cabrera (2003) found that Prospectors tend to value the resources that enable innovation. Analyzers, however, tend to possess resources that strengthen both efficiency and market/product development. Defenders tend to focus their resource strategy on specification and efficiency. They concluded, therefore, that it is important that the type of strategy a firm employs should be linked to its bundle of resources. Defenders compete with physical assets as their core resources (Sidhu, Volberda & Commandeur, 2004). They invest in physical assets and associated fixed costs to raise barriers to entry and to deter new competitors. Prospectors and Analyzers do not look on physical resources as their core resources, but they do invest highly in such resources, in penetrating new product and market domains.

Taiwo and Idunnu (2010) examined the impact of strategic planning on organizational performance and survival. The study evaluated the planning-performance relationship in organization and the extent to which strategic planning affected performance of First Bank of Nigeria. The findings indicated that planning enhances better organizational performance, which in the long term impacts its survival. Bakar et al, (2011) studied the practice of strategic management in construction companies in Malaysia. The findings of the research showed that most of the firms practicing strategic management had a clear objective, a winning strategy to achieve the objective and a sound mission statement to guide the organization towards success.
According to Mintzberg and Quins (2004), 90% of well-formulated strategies fail at implementation stage and only 10% of formulated strategies are successfully implemented. The successful implementation of strategy is fully dependent on involvement of all the stakeholders in an organization. Communicating progress of implementing the strategy to the stakeholders will assist them in determining whether corrective action is required. Njagi and Kombo (2014) examined the effect of strategy implementation on performance of commercial banks in Kenya. Results revealed that there was a strong relationship between strategy implementation and organizational performance.

Ondera (2013) examined strategic management practices in Mbagathi District Hospital, Nairobi, Kenya. The study revealed that, the hospital formulates implements and evaluates the work plan by involving all staff working at the hospital and that the management allocated funds based on the work plan to facilitate the process of strategy implementation. They further argued that strategy evaluation should involve setting control processes to continuously review, evaluate and provide feedback concerning the implemented strategies to determine if the desired results are being attained such that corrective measures may be taken if needed.

![Conceptual Framework](image)

**Figure 1 Conceptual Framework**

3.0 RESEARCH METHODOLOGY
This study adopted a descriptive survey. The study therefore targeted one hospital administrators from five (5) sub-county hospitals, Two (2) staff from Mandera Referral Hospital (Director of medical services and hospital administrator), 19 health administrators from health centers and 25 nursing in charges from dispensaries thus totaling to Fifty one (51) respondents. A census technique was used to select the sample. Primary data were derived from questionnaires distributed to hospital administrators, nursing in charges and Director medical services. Pilot and validity tests were also conducted. Data analysis was done using SPSS version 22 and presented inferential statistics comprised of correlation and regression analysis resulted in a prediction equation that describes the relationship between the independent variables and dependent variables. The regression equation is presented as:

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

Where:
- \( Y \) = Performance of public health institutions in Mandera County
- \( \{ \beta_i; i=1,2,3,4,5 \} \) = The coefficients for the various independent variables
- \( X_1 \) = Environmental analysis
- \( X_2 \) = Strategy formulation
- \( X_3 \) = Strategy implementation
- \( X_4 \) = Strategy evaluation
- \( \epsilon \) is the error term

\[ Y = \beta_0 + \beta_{ij} X_{ij} + \beta_{ij} X_{2j} + \beta_{ij} X_{3j} + \beta_{ij} X_{4j} + \epsilon \]

Where
- \( Y \) -dependent variable- performance of public health institutions
- \( \beta_0 \) - is the constant (y intercept)
- \( X_{ij} \) is a set of - independent variables \( i \) for company \( j \) these variables include environmental analysis \( (X_1) \), strategy formulation \( (X_2) \), strategy implementation \( (X_3) \), and strategy evaluation \( (X_4) \).
- \( \beta_{ij} \) - regression coefficient \( i \) for variable \( j \)
- \( \epsilon \) - the stochastic error term

\( \beta_0 \) is the intercept; and reflects the constant of the equation.
\( \beta_1 \) is the sensitive coefficient of each independent variable \( (i=1,2,3,4,5) \).
\( \epsilon \) is the error term.

4.0: RESEARCH FINDINGS AND DISCUSSION

4.1 Correlation matrix
The study sought to establish the association among the study variables. The results are presented in Table 1.
### Table 1: Correlation matrix

<table>
<thead>
<tr>
<th></th>
<th>Environmental analysis</th>
<th>Strategy formulation</th>
<th>Strategy implementation</th>
<th>Strategy evaluation</th>
<th>Performance of public health institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental analysis</td>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>.523**</td>
<td>.397**</td>
<td>.292*</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>0.004</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Strategy formulation</td>
<td>Pearson Correlation</td>
<td>.523**</td>
<td>1.000</td>
<td>.670**</td>
<td>.368**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.009</td>
<td>0.000</td>
</tr>
<tr>
<td>Strategy implementation</td>
<td>Pearson Correlation</td>
<td>.397**</td>
<td>.670**</td>
<td>1.000</td>
<td>.612**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.004</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Strategy evaluation</td>
<td>Pearson Correlation</td>
<td>.292*</td>
<td>.368**</td>
<td>.612**</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.040</td>
<td>0.009</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Performance of public health institution</td>
<td>Pearson Correlation</td>
<td>.551**</td>
<td>.646**</td>
<td>.614**</td>
<td>.568**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

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

*(Source: Survey data, 2017)*

The results in Table 1 indicated that environmental analysis and performance of public health institutions are significantly and positively related ($r= .551, p=0.000$). Further, correlation results showed that strategy formulation, strategy implementation and strategy evaluation are positively related with performance of public health institutions. Results indicated that strategy formulation ($r= .664, p=0.000$), strategy implementation ($r= .614, p=0.000$) and strategy evaluation ($r= .568, p=0.000$) are significantly and positively related to performance of public health institutions in Mandera County. Conducting audit of environmental analysis, strategy formulation, strategy implementation and strategy evaluation increases the performance of public health institutions.

### 4.2 Model summary
The results presented in table 2 present the fitness of model used of the regression model in explaining the study phenomena. Environmental analysis, strategy formulation, strategy implementation and strategy evaluation were found to be satisfactory variables in explaining performance of public health institutions. This is supported by coefficient of determination of 59.0%.

**Table 2: Model summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.768$^a$</td>
<td>.590</td>
<td>.554</td>
<td>.40408</td>
</tr>
</tbody>
</table>

(Source: Survey data, 2017)

This means that environmental analysis, strategy formulation, strategy implementation and strategy evaluation explains 59.0% of the variations in the dependent variable which is performance of public health institutions in Mandera County. This results further means that the model applied to link the relationship of the variables was satisfactory.

**4.3 Analysis of Variance**

Table 3 provides the results on the analysis of the variance (ANOVA). This was to establish whether there was any significant difference among the variables means. Independent variables were explored to determine whether their existed any significance difference with the dependent variable (performance of public health institutions).

**Table 3: Analysis of Variance**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>10.585</td>
<td>4</td>
<td>2.646</td>
<td>16.207</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>7.348</td>
<td>45</td>
<td>.163</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17.933</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: Survey data, 2017)

The results indicate that the overall model was statistically significant. Further, the results imply that the independent variables are good predictors of performance of public health institutions. This was supported by an F statistic of 16.207 and the reported p value (0.000) which was less than the conventional 0.05 significance level. Therefore, the result findings from the ANOVA showed that there exist a significant difference between the independent variables and the dependent variable.

**4.4 Regression Coefficients**

Regression of coefficients results in table 4 shows that environmental analysis and performance of public health institutions are positively and significantly related (r=.220, p=0.036). the results are in agreement with Hodgetts and Kuratko (2001) that opportunities for businesses are hidden in the external environments of the businesses and that companies need to prepare plans to cope with changes as they face dynamically changing environments especially such changes may be unpredictable and may occur suddenly. The results also agree with Ann, Zailani and Wahid (2006) that environmental munificence facilitates the ability to exploit the resources, acquiring resources, as well as identifying opportunities to create competitive
advantage. The table further indicates that strategy formulation and performance of public health institutions are positively and significantly related \( (r=0.251, p=0.020) \). The results agree with Taiwo and Idunnu (2010) that strategic formulation enhances better organizational performance. It was further established that strategy implementation and performance of public health institutions are positively and significantly related \( (r=0.283, p=0.003) \). The results agree with Burgelman, Grove and Meza (2006) that strategy implementation are geared towards improving organizational performance. Organizational performance comprises the actual output or results of an organization as measured against its intended outputs or goals and objectives. Strategy formulation and performance of public health institutions was also positively and significantly related \( (r=0.299, p=0.014) \). The results concur with Kvarnerud and Maspers (2007) that strategy evaluation is needed to serve as tool of providing information on how performance compares to the peers and other standards.

### Table 4: Regressions of coefficients

<table>
<thead>
<tr>
<th>Variable</th>
<th>( B )</th>
<th>Std. Error</th>
<th>Beta</th>
<th>( t )</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.296</td>
<td>.367</td>
<td>.807</td>
<td>.424</td>
<td></td>
</tr>
<tr>
<td>Environmental analysis</td>
<td>.220</td>
<td>.102</td>
<td>.244</td>
<td>2.159</td>
<td>.036</td>
</tr>
<tr>
<td>Strategy formulation</td>
<td>.251</td>
<td>.104</td>
<td>.336</td>
<td>2.404</td>
<td>.020</td>
</tr>
<tr>
<td>Strategy implementation</td>
<td>.284</td>
<td>.125</td>
<td>.302</td>
<td>2.272</td>
<td>.003</td>
</tr>
<tr>
<td>Strategy evaluation</td>
<td>.299</td>
<td>.117</td>
<td>.311</td>
<td>2.553</td>
<td>.014</td>
</tr>
</tbody>
</table>

(Source: Survey data, 2017)

Thus, the optimal model for the study is;

\[
\text{Performance of public health institutions in Mandera County} = 0.296 + 0.220 \text{Environmental analysis} + 0.251 \text{Strategy formulation} + 0.284 \text{Strategy implementation} + 0.299 \text{Strategy evaluation}
\]

This overall model shows that environmental analysis auditing will increase performance of public health institutions by 0.220 units; strategy formulation will increase performance of public health institutions by 0.251 units while strategy implementation will increase performance of public health institutions by 0.284 units. Strategy evaluation will also increase the performance of public health institutions by 0.299 units. Finally, the positive constant (0.296) represents other factors which can increase the performance of performance of public health institutionsbuthave not been included in the model.

### 5.0: POLICY IMPLICATION

The conclusions of this study was informed by the findings based on each study objective and also findings of other similar studies.

Based on the findings the study concluded that environmental analysis influences performance of public health institutions. Conducting environmental audit is a necessity for a sustainable growth of organizations. Based on the findings the study concluded that strategy formulation influences performance of public health institutions. Strategy formulation aids in the development of long-range plans for effective management of
opportunities. It includes defining corporate mission, specifying achievable objectives, developing strategies and setting policy guidelines.

Based on the findings the study concluded that strategy implementation influences performance of public health institutions. The strategy implementation process determines whether an organization excels, survives or dies. A successful execution and implementation of strong and robust strategies will always give a firm a significant competitive edge.

Finally, based on the findings the study concluded that strategy evaluation influences performance of public health institutions. Strategy evaluation informs the managers about the reasons leading to a particular failure in meeting a certain objective and target.

The study recommends that public health institutions need to prepare plans to cope with changes as they face dynamically changing environments especially such changes may be unpredictable and may occur suddenly.

The study recommends that public health institutions formulates strategies that can enable them to define their corporate mission, specifying achievable objectives, develop strategies and setting policy guidelines. Effective strategy formulation is able to tell what the institution is providing to the society, objectives tell what is to be accomplished, strategies state how the mission and objectives will be achieved.

The study further recommends that public health institutions should put more weight on implementing set strategies. This is because in this stage, the success or failure of well-formulated strategies depends much on strategy implementation.

Finally, the study recommends continuous of strategy implementation from time to time in order to ensure a successful end. Strategy evaluation informs the managers about the reasons leading to a particular failure in meeting a certain objective and target.

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