STRATEGIC RESOURCES, ORGANIZATIONAL ENVIRONMENT AND ORGANIZATIONAL PERFORMANCE OF SUGAR MANUFACTURING FIRMS IN WESTERN KENYA

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Abstract:
Strategy implementation and its influence on organizational performance are becoming an issue of concern for all organizations and as a result, there is a need for effective strategy implementation dealings with organizational structures, resources, culture, leadership, communication and operations required to ensure that organizations perform efficiently and effectively to achieve its set long term goals. The objectives of this study were to examine the influence of strategic resources on organizational performance of sugar firms in western Kenya and to establish the influence of organizational environment on the relationship between strategic resources and organizational performance of sugar firms in western Kenya. The study was guided by resource-based theory, contingency theory, agency theory and trait theory. Positivism research philosophy guided the study. A descriptive research design was adopted. The target population was 125 respondents who are senior employees of sugar manufacturing firms in western Kenya. Simple random sampling was used to choose respondents. Primary data was obtained by the use of questionnaires. Expert analysis and factor analysis were used to assess Validity. Descriptive statistics included mean, standard deviation and variance. Inferential statistics consisted of correlation analysis and multiple linear regression analysis. Results show a Beta coefficient of 0.164, and a p-value of 0.005. The results of this study show that strategic resources have a positive and significant influence on organizational performance of sugar manufacturing firms in Kenya. The sugar manufacturing firms should have adequate machines and equipment, and the tools and equipment should be in line with technological advancements to ensure strategy implementation. The results of the study will be a source of information for investors as they make decisions of investing in the sugar industry. The results of this study may

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assist policymakers to identify loopholes that still exist in internal controls instituted by the government.

**Keywords:** strategic resources, organizational environment organizational performance

### 1. Introduction

#### 1.1 Background of the Study

Strategy implementation and its influence on organizational performance are becoming an issue of concern for all and as a result, there is a need for effective strategy implementation dealings with organizational structures, resources, culture, leadership, communication and operations required to ensure that organizations perform efficiently and effectively to achieve its set long term goals strategic management tools and ideas have been brought into play by firms across the world to enhance capacities and performance standards in the face of increasingly challenging economic and political circumstances. In response, researchers have begun to investigate the antecedents and effects of strategic management practices in manufacturing firms (Budnik, 2017).

Industrial sugarcane farming was introduced in Kenya in 1902. Sugar-based systems are found in the lake basin plateau at medium altitude in the Western part of Kenya. Previously some sugarcane was grown in parts of Coast Province but farmers abandoned it in the early 1980s when they realized it was not an economical undertaking. Sugar production on a commercial basis was established in 1922 when Miwani Sugar Mills Limited established a medium-scale sugar mill at Miwani in Kisumu District of Nyanza province in the western part of Kenya. A second sugar mill was established in 1927 by the Associated Sugar Company LTD at Ramisi in Kwale District of the Coast province. Private Asian companies owned the large-scale farms that supplied them with cane up to the mid-1960s were owned exclusively by Asians. African farms regarded sugarcane as an Asian crop and they did not look at it as a national crop until the mid-1960s. The Vision of the sugar industry is to accelerate socio-economic development, redress regional economic imbalances and promote indigenous entrepreneurship (Chiuri & Taku, 2018).

In pursuit of the above goals, the government established five additional factories in the 1960s and 1970s: Muhoroni (1966), Chemelil (1968), Mumias (1973), Nzoia (1978), and South Nyanza (1979). Later, several more were to come on stream: West Kenya (1981), Kabras Sugar (1982), Sony Factory (2006) and Kibos Sugar and Allied Industries (2007), bringing the total number of milling companies to ten (10). The two older factories ceased operations: Ramisi sugar factory collapsed in 1988 and Miwani sugar factory was put under receivership. The establishment of the publicly owned factories was predicted on the need to achieve self-sufficiency in sugar with a surplus for export in a globally competitive market and generate gainful employment supply raw materials for sugar-related industries and promote economic development in the rural economy through activities linked to the sugar industry (Chiuri & Taku, 2018).
In support of the above goals, the government invested heavily in sugar factories, holding above 83% of the equity, later reduced to 70% after it divested 36% of its interest in Mumias Sugar Company. These resource injections into the subsector were in addition to the resources from the Sugar Development Fund (SDF), set up in 1992, which has contributed about Kshs.11 billion into the industry for cane development, factory rehabilitation, research and infrastructure development. These investments did not, however, help achieve self-sufficiency in sugar as consumption continued to outstrip production. Total sugar production grew from 368,970 tonnes in 1984 to 520,000 tonnes in 2008 leaving Kenya a net importer of sugar with imports rising from 4,000 to 220,000 tonnes over the same period. The deficit was met through imports from the COMESA region and other sugar-producing countries (Otsyula & Masibi, 2015).

In 2003, the Government set up a Task Force on the Sugar Industry Crisis whose objective was to examine the problems facing the sugar subsector and make recommendations for revitalizing the industry. The task force discovered that the Kenyan sugar industry was not competitive within the COMESA region.

The strategic management process majorly involves the design and implementation of the goals main goals and initiatives taken by an organization’s management based on consideration of resources and an assessment of the internal and external environments in which it operates. The objective of strategy implementation is to transform plans into action together with the projected results. The trial of a fruitful strategy implementation is whether the actual organization performance equates to or exceeds the targeted outcome. Weak strategies lead to poor performance of an organization (Fwamba, Namusonge & Sakwa, 2017).

1.2 Statement of the Problem
Strategic management is critical to a company’s success. All processes and phases must be followed effectively for strategic management to produce outstanding results. A smart plan can help a company get traction in the market and enhance its effectiveness. Despite the best strategic planning, the performance of the sugar industries in the country especially in the western region of Kenya remains under crisis. There exists capacity underutilization, largely unpaid suppliers, contractors, farmers increasing debts, and frequent negative publicity in the media. The yearly production from the eleven sugar processors has not met local uptake nor matched the annual estimated level. The core problem affecting Kenya’s sugar industry is the protracted persistent deterioration in profitability. Accordingly, most factories have accumulated large debts amounting to KSh. 58 billion as at 31st Dec. 2021 (Otsyulah & Masibi, 2021). Consequently, approximately 50% of sugar companies in Kenya each year experience a declining financial performance hence going under receivership despite the government and the private sector in Kenya has invested heavily in creating an enabling financial environment for doing business in Kenya. Many farmers have been discouraged to grow sugar cane and some have gone even to the extent of uprooting the plant. The closure of
some sugar forms has seen many lose their jobs and decreased economic activity in the region. This crisis in the sugar industry calls for strategic management practices. Studies done on strategy have concentrated on the strategy implementation processes and strategic practices in other sectors. Those in sugar firms have concentrated on government-owned sugar firms outside western Kenya. Therefore, the need to establish the influence of strategy implementation on organizational performance of sugar firms in western Kenya.

1.3 Research Objectives

1) To examine the influence of strategic resources on organizational performance of sugar firms in western Kenya
2) To establish the influence of organizational environment on the relationship between strategic resources and organizational performance of sugar firms in western Kenya.

1.4 Research Hypotheses

H₀₁: Strategic resources have no significant influence on organizational performance of sugar firms in western Kenya.

H₀₂: Organizational environment have no significant influence on the relationship between strategic resources and organizational performance of sugar firms in western Kenya.

2. Literature Review

2.1 Theoretical Literature

The study was guided by Resource-Based View, Contingency theory and Agency theory and Trait theory.

2.1.1 Resource-Based Theory (RBV)

The resource-based theory stems from the principle that the source of firms’ competitive advantage lies in their internal resources, as opposed to their positioning in the external environment. It adopts two assumptions in analyzing sources of competitive advantage. First, this model assumes that firms within an industry may be heterogeneous with respect to the bundle of resources that they control. Second, it assumes that resource heterogeneity may persist over time because the resources used to implement firms’ strategies are not perfectly mobile across firms i.e., some of the resources cannot be traded in factor markets and are difficult to accumulate and imitate (Lawrence & Lorsch, 2015).

Resource heterogeneity is considered a necessary condition for a resource bundle to contribute to a competitive advantage. The argument goes “If all firms in a market have the same stock of resources, no strategy is available to one firm that would not also be available to all other firms in the market. Like the Chicago School tradition, the RBV is an efficiency-based
Performance differentials are viewed as derived from rent differentials, attributable to resources having intrinsically different levels of efficiency in the sense that they enable the firms to deliver greater benefits to their customers for a given cost. The assumed heterogeneity and immobility are not, however, sufficient conditions for sustained competitive advantage. The resource must, in addition, be valuable, rare, and imperfectly imitable and substitutable in order to be the source of a sustained competitive advantage” (McAdam, Bititci & Galbraith, 2017).

This theory was important to this study since helped in understanding the key resources for improving organizational performance. Certain types of resources owned and controlled by firms have the potential and promise to generate competitive advantage and eventually superior firm performance. RBV emphasizes the firm’s resources as the fundamental determinant of competitive advantage and performance.

2.1.2 Contingency Theory
The theory was first coined by Lawrence and Lorsch (1967) who argued that the amount of uncertainty and rate of change in an environment impacts the development of internal features in organizations and any one way of organizing and planning organizations activities is not effective. During the process of strategy formulation, implementation and evaluation, these main strategic management theories will be applicable to the management of organization as tools to assist them in making strategic and guided managerial decisions. Contingency theory questions the relationship between internal organization and the environment. The effectiveness of an organizational structure depends on the context attributes such as environment, technology, dimension and age of the organization. This means that according to there is not one single universal usable effectiveness model (Lawrence & Lorsch, 1967)

The contingency theory is interesting for school leaders because it facilitates the design of the organizational structure from the perspective of the actor, i.e., the school leader. The core concept of contingency theory is the ‘goodness of fit’. This goodness of fit in three ways: effectiveness (doing the right things), efficiency (doing things right), and efficacy (do the means actually work in producing the output). But the (orthodox) contingency approach is static and deterministic. Organizational flexibility is limited to the reactive capacity of organizations. Furthermore, the approach goes beyond the question of how to create and sustain flexible forms, and it neglects the possibility to influence the environment (Oosten, Uzamukunda & Runhaar, 2018).

The theory was key to this study since it helped in understanding the best way or approach to managing organizations. Organizations should then develop a managerial strategy based on the situation and condition they are experiencing. IT will help in understanding organizational flexibility and its reactive capacity and adaptation to emerging issues.
2.1.3 The Agency Theory
This theory was postulated by Jensen & Meckling (1976). It describes how best to establish associations in which one party defines the activity to be carried out but a different individual does the work. In this association, the principal employs an agent to do the work, or to accomplish a commission on behalf of the principal. The theory explains how organization is made up of owners of the economic resources and the agents who are the managers of the principal’s resources. The agents may not share in the principals’ interests and may perhaps at times act to promote their own benefits at the owner’s expense (Jensen & Meckling, 1976).

Agency theory may be examined in two ways one of which is considered to have comprehensive information, when the behavior of the agent is witnessed and the activities and motivations are crystal clear. The answer to this situation is a behavior-based contract purchasing of services. The other is where there is factual asymmetry problem/ incomplete information that is, the principal has imperfect info concerning the level of energy and the conduct of the agent. In this circumstance, a static wage might generate an encouragement for the agent to evade responsibilities since his payment notwithstanding the quality of work and energy used (EinstNhardt, 1989).

This theory was relevant to this study because it puts into perspective how leaders in sugar firms affect strategy implementation and organizational performance. The superior organizational performance will be achieved when the leadership of institutions acts in the sole interest of the shareholders by subduing and shifting their own interests to implement the actions that will chiefly achieve the organizational goals.

2.1.4 Trait Theory
Trait theory is one of the earliest leadership theories and it focuses on what an effective leader is and not what an effective leader does. Traits are outward manners within our subconscious that impact on effective leadership. Trait theory postulates that there are sets of traits and characteristics that are related to successful leaders. The distinguished traits for successful leaders embody physical traits, social traits, and social characteristics, and task-related characteristics that are inborn and change a leader to achieve success. Strategic leadership theory focusses on people at the top of the organization not only as a connected input but also as a strategic activity and a symbolic activity, as opposed to general leadership theories that leaders at any level in the organization (Sonenshein & Dholakia, 2012).

This theory was important to the study since it aided in understanding the role of leadership traits in strategic leadership practices which is vital particularly wherever success isn’t obsessed with one issue. This is more necessary as a result of the traits; a specific leader possesses qualify why he or she is an important asset within the organization’s performance.
2.2 Conceptual Framework
The independent variable in this study was strategy implementation, while the dependent variable was organizational performance. The moderating variable was organizational environment.

![Conceptual Framework](Source researcher's own theorization 2023)

3. Methodology

3.1 Research Design
The study adopted a descriptive research design. The design was appropriate for the study because it describes a population with respect to important variables with the major emphasis being establishing the relationship between the variables.

3.2 Target Population
The target population of the study was 125 respondents consisting of Agriculture Managers, Automotive Managers, CEOs, Chief Engineers, Co-Production Engineers, Dry production Managers, Electrical Engineers, Factory Managers, Field Supervisors, Finance Managers, General Managers, Health and Safety Managers, Health Supervisors, Human Resource Managers, Merchandize Managers, Mill Engineers, Power Engineers, Process Engineers, Procurement Managers, Purchases Manager, Security Managers, Shift Engineers, Sugar Supervisor, Transport Managers and Volume Supervisors from all the sugar manufacturing firms in western Kenya which include Mumias Sugar Company, West Kenya Sugar Limited, Nzoia Sugar Factory, Butali Millers LTD and Busia Sugar Industry.

3.3 Sample Size and Sampling Technique
The study used Yamane’s sample formula to determine the sample size. Yamane sample calculation is a way to determine the sample size for a study.
\[ n = \frac{N}{1+N(e)^{2}} \]

Where:
\( n \) = Required sample size
\( e \) = Level of significance taken to be 0.05
\( N \) = Target population size
1 = Constant
\( n = 125 = 95 \) respondents.

3.4 Data Collection Instruments
Questionnaires were used to gather primary data with the help of research assistants. There were two sections of the questionnaire. Closed-ended questions were employed.

3.5 Data Collection Procedure
Questionnaires were administered to the respective sugar firms with the help of research assistants. The respondents were given two weeks to complete the questionnaires.

3.6 Pilot Study
The pilot test was conducted using 10 respondents in sugar firms. Those who participated in the pilot test were not among the targeted respondents in the final study.

3.6.1 Validity of Research Instruments
Validity was tested by experts and supervisors as well as factor analysis was performed to verify that features were being validated by a tool that was used to collect data adequately and appropriately cover what is intended by evaluating the construct validity of the questionnaire. KMO and Bartlett’s tests were used in this study.

The KMO statistics for all the constructs were found to be above 0.5 implying the pilot study data is adequate and suitable for the factor analysis models carried out. Table 3.1 shows the KMO and Bartlett’s tests which are measures of the validity and reliability of the CFA models used.

<table>
<thead>
<tr>
<th></th>
<th>AVE</th>
<th>Squared Correlations</th>
<th>KMO</th>
<th>( \chi^{2} )</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Resources</td>
<td>0.535</td>
<td>0.338</td>
<td>0.551</td>
<td>170.94</td>
<td>0.000</td>
</tr>
<tr>
<td>Organizational Environment</td>
<td>0.771</td>
<td>0.345</td>
<td>0.695</td>
<td>97.31</td>
<td>0.000</td>
</tr>
<tr>
<td>Organizational Performance</td>
<td>0.568</td>
<td>0.246</td>
<td>0.529</td>
<td>37.54</td>
<td>0.001</td>
</tr>
</tbody>
</table>

3.6.2 Reliability of Research Instruments
Using Cronbach’s alpha, whose values range from 0 to 1, reliability was assessed. Table 3.2 shows the Cronbach's Alpha of the study constructs which are all reliable.
3.7 Data Analysis and Presentation
The study’s variables of interest were computed using descriptive statistics to describe. Relationships between variables were evaluated through regression analysis. Pearson correlation analysis was used to determine how strategy implementation affects organizational performance of sugar firms.

3.7.1 Test of Normality
The study conducted a normality test to determine whether to utilize parametric or non-parametric testing. The Shapiro-Wilk test was used in the investigation. The results depicted that all the variables are normally distributed since all the computed p-values were greater than 0.05. Hence, the study failed to reject the null hypothesis that variables are normally distributed.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach Alpha</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Resources</td>
<td>0.717</td>
<td>Reliable</td>
</tr>
<tr>
<td>Organizational Environment</td>
<td>0.701</td>
<td>Reliable</td>
</tr>
<tr>
<td>Organizational Performance</td>
<td>0.801</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

3.7.2 Test of Autocorrelation
The autocorrelation was examined using the Durbin-Watson test. The null hypothesis of this test is that the study data have no serial association. The results show a test statistic of 1.73 which suggests that there is no autocorrelation of the model residuals.

<table>
<thead>
<tr>
<th>Durbin Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.73</td>
</tr>
</tbody>
</table>

3.7.3 Test of Heteroscedasticity
The Breusch-Pagan test will be applied in the investigation. The derived chi-square probability is 0.1224 which is more than 0.05, implying no Heteroscedasticity.

| Table 3.5: Breusch-Pagan Heteroscedasticity Test |
|-----------------------------------------------|---------------------------------|
| BP test                                      | chi2(1) | Prob > chi2 | Conclusions |
|                                              | 2.32    | 0.1224      | Fail to reject H0 |
3.7.4 Test of Multicollinearity

Variance inflation factors (VIF) was used in this study to test for multicollinearity. VIF values were 1.745, 1.214, 2.127 and 1.911 all being less than 10, implying that there is no multicollinearity among the variables.

**Table 3.6: Multicollinearity Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>SR</td>
<td>.573</td>
</tr>
<tr>
<td>OE</td>
<td>.523</td>
</tr>
</tbody>
</table>

The regression model was as shown below;

\[ Y = \beta_0 + \beta_1 SR + \varepsilon \]

Where:
- \( Y \) represents Organizational Performance;
- \( SR \) represents Strategic Resources;
- \( \varepsilon \) represents the error term when there is no moderating variable;
- \( \beta_0 \) represents regression constant when there is no moderating variable
- \( \beta_1 \) represents slope coefficients.

4. Results and Discussion

4.1 Response Rate

The study targeted 100 respondents in 5 sugar manufacturing firms in Western Kenya. Responses were only got from 90 respondents representing 90% of the targeted sample respondents. This response rate was considered adequate based on suggestions by various scholars such as Edward et al, 2002 who considered a response rate of above 60% as adequate while Bailey (1987) proposed an adequate response rate as that above 75% the results are depicted in Table 4.1.

**Table 4.1: Response rate**

<table>
<thead>
<tr>
<th>Targeted Respondents</th>
<th>Returned Questionnaires</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>90</td>
<td>90.00%</td>
</tr>
</tbody>
</table>

4.2 Strategic Resources and Organizational Performance

4.2.1 Descriptive Statistics Strategic Resources

The first indicator of the variable sought to find out the perception of the respondents that the company has adequate machines and equipment for employees to use while on duty. The majority (33.3%) of the respondents strongly agreed, 57.3% of the respondents agreed or strongly agreed while 14.7% of the respondents were neutral, and 28% of the respondents either disagreed or strongly disagreed. This implies that the majority of the
firms have adequate machines and equipment thus employees are able to execute their duties effectively. However, in some firms the machines are inadequate and this may slow down work and lead to inefficiencies. This is shown in Figure 4.1 below.

![Figure 4.1: Adequacy of Machines and Equipment](image)

Regarding the question of whether the tools and equipment in use are currently in line with technological advancements to ensure strategy implementation. The majority (30.7%) of the respondents strongly agreed, 50.7% of the respondents agreed or strongly agreed while 18.6% of the respondents were neutral, and 30.7% of the respondents disagreed or strongly disagreed that tools and equipment in use are currently in line with technological advancements. This implies that in the majority of the sugar manufacturing firms, modern machines and equipment are used in the production process thus enhancing efficiency and effectiveness, however, in more than 40% of the firms the machines and equipment are outdated and not in line with current technological changes thus may lead to inefficiencies and high cost of production. This is shown in Figure 4.2 below.

![Figure 4.2: Level of modern Machines and Equipment](image)
The respondents were also questioned whether the adequacy of machines and equipment enhances organizational performance. The majority (46.7%) of the respondents agreed, 73.4% of the respondents agreed or strongly agreed, 10.7% of the respondents were neutral while 16% disagreed or strongly disagreed. This is a clear indication that if machines are adequate then organizational performance will greatly improve.

**Figure 4.3:** Adequacy of Machines and Equipment Enhance Performance

On the question of whether all departments are adequately staffed with both permanent and pensionable and casual employees, 36% of the respondents either agreed or strongly agreed, 14.7% of the respondents were neutral while 49.3% either disagreed or strongly disagreed. This is a clear indication that almost half of the firms are understaffed which therefore may hamper efficiency and effectiveness.

**Figure 4.4:** Departments Are Adequately Staffed
The results also determined the distribution of the indicator that the staff have the relevant skills to undertake their duties. The majority (33.3%) of the respondents strongly agreed, 64% of the respondents agreed or strongly agreed, 16% of the respondents were neutral while 20% disagreed or strongly disagreed. This means that many of the employees have the relevant skills to undertake their duties. Such employees will work with minimal supervision and are likely to be efficient hence reducing costs for the firm. However, the statistics show that almost 30% of the employees do not have relevant skills and might have been employed irregularly such employees cannot perform their duties effectively. This is shown in Figure 4.5 below.

![Figure 4.5: Staff Have Relevant Skills](image)

The study also sought what the respondents perceived the question that employees participating in strategy implementation are sufficiently trained and guided to ensure that strategies are implemented effectively and efficiently. The majority (30.7%) of the respondents strongly agreed, 44% of the respondents agreed or strongly agreed, 18.7% of respondents were neutral while 37.3% disagreed or strongly disagreed that employees participating in strategy implementation are sufficiently trained and guided to ensure that strategies are implemented effectively and efficiently. This indicates that in many of the sugar firms, employees are made aware of their role in strategy implementation through training which makes them own the strategies and thus resistance to change will be minimal. However, in more than 30% of the firms, employees are not trained on the implementation of strategies thus resistance and sabotage may arise. This is shown in Figure 4.6 below.
An additional indicator of the variable sought to find out the perception of the respondents that training of staff enhances organizational performance. The majority (38.7%) of the respondents agreed, 65.3% of the respondents agreed or strongly agreed, 10.7% of the respondents were neutral while 24% of the respondents disagreed or strongly disagreed that training of staff enhances organizational performance. This implies that if staff are trained in advance on the strategy implementation their responsiveness to the implementation of strategies would be hands on and this would improve the success rate of such strategies. This is shown in Figure 4.7 below.
The results also determined the distribution of the indicator that the physical resources are adequate and supports implementation of strategy. The majority (29.3%) of the respondents agreed, 57.3% of the respondents agreed or strongly agreed, 14.7% of the respondents were neutral while 28% disagreed or strongly disagreed the physical resources are adequate and supports implementation of strategy. This implies that in majority of the sugar firms, physical resources are adequate thus strategy implementation is made easy thus success rate will be high. However, in some of the sugar firms, physical resources are inadequate which may hamper the implementation of strategies and make success rate low. This is depicted in Figure 4.8 below.

![Physical Resources Adequate Graph](image)

**Figure 4.8: Physical Resources Are Adequate**

The study also sought what the respondents perceived of the question that the company has adequate finances to adequately remunerate employees and implement its strategic goals, majority (24%) of the respondents agreed, 45.3% of the respondents agreed or strongly agreed, 20% of the respondents were neutral while 34.7% disagreed or strongly disagreed. This implies that many sugar firms (more than 50%) have inadequate finances to implement strategic goals thus plans that can bring great changes in an organization and improve organizational performance may just remain on paper and not get executed. This is depicted in Figure 4.9 below.
Regarding the question of whether adequacy of physical and financial resources enhances organizational performance, the majority (53.3%) of the respondents strongly agreed, 73.3% of the respondents agreed or strongly agreed, 8% of the respondents were neutral while 18.7% disagreed or strongly disagreed. This confirms that if the organization has adequate resources, organizational performance is bound to improve since such a firm will take advantage of profitable opportunities and effectively implement its strategic goals. This is depicted in Figure 4.10 below.
4.2.2 Correlation Analysis Strategic Resources and Organizational Performance

Pearson product-moment correlation was used to assess the strength and direction of the relationship between strategic resources and organizational Performance. The correlation coefficient was tested at a 95% confidence level based on 2 tail tests. Therefore, the rejection criteria were based on a p-value of 0.05 where values above it were deemed insignificant while values below were significant. From Table 4.7 below, the correlation coefficient of strategic resources and organizational Performance had a coefficient of $r = 0.627$, $P$-value 0.006 while the correlation coefficient between organizational environment and organizational performance was 0.567. This implies a significant positive association between strategic resource allocation and organizational performance in sugar firms.

<table>
<thead>
<tr>
<th></th>
<th>SR</th>
<th>OP</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR</td>
<td>1</td>
<td>0.233* (0.012)</td>
<td>0.427* (0.006)</td>
</tr>
<tr>
<td>OP</td>
<td>0.233* (0.012)</td>
<td>1</td>
<td>0.367* (0.122)</td>
</tr>
<tr>
<td>Y</td>
<td>0.427* (0.006)</td>
<td>0.367* (0.122)</td>
<td>1</td>
</tr>
</tbody>
</table>

4.2.3 Inferential Statistics Strategic Resources and Organizational Performance

$R$ is a multiple correlation coefficient that depicts the linear correlation between the observed model and the predicted values of the dependent variable. $R$-square depicts the coefficient of determination, indicating the variability in the independent and dependent variables. From Table 4.8 below, the $R$ of 0.735 in model 1 when there is no organizational environment as a moderating variable and 0.772 in model 2 when there is organizational environment as a moderating variable and suggests a strong correlation between strategic resources and organizational performance. The $R$ square value of 0.540 and 0.596 show that 54% of the variation in organizational performance is explained by strategic resources and this improves to 59.6% when organizational environment is favorable. The remaining 46% and 40.4% of the variations in organizational performances are caused by other factors not found in the model without or with organizational environment.

<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>1</td>
<td>.735*</td>
<td>.540</td>
<td>.539</td>
<td>.497</td>
</tr>
<tr>
<td>2</td>
<td>.772*</td>
<td>.596</td>
<td>.595</td>
<td>.328</td>
</tr>
</tbody>
</table>

The overall model shows that strategic resources significantly affect organizational performance at 95% confidence interval with a $p$-value of 0.00<0.05 with or without government regulation. This significance can also be supplemented with a derived $f$ statistics value of 503.668 greater than a critical $f$ value of 2.64 and 527.396, greater than a
critical value of 2.41 without or with organizational environment respectively this is as depicted in Table 4.4 below.

### Table 4.4: ANOVAa

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>124.444</td>
<td>1</td>
<td>124.444</td>
<td>503.668</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>18.036</td>
<td>73</td>
<td>.247</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>142.480</td>
<td>74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Regression</td>
<td>134.748</td>
<td>2</td>
<td>67.374</td>
<td>627.396</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>7.732</td>
<td>72</td>
<td>.107</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>142.480</td>
<td>74</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Simple linear regression analysis was undertaken to estimate the relationship between strategic resources and organizational performance. From Table 4.5 below, the constant value of 0.556 was established without organizational environment and 0.636 with organizational environment as moderating variable respectively which are all significant at 95% confidence interval indicated with a p-value of 0.05 and 0.00<0.005 respectively. The constant value depicts that when the sugar manufacturing firms have no strategic resources, organizational performance will be 0.556 without organizational environment and 0.636 with a good organizational environment respectively. Strategic resources had a Beta coefficient of 1.436 without organizational environment. However, with the existence of organizational environment, the Beta coefficient increases to 1.643 with p-values of 0.000. This significant estimate shows that a unit increase in the levels of strategic resources would increase the organization’s performance index by 1.436 units without organizational environment and 1.643 with organizational environment as a moderating variable.

### Table 4.5: Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>0.556</td>
<td>.192</td>
</tr>
<tr>
<td></td>
<td>SR</td>
<td>1.436</td>
<td>.046</td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>0.636</td>
<td>.406</td>
</tr>
<tr>
<td></td>
<td>SR</td>
<td>1.643</td>
<td>.063</td>
</tr>
<tr>
<td></td>
<td>EN</td>
<td>1.682</td>
<td>.070</td>
</tr>
</tbody>
</table>

The null hypotheses were:

**H₀**: Strategic resources have no significant influence on organizational performance of sugar firms in western Kenya.

**H₀**: Organizational environment have no significant influence on the relationship between strategic resources and organizational performance of sugar firms in western Kenya.

The p-value of the t-statistic of the coefficient estimate of strategic resources was 0.000 which is less than 0.05 implying a significant effect of strategic resources on
organizational performance without or with organizational environment as a moderating variable. The null hypothesis was therefore rejected and a conclusion was drawn that strategic resources have a significant effect on organizational performance. The equations below are generated from the model.

\[ Y = 0.556 + 1.436SR \]
\[ Y = 0.636 + 1.643SR + 1.682EN \]

5. Summary, Conclusions and Recommendations

5.1 Summary of Findings

The first objective was to examine the influence of strategic resources on organizational performance of sugar firms in western Kenya, the results indicate an \( R^2 \) value of 0.540 and 0.596 showing that 54% of the variation in organizational performance is explained by strategic resources and this improves to 59.6% when organizational environment is favorable. The overall model shows that strategic resources significantly affect organizational performance at a 95% confidence interval with a p-value of 0.00<0.05 with or without government regulation. Strategic resources had a Beta coefficient of 1.436 without organizational environment. However, with the existence of organizational environment, the Beta coefficient increases to 1.643 with a p-value of 0.000. This significant estimate shows a positive and significant effect between strategic resources and organizational performance.

The second objective was to establish the influence of organizational environment on the relationship between strategic resources and organizational performance of sugar firms in western Kenya. The \( R^2 \) value of 0.607 shows that 60.7% of the variation in organizational performance is explained by organizational environment. The overall model showed that organization environment significantly affects organizational performance at a 95% confidence interval with a p-value of 0.00<0.05. Organization environment had a Beta coefficient of 0.733 with a p-value of 0.000. This significant estimate shows a positive and significant influence of organizational environment on the relationship between strategy implementation and organizational performance. From the foregoing results on the moderating effect of organizational environment on the relationship between strategic leadership and organizational performance which are all significant, it was concluded that, that there exists a positive and significant moderating effect of organizational environment on the relationship between strategic resources and organizational performance in sugar firms in western Kenya.

5.2 Recommendations of the Study

The results of this study show that strategic resources positively affect strategic resources and organizational performance. The management of sugar manufacturing firms should therefore strive to improve strategic resources. The sugar manufacturing firms should have adequate machines and equipment, and the tools and equipment should be in line
with technological advancements to ensure strategy implementation. All departments should be adequately staffed. Employees participating in strategy implementation should be trained and guided to ensure that strategies are implemented effectively and efficiently.

Conflict of Interest Statement
The authors declare no conflicts of interest.

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References


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STRATEGIC RESOURCES, ORGANIZATIONAL ENVIRONMENT AND ORGANIZATIONAL PERFORMANCE OF SUGAR MANUFACTURING FIRMS IN WESTERN KENYA


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