

## **EFFECT OF STRATEGY FORMULATION ON PERFORMANCE OF CHEMELIL SUGAR COMPANY IN KISUMU COUNTY, KENYA**

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### **ABSTRACT**

**Purpose of the study:** The study sought to examine the effect of strategy formulation on performance of Chemelil sugar company in Kisumu County in Kenya.

**Research Problem:** The performance at Chemelil sugar company has been incompatible with the company's envisage strategic development plan. The company posted a loss of Ksh 821 million in 2018, which was an increase compared to the loss of Ksh 767.25 million incurred in 2016 (Auditor-General Financial Statement CSC 2018/2017 & 2015/2016).

**Research Methodology:** The study adopted the descriptive research design. The target population were heads of departments in Chemelil Sugar Company. The study conducted a census on all the 60 departmental heads. Self-administered questionnaires were used to collect data and analysis were carried out using descriptive and inferential statistics.

**Findings:** The correlation analysis indicated a statistically significant association between strategy formulation and performance. The model summary indicated that 27.4% of the variation in organizational performance can be explained by strategy formulation. The regression results

showed that strategy formulation is significantly and positively related to performance ( $\beta = .689$ ,  $t = .774$ ,  $p = .046$ )

**Conclusion:** The strategy formulation includes strategic direction, corporate strategy, business strategy and functional strategy. In addition, it was concluded that a unit increase in strategy formulation increases performance by 0.689 units while holding all other factors constant.

**Recommendations:** The study recommended strategic direction, corporate strategy, business strategy and functional strategy can be adopted to enhance performance. In addition, it was recommended the company should use the available knowledge to document the intended direction and the actionable steps to reach its goals.

**Keywords:** *Strategy formulation, performance, Chemelil sugar company, Kisumu County, Kenya*

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## **INTRODUCTION**

The performance can be measured using financial and non-financial indicators. Some of the financial measures are revenue, return on equity, return on assets, profit margin, sales growth, capital adequacy, liquidity ratio and stock prices, while non-financial indicators include market share, customer base, growth, production efficiency, customer service, among others (Isaac, Masoud, Samad & Abdullah, 2016; Kabetu, & Iravo, 2018). Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues (Surabhi & Rajesh, 2020). Combining both financial and non-financial measures of performance help managers gain a broader perspective on measuring and comparing performance (Salvador, Simões & Soares, 2016). The performance of an organization can be potent in determining its sustainability (Ndubai, Mbeche & Pokhariyal, 2016). Thus, effective strategies such as strategy formulation can be adopted to increase the performance.

Strategy formulation entails deliberate sets of actions set to attain competitive advantage (Gatheru, 2018). It is associated with the significant development of attainable organizational goals, objectives, missions and strategies. Strategy formulation enables an organization to develop a set of directions and act as a road map (Niculae et al., 2010). Tapera (2016) affirms that a company tries to adjust the objectives and strategies to attain success in strategy formulation and developing a sustainable competitive advantage. The performance of Chemelil sugar company in Kisumu County in Kenya has been fluctuating between profit and loss. Many factors account for

inconsistent performance including insufficient cane supply, unfavorable weather and management related aspects. The considerations of strategy formulation can increase the performance. Thus, the study sought to examine effect of strategy formulation on performance of Chemelil sugar company in Kisumu County, Kenya.

### **STATEMENT OF THE PROBLEM**

Many organizations spent a lot of finances developing strategies yet they are not implemented. Chemelil Sugar Company has a 5-year strategic development plan. Its primary objective is to increase cane supply to 840,000 tons by the end of 5years. However, the performance has been incompatible with the company's envisage strategic development plan. The company posted a loss of K.sh 821 million in the year June 2018, which is an increase compared to the loss of K.sh 767.25 million incurred in 2016 (Auditor-General Financial Statement CSC 2018/2017 & 2015/2016). In 2018 Chemelil Sugar Company sold 6,105 tons, which decreased compared to sales in 2017, which was 7,737 tons between January and August (AFA, 2018). In 2019 the company was temporarily closed and re-opened earlier 2020.

Based on the reviewed studies, a knowledge gap was ascertained and thus formed the rationale of the study. For instance, the study of Issack and Muathe (2017) adopted a descriptive survey and collected data through administering questionnaires. It concluded that conducting an environmental audit is a necessity for the sustainable growth of public health institutions. However, the study focused on the health institution and may not appropriately inform the public sugar company sector. In addition, Mwongeli (2018) researched on enhancing service delivery in the Judiciary of Kenya using the interview method to collect data. However, due to the interview method used, few respondents were interviewed. The quality of data collected was dependent on the interview's ability to engage with the respondent. Hence the current study sought to overcome the methodological weakness observed by using fairly represent the target population. Therefore, it was from this background that this research sought to examine the effect of strategy formulation on performance of Chemelil sugar company in Kisumu County.

### **RESERCH OBJECTIVE**

To find out the effect of strategy formulation on performance of Chemelil sugar company in Kisumu County, Kenya.

## **LITERATURE REVIEW**

### **Theoretical Review**

The study was based on Open System Theory. Bertalanffy developed Open System Theory (OST) in the year 1956. It was further advanced from the work of Emery and Trist (1960). An organization that allows the interchange of information with its external interaction is an open system. Open system theory was created to improve innovativeness, communication and enhance a company's ability to withstand a fast-changing, uncertain environment (Mbithi, 2016). An excellent open system continuously exchanges feedback with its environment, scrutinizes the feedback, and releases the important details back to the environment (Mc Manara, 2006). OST assumes that a company continuously gets information from the environment, process, and gives output to the same environment. OST supports environmental scanning objectives, which helped Chemelil sugar Company understand the environment it operates in, making the theory of great significance to this study. The organization functions in an environment where they were dependent on external factors to improve their strategies. Therefore, using the concept of an open system, the company understood its environmental demands by exploring the opportunities, the resulting adaptation on strategy formulation, and its implementation or lack thereof. The study also explored the role external factors play in strategy formulation, how they influence a company's well-being and its role in realizing its objectives.

### **Empirical Literature Review**

Augustine, Agu, & Campus (2013) descriptive study on Anambra Motor Manufacturing Company Limited Emene Enugu in Nigeria collected data from both primary and secondary sources. Primary data were generated from both interviews and questionnaire, while secondary data were from existing documents. A random sampling technique was used on sample size of 106 respondent to collect data. The study adopted a descriptive statistic to analyze data. The findings revealed that strategy formulation aligned with appropriate organizational structure improves the productivity of the Anambra Motor Manufacturing Company Limited. However, there was a methodological weakness as the current study was incorporated both descriptive statistic and inferential statistic to analyze data.

Issack and Muathe (2017) conducted a descriptive study on strategy formulation and performance of public health institution in Mandera County. A census technique was adopted to select 51

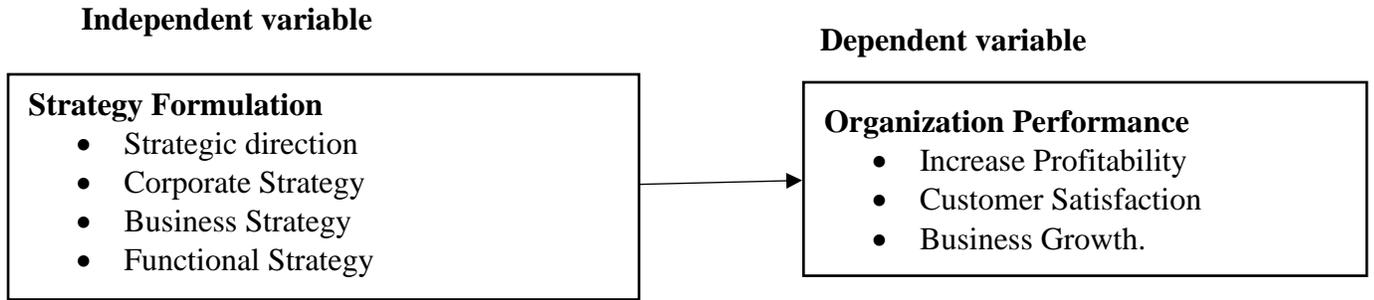
respondents to collect primary data by administering questionnaire. Inferential statistic comprising of both correlation and regression analysis were conducted. The findings revealed that strategy formulation and performance of public health institutions were positively and significantly related. The study further concluded that, strategy formulation increases performance of public health institutions and it aid in the development of long-term plans for effective management of opportunities. This study concentrated on the health sector, in order overcome the contextual weakness the current study was based on the sugar industry sector.

Chijioke, Vu and Olatunji (2018) study on influence of strategy formulation drivers on strategic performance on the mobile telecommunication firms in Nigeria measured Strategy formulation using, organization's vision, mission, and objective. The study used semi structured questionnaires on 120 respondents to collect data. The study adopted descriptive statistic and multiple regression technique to analyse data. The findings showed that strategy formulation positively and significantly influenced performance of mobile telecommunication firms. It further concluded that paying attention to the company's vision is important during strategy formulation because it gives strategic direction and contribute positively and significantly to superior strategic performance. The current study used census method to get a precise conclusion and overcome the methodological weakness of using simple random sampling technique by the previous study.

Nwachukwu, Chladkova and Fadeyi (2018) conduct a descriptive study, on microfinance Banks in Nigeria, measured strategy formulation using product innovation, process innovation, and market innovation. The study adopted web based survey combined with sending emails to 80 respondents to collect primary data. Regression and Pearson correlation matrix were used to analyse data. The findings revealed that strategy formulation process had a positive effect on process innovation performance. It further concluded that a firm with the desire to have excellent performance should implement the formulated strategy. The current research sought to overcome conceptual weakness by measuring strategy formulation using mission and vision, objectives and plan, corporate, business and functional strategies.

### **Conceptual Framework**

A conceptual framework shows the relationship between the independent and dependent variable. Thus, the conceptual framework is presented in Figure 1



**Figure 1: Conceptual Framework**

**Source: Author (2021)**

## RESEARCH METHODOLOGY

This research adopted a descriptive research design. The design was appropriate to this study as it facilitated the gathering of data from the individuals' attitudes, opinions and habits without manipulation. The target population was 60 departmental heads, sectional heads, superintendents and foremen of the company. The study adopted a census method because the population size was small and for accuracy. The study applied purposive sampling technique. Data was collected using self-administered questionnaire. The study adopted a drop-and-pick later method.

## RESEARCH FINDINGS AND DISCUSSION

### Response Rate

The questionnaires were administered to all the 60 respondents, however, only 52 questionnaires were returned duly filled. This contributed to 87% response rate. According to Baruch and Holtom (2008), a survey's response rate of 60% or more is considered adequate for data analysis and reporting. Thus, the response rate was 87% as presented in Table 1

**Table 1: Response rate**

Response Rate	Frequency	Percent
Response	52	87%
Non response	8	13%
Total	60	100%

Source: Field Data (2021)

## Descriptive Analysis Results

### Strategy Formulation

The study examined the effect of strategy formulation on the performance of Chemelil Sugar Company in Kisumu County and the results are compiled in Table 2

**Table 2: Strategy Formulation**

Statements	SD	D	N	A	SA	Mean	Std. Dev.
Strategy formulation enhances performance.	0%	0%	7.7%	84.6%	7.7%	4.00	0.41
The corporate strategies have enhanced the company's performance.	0%	7.7%	15.4%	61.5%	15.4%	3.85	0.80
The Company's Mission and Vision affect the overall performance in your organization.	0%	0%	7.7%	61.5%	30.8%	4.23	0.60
You have ever been faced with significant problems that surfaced which had not been identified earlier during strategy formulation.	0%	0%	30.8%	61.5%	7.7%	3.77	0.60
Your organization incorporated the Vision and Mission into various Organizational Departments.	0%	0%	7.7%	53.8%	37.7%	4.25	0.62
Business strategies have improved the Department's performance.	0%	0%	23.1%	61.5%	15.4%	3.92	0.64
Functional strategies have enhanced the Section's performance.	0%	0%	23.1%	69.2%	7.7%	3.85	0.55
Company's Strategic Plan is achievable.	0%	0%	23.1%	53.8%	23.1%	4.00	0.71
Company's Mission and Vision are achievable.	0%	0%	15.4%	46.2%	38.5%	4.23	0.73
Employee's daily and monthly targets are aligned to the Objectives of the Company.	0%	0%	7.7%	61.5%	30.8%	4.23	0.60
<b>Average</b>						<b>4.03</b>	<b>0.63</b>

Based on the results in Table 2, a majority of the respondents strongly agreed that strategy formulation enhances performance (mean = 4.00, std. dev. = 0.41), the company's mission and vision affect the overall performance in the organization (mean = 4.23, std. dev. = 0.60), the

organization incorporated the vision and mission into various organizational departments (mean = 4.25, std. dev. = 0.62), company's strategic plan is achievable (mean = 4.00, std. dev. = 0.71), company's mission and vision are achievable (mean = 4.23, std. dev. = 0.73) and employee's daily and monthly targets are aligned to the objectives of the company (mean = 4.23, std. dev. = 0.60) They also agreed that the corporate strategies have enhanced the company's performance (mean = 3.85, std. dev. = 0.80), they have ever been faced with significant problems that surfaced which had not been identified earlier during strategy formulation (mean = 3.77, std. dev. = 0.60), business strategies have improved the department's performance (mean = 3.92, std. dev. = 0.64) and functional strategies have enhanced the section's performance (mean = 3.85, std. dev. = 0.55).

The average mean score for the attributes was 4.03 which tends to 5 (strongly agree) on the 5-point Likert scale used in the study. The variability of responses from the aggregate mean scores as shown by the aggregate standard deviation of 0.63 is low. This aggregate mean score revealed that the attributes related to strategy formulation in Chemelil Sugar Company was high. Additionally, the low aggregate standard deviation showed that the responses concentrated around the mean and hence a stable and reliable estimator of the true mean. The narrow variation from the overall mean response confirmed that the respondents strongly agreed that strategy formulation played a major role in the performance of this firm. These findings are consistent with findings by Nwachukwu et al., (2018) who found that strategy formulation had a significant effect on an organization's performance. They concluded that a firm with the desire to have innovative performance excellence should implement the planned strategy. Additionally, Augustine et al., (2013) recommended a well-planned strategy so as to improve and increase productivity in a study focusing on Ambara Motor Manufacturing Company Limited.

### **Organizational Performance**

Moreover, factors influencing performance at Chemelil Sugar Company were examined and the results are as presented below in Table 3.

**Table 3: Organizational Performance**

Statements	Sd	D	N	A	Sa	Mean	Std. Dev.
Having a monitoring process and evaluation procedure for tracking performance increases organizational performance.	0%	0%	15.4%	84.6%	0%	3.85	0.376
Your organization set clearly defined Key Performance Indicators (KPI) for each plan, do they lead to increased organizational growth.	0%	0%	15.4%	84.6%	0%	3.85	0.376
Organization has experienced significant growth in the last three years.	0%	15.4%	38.5%	46.2%	0%	3.31	0.751
Level of your customer's satisfaction has improved in the last three years.	0%	30.8%	38.5%	23.1%	7.7%	3.08	0.954
Organization's profitability has improved in the last three years.	0%	30.8%	46.2%	23.1%	0%	2.92	0.76
Organization has a monitoring process and evaluation procedure to track performance.	0%	30.8%	53.8%	7.7%	7.7%	2.92	0.862
Implementation of strategies improves the profitability of your organization.	0%	38.5%	46.2%	15.4%	0%	2.77	0.725
Organization has experienced low employee turnover.	0%	38.5%	46.2%	15.4%	0%	2.77	0.725
Organization has expanded over the last 10 years.	0%	53.8%	38.5%	7.7%	0%	2.54	0.66
All the departments and sections have adopted use of Key Performance Indicators (KPI) leading to overall improvement of the company.	0%	7.7%	23.1%	61.5%	7.7%	3.83	0.577
<b>Average</b>						<b>3.18</b>	<b>0.677</b>

The results in Table 3 indicates the respondents agreed that having a monitoring process and evaluation procedure for tracking performance increases organizational performance (mean = 3.85, std. dev. = 0.376), the organization set clearly defined Key Performance Indicators (KPI) for each plan, which lead to increased organizational growth (mean = 3.85, std. dev. = 0.376), organization has experienced significant growth in the last three years (mean = 3.31, std. dev. = 0.751, the level of customer's satisfaction has improved in the last three years (mean= 3.08, std.

dev. = 0.954) and all the departments and sections have adopted use of Key Performance Indicators (KPI) leading to overall improvement of the company ( mean = 3.83, std. dev. = 0.577).

However, the respondents neither agreed nor disagreed with the statements that the organization's profitability has improved in the last three years (mean = 2.92, std. dev. = 0.76), the organization has a monitoring process and evaluation procedure to track performance (mean = 2.92, std. dev. = 0.862), implementation of strategies improves the profitability of your organization ( mean = 2.77, std. dev. = 0.725, the organization has experienced low employee turnover ( mean = 2.77, std. dev. = 0.725) and that the organization has expanded over the last 10 years (mean = 2.54, std. dev. = 0.66). The average mean score for the attributes was 3.18 which tends to 4 (agree) on the 5-point Likert scale used in the study.

The variability of responses from the aggregate mean scores as shown by the aggregate standard deviation of 0.677 is low. This aggregate mean score revealed that the attributes related to performance of Chemelil Sugar Company was high. Additionally, the low aggregate standard deviation showed that the responses concentrated around the mean and hence a stable and reliable estimator of the true mean. The narrow variation from the overall mean response confirmed that the respondents agreed that different statements used to gauge performance. The findings are consistent with a study by Eren and Birinci (2013) who recommended having a monitoring process and evaluation procedure to track performance increases organizational performance. They added that organizations should set clearly defined Key Performance Indicators (KPI) for each plan. Guruwo et al., (2017) also recommended that monitoring and evaluation trends in performance contribute to longterm profitability.

### **Inferential Statistics Results**

Inferential statistics makes inferences or implications of data in the study that was generalized about the population based on the samples. The inferential results included the correlation analysis results and univariate regression results.

### **Correlation Analysis Results**

The study sought to establish the strength of the association between the independent and dependent variables of the study. Pearson correlation coefficient was computed at 95 percent confidence interval.

**Table 4: Correlation Matrix**

		SF	OP
<b>Strategy Formulation</b>	Pearson Correlation	1.000	
	Sig. (2-tailed)		
<b>Organization Performance</b>	Pearson Correlation	0.678	1.000
	Sig. (2-tailed)	0.020	
<b>N</b>		<b>52</b>	<b>52</b>

The correlation matrix Table 4 revealed that, there was a strong positive association between performance and strategy formulation ( $r = 0.678$ ,  $p = 0.020$ ). This was an indication that strategy formulation and performance of organization change in the same direction. The result concurred with Issack and Muathe (2017) who indicated that strategy formulation influences performance of public health institutions. The strategy formulation aids in the development of long-range plans for effective management of opportunities. The findings were also consistent with Mohammad, et al., (2019) who indicated that formulation of good strategy improved performance of small and medium size enterprise.

**Univariate Regression Results for Strategic Formulation and Firm Performance**

The study sought to determine whether strategy formulation influences performance of Chemelil Sugar Company. The researcher used a linear regression to establish the relationship between the study variables. The findings of the model summary are presented in Table 5 below.

**Table 5: Model Summary**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.524 <sup>a</sup>	.274	.208	.37305

**a. Predictors: (Constant), Formulation**

The coefficient of determination ( $r^2 = .274$ ) indicated that 27.4 % of the variation in organizational performance can be explained by strategy formulation. The remaining 72.6% can be explained by other factors.

Table 6 shows the results of ANOVA analysis.

**Table 6: ANOVA**

		ANOVA <sup>a</sup>				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.578	1	.578	3.156	.046 <sup>b</sup>
	Residual	9.341	51	.183		
	Total	9.918	52			

a. Dependent Variable: performance

**b. Predictors: (Constant), Formulation**

The results in Table 6 indicated that the regression model influences the study positively. This is because the significance value ( $p = .046$ ) was less than 0.05. Therefore, strategy formulation significantly influence performance at Chemelil Sugar Company.

The coefficient results are presented in Table 7

**Table 7: Coefficient**

		Coefficients <sup>a</sup>				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.023	1.321		.774	.455
	Formulation	.689	.338	.524	2.039	.046

**a. Dependent Variable: performance**

The results of regression analysis in Table 7 established that strategy formulation is significant at  $\beta = .689$ ,  $t = .774$ ,  $p = .046$ . An interpretation can be made that at 95% confidence level, strategy formulation positively influences performance at Chemelil Sugar Company. A unit increase in strategy formulation while holding all other factors constant, increases performance to 0.689.

The simple regression model was:

$$Y = 1.023 + 0.689X$$

**Where;**

Y=Performance; X=Strategy formulation

The findings are consistent with Augustine et al. (2013) who found a significant relationship between strategy formulation and a firm's performance.

## **CONCLUSION**

The majority of the respondents agreed that business and functional strategies had improved the department's performance. The company's strategic plan, mission, and vision are achievable and employees' daily and monthly targets are aligned to the objectives of the company. The strategy formulation, corporate strategies, the Mission and vision enhances a company's performance. The study concluded that the company had incorporated the vision and mission into various organizational departments and they have been faced with significant problems that surfaced which had not been identified earlier during strategy formulation. The results of the inferential statistics indicated a strong positive relationship between performance and strategy formulation.

## **RECOMMENDATION**

The study recommended that strategic direction, corporate strategy, business strategy and functional strategy can be adopted to enhance the performance. In addition, it was recommended that the company should use the available knowledge to document the intended direction and the actionable steps to reach its goals. Moreover, a plan should be formulated to elect a team that will oversee proper strategies formulation to enhance the performance. The strategy formulation is more on resource allocation, prioritization, organization-wide alignment and validation of business goals.

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