



**EXAMINING COMMUNITY FINANCING
OF SECONDARY EDUCATION LUNCH PROGRAMMES
AND THEIR EFFECT ON PROVISION OF QUALITY
EDUCATION IN KISUMU COUNTY, KENYA**

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Abstract:

The effectiveness of public financial support for secondary education is an issue of concern given the delay in submitting government grants, challenges of increased enrolment and inadequate resources to support quality teaching and learning. This study was based in Kenya; however, Kisumu County was chosen for its below-average KCSE mean score of 4.08 (D+) in 2017 compared to the average mean of 6 (C); low teacher-student ratio at 1:59 compared to the required 1:45 and absolute poverty index of 41% compared to the national poverty index of 35.6. The purpose of this study was to analyze community financing of public secondary schools and its effect on the quality of education in Kisumu County, Kenya. The specific objective of the study was to examine community financing of secondary school lunch programs and their effect on the provision of quality education in Kisumu County. A descriptive and correlation research design was used in the study. The target population for this study comprised 214 secondary schools in Kisumu County, 214 school principals, 214 BOM chairpersons, the CDE, 48 CBOs and 51,243 students. Questionnaires, document analysis and interview schedules for school principals, BOM chairpersons, the CDE, CBOs and students were used in this study. A stratified simple random sampling procedure was used to sample the 64 public secondary schools in Kisumu County from which 64 school principals, 64

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BOM chairpersons, 16 CBOs and 387 purposively selected students were used for the study. The content and face validity of the instruments were determined by employing experts in the Department of Education Management and Foundations. The reliability of the instruments was calculated by using the test re-test and was calculated at Pearson r coefficient of 0.879. Qualitative data was transcribed and analyzed in emergent themes and sub-themes. The results showed that there was a positive correlation of 0.952 between Community financing, lunch programs and academic performance. The study concluded that community financing of adequate lunch programs significantly influences the academic performance of learners to a great extent. The study recommended that community financing of lunch programmes should be increased in order to achieve fully the objectives of the secondary education policy. The findings may be significant to policymakers, education planners and implementers on the requirement for the registration of institutions of higher learning.

Keywords: lunch programmes; education; financing

1. Introduction

School feeding programmes constitute critical interventions that have been introduced in many developed and developing countries of the world to address the issue of poverty, stimulate school enrolment and enhance pupils' performance. In developing countries, almost 60 million children go to school hungry every day and about 40 percent of them are from Africa. Providing school meals is therefore vital in nourishing children. Parents are motivated to send their children to school instead of keeping them at home to work or cater for other siblings (Akanbi, 2013).

The introduction of school feeding is traced to the Millennium Development Goals (MDGs) initiative and several conferences held thereafter by African leaders which aimed to tackle issues, such as peace, security, good economic, political and corporate governance and to make the continent an attractive destination for foreign investment. Some of these developments include the 'New Partnership for African Development' which according to the blueprint is a pledge by African leaders, based on a common vision and a firm and shared conviction; to eradicate poverty and to place their countries on the path of sustainable growth and development at the same time, to participate actively in the world economy and politics. Also, the 'Comprehensive African Agriculture Development Programme' and the 'Millennium Hunger Task Force' amongst others were initiatives which were designed to link school feeding to agricultural development through the purchase and use of locally produced food (Bundy *et al.*, 2009).

Community financing appears in general less vigorous in Latin America than in Africa and Asia, although prominent examples may also be found there. For example, El Salvador has a substantial group of community-managed schools. Much of the funding for these schools comes from the government and external aid, but a 1994 report noted

that about 30 per cent of community education associations responsible for the schools, embarked on their fundraising initiatives (World Bank, 1994b). A parallel report on Bolivia noted that communities played a major role in that country, particularly in school construction and maintenance (World Bank, 1993a), is this true for secondary schools in Kisumu County?

Table 1 below shows a trend in academic performance in Kisumu County between 2015 – 2019.

Table 1: Trend in Academic performance from 2015 – 2019 in Kisumu County

Grade in KCSE and the mean Score													
Year	Score												Mean
	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	
2015	180	456	805	1352	1723	1854	1854	1895	1696	1273	486	21	6.352
2016	0	119	311	504	701	1107	1478	2044	2588	3359	3029	343	4.378
2017	2	91	231	392	649	904	1256	1853	2640	3827	3843	575	4.025
2018	13	138	269	429	712	972	1425	2217	3030	4256	3829	381	4.147
2019	25	372	372	713	1100	1329	1922	2481	3154	3986	3618	378	4.494

Source: Regional Director of Education – Nyanza (2022).

The performance over the period was below average and fluctuated on a reducing trend as shown in Table 1 in the year 2016, there was a sudden drop in performance in the country due to KNEC regulations and poor curriculum implementation (Republic of Kenya, 2022).

Community financing is witnessed where demand for schooling is strong compared to government inputs. This has been particularly evident in parts of Africa. In Cameroon, government resources for education have been increasingly stretched by a general fiscal crisis. To help make up the difference, many schools have established parent-teacher associations (PTAs). The main function of the associations is fundraising and provision of facilities. A 1990 government circular, seeking to legalize an already existing practice, sanctioned association fundraising.

1.2 Statement of the Problem

In the developed world, community participation in educational development remains a vital instrument for transferring resources from society to the youth. The transfer of resources from the community to the beneficiary schools has traditionally been through a disintegrated approach as each interested group would initiate projects in their set goals. The traditional development strategies have largely failed to reach and benefit the rural poor. A possible reason for these failures is attributed to the lack of local community participation in identification, planning, design and implementation.

From the proceeding analogy, it is important to determine the effectiveness of public financial support to the secondary sector of education. Such information provides the basics and the starting point for restructuring public financial support to this sector.

The aim of this study will be an in-depth analysis of community financing of secondary school education in Kisumu County, Kenya.

1.3 General Purpose of the Study

The purpose of this study is to analyze the effect of community financing of public secondary schools and its effects on the quality of education in Kisumu County, Kenya.

1.4 Objectives of the Study

The following are the objectives of this study:

To establish the effect of Community financing of lunch programs on the quality of secondary education in Kisumu County.

2. Brief Literature Review

School feeding is defined by the WFP (2013) as the provision of food to school children. There are as many types of programmes as there are countries, but they can be classified into two main groups based on their modalities: (1) in-school feeding, where children are fed in school; and (2) take-home rations, where families are given food if their children attend school. In-school feeding can, in turn, be divided into two common categories: (1) programmes that provide meals; and (2) programmes that provide high-energy biscuits or snacks (WFP, 2013). In some countries, in-school meals are combined with take-home rations for particularly vulnerable students, including girls and children affected by HIV, to generate greater impacts on school enrolment and retention rates and reduce gender or social gaps. Additionally, school feeding programmes may cover pre-primary-, primary- and secondary-school children in many countries.

According to Bundy, D. A., de Silva, N., Horton, S., Patton, G. C., Schultz, L., & Jamison, D. T. (2017), almost every country in the world has a national school feeding program to provide daily snacks or meals to school-attending children and adolescents. The interventions reach an estimated 368 million children and adolescents globally. The total investment in the intervention is projected to be as much as US\$75 billion annually (WFP, 2013), largely from government budgets.

Ali, Y., & Mackintosh, A. (2022) conducted a comprehensive analysis that underscored the critical importance of financing school meal programs, particularly in the context of the multifaceted challenges posed by the COVID-19 pandemic and pre-existing learning, poverty, and malnutrition crises. The findings highlighted that well-designed and properly financed school feeding initiatives have the potential to mitigate the adverse effects of the "triple crisis" and yield substantial benefits for vulnerable learners, especially those living in poverty. The report emphasized the role of school meals in enhancing school participation, reducing dropout rates, and improving learning outcomes, with a focus on equitable distribution. Moreover, the financial constraints faced by governments and the underinvestment from aid donors and multilateral

development banks were identified as significant hurdles that necessitated urgent attention.

In the United States of America, Ruffini, K. (2021) states that Free-meal programs have a positive impact on student performance, specifically in terms of improved math outcomes and reduced suspensions. The findings of their study indicate that the implementation of the Community Eligibility Provision (CEP) led to enhanced math performance and a significant decrease in out-of-school suspensions, particularly among white male elementary students. The results indicate a 17% reduction in suspensions for this subgroup. The study suggests that the benefits extend to areas and subpopulations with low free-meal participation before the CEP, emphasizing the program's role in increasing access for families who may not qualify under traditional income-based criteria. The analysis also notes that benefits are concentrated among younger students and groups likely to gain access to universal programs.

In most Malaysian schools, regardless of whether they are public or private schools, students eat in a canteen where they purchase food and drinks from vendors. School canteens sell food and drinks at reduced prices. Underprivileged students can apply for the free food program – which, depending on the school, is either sponsored by the school's parent-teacher association or by the Ministry of Education. Low-income students may also be eligible for the School Milk Program, which is funded by milk companies and non-governmental organizations (Ministry of Education, Malaysia, 2014). In Singapore, school meals in most primary and secondary schools are provided in each school's canteen (or tuckshop). The canteens consist of stalls which sell a variety of foods as well as beverages. To cater to the many races, religions, and cultures in Singapore, canteens often offer a range of cuisines, like Chinese, Indian, Malaysian and Western foods (Government of Singapore, 2016). To encourage healthier eating habits among children, the Health Promotion Board of Singapore launched the Healthy Eating in Schools Programme, which gives an award to schools which serve healthy meals. To receive the award, schools must reduce the sugar content in drinks and desserts, serve fewer deep-fried and fatty foods, and include two servings of greens in their meals (Government of Singapore, 2016).

According to Aliyar, Ruzky; Gelli, Aulo; Hamdani, and Salha Hadjivayanis (2015), the school lunch is a meal provided to students and sometimes teachers at school, typically in the middle or beginning of the school day. Countries around the world offer various kinds of school meal programs. Each weekday, millions of children from all standards and grades receive meals at their respective schools. School meals in twelve or more countries provide high-energy food with high nutritional values either free or at economical rates. The benefit of school meals varies from country to country. While in developed countries the school meal is a source of nutritious meals. In developing countries, it is an incentive to send children to school and continue their education. In developing countries, school meal provides food security at times of crisis and help children to become healthy and productive adults thus helping to break the cycle of poverty and hunger.

According to Jensen (2010), school feeding mostly takes place within the context of broad national school reform programs. These reforms should focus on other essential inputs to education and learning such as teacher development, curriculum reforms and student assessment. National ministries or organisations dealing with education should not be encouraged to take on school feeding at the expense of other educational inputs as it is difficult politically to refuse food aid. According to Pediatre (2001), attendance and school performance are greatly enhanced by school feeding programs. Many schools are already struggling to manage barely functional education systems and to assume the additional burden of food distribution. According to Taylor (2010), complementary inputs are needed in order to overcome the reliance on outside food sources such as school feeding programs. She emphasized complementary health and nutrition inputs to accompany the feeding program.

Research on school-age children investigating the relationship between health, nutrition and school performance indicated that children who are healthy and well-nourished had better academic performance than their peers who are sick and poorly nourished (Nkinyangi, 1991). There is an effect of feeding on the development of the body and brain (KIE, 1990). No child can develop his or her brain to the maximum without feeding properly.

Kiiru, J. K., Mange, D., & Otieno, D. (2020) study on the lunch program in public day secondary schools in Mombasa and Kilifi Counties, Kenya, revealed its crucial role in influencing educational outcomes. The research found that schools with a well-implemented food safety program experienced positive impacts on students' academic performance. The provision of hygienic and safe food ensured that students remained healthy, contributing to regular attendance and improved overall well-being, which, in turn, positively affected educational outcomes. However, the absence of hygienic food storage in some schools raised concerns, potentially leading to food spoilage and negatively impacting educational achievements. The study also highlighted the importance of monitoring and evaluation procedures in the lunch program. Positive relationships between improved performance, discipline, health status, and time management underscored the significance of these procedures in enhancing various aspects of educational outcomes.

Muriuki, M. W. (2021) conducted a study examining the effects of providing nutritious school meals on educational achievements in secondary schools in Kibra Sub-County, Nairobi, Kenya. The overall findings suggested a positive association between the provision of nutritious meals and higher educational achievements. Despite the significant positive impact observed, the study identified gaps in the provision, quality, and quantity of nutritious school meals.

According to Munuhe, B. W. (2014), school feeding programs (SFPs) serve as a crucial social safety net in developing nations, addressing various policy areas to aid vulnerable populations, particularly school-aged children. Munuhe's study in Isinya Division, Kajuado in Kenya revealed diverse challenges, highlighting deficiencies in policy formulation and implementation by state actors as a major source of obstacles.

Additionally, the role of communities emerged as significant in ensuring the day-to-day functioning of the programs. Sustainability of the meal programs faced uncertainty due to inadequate financial allocations, schools' failure to initiate income-generating projects with SFP support, lack of alternative funding sources, and the persistent increase in pupil enrollment against stagnant budgetary allocations. These findings underscore the multifaceted challenges that impact the effective implementation and sustainability of school feeding programs in the region.

3. Research Methodology

3.1 Research Design

The research designs adopted in this study were a descriptive survey design and a correlational design. Best and Khan (2006) assert that descriptive is designed to obtain current information and phenomena and wherever possible draw valid general conclusions from the facts discussed. Correlational research designs investigate plausible and effect relationships by observing an existing condition or state of affairs and searching back in time for plausible causal factors (Cohen and Manion, 1994).

3.3 Area of Study

The choice of Kisumu County as the area of study is influenced by the following factors; the area is a cosmopolitan region and the findings can apply to other regions in the country also by the fact that despite the continued government support to the public primary schools in the area, the performance is stagnant compared to other counties. Kisumu County lies between longitudes 33°20'E and 35° 20'E and latitudes 0° 20' South and 0° 50' South. The County is bordered by Homa Bay County to the South, Nandi County to the North East, Kericho County to the East, Vihiga County to the North West, and Siaya County to the West (Kisumu County, 2018)

3.4 Study Population

The target population consisted of all 72 public boardings and 142 public day secondary schools, 214 principals, 50243 students and the C.D.E Kisumu County. Others included; 214 B.O.M chairpersons, and 48 community-based organizations that support secondary school education.

3.5 Sample and Sampling Technique

The sample size of the population was guided by the heterogeneity in the data in the form of national, extra-county, county and sub-county schools. The subgroup within the population was fairly represented. Random sampling and stratified random sampling techniques were used to select a third of the target population. A stratified random sampling procedure was used to sample the 64 public secondary schools in Kisumu Country and 64 principals. Yamane Formula was used to randomly sample the 387 students used for the study (Yamane, 1967). The formula is used to determine sample

size concerning the large population under study. In addition, the C.D.E Kisumu County, 64 B.O.M Chairpersons and 16 community-based organizations formed part of the sample.

Table 2: Sample Frame

Respondents	Population	Sample	%
Principal	214	64	29.9%
Students	50243	387	0.77%
BOM chairs	214	64	29.9%
CBOs	48	16	33.33%
CDE	1	1	100%

3.6 Instruments of Data Collection

The study used questionnaires, Interview guides and document analysis to collect data for the conclusion of the study. Five sets of questions were designed for students, principals, B.O.M chairperson, community-based organizations and C.D.E. Kisumu County to comprehensively exhaust the aspect of the study. The interview guide was administered to the CDE to enhance information from the school and the County. The interview assisted the researcher in collecting data to clarify issues on the questionnaire and provided information that could not be directly observed. The documents from schools, education offices and community-based organizations were read for further information. The schools' budgets, strategic plan and development report, community-based organization records, budgets and invitations.

3.8 Validity of Instruments

To check the content validity, the instruments were given to three experts from the Department of Educational Management and Foundation of Maseno University. They checked on the instruments' content coverage based on the study parameters. The instruments were also given to peers for further review to determine the internal consistency. Based on the experts' comments, the researcher made improvements to the instruments.

3.9 Reliability of Instruments

The researcher administered the instruments twice to the respondents at an interval of two weeks and the data from the two pilot tests were calculated by using the Pearson r coefficient. A Pearson r coefficient of 0.7 and above at a set p-value of 0.05 was considered reliable. Table 3 below shows the reliability of various scales of the questionnaires

Table 3: Reliability output

Scale	No. of Items	Pearson Correlation
The principal as an agent of good academic performance contributes to the provision of quality education in ways stated below	7	0.879
Principals' response on community financing transport and travelling	4	0.902

4. Presentation of Research Findings and Discussion

The study was to determine the community financing secondary schools of lunch programs. The study first determined the amount the community is giving towards the lunch program and the number of students benefiting from the scheme. Secondly, the study sought the perspective of principals regarding the community financing of lunch programs. The key for the rating scale is as follows: SA: Strongly Agree = 5; A: Agree = 4; MA: Moderately Agree (Neutral) = 3; D: Disagree = 2; SD: Strongly Disagree = 1. In the interpretation of the level of adequacy of the infrastructure facilities, the mean score ratings were broken down into the following four ordinal categories: Very inadequate (0.0 – 2.4); Inadequate (2.5 – 3.4); Adequate (3.5 – 4.4); Very adequate (4.5 – 5.0). (Krishnaswami & Ranganatham, 2011).

The study found that all the secondary schools in the study had functional lunch programs. And the community contributed towards the lunch program as shown in Table 4.

Table 4: The amount paid for lunch program

Years	Number of Students	Community Financing of Lunch
2015	40564	1383164
2016	41777	1003630
2017	42460	1050857
2018	44021	1100416
2019	45274	1184207

The table presents data on the number of students and community financing of lunch across the years 2015 to 2019. Over this period, there is a gradual increase in the number of students, starting from 40,564 in 2015 and peaking at 45,274 in 2019. Conversely, the community financing for lunch shows fluctuations over the same timeframe, with the lowest amount reported in 2016 at 1,003,630 and the highest in 2019 at 1,184,207.

Table 4.1 below shows the perspectives of secondary school's principles regarding lunch programs within their schools.

Table 4.1: Perspectives of the secondary schools' principals about the lunch program

Statements	SA	A	D	SD	Mean
The school has enough cooks for lunch programs	17 (27.3)	39 (60.6)	6 (9.1)	2 (3.0)	1.88
The school has adequate equipment for lunch programs	8 (12.1)	23 (36.4)	27 (42.4)	6 (9.1)	2.48
The school has a large number of students taking lunch	28 (43.8)	28 (43.8)	8 (12.5)	0	1.69
The school has adequate plates, cooking utensils and a dining hall	2 (3.2)	12 (19.4)	29 (45.2)	21 (32.3)	3.06
Lunch provided for students is a balanced diet and adequate	12 (18.2)	43 (66.7)	8 (12.1)	2 (3.0)	2.00
the lunch program is a success in the school	18 (28.1)	34 (53.1)	10 (15.6)	2 (3.1)	1.94
The school has enough food in the store	8 (12.5)	28 (43.8)	20 (31.3)	8 (12.5)	2.44
The school has a dining hall	2 (3.3)	6 (10.0)	15 (23.3)	41 (63.3)	3.47
The school has a semi-permanent dining hall	4 (6.5)	8 (12.9)	8 (12.9)	43 (67.7)	3.42
The kitchen is semi-permanent	14 (22.6)	23 (35.5)	8 (12.9)	19 (29.0)	2.48
The lunch program is expensive for the school	14 (22.6)	21 (32.3)	19 (29.0)	10 (16.1)	2.39
Some students take food from outside	10 (15.6)	6 (9.4)	12 (18.8)	36 (56.3)	3.16
Overall Mean					2.57

According to Table 4.1, the question posed to school principals on whether the schools had enough cooks for the lunch programs. The study showed that 27.3% strongly agreed and 60.6% agreed respectively. This amounted to 87.6% of secondary schools' principals who in general agreed that schools had adequate cooks for the lunch program. The study also showed that 9.1% disagreed while 3.0% strongly disagreed. This amounted to 12.1% of secondary schools' principals who in general disagreed that schools had adequate cooks for lunch programs. The mean rating was 1.88 (very inadequate).

The study explored further if the school had adequate equipment for lunch programs. The study showed that 12.1% strongly agreed and 36.4% agreed respectively. This amounted to 48.5% of secondary schools' principals who in general agreed that schools had adequate equipment for the lunch program. The study also showed that 42.4% disagreed while 9.1% strongly disagreed. This amounted to 51.5% of secondary schools' principals who in general disagreed that schools had adequate equipment for the lunch program. The mean ratings were 2.48 (inadequate).

The study explored if the school had a large number of students taking lunch. The study showed that 43.8% strongly agreed and 43.8% agreed respectively. This amounted to 87.6% of secondary schools' principals who in general agreed that schools had large

numbers of students taking lunch programs. The study also showed that 12.5% disagreed. The mean rating was 1.69 (very inadequate).

The study also investigated whether schools had adequate plates, cooking utensils and dining halls. The study showed that 3.2% strongly agreed and 19.4% agreed respectively. This amounted to 22.6% of secondary schools' principals who in general agreed that schools had adequate plates, cooking utensils and dining halls. The study also showed that 45.2% disagreed while 32.4% strongly disagreed. This amounted to 77.5% of secondary schools' principals who in general disagreed about the adequacy of plates, utensils and dining halls. The mean ratings were 3.06 (inadequate).

The lunch provided for students is a balanced diet and adequate. The study showed that 18.2% strongly agreed and 66.7% agreed respectively. This amounted to 84.9% of secondary school principals who in general agreed that schools provided students with an adequate and balanced diet. The study also showed that 12.1% disagreed while 3.0% strongly disagreed. This amounted to 15.1% of secondary schools' principals who in general disagreed that schools' lunch program was a balanced diet. The mean ratings were 2.00 (very inadequate).

The question posed to the school principal was whether the lunch program was a success in the school. The study showed that 28.1% strongly agreed and 53.1% agreed respectively. This amounted to 81.2% of secondary schools' principals who in general agreed that the schools' lunch program was a success. The study also showed that 15.6% disagreed while 3.1% strongly disagreed. This amounted to 18.7% of secondary schools' principals who in general disagreed that schools' lunch program was a success. The mean rating was 1.94 (very inadequate).

The study investigated whether schools had enough food in store. The study showed that 12.5% strongly agreed and 43.8% agreed respectively. This amounted to 56.3% of secondary schools' principals who in general agreed that schools had enough food stock in the store. The study also showed that 31.3% disagreed while 12.5% strongly disagreed. This amounted to 43.8% of secondary schools' principals who in general disagreed that schools had adequate food stock in the store. The mean ratings were 2.44 (very inadequate).

The study explored if the school had a dining hall. The study showed that 3.3% strongly agreed and 10% agreed respectively. This amounted to 13.3% of secondary schools' principals who in general agreed that schools had a dining hall. The study also showed that 23.3% disagreed while 63.3% strongly disagreed. This amounted to 86.6% of secondary school principals who in general disagreed that schools had adequate dining halls. The mean ratings were 3.47 (adequate).

The study findings on whether the school has a semi-permanent dining hall showed that 6.5% strongly agreed and 12.9% agreed respectively. This amounted to 19.4% of secondary school principals who in general agreed that schools have a dining hall. The study also showed that 12.9% disagreed while 67.7% strongly disagreed. This amounted to 80.6% of secondary school principals who in general disagreed that schools had adequate dining halls. The mean ratings were 3.42 (adequate).

The study investigated if the kitchen is semi-permanent. The study results showed that 22.6% strongly agreed and 35.5% agreed respectively. This amounted to 58.1% of secondary schools' principals who in general agreed that schools have a dining hall. The study also showed that 12.9% disagreed while 29% strongly disagreed. This amounted to 41.9% of secondary schools' principals who in general agreed that the kitchen is semi-permanent. The mean ratings were 2.48 (inadequate).

The study results on lunch programs are expensive for the school showed that 22.6% strongly agreed and 32.3% agreed respectively. This amounted to 54.9% of secondary schools' principals who in general agreed that schools have a dining hall. The study also showed that 29.0% disagreed while 16.1% strongly disagreed. This amounted to 45.1% of secondary schools' principals who in general agreed that the lunch program is expensive for the school. The mean ratings were 3.16 (adequate).

A question was posed on whether some students took food from outside. The study results showed that 15.6% strongly agreed and 9.4% agreed respectively. This amounted to 25% of secondary schools' principals who in general agreed that schools' have a dining hall. The study also showed that 18.8% disagreed while 56.3% strongly disagreed. This amounted to 75.1% of secondary schools' principals who in general disagreed that some students take food from outside. The mean ratings were 2.57 (adequate).

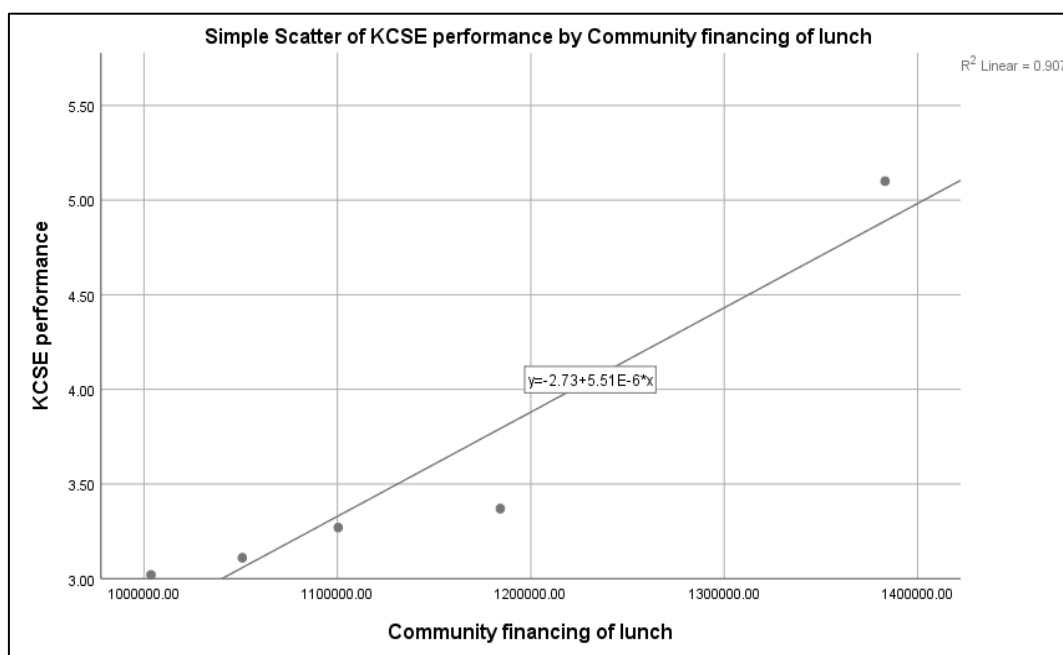


Figure 4.10: The scatter plot performance by Community Financing of Lunch Programme

The scatter plot in figure 4.10 depicts "Community Financing of Lunch" and "KCSE performance" data points, along with the positive slope of the line of best fit, indicating a positive relationship between these variables. This suggests that as "Community Financing of Lunch" increases, there is a tendency for "KCSE performance" to also increase.

Table 4.2(a): Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.952 ^a	.907	.875	.30499
a. Predictors: (Constant), Community financing of lunch				

The model summary in Table 4.2(a) demonstrates an exceptionally strong and statistically significant relationship between "Community Financing of Lunch" and "KCSE performance." The high R-value of approximately 0.952 reveals an exceptionally strong positive correlation, indicating that changes in "Community financing of lunch" are closely associated with variations in KCSE performance. Furthermore, the model explains an impressive 90.7% of the variance in KCSE performance (R Square = 0.907), signifying an outstanding fit. The adjusted R Square (0.875) reinforces that the model maintains its explanatory power without unnecessary complexity. The low std. error of the estimate (approximately 0.30499) attests to the model's precise predictive capabilities.

Table 4.2(b): ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.706	1	2.706	29.089	.012 ^b
	Residual	.279	3	.093		
	Total	2.985	4			
a. Dependent Variable: KCSE performance						
b. Predictors: (Constant), Community financing of lunch						

The ANOVA in Table 4.2(b) reveals that the regression model, which includes "Community financing of lunch" as a predictor of "KCSE performance," is statistically significant at the 0.05 significance level. This implies that the observed relationship between "Community financing of lunch" and "KCSE performance" is highly unlikely to be due to random chance, and there is a meaningful statistical association between the two variables. The F-statistic of 29.089 indicates that the model effectively explains a significant amount of the variance in KCSE performance, and "Community financing of lunch" plays a substantial role in this explanation.

Table 4.2(c): Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.733	1.177		-2.321	.103
	Community financing of lunch	5.511E-6	.000	.952	5.393	.012
a. Dependent Variable: KCSE performance						

The coefficients table sheds light on the relationship between "Community financing of lunch" and "KCSE performance" within the regression model. The constant term suggests that when there is no community financing for lunch programs, the baseline KCSE

performance may not be statistically different from zero, although the marginal significance level (p-value of 0.103) suggests some uncertainty. However, the primary focus is on "Community financing of lunch," which exhibits a substantial and statistically significant effect on KCSE performance. For every incremental unit of community financing for lunch programs, KCSE performance is expected to increase by a tiny amount (approximately $5.511E-6$), as indicated by the small coefficient value. Importantly, the Beta value of 0.952 highlights a strong and positive relationship, signifying that increased community financing positively impacts KCSE performance. Thus, the statistical model takes the form $Y = B_0 + B_1 X_1 + \dots + e$. Where Y represents the outcome variable while X represents the predictor variable i.e. $Y = 2.73 + 5.511E-6X_1$.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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