

Financial Resources as Determinants of Academic Performance in Public Secondary Schools in Kuria East and Kuria West Sub-Counties, Kenya

American Journal of Social Sciences and Humanities

Vol. 4, No. 2, 392-406, 2019
e-ISSN: 2520-5382



Corresponding Author

Hezekiah Adwar Othoo¹
Maureen A. Olel²
Julius Gogo³

^{1,2,3}Maseno University, Department of Education Management and Foundations, Kenya.

¹Email: hezruakas@gmail.com Tel: +254728983065

²Email: Maureen.olel@gmail.com Tel: +254721261325

³Email: jotieno2009@gmail.com Tel: +254703111021

ABSTRACT

Shortages and improper utilization of financial resources in educational institutions have been found to hinder educational outcomes. This study sought to determine the influence of the levels of adequacy and utilization of financial resources on learners' academic performance in Kuria East and Kuria West sub counties. The study adopted a descriptive survey research design. The population consisted of 40 principals and 345 teachers. Saturated random sampling technique was used to select 36 principals while stratified random sampling was used to select 138 teachers for the study. Data was collected through questionnaires, document analysis guide and observation checklist. Quantitative data was analyzed using both descriptive and inferential statistics involving percentages, mean and linear regression and qualitative data using content analysis. Findings indicated that adequacy of financial resources influences the performance with a regression coefficient of 0.100 and utilization of financial resources 0.799. From the findings it was concluded that levels of adequacy and utilization of financial resources had statistically significant effects on academic performance in public secondary schools of Kuria east and Kuria west sub-counties. The study recommended that the principals and parents should ensure adequacy and optimal utilization of financial resources. Findings of the study may be useful to Kuria East and Kuria West sub counties, county government of Migori, Teachers Service Commission, educational planners, policy makers, and educational managers to utilize educational financial resources efficiently and device measures to address shortages of educational resources in schools so as to improve academic performance and to academicians for research purposes.

Keywords: *Academic performance, Financial resources, Utilization, Adequacy, Quality education, Fee charged.*

DOI: 10.20448/801.42.392.406

Citation | Hezekiah Adwar Othoo; Maureen A. Olel; Julius Gogo (2019). Financial Resources as Determinants of Academic Performance in Public Secondary Schools in Kuria East and Kuria West Sub-Counties, Kenya. *American Journal of Social Sciences and Humanities*, 4(2): 392-406.

Copyright: This work is licensed under a [Creative Commons Attribution 3.0 License](https://creativecommons.org/licenses/by/3.0/)

Funding: This study received no specific financial support.

Competing Interests: The authors declare that they have no competing interests.

History: Received: 17 June 2019/ Revised: 26 July 2019/ Accepted: 2 September 2019/ Published: 1 October 2019

Publisher: Online Science Publishing

Highlights of this paper

- This study sought to determine the influence of the levels of adequacy and utilization of financial resources on learners’ academic performance in Kuria East and Kuria West sub counties.
- The study adopted a descriptive survey research design. The population consisted of 40 principals and 345 teachers.
- The results indicate that levels of adequacy and utilization of financial resources had statistically significant effects on academic performance in public secondary schools of Kuria east and Kuria west sub-counties.

1. INTRODUCTION

Under the Bill of Rights in the Republic of Kenya (2010) free and compulsory basic education is guaranteed to all children, including vulnerable children and children with disabilities. The constitution also commits to providing Kenyan youth with access to quality education. Kenya’s Vision 2030, the government’s blue print for long-term development, affirms Kenya’s aim to transform the country into a middle – income economy providing high quality of life for all its citizens by the year 2030. In addition, Kenya has committed to achieve the global Sustainable Development Goals (SDGs) by the year 2030 (Republic of Kenya Vision 2030). Goal four of the SDGs is quality education which aims to provide inclusive, equitable and quality education and promote lifelong learning opportunities for all. The quality of education imparted to Kenyan children and youth are, and would remain, the determining factor in the achievement of Kenya’s Vision 2030. Investing in human capital is the sure means for Kenya to achieve her economic, social and political objectives well-articulated in Vision 2030 and the constitution.

Despite the progress made in enhancing enrolment at all levels of education, there remain challenges that hinder Kenya from reaping maximum benefits of the large investments made in the sector, which stands at close to 7% of the annual GDP (NESSP 2014-2018). One of the challenges is low quality of education outcomes. An analysis of students’ 2016 performance on the KCSE examinations indicates that most learners achieved below average scores with 33000 learners’ attaining E grade in KCSE of which Kuria East and Kuria West had 200 Es which represents about 7% of the total number of candidates in Kuria East and Kuria West Sub-Counties with the grade (Kenya National Examination Council (KNEC), 2016). This was a very significant percentage since there are over 300 sub counties in Kenya with only two contributing over 7% of the total number of candidates with the lowest grade. Further analysis of KCSE performance in Migori County shows that Kuria East and Kuria West sub-counties have been at the bottom of the seven sub counties in the county for a number of years as indicated in Table 1.

Table-1. Migori county KCSE result analysis from 2012 – 2016.

Year / Subcounty	2012	2013	2014	2015	2016
Rongo	6.26	7.01	5.33	5.60	3.77
Awendo	5.01	5.62	5.49	5.23	3.56
Uriri	4.92	4.89	5.21	5.25	3.56
Nyatike	5.27	5.52	5.30	5.26	3.94
Migori	5.60	5.15	5.14	4.97	3.28
Kuria West	4.82	4.75	4.63	4.58	3.13
Kuria East	4.70	4.61	4.60	4.51	3.046

Source: Migori county TSC statistics office.

The Organization for Economic Co-operation and Development (OECD) Programme for International Student Assessment (PISA) shows that resource shortages hinder instruction and lower student performance (OECD, 2007). In some education systems, there are concerns that schools not only lack the resources to meet the

educational requirements of their students, but that schools may have fewer resources with which to provide instruction to their students (OECD, 2008).

A survey report conducted by KNEC (2017) in Kenya titled National Assessment System for Monitoring Learner Achievement (NASMLA) on what causes poor performance in KCPE and KCSE identified factors that causes poor results as lack of regular meals, textbook sharing, and school entry age, lack of facilities, absenteeism by teachers, irregular assessment and professional qualifications of teachers among others.

Due to the scarcity of resources and inequality in the allocation of educational resources because of corruption and remote location of certain institutions, one can find one school having more than enough resources while others experience deficiencies (Republic of Kenya: Economic Survey, 2017). To address this, the government has provided each learner in any school in Kenya with an equal grant in form of FDSE of Ksh.12870 per year (The Kenya Gazette of 10th March, 2015). This has been stepped up to Ksh.22244 leaving day secondary education free with parents not required to pay fee as indicated in Table 2.

Table-2. Government fee guideline as from 2018.

Vote head	Government subsidy (Kes)	Parent fee(Kes)	Total
Teaching learning materials	4792	00	4792
Repair, maintenance and improvement	2886	00	2886
Local travel and transport	1833	00	1833
Administrative costs	1572	00	1572
Electricity, water and conservancy	2151	00	2151
Activity fees	1256	00	1256
Personal emoluments	5755	00	5755
Medical and insurance	1999	00	1999
Total school fees	22244	00	22244

Source: MOE, Kenya 19th October, 2017.

The taskforce on implementation of RoK (2013) recommended that schools should start income generating projects to supplement the fee paid by parents and FDSE grants. As to whether schools adhered to this advice so as to ensure adequacy of resources was one of the issues to be addressed in this research. A report by Ethics and Anti-Corruption Commission in 2018 revealed that head teachers were issuing wrong enrolment figures, flouting procurement procedures, taking bribes and hiding crucial audit documents to steal free educational funds. The report also unearthed massive irregularities in the procurement of text books for public schools, with head teachers playing a key role in the racket. The fraud ranged from forged signatures, delivery of phantom books, overpricing and single-sourcing of suppliers by instructional materials selection committees at the school level. Many times the school administrators have not respected the fee guidelines set by the government with the major reason being that the funds are not sufficient thus they have tended to increase fee paid by the students (Kilemi, 2013). However the optimal utilization of these funds depends on the managers of these schools. It was therefore necessary to establish the influence of levels of adequacy and utilization of school financial resources on academic performance of Kuria East and Kuria West sub-counties.

2. STATEMENT OF THE PROBLEM

There had been low and declining academic performance in public secondary schools in Kuria East and Kuria West Sub Counties over the years. This was despite the fact that the government invested heavily in education, for example, in 2016/2017 financial year; secondary schools were allocated 32 billion for FDSE in which Kuria East and Kuria West benefited (RoK, 2016) to ensure that resources required in schools were availed. Moreover, the

government had continuously over the years employed more teachers in public secondary schools in which Kuria East and Kuria West sub-counties were also beneficiaries but the academic performance continued to decline in Kuria East and Kuria West over the years compared to other neighboring sub counties. This study therefore sought to determine the influence of financial resources as determinants of learners' academic performance in Kuria East and Kuria West Sub Counties with a view to addressing low academic performance of public mixed secondary schools in the said sub counties.

3. OBJECTIVES OF THE STUDY

The objectives of the study were:

1. To determine the influence of the levels of adequacy of financial resources on learners' academic performance in Kuria East and Kuria West sub counties.
2. To establish the influence of the levels of utilization of financial resources on learners' academic performance in Kuria East and Kuria West sub counties.

4. LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

The financing of the Kenyan education system was the result of a complex partnership, with efforts made mainly by the Government budget and parents, but with substantial contributions from the development partners, the private sector and NGOs. Private education was entirely financed by the parents and the private sector (NESSP 2013/14-2017/18).

A high demand for secondary education has been recorded at secondary level in Kenya. For example, enrolment in secondary schools rose from 2.1million in 2013 to 2.3 million in 2014 (RoK, 2016). This demand calls for higher spending in education on the side of government and the parents. To ease the burden on the exchequer, the government introduced cost sharing strategy between the government and parents through sessional paper No.1 of 1986 on economic Management for Renewed Growth that set procedures for reducing this expenditure to 30% of the total recurrent expenditure. This meant that increased cost sharing in the financing of education and training had called for the use of more cost effective measures in the utilization of educational facilities, equipment, materials and personnel (RoK, 1988).

Up to 37.3% of the secondary expenditure was spent on indirect educational costs namely uniforms, books and stationery, pocket money and transport. This becomes the critical element in secondary school education financing. Njeru and Orodho (2003) recommended the regulation of fees guidelines, monitoring effectiveness of indirect secondary school levies such as holiday and weekend tuition and MOCK examination fees and proper accountability of funds from income-generating projects. Out-of-school tuition or 'coaching' has been exploited and converted into a money minting enterprise. Teachers deliberately fail to cover the syllabus during the normal school hours and wait to teach during the extra hours to make a quick buck. This was blamed on 8-4-4 system of education due to its wide curriculum. The grand effect of all these were to increase fees beyond the reach of an average parent (Ibid).

The cost of learning materials, books, uniforms and other expenses, in addition to opportunity costs, deter poor students from engaging in formal secondary education. This cost include Personal books e.g. dictionaries, bible, atlas and hymn Book. Uniform fees, boarding fees, PTA, medical and caution, Personal basics e.g. soap, pens, exercise books, uniforms and shoes (Bray, 2002). It was for this reason that Free Day Secondary Education (FDSE) was introduced in 2008 with the aim of enhancing access, equity, quality and retention in secondary education. The FDSE provides for financing of tuition and operational expenses that make secondary education affordable to most students. Since inception the FDSE capitation has been Ksh. 10,265 which was increased to Ksh.12870 in the

2014/15 FY. This was due to inflation and to cushion parents against the rising costs of education. However, schools have continued to charge parents high fees beyond the government set fee guidelines.

The Secondary Education Program has seven sub-Programs implemented under it. The sub- Programs include Free Day Secondary Education; Science Laboratory Equipment grants; Special Needs Education; Secondary Bursaries and scholarships; Secondary Schools Infrastructure; ASAL, Pockets of Poverty and service gratuity grants; ICT Integration in Secondary Education, Diploma Teacher Education (Education Sector Report 2016/17 – 2018/19).

ICT integration in Secondary Education was aimed at providing capabilities and skills needed for knowledge based economy as envisaged in the Kenya Vision 2030. In the FY 2012/13 Ksh.480 M was allocated and disbursed to 210 secondary schools, 2013/14 KES. 350 M disbursed to 204 schools. In 2014/15 procurement was done centrally for 243 secondary schools.

Science Laboratory Equipment Grant was meant to support identified needy secondary schools with funds to purchase laboratory equipment and chemicals. During the FY 2012/13, a total of Ksh. 165 M was disbursed to 1,179 schools with each receiving Ksh. 139,949. This amount was increased to Ksh. 251,560,000 in 2013/14 and disbursed to 1,324 schools each receiving Ksh. 190,000. In 2014/15 a total of Ksh. 178,255,854 was disbursed to 954 schools each receiving Ksh. 186,851. The fund has improved the teaching and learning of science subjects especially in newly established secondary schools. However, there was need to increase the allocation so that more schools are reached as well as address the adequacy of equipment.

The Secondary Constituency Bursary Scheme has been in existence since 2003 supporting vulnerable groups including orphans, girls and children from poor families in slum areas; poverty-stricken families in high potential areas; and families in ASAL areas. Funds from the scheme have assisted needy secondary school students meet other education expenses not catered for by FDSE. In 2012/2013 Ksh.1 billion was disbursed to constituency bursary committees across the country. The amount was increased to KSH. 1.17 billion in 2013/2014. In 2014/2015, no allocation was provided as the role was to be taken up by Constituency Development Funds.

Secondary Schools Infrastructure: The sub Program has two components namely, school infrastructure development and national schools upgrading. The school infrastructure development component targets all the 8041 public secondary schools while the national schools upgrading component targets 103 national schools. In 2012/13, a total of Ksh. 200 million was disbursed to 227 schools. Similarly, in 2013/14, a total of Ksh. 108 M was disbursed to 68 schools .The support was enhanced in 2014/2015 to Ksh. 1.56B under the regular and public initiative infrastructure funding and the money was disbursed to 345 schools. (Education Sector Report 2016/17 – 2018/19).

Cost and financing of education was a complex subject; complex because finance underlies so much of the three overarching themes of contemporary education policy, namely: quality and the relationship between funding and quality in any of its several dimensions; access, or the search for social equity in who benefits from, and who pays for, education; and efficiency, or the search for a cost-effective relationship between revenues (particularly those that come from students, parents, and taxpayers) and outputs, whether measured in enrollments, graduates, or student learning, [Barasa \(2006\)](#). To reduce secondary unit costs by enhancing cost-effectiveness in education, the Government could target an upper limit of optimal class size of 45 students, and promote the efficient use of both human and physical resources. This option should be accompanied by cost reduction measures for parents towards making secondary education affordable. Increase Class Size was promote class size of 45 students in secondary schools ([Lewin, 2006](#)).

Barasa (2006) carried out an investigation on consequences of financial mismanagement in secondary schools in Kenya. The problems encountered include; strikes, poor food lack of learning facilities, school fees hikes and inadequate non-teaching staff. The study was however silent on the influence of these factors on learners' performance.

Other studies done relating to this area include those of Dean (2009) who undertook a study in United Kingdom to investigate problems faced by school management. His findings were that, the most predominant problems inherent in schools include- staff, administrative and discipline problems, financial problems, which come in from resource allocation and management. In essence, Dean (2009) underscored the importance of proper utilization of resources. It was therefore important to relate such problems on their influence to learners' output which this study sought to establish.

4.1. Conceptual Framework

This study was based on a hypothesized relationship between a set of variables as diagrammatically explained in Figure 1.

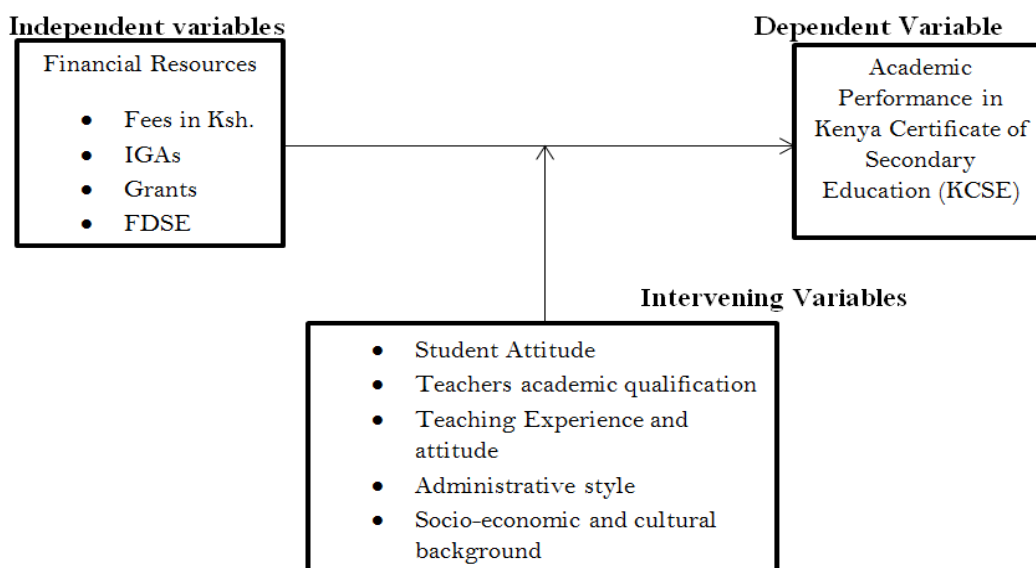


Figure-1. Relationship between the dependent and independent variables.

Figure 1 financial resources from fees, Income Generating Activities (IGAs), grants, Free Day Secondary Education (FDSE), were the independent variables in this study, and their influence on academic performance, the dependent variable. The intervening variables which might also have had effects on academic performance included but not limited to student attitude, teachers academic qualification, teaching experience, administrative style and socio-economic and cultural background. Adequacy of the above resources ensures availability of other school resources that enable learners to work independently and with ease, assignments could also be issued and completed in good time, enriched learning environment, adequate syllabus coverage and consequently improved academic results.

5. RESEARCH METHODOLOGY

This study adopted a descriptive survey research design. As a result of the cause-and-effect relationships, this research design does not permit manipulation of the variables (Patton, 2002). Therefore the independent variables were studied after they had already exerted their effect on the dependent variable.

The study was carried out in Kuria which was constituted by Kuria East and Kuria West Sub Counties of Migori County. The researcher targeted 40 principals and 345 teachers from 40 public mixed secondary schools.

The study's sample size was determined using the Bell (2005) rule of thumb which suggests that at least a third of the total population was sufficient for representativeness in a social study. In this study, the principal for each school (90% of the population) and teachers randomly chosen from each of the schools sampled were the respondents in this study. A total of 36 principals were sampled for the study after 4 principals had been used for piloting. This was because principals were the administrators of these institutions therefore possessed all the information about the school they administered and were custodians of all the resources in a school. The other teachers were to complement the data that might have not been given by the principal for objectivity purposes.

To ensure fair representation of teachers for the study, stratified random sampling was used in selecting and distributing 138 teachers. The stratification factors were day, day and boarding. Due to possibilities of non-responses, the study targeted a participation scale of 138 teachers who were randomly chosen.

This study used questionnaires to gather information from principals, teachers, and observation checklist and document analysis guide. Questionnaires were recommended because the data gathered allowed measurement for and against a particular view point. Questionnaires were also considered ideal for collecting data from Head teachers and teachers because they could individually read, interpret and fill them. They allowed information to be collected from a large number of respondents within a short time and ensure anonymity and also eliminated interviewer's bias (Orodho, 2009). Both open-ended and closed-ended questions were used. The study employed two different sets of questionnaires for both principals and teachers.

Face and content validity of the instruments were determined by experts in planning and economics of education and their inputs were considered in making the necessary revisions on the final version of the instruments that were used to collect data. A pilot study involving four public mixed schools which represented 10% of the population was done to ascertain the reliability of the instruments and the weaknesses noted were corrected to make the instruments more reliable.

Conversion of data into meaningful information was undertaken on two dimensions, one involving quantitative/metric data (nominal, ordinal and interval forms of data) and the other involving qualitative/non-metric data (textual open-ended data). The refined and organized quantitative data was analyzed using descriptive and inferential statistics involving percentages, mean scores and regression analysis to determine varying degrees of response-concentration. According to Hair *et al.* (2010) this statistical approach was essential when finding a way of condensing the information contained in a number of original variables into a smaller set of factors with a minimum loss of information. The statistics was generated with aid of the computer software, Statistical Package for Social Sciences (SPSS) Version 20.0.

The study's non-metric, open-ended responses were analyzed using content analysis procedure, whereby the pool of diverse responses was reduced to a handful of key issues in a reliable manner. This was achieved through a stepwise process that involved two broad phases: firstly, taking each person's response in turn and marking in them any distinct content elements, substantive statements or key points; and secondly, forming broader categories to describe the content of the response in a way that allowed for comparisons with other responses. The categories

obtained in second phase was numerically coded and then entered into the data file to be treated as quantitative data.

6. DATA ANALYSIS, PRESENTATION AND DISCUSSION

6.1. Sources of Financing School Activities

The study sought to investigate the sources of financing school activities and it was found out that all schools were financed through fee payments by parents and Free Day Secondary Education (FDSE) from the government. Other sources of financing school activities included bursary, Constituency Development Funds (CDF), donors like World Vision, Parents Teachers Association, *harambee* and a few schools had income generating activities (IGAS).

6.2. Fee Charged by Schools

The study assessed the amount of fee charged by schools and findings are represented in Figure 2.

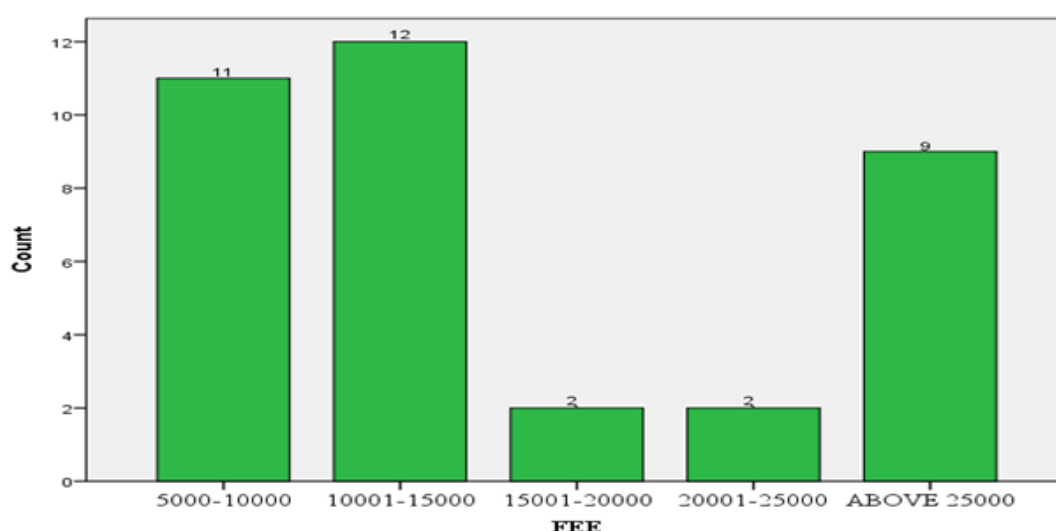


Figure-2. Fee charged by schools.

Figure 2 shows that 12 (33%) of the schools charged fee of Ksh. 10001-15000, 11(31%) 5000-10000, 9(25%) above 25000 and 2(6%) charged 15001-20000 and 20001-25000 each. As had been indicated in Figure 2, about 70% of the schools were sub county schools which according to the government fee guideline were supposed to charge a maximum of Ksh.9000 from parents but Figure 2 shows that only 11 (31%) schools charged fee within the government guidelines.

In addition, all the schools charged extra levies inform of upload of students details for KCSE registration, teacher motivation and printing papers. These funds were never included in the fee structure. This may mean that schools lacked sufficient funds from which they could operate.

6.3. Level of Fee Payment

It was necessary to establish the level of fee payment in an attempt to address financial resource adequacy and the results are shown in Figure 3.

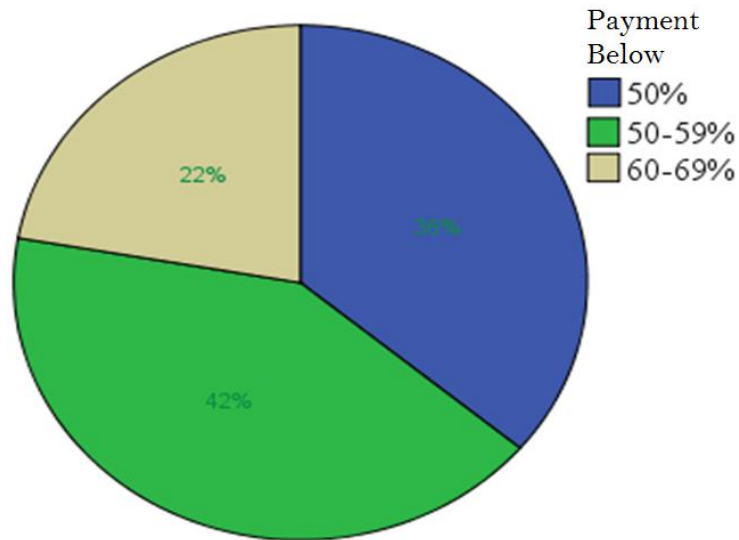


Figure-3. Levels of fee payment.

Source: Kuria East and Kuria West sub counties secondary school principals.

Figure 4 reveals that fee payment is 50-59% in 15(42%) of the schools sampled followed by 13(36%) of schools with level of fee payment of below 50% and only 8(22%) with fee payment levels of 60-69%. The implication of this is that all the schools have greater number of sundry debtors in form of fee arrears which means the financial resources are not adequately available in schools at the time of need. This jeopardizes the operations of schools thus interferes with quality output in form of academic performance in KCSE.

6.4. Income Generating Activities

The study also assessed whether schools had income generating activities and the result is presented in Figure 4.

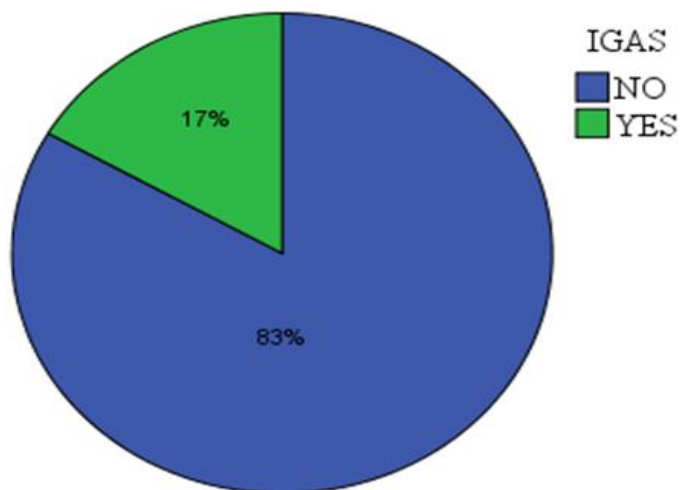


Figure-4. Reveals that 30(83%) of the schools do not have income generating activities and only 6 (17%) have income generating activities.

For the schools with income generating activities, the research investigated further the type of activities and the result is presented in Table 3.

Table-3. Types of income generating activities.

IGA	Frequency	Percent
Bus hire	2	33.33
Bus hire	1	16.67
Farm	1	16.67
Green house	1	16.67
Poultry	1	16.67
Total	6	100.0

Table 3 shows that income generating activities range from bus hire to farm, poultry and green house. It was also important to enquire about the amount realized from these activities. The result is indicated in Table 4.

Table-4. Amount realized from income generating activities (Ksh. p.a).

School	2015	2016	2017
1	4000	6000	10000
2	12000	15000	30000
3	21000	60000	50000
4	12000	20000	0
5	0	250000	300000
6	0	320000	350000

Source: School principals.

Table 4 shows that the amount netted from IGAS ranged from Ksh.4000 to Ksh.350000 for individual schools each year for the period 2015 to 2017. The variation of the amount realized from IGAs was because some schools had projects whose rate of returns were high like bus hire while others had low rate of returns like farm projects.

The study also established why schools do not have IGAS and the reasons advanced are shown in Table 5.

Table-5. Reasons for not having IGAS.

Reason	Frequency	Percent
Insecurity	3	10
Improper management	1	3.33
Lack of capital	6	20
Lack of land	5	16.67
Lack of personnel	1	3.33
Lack of resources	8	26.67
Local politics	2	6.67
Remoteness	3	10

Source: School principals.

Table 5 reveals that 6 (20%) out of the 30 schools with no IGAS lack capital,8(26.67%) lack resources, 5(16.67%) lack land on which to invest among others. This further escalates the inadequacy of financial resources in schools since many schools did not have IGAS with which to complement the financial support received from other sources which were also not adequate.

6.5. Infrastructure Funds

Principals were asked to indicate if their schools had ever received infrastructure funds from the government in the past five years and the responses are shown in Figure 5.

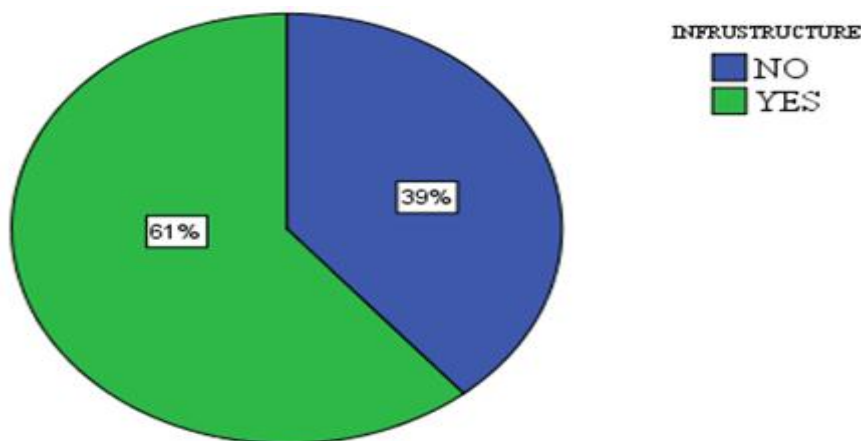


Figure-5. Infrastructure funds.

Source: School principals.

Figure 5 shows that 22(61%) schools had not received infrastructure development fund in the past five years and only 14 (39%) schools had received the fund in the past five years from the government. For the schools that received the funds, the researcher observed that the funds were used to build new classrooms, laboratories, libraries, teachers’ houses, dining halls among others.

6.6. Mitigation of Financial Resource Inadequacies

Principals were asked to indicate how they mitigate challenges resulting from financial resource management. The responses are summarized in Table 6.

Table-6. Mitigation of financial resource inadequacies.

Mitigation measure	Frequency	Percent
Allowing parents to pay fee in form of farm produce	20	55.6
Bank overdrafts	36	100
Borrowing from other voteheads	36	100
Minimizing operation costs, postponing some projects	36	100
Observing financial guidelines	3	8.3
Prudent utilization of FDSE funds	1	2.8
School fee paid via safaricom pay bill	2	5.6
Well wishers donation	1	2.8

Source: School principals.

Table 6 shows that 36(100%) schools mitigated the problems of financial challenges by taking bank overdrafts, borrowing from other voteheads, minimizing operation costs and postponing some projects, 20(55.6%) schools allowed parents to pay fee in form of farm produce, 2(5.6%) allowed parents to pay fee via safaricom pay bill which mitigated the problem of lack of banking services nearby as a result of remote locations of the schools. Some of the solutions are government policies as regards prudent management of financial resources. These include observing financial guidelines and prudent utilization of FDSE funds which were adhered to by only three and one school respectively.

6.7. Regression Analysis for the Influence of Levels of Adequacy of Financial Resources on school mean performance in KCSE

Regression analysis was done with the dependent variable being Mean KCSE performance in various schools sampled and the levels of fee payment which was unique to different schools and the IGAs amount realized also considered to establish the relationship as indicated in the scatterplot and regression model.

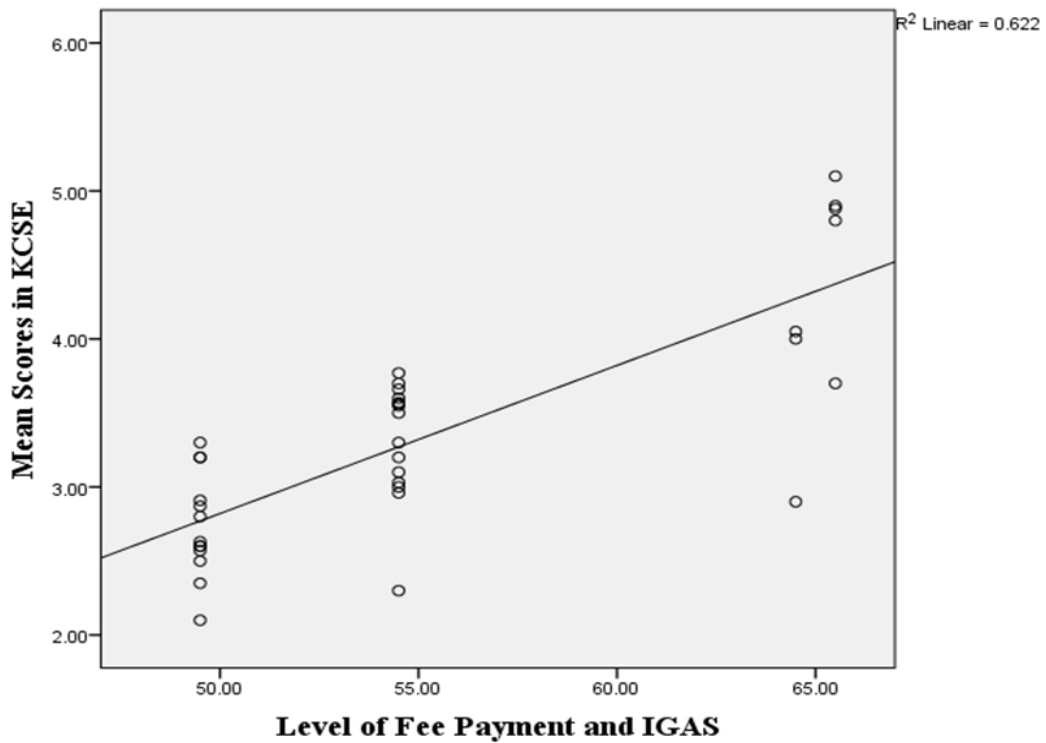


Figure-6. Scatterplot showing relations between levels of fee payment and IGAs and mean performance in KCSE.

It was established that there was a positive relationship between schools mean scores in KCSE examination and the level of fee payment and IGAs amount realized. This was because a line of best fit could be drawn across the scatter points except for a few outliers.

Table-7. Regression model showing influence of adequacy of financial resources on school mean performance in KCSE.

Model	Unstandardized coefficients		Standardized coefficients	T	Sig.
	B	Std. error	Beta		
(Constant)	-2.190	.728		-3.006	.005
Level of fee payment and IGAS	.100	.013	.793	7.597	.000

a. Dependent variable: Mean scores in KCSE.

Table 7 shows that the levels of fee payment and IGAs influences academic performance positively with a Pearson’s correlation of 0.793, regression coefficient of .1 at sig 0.000 against the test value of 0.05.

Level of fee payment and IGAs exhibited a positive trend with school mean performance in KCSE. These findings concurred partly with those of RoK (2013); Orodho (2003) and Barasa (2006) who found out that adequacy of financial resources leads to adequacy of other school resources which were ingredients for high academic performance. However, this research found out that some schools had fewer resources but performed better than other schools which had comparably higher resources.

6.8. Influence of Utilization of Financial Resources on Academic Performance

6.8.1. School Audit Reports

The researcher analyzed 36 school audit reports for the years 2015 and 2016 and summarized the findings in Table 8. The annual audit reports of various schools for the year 2017 were not ready by the time of data collection.

Table-8. School audit report.

Item	Comments	Frequency	%	
Income& expenditure	Excess income over expenditure	5	14	
	Excess expenditure over income	31	86	
Balance sheet	Funded accounts with saving account	9	25	
	Funded accounts without savings account	27	75	
	Sundry debtors	22	0-10	
	Majorly fee arrears		7	10-20
			3	20-30
			2	30-40
		2	40-50	
Inter-account borrowing	Overdrawn accounts	33	92	
	Stable accounts	10	28	
Extra levies	School fund account	36	100	
	Academic support programme	36	100	
	ID cards	36	100	
	Registration of candidates	36	100	
	Lunch programme	36	100	

Note: Tuition account include income for and expenditure on textbooks, exercise books, laboratory equipment, teaching and learning material, chalk, teachers' guide, reference/library materials and internal examinations.

Operations account include income for and expenditure on repairs, maintenance and improvement, local transport and travels, electricity, water & conservancy, administration cost, activity, personal emoluments, smasse, medical and insurance.

School fund account include income for and expenditure on PTA, development/harambee funds, caution money, uniform fund, KCSE registration, farm account, bursary fund, bank loan, sundry creditors, sundry debtors, ID cards , bus hire, bus insurance and bus maintenance.

According to Table 8, 31(86%) schools had excess expenditure over income which meant that most schools were spending in excess of budgetary allocation with only 5(14%) schools spending within the budgetary allocation. This is because these schools supplement their financial need by taking bank overdrafts. Further, 27(75%) schools had funded accounts (made mostly of PTA/Development, caution money, uniforms, farm funds and bus hire) without savings account which meant that the funded accounts would not be readily available when required. 36(100%) of the schools had sundry debtors majorly consisting of fee arrears but with different recovery rates. All the schools did not obey the government fee guidelines and charged extra levies (upload of registration details for KCSE, printing papers, motivation fee for teachers). No legal implication had been taken against any school for charging extra levies.

6.9. Influence of Utilization of Financial Resources on School Mean Academic Performance in KCSE

Regression analysis was done with the dependent variable being Mean KCSE performance in various schools sampled and school annual audit reports which was unique to different schools and the IGAs amount realized also considered to establish the relationship as indicated in the scatterplot in Figure 7 and regression model in Table 9.

The model shows that the levels of utilization of financial resources as revealed by school annual audit report influences academic performance positively with a Pearson's correlation of 0.818 and a regression coefficient of 0.799 which meant that the level of utilization of financial resources influenced academic performance by up to 79.9%.

Levels of utilization of financial resources exhibited a positive trend with school mean performance in KCSE. These findings concurred with Mwiria (2013) who found out that the levels of utilization of financial resources positively influences the scores in KCSE.

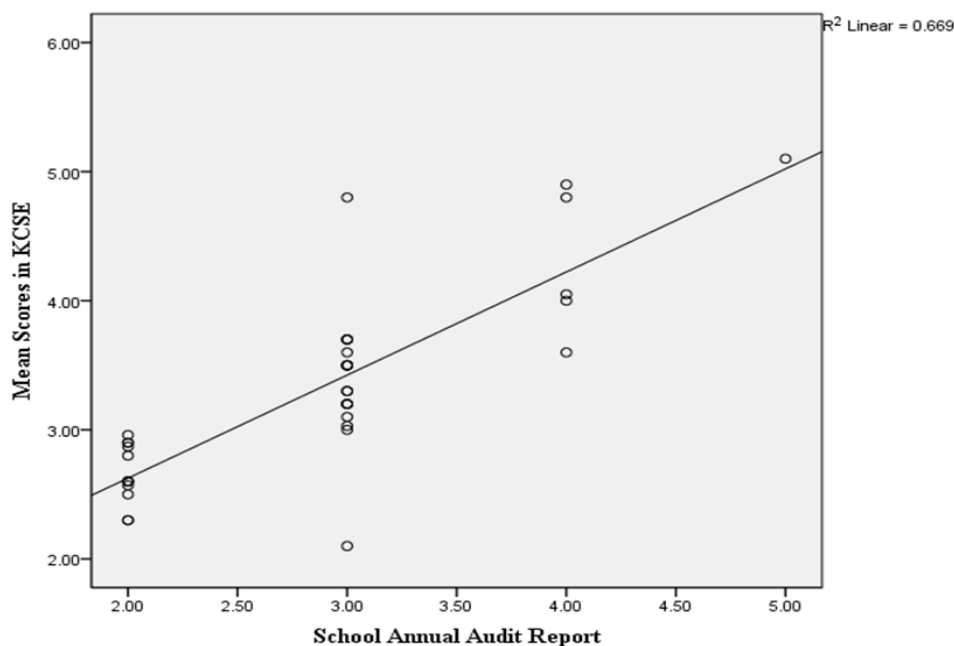


Figure-7. Scatterplot for utilization of financial resources against academic performance.

Table-9. Regression model for levels of utilization of financial resources on academic performance.

Model	Unstandardized coefficients		Standardized coefficients	T	Sig.
	B	Std. error	Beta		
(Constant)	1.028	.285		3.610	.001
School annual audit report	.799	.096	.818	8.294	.000

a. Dependent Variable: Mean Scores in KCSE.

7. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

An analysis of the second objective reveals that adequacy of financial resources influences the performance with a regression coefficient of 0.100 as in Table 7. This indicates that the higher the level of adequacy of finances in schools the better the academic performance.

Financial resource utilization also correlated very highly against academic performance with a regression coefficient of 0.799 as in Table 9. This meant that the more prudent the financial resources were utilized the better the KCSE performance.

8. CONCLUSION

Financial resource adequacy never had significant influence on academic performance which meant that the mere availability of the financial resources did not account for major differences in academic performance but the utilization counted much.

In addition, it was found out that the levels of financial resources utilization predicted to a larger extent the academic performance of schools. The more effective the utilization of financial resources, the better the academic performance and vice versa.

9. RECOMMENDATIONS

The researcher recommended the following:

- The principals and parents should ensure the fee balance by students is paid in time to allow for the smooth operations of the schools. This can be supplemented by income generating activities.

- Strict adherence to financial guidelines set out by the MOE should be strictly monitored by the government and the culprits punished so as to foster prudence in financial management by the school managers.

REFERENCES

- Barasa, D., 2006. Consequences of financial mismanagement in secondary schools in Kenya. Nairobi: Acts Press.
- Bell, C.R., 2005. Research methodology: Methods and techniques. New Delhi: Wiley.
- Bray, M., 2002. The costs and financing of education: Trends and policy implications, comparative education research centre. The University of Hong Kong and Manila: Asian Development Bank.
- Dean, 2009. Problems faced by school management in United Kingdom. London: Edward Arnold Press.
- Hair, J., R. Anderson, R. Tatham and W. Black, 2010. Multivariate data analysis. 5th Edn., London: Prentice Hall.
- Kenya National Examination Council (KNEC), 2016. Form four Kenya certificate of secondary education examination result analysis. Nairobi: Government Printer.
- Kilemi, M., 2013. Policy on reduction of escalating cost of secondary education. Nairobi: Government Printer.
- KNEC, 2017. Form four Kenya certificate of secondary education examination result analysis. Nairobi: Government Printer.
- Lewin, K., 2006. Financing secondary education in developing countries. UNESCO: International Institute for Education Planning.
- Mwiria, K., 2013. Policy on reduction of escalating cost of secondary education. Nairobi: Government Printer.
- Njeru, H.N. and A.J. Orodho, 2003. Access and participation in secondary education in Kenya: Emerging issues and policy implications. IPAR Discussion Paper No. 037/2003WASBN 9966-948-27-9.
- OECD, 2007. Alternative approaches to financing lifelong learning. Czech Republic Country Report: OECD.
- OECD, 2008. Alternative approaches to financing education. Sweden Country Report: OECD.
- Orodho, J., 2003. Education financing in Kenya: Secondary school bursary scheme implementation and challenges, IPAR DP/035/2003. Nairobi: Institute of Policy Analysis and Research.
- Orodho, J.A., 2009. Elements of education and social science research methods. Maseno Kenya: Kanezja Publisher.
- Patton, H., 2002. Market forces in education, World Bank. Washington DC: World Bank.
- Republic of Kenya, 2010. The revised constitution. Nairobi: Government Printer.
- Republic of Kenya: Economic Survey, 2017. Nairobi: Government Printer.
- RoK, 1988. Report of the presidential working party of education and manpower training for the next decade and beyond. Nairobi: Government Printer.
- RoK, 2013. Free day secondary education (FDSE) implementation schedule. Nairobi: Government Printer.
- RoK, 2013. National education sector support programme plan (NESSP 2013). Nairobi: Government Printer.
- RoK, 2016. Education Sector Report 2016/2017 – 2018/2019 MTEF Budget Report. Nairobi: Government Printer.
- RoK, 2016. Economic survey 2015. Nairobi: Government Printer.

Online Science Publishing is not responsible or answerable for any loss, damage or liability, etc. caused in relation to/arising out of the use of the content. Any queries should be directed to the corresponding author of the article.