



Influence of Development Fund Pricing Guidelines on the Quality of Education in Public Sub-County Secondary Schools in Busia County, Kenya

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Abstract: *The academic performance of public secondary schools in Busia County has been declining for the past three consecutive years below the national mean scores with 3.80 in 2018, 3.68 in 2019 and 3.51 in 2020, the worst affected being Sub County schools. Pricing guidelines issued to schools from the government are dependent on the economic status of the parents for success. For a county like Busia with high poverty index of 69.3%, there could be challenges of resourcing schools for quality attainment. The purpose of this study was to establish the influence of development fund pricing guidelines on the availability of adequate infrastructure to public sub-county secondary schools in Busia County. Stratified random sampling was used to select 60 schools from 114, and purposive sampling to select 7 Sub County Directors of education, for the study. Questionnaires for principals, interview schedule for sub county directors of education; observation checklist and document analysis guide were used to collect data. The researcher pre-tested the instruments using 10 schools in the study population and obtained a reliability of 0.8 for Principals' questionnaire. Quantitative data was analyzed using both descriptive and inferential statistics involving percentages, mean scores, correlations. Qualitative data was analyzed using content analysis. The findings indicated that the development fund pricing guidelines did not avail adequate infrastructure to schools with a weak positive Pearson's correlation index ($R^2=0.003$); This study might help education economists and planners to come up with effective methods of pricing secondary education in Kenya for quality purposes.*

Keywords: *Development fund; Pricing; Guidelines; Infrastructure; Implications; Quality Education*

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1. Introduction

Education and training is critical in promoting political, social and economic development of any country. Education is a human right as enshrined in international treaties and conventions to which Kenya is a signatory. The 4th goal of the Sustainable Development Goals (SDGs) calls for all states to provide quality education for all by 2030. Every learning institution today is faced with challenges of quality and to produce graduates who are relevant to the job market in the volatile and ever

changing market (World Bank 2019). The quality motive and task to remain in market pose a bounden of duties on educational managers. One of these huge tasks is pricing decision. The ultimate goal of any pricing decision is the achievement of the organization's object.

Secondary education is increasingly being recognized as a critical element in achieving the goals of human development, political stability and economic competitiveness (UNESCO 2018). As an intermediary step between primary and tertiary education, secondary

education serves as a preparatory phase for youth before they enter the workplace, helping to equip a largely adolescent population with skills, aptitudes and social values for a productive and healthy adult life. Moreover, in countries where UPE has been reached, a bulging cohort of primary school learners is placing increasing demands on the education sector to expand secondary education provision. Nonetheless, countries face enormous challenges when planning, pricing and resourcing secondary education expansion because it is many times more costly and complex than primary education (Lewin 2008).

The Constitution of Kenya (2010) makes education a basic right under the Bill of Rights where basic education

is guaranteed for all children and the state is obliged to make its provision possible. According to Sessional Paper No.1 of 2019, the broad objectives of education sector interventions are to achieve hundred percent net secondary school enrolment rates and ensure quality of education. Secondary objectives are to improve access, equity and quality and to reduce disparities at all level of education. It is in light of this observation that the government of Kenya has embarked on various mechanisms as seen in education policies and financing of education to provide equitably for the gender, regional and social needs of education to its citizens which has resulted to upsurge in enrolment with lowered quality of education as in Table 1.

Table 1: Trend of Enrolment and KCSE performance in Kenya from 2015 - 2019

Year	2015	2016	2017	2018	2019
Candidates with a mean grade of C+ and above	169492	88929	70073	90950	125835
Total KCSE candidates	521240	571161	610501	653787	693770
Percentage of candidates with C+ and above	32.52	15.59	11.48	13.91	18.14
Enrolment from F1-F4	2609000	272060000	2839860	2942700	3260000
Number of candidates with E grade	5350	33399	36036	30854	29333
Percentage of candidates with E grade	1.03	5.85	5.82	4.72	4.22

Source: Economic Survey, 2020

The trend of enrolment from F1-F4 has been increasing from 2015- 2019. For instance, there was percentage increase in enrolment of 4.3% in 2016, 4.4% in 2017, 3.5% in 2018, 10.8% in 2019 and 8.0 % in 2020 (Economic Survey, 2021). The continual increase in enrolment overtime demands increase in the school resources, infrastructure inclusive, which pricing guidelines to schools issued by Ministry of Education from time to time plays a key role in their availability for utilization in schools in order to ensure quality education.

National Education Sector Support Programme (NESSP 2015 – 2018) noted that despite the impressive performance in improving access due to government policy of 100% transition from primary to secondary levels of education, there are broad challenges and emerging issues being experienced by the sector, which include falling learning outcomes and acute teacher shortage. It further observed that despite the FDSE, schools have continued to impose levies and other fees

making education unnecessarily expensive. This level of education is in dire need of basic facilities especially for those schools hived from primary schools (sub-county schools' category). This position is supported by Fuller (2017), who observed that despite the government's effort in expanding secondary education in Kenya, the overall provision of education remains inadequate in relation to quality considerations. He further noted that the impressive quantitative expansion of schools has overstretched the classrooms, laboratories and halls of residence due to favourable government school access policies. Further, it has become difficult for teachers to offer individualized instructions and many instructors have resorted to lecture methods to offer instructions which do not meet the 21st century pedagogical requirements (Kallio and Halverson, 2020).

The performance of secondary schools in Busia County in the national examinations has been declining for the past three consecutive years below the national mean scores.

Further, Busia County school quality indicators such as Learner Classroom Ratio (LCR), Student Teacher Ratio (STR), School Size and Kenya Certificate of Secondary

Education (KCSE) performance were compared with the national average and the neighbouring counties and presented in Table 2.

Table 2: Comparison between education Average quality indicators: National verses Counties in Western region

	School size	Learner- Classroom Ratio (LCR)	Student- Teacher Ratio (STR)	KCSE PERFORMANCE		
				2018	2019	2020
National average	285	45	30	3.96	4.30	4.53
Kakamega County average	293	47	35	4.2	4.33	4.80
Busia County average	356	60	36	3.80	3.68	3.51
Bungoma County average	295	50	28	3.97	4.01	4.46
Vihiga County average	302	53	32	4.14	4.58	4.67

Source: MOE Statistical Booklet 2021

Data in Table 2 showed that the National average school size is 285 learners. When the National average was compared with the counties in Western region, it was found out that Busia County had the highest school size at 356, followed by Vihiga county at 302, followed by Bungoma County at 295 and Kakamega county at 293. Busia County class sizes was higher than the neighbouring Counties. Similarly, Learner to classroom Ratio was compared with the national average at 45, Busia County was at 60, Vihiga County at 53, Bungoma county at 50 and Kakamega County at 47. Moreover, Student Teacher Ratio was compared with the national average and the neighbouring Counties and the results indicated that Busia County was at 36 against the National Average at 30, Kakamega County at 35, Vihiga

County at 32 and Bungoma County at 28. When the KCSE performance was compared it revealed that the National Average was 3.96 in 2018, 4.30 in 2019 and 4.53 in 2020 with Busia County having an average of 3.80 in 2018, 3.68 in 2019 and 3.51 in 2020; Kakamega county registering a mean of 4.2 in 2018, 4.33 in 2019 and 4.80 in 2020; Bungoma county having 3.97 in 2018, 4.01 in 2019 and 4.46 in 2020; Vihiga county had 4.14 in 2018, 4.58 in 2019 and 4.67 in 2020. This data showed that Busia County performed worst in the quality indicators so discussed as compared to the National and the neighbouring Counties. Performance of various categories of schools in Busia County was further analyzed and presented in Table 3

Table 3: Performance of Sub County schools verses County, Extra county and National Schools Category in Busia County

School Categories	School size	Learner- Classroom Ratio (LCR)	Student- Teacher Ratio (STR)	KCSE PERFORMANCE		
				2018	2019	2020
Sub - County	285	63	40	3.24	2.96	2.72
County	430	50	38	4.71	4.30	4.86
Extra County	849	55	33	5.90	5.68	5.61
National	1155	62	29	7.84	7.01	6.81
County average	356	60	36	3.80	3.68	3.51

Source: County Director of Education, Busia County 2021

Various school categories quality indicators as in Table 3 showed that on school population, sub county schools was at 285, county schools at 430, Extra county schools at 849, National schools at 1155. The learner classroom ratio indicator was as follows; sub county schools were at 63, county schools at 50, Extra County schools at 55 and National Schools at 62 with the average at 60. Moreover,

Student teacher ratio indicated that sub county schools was at 40, county at 38, extra county at 33, National at 29 with the county average at 36. In addition, the KCSE performance of the various sub countries revealed that sub county schools scored a mean of 3.24 in 2018, 2.96 in 2019, and 2.72 in 2020; County schools scored a mean of 4.71 in 2018, 4.30 in 2019, and 4.86 in 2020; Extra county

schools scored a mean of 5.90 in 2018, 5.68 in 2019 and 5.61 in 2020 while National schools scored a mean of 7.84 in 2018, 7.01 in 2019 and 6.81 in 2020.

In an effort to enhance the policy in secondary education related to improving relevance and expansion on student access to quality education through reduced indirect cost to the parents, the government of Kenya came up with pricing guidelines from 2013. Secondary education financing has thus been guided by fee guidelines issued from time to time by the ministry of education. Currently sub county secondary schools receive capitation from the government of Ksh.22244 and are not expected to charge extra levies apart from development fund agreed upon by board of management and ratified by MOE. However, schools have continued to charge different amount of fees more than the amount recommended by the taskforce and gazetted by the Ministry of Education (MOE, Kenya 19th October 2017). Worse still, the cost of secondary education has remained very high and education quality has continued to decline with increase in access.

The Government of Kenya has been increasing spending on education, the funding was to provide on the equal share per child instead of an equitable share of public funds per child. Since the introduction of FSE in 2008, responsibility for constructing physical facility and providing other learning and teaching materials has been shifted to parents raising the cost of education; that parents are required to meet quality of facility and equipment. This means that regions and counties of the country with high population and high enrolment will continue getting more funds for education from government as the disadvantaged regions continue to lag behind. Schools do not have uniform fee structures due to variations in the amount that may be charged due to the need of each school in form of development fund. Other voteheads that constitute the fee charged by a particular school are fixed except the development fund which is designed to vary as stipulated in the pricing guidelines. Therefore, the development fund pricing guidelines may result to variations in the provision of infrastructure such as classrooms, laboratories and toilets since each school has its own unique fee structure taking into account that the amount of development fund levy is decided by the parents of a given school.

There is likelihood of discrepancies in the quality of education from school to school fueled by these pricing guidelines. For a county like Busia which has high poverty index of 69.3% (KNBS report for 2022), it is expected that even the parents who form school community and stakeholders might not afford the infrastructural requirement for quality education. Worse still, Busia poverty level is categorized with the counties within Arid and Semi-Arid (ASAL) regions like

Turkana, Mandera, Samburu and Garissa yet it is not among the ASAL counties (KNBS and University of Nairobi, 2020). This implies that the households may not have the financial power with which to fulfil their financial obligations to schools like the development fund whose availability is dependent upon parents' economic status in different localities. Therefore, this study seeks to establish the influence of development fund pricing guidelines on the availability of adequate infrastructure to public sub-county secondary schools in Busia County, Kenya.

1.1 Statement of the Problem

The government pricing guidelines sent to schools from time to time are meant to ensure that schools are endowed with financial resources with which to purchase school resources for their efficient operations in order to realize quality of education. The development fund pricing guidelines which should avail school infrastructure such as classrooms, laboratories and toilets is largely dependent on parents. In a county like Busia where poverty index is at 69.3% and given that the poor parents take their children to sub county schools due to the fact that they charge the lowest fee, the infrastructural status of such schools might suffer. Further, Busia county has registered the lowest academic performance in Kenya Certificate of Secondary Education (KCSE) for the past three consecutive years, 2018 was 3.80, 2019 was 3.68, 2020 was 3.51 compared with the neighbouring counties with the sub county schools category not only performing the poorest but also declining overtime; 2018 was 3.24, 2019 was 2.96, 2020 was 2.72.

1.2 Objectives of the study were as below:

1. To establish the influence of development fund pricing guidelines on the availability of adequate classrooms to ascertain quality of education in public sub-county secondary schools in Busia County, Kenya.
2. To determine influence of development fund pricing guidelines on the availability of adequate laboratories for quality of education in public sub-county secondary schools in Busia County, Kenya.
3. To determine influence of development fund pricing guidelines on the availability of adequate toilets in public sub-county secondary schools in Busia County, Kenya.

2. Literature Review

The quality motive and task to remain in market pose a bounden of duties on educational managers. One of these huge tasks is pricing decision. The ultimate goal of any pricing decision is the achievement of the organization objectives. Thus, pricing guidelines is a crucial decision for any organization. An organization survival and profitability depends upon its pricing decisions thus price is the only element in the marketing mix that produces revenue and thus ensures profitability (Kotler & Keller, 2006). Effective pricing decision is tool for achievement of organization set objectives and may be a sufficient condition to meet the long-term organizational goals. Pricing guidelines, if properly planned and evaluated can be a competitive weapon in the ever-dynamic market. However, management has a big responsibility before them in setting and adopting the most advantageous pricing guidelines.

Over time, communities and parents have been responsible for and have made substantial investments in school infrastructure. Development partners, churches, Non-Governmental Organizations (NGOs) and individuals have also supported communities in order to improve learning environments. Given the importance of these public investments, the school administrator needs to adequately address the issues of planning of educational physical facilities in order to provide quality learning environment (Kenneth & Jeffery, 2006). Educational buildings need to have learning spaces that support the learning process; are secure, comfortable and provide inspirational setting for teaching and learning to take place (Abend, 2006). The quality of school facilities seems to have direct effect on learning, an effect that is hard to measure. However, research has shown that clean air, good lighting and small, quiet, comfortable and safe learning environments are important for academic achievement (Cash, 1993). According to a report by United Nations Education, Scientific and Cultural Organization (UNESCO, 2016), some secondary schools are started within existing primary schools which already suffer from inadequate and poor quality facilities in which virtually all the sub county schools in Busia County began in this manner.

According to MOE Statistical Booklet 2019, the share allocated to infrastructure is not sufficient to provide the required infrastructure in schools. Thus, schools source for further development funding from parents but this must be discussed and agreed by all stakeholders at school general meetings and then the agreement deposited with the MOE education for implementation. With the significant increase in primary school enrolment following the introduction of Free Primary Education

(FPE) in 2003, government policy abolishing grade repetition, readmission of pregnant students after delivery and the Basic Education, which makes education compulsory at primary and secondary levels, additional pressure has been put onto the existing secondary school infrastructure. This has led to poor conditions and overcrowding that may not be conducive to a good learning environment (Republic of Kenya, 2010). The Koech Commission of Inquiry into the Education System in Kenya placed importance on the provision of school physical infrastructure and attributed declining standards of education to inadequate and unsustainable physical facilities (Republic of Kenya, 2003). Further the Sessional Paper No 1 of 2019 also recognized the need for additional school infrastructure to ensure the successful implementation of Free Secondary Education and upsurge of learners in schools due to 100% transition guidelines. Schools in Kenya vary significantly in design, size and building materials. The school size, designs and quality have been left to schools and communities with little or no government supervision. This however has resulted into make-shift kind of structures in the name of schools which are likely to hinder the learning process because of their poor quality. One may wonder if there are government construction guidelines that are supposed to be followed during construction of such schools. The size of the classroom, in terms of length and width, should be 7.5m x 5.85m or 7.5m x 6.0m, and should accommodate 30 learners in one seater desks or 40 learners in two-seater desks (Ministry of Education, 2008).

Since the introduction of FSE in 2008, responsibility for constructing physical facility and providing other learning and teaching materials has been shifted to parents raising the cost of education; that parents are required to meet quality of facility and equipment, which has continued to deteriorate in most secondary schools as in Busia sub county schools (Koriyow 2017). This means that regions and counties of the country with high population and high enrolment will continue getting more funds for education from government as the disadvantaged regions continue to lag behind. For example, a county like Busia, which has high poverty index of 67.6% (KNBS report for 2021), is expected that even the parents who form school community and stakeholders may not afford the infrastructural requirement for quality education. Therefore, this study seeks to establish whether the development fund pricing guidelines avail adequate infrastructure to public sub-county secondary schools in Busia County, Kenya.

3. Methodology

3.1 Research Design

To be able to achieve the research objectives through empirical evidence with minimum expenditure of effort, time and money, descriptive survey research design was used. Descriptive survey research was employed because it gives factual information, objective or neutrality of information collected.

In addition to the descriptive survey, the study employed correlational research design. The correlational research design is a research design in which the researcher seeks to describe and measure the degree of association between an independent and dependent variable (Creswell, 2012).

3.2 Target Population

The target population was the public sub county secondary schools in Busia County with 114 schools in 7 sub counties. Sub County Schools in Kenya form the lowest cadre of secondary schools; after National, Extra County schools and County Schools. The schools admit students from majorly within the Sub County, from the immediate locality. The schools are majorly of mixed type, though there are a few single sex schools. Students joining these schools are mostly those with the low marks in the Kenya Certificate of Primary Education Examination (KCPE). The schools are in most cases Day Schools, though some are Day and Boarding Schools.

3.3 Sampling Techniques and Sample Size

The study used stratified random sampling to select and distribute 60 school heads from a population of 114 school heads. Saturated sampling was used to sample all the 7 sub county Directors of Education. The sampled schools resulted to 60 principals and seven sub county directors of education who provided data for this study. Stratified random sampling is a probability sampling technique in which strata or categories of people in the population is represented in the sampling process (Mathers, Fox, & Hunn, 2010). This technique of sampling is used in population that is heterogeneous in respect to the characteristics of interest. In this case, the population is composed of groups or sub populations that have distinct characteristics which are of interest to the researcher or have capacity to influence study results (Kutsanedzie et al., 2016). The strata included the various sub counties in Busia County. Nassiuma's Coefficient of Variation Sampling Formula was used to obtain samples from each stratum which summed to 60 schools (52.63%

of the target population) from a sampling frame of 114 schools as illustrated below.

$$n = \frac{Nc^2}{c^2 + (N-1)e^2} \quad \text{where;}$$

n - Sample size

N – Size of Target Population

C – coefficient of variation

e – error of margin

Coefficient of variation is the population standard deviation divided by population means (Kelley, 2007). The coefficient of variation of 0.5 was used because the maximum variability that can be observed in a population is 50% (Israel, 1992). At 50% there is equality in representation between population members with attributes of interest and those without. The margin of error, also referred to as margin of precision, refers to a measure of the possible difference between sample estimate and actual population value (National Audit Office, 2010). In Social Sciences, 5% is often used as the margin of error. Therefore, this study used 5% as the margin of error in calculating sample size.

3.4 Research Instruments

This study used questionnaires and document analysis guide to gather information from principals, interview schedule for sub-county director of education and document analysis guide to obtain information from County director of education office. Moreover, observation checklist was used on infrastructure.

3.5 Validity

Face and content validity were examined by experts in planning and economics of education in Maseno University. They carefully evaluated and critiqued content of the instruments to establish their soundness in collecting data for the proposed study. They also ascertained the comprehensiveness of the instruments in addressing the research objectives and questions. Liu, X. (2010), states that, the foregoing approach acts as a check against any ambiguity or inadequacy that the instruments might have. Their suggestions were considered in making the necessary revisions on the final version of the instrument that was used to collect data.

3.6 Reliability

A pilot study involving 10 principals which represents 10% was conveniently sampled from the study population

to test the reliability of the instruments. Test-retest method (administering the same instrument twice to the same group of subjects (Mugenda and Mugenda, 2008) was used in the study to measure the reliability of the instruments. Test-retest assesses the stability of the test scores over time. Paiva et al., (2014) define test-retest reliability as a measure of the reproducibility of the scale, that is, the ability to provide consistent scores over time in a stable population. The open-ended questionnaires were scored based on the closeness and similarity of the responses emanating from first and second administrations. Pearson's Correlation coefficient was used to test for similarity or closeness. Pearson's Correlation coefficient of 0.80 obtained from principals' questionnaire was considered adequate to illustrate reliability (Hale, 2015). Unclear or vague questions were revised accordingly.

3.7 Methods of Data Analysis

The refined and organized quantitative data was analyzed using descriptive and inferential statistics involving percentages, mean scores and correlation. According to Hair et al (2010), this statistical approach is 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.

Qualitative data was 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 involves 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 allows for comparisons with other responses. The categories obtained in second phase were numerically coded entered into the data file to be treated as quantitative data.

4. Results and Discussion

4.1 Classrooms

The principals were requested to provide data on the available number of classrooms in schools, shortage and the total number of classrooms the school required in order to satisfy its CBE requirements. Data on classrooms were obtained through the observation checklist and the principal questionnaire and the result is presented in Table 4.

Table 4: Classrooms

Sub County	Current Number of classrooms	Classroom shortage	Total classrooms Required	% shortage to total
Bunyala	52	13	65	20
Busia	75	13	88	14.8
Butula	76	12	88	13.6
Nambale	99	21	120	17.5
Samia	66	12	78	15.4
Teso North	58	22	80	27.5
Teso South	94	17	111	15.3
Total	520	110	630	17.5

There were 520 classrooms available for use by learners from the sampled schools with the schools lacking 110 classrooms which totals to 630 required classrooms in order to ensure quality education in public secondary schools in Busia County. Nambale Sub County has the highest number of classrooms at 99 with a shortage of 21 giving a percentage shortage to total classrooms required of 17.5. Bunyala Sub County has the least number of classrooms at 52 with a shortage of 13 giving a total of 65 with a percentage shortage of 20 classrooms. Teso North Sub County has the highest shortage of classrooms at 22 with a percentage of 27.5. Hence 17.5% of the classrooms required for current consumption by learners are lacking

in the whole county. The implication of this is that the number of learners who were supposed to occupy these 110 classrooms was accommodated in the available classrooms. This led to pockets of congested classrooms in some schools which interfered with quality of learning in the schools affected.

According to UNESCO (2019) the minimum student classroom space should be 1.5 square meters per pupil with one-seater desk, which would translate to 45 square meters for a room expected to hold 30 learners. Classrooms that are congested hardly provide space for movement and affect effective teachers' control of

classes. An ideal classroom should be spacious to allow free movement, space where students can form round table discussion with movable tables and chairs. This is supported by MOE Safety Standards Manual For Schools in Kenya, First Edition (2008) which guided that the size of the classroom, in terms of length and width, should be as specified in the Ministry of Education building specifications (i.e. 7.5m x 5.85m or 7.5m x 6.0m). Such classrooms should accommodate a maximum of 30 learners in one-seater desks or 40 learners in two seater desks in line with the provisions of the Ministry of

Education circular on Health and Safety Standards in Educational Institutions (2001).

4.1.1 Development Fund

The study sought clarification on whether the amounts charged for development were spent and if they were adequate as per projects for which they were charged and the results were presented in Table 5.

Table 5: Expenditure and Adequacy of Development Fund

Expenditure and Adequacy Status	Frequency	Percent
• Not applicable	7	11.7
• Spent and was adequate	23	38.3
• Spent but was not adequate	30	50.0
Total	60	100.0

Data from Table 5 highlighted that 53(88%) of the schools spent development fund received; 30(50%) indicated that the funds received were adequate for the projects it was meant, 23(46%) indicated that the amount was not adequate for the projects meant for them. Thus, some projects remained uncompleted. It was common to observe foundations of 17(22%) classrooms 13(13.3%) and laboratories that had been put up but not completed. Similarly, it was not unusual to find unfinished pit latrines. On other hand, 7(12%) of the schools did not receive development fund and therefore did not spend on development projects in the last five years.

According to the MOE circular issued in January 2022 in regard to financing of secondary schools, it allowed for

the use of Ksh. 5000 per student from the GOK subsidy as Maintenance and Improvement Fund per year to ensure a proper learning environment with adequate infrastructure and other improvements. Similarly, for boarding schools, an additional Ksh.2000 is provided for as parents' contribution. This vote was meant for immovable assets and other form of infrastructure in the school that may require upgrading. An approval must be sought from the relevant office on utilization of this vote. Accordingly, the study sought to establish if the development fund pricing guidelines avail adequate infrastructure to public sub-county secondary schools in Busia County, Kenya. The result was presented in Figure 1.

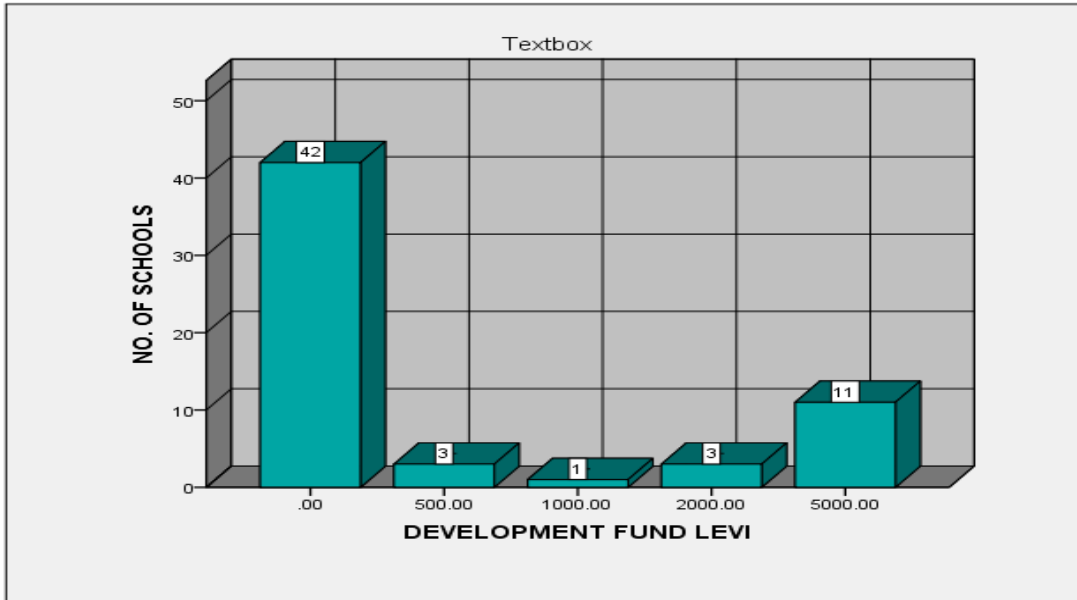


Figure 1: Development Fund Level

Figure 1 indicated that 42(70%) schools never charged parents any money for development, 3(5%) charged sh.500 per student, 1(1%) charged sh. 1000, 3(5%) charged sh. 2000 and 11(18%) charged sh. 5000. From the data gathered, it was noted that the pricing guidelines had made it difficult for schools to charge parents development levy and the government did not avail sufficient funds to put up new infrastructure rather it provided for the improvement of the existing infrastructure at Sh. 5000 per student per year. This situation was worsened by the fact that enrolment in schools continued to increase but was not matched with an increase in resources.

4.1.2 Relationship between development fund and the Number of Classrooms in a school

Pearson Product Moment Correlation coefficient (r) was done with the scatterplot drawn to highlight the relationship that existed between the current development fund which was charged by school due to the implementation of the development fund pricing guidelines and the available number of classrooms in the schools. The partial regression scatter plot obtained is presented in Table 6 and Figure 2

Table 6: Correlation between Development fund and the number of classrooms in schools

		DEVELOPMENT FUND	CURRENT NUMBER OF CLASSROOMS
DEVELOPMENT FUND	Pearson Correlation	1	.010
	Sig. (2-tailed)		.938
	N	60	60
CURRENT NUMBER OF CLASSROOMS	Pearson Correlation	.010	1
	Sig. (2-tailed)	.938	
	N	60	60

There was an insignificant relationship between the number of classrooms in schools and the development funds charged per school. This was indicated by a

Pearson's correlation coefficient of 0.010 with a sig value of 0.938 against 0.05 level of significance. This is further illustrated by a scatterplot in Figure 2.

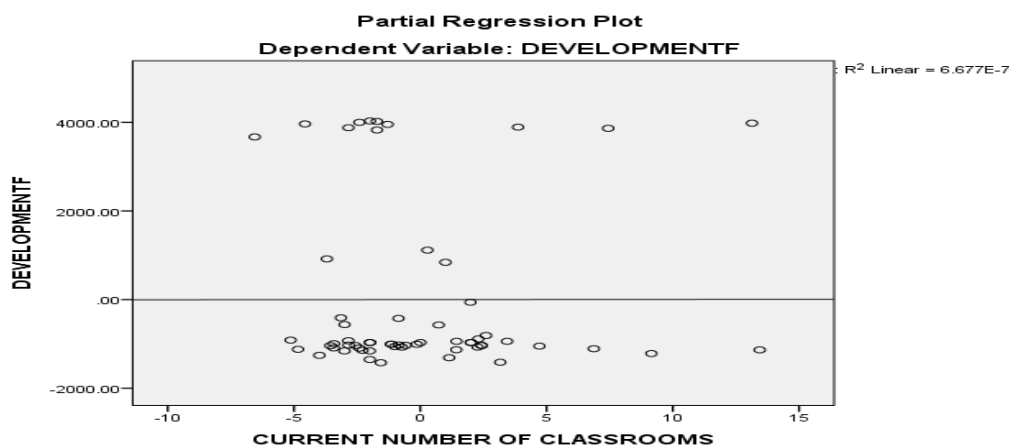


Figure 2: Relationship between the current number of classrooms and the development fund

Figure 2 indicates that there was statistically insignificant relationship between the current number of classrooms and the development fund as was indicated by the horizontal line of fit in the scatter plot (Kothari, 2004).

4.2 Laboratories

Table 7: Summary of Laboratory situation in schools

Sub County	Current Number of laboratories	Laboratory shortage	Total laboratories Required	% shortage to total
Bunyala	7	11	18	61
Busia	6	19	25	76
Butula	10	15	25	60
Namable	10	14	24	58
Samia	11	15	26	58
Teso North	14	18	32	56
Teso South	10	25	35	71
Total	68	117	185	63

Table 7 highlighted that the current number of laboratories in Busia Sub County schools is at 68 with a shortage of 117 and the total required laboratories of 68. It further showed that, Bunyala Sub County lacked 11 laboratories, Busia Sub County lacked 19 laboratories, Butula Sub County lacked 13 laboratories, Nambale sub county schools lacked 14 laboratories, Samia sub county schools lacked 15 laboratories, Teso North sub county schools lacked 18 laboratories and Teso South sub county schools lacked 25 laboratories. These schools might not compete effectively with other schools that had well equipped laboratories and offer quality education (Janssen, 2017). This resulted to a percentage shortage to the total number of laboratories required by schools of -63% with the available ones only accounting for 37% of what the schools required. This meant that admitting a learner in a sub county school is predisposing that learner to lack of or poor conditions for practical learning, especially in Science subjects which mostly required

laboratory use. This could partly explain mass failure in national outcomes and poor quality of education in sub county schools.

From Table 7, Teso South sub county schools required 33 laboratories, Teso North sub county schools required 32 laboratories, Samia Sub county required 26 laboratories, Nambale sub county schools required 24 laboratories, Butula sub county required 25 laboratories, Busia sub county schools required 25 laboratories and Bunyala sub county required 18 laboratories. This meant that the schools were in serious shortage of laboratories, a situation which might worsen with continual increase in enrolment in these schools fueled by the existing government access policies like 100% transition policy and the CBC curriculum reforms.

4.2.1 Relationship between development fund and the Number of Laboratories in a school

The scatter plot for the relationship between development fund and the number of laboratories in schools revealed the relationship as presented in Table 8 and Figure 3.

Table 8: Correlation between Development fund and the number of Laboratories in schools

		DEVELOPME NTF	CURRENT NUMBER OF LABORATORIES
DEVELOPMENTF	Pearson Correlation	1	.044
	Sig. (2-tailed)		.736
	N	60	60
CURRENT NUMBER OF LABORATORIES	Pearson Correlation	.044	1
	Sig. (2-tailed)	.736	
	N	60	60

There was an insignificant relationship between the number of laboratories in schools and the development funds charged per school. This was indicated by a

Pearson’s correlation coefficient of 0.044 with a sig value of 0.736 against 0.05 level of significance. This is further illustrated by a scatterplot in Figure 3.

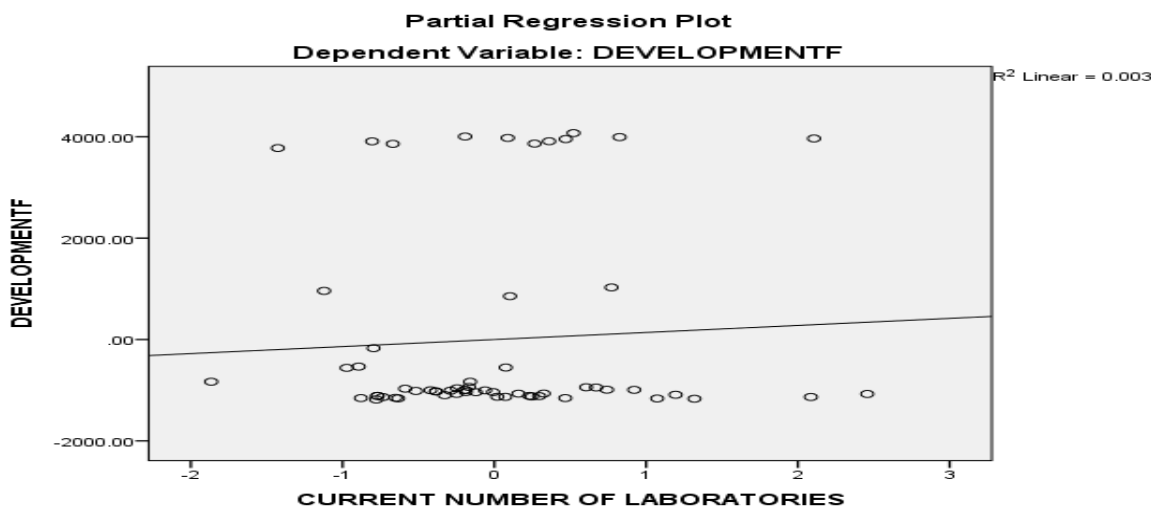


Figure 3: Relationship between the current number of laboratories and the development fund

Figure 3 illustrated a weak positive relationship between the development fund and the current number of laboratories with squared variance (R^2) of 0.003 on top right margin of the scatter plot. This denoted that the development fund caused existence /availability of laboratories by only 3%. Therefore the 97% is caused by other factors other than the development fund. These findings concurred with the studies done by Murunga (2016), Koriyow (2017) and Fuller (2017), who found out that lack of laboratories in schools leads to poor quality of education in such schools especially in science related subjects.

4.3 Toilets

Data on toilets was obtained through the questionnaire to the principals, observation checklist and the interview administered to the County Directors of Education. From the data obtained, MOE required that 1 door of toilet should serve 25 girls whereas 1 door of toilet should serve 30 boys. It also required that staff toilets should have separate doors for male and female gender. All the toilets should be well labelled according to the gender meant for them. Table 9 summarized the data obtained.

Table 9: Toilets

Sub County	Current Girls' toilets	Current Boys' toilets	Current Total Toilets	Toilets shortage	Toilets Required by the school	Percentage of the shortage to the required toilets
Bunyala	57	33	102	29	131	22.1
Busia	54	63	131	44	175	25.1
Butula	74	59	140	32	172	18.6
Nambale	74	60	144	61	205	29.8
Samia	52	47	119	34	153	22.2
Teso North	42	45	107	30	137	21.9
Teso South	77	55	146	49	195	25.1
Total	430	362	889	279	1168	23.9

From Table 9, the current girls' toilets were 430, current boys' toilets were 362 and the current total toilets were 889. Teso South Sub County had the highest number of girls' toilets at 77 while Busia Sub County had the highest number of boys' toilets at 63. Cumulatively Teso South Sub County had the highest number of both girls' and boys' toilets at 146. On the other hand, Busia sub county schools lacked a total of 279 doors of toilets with Nambale sub county schools lacking the highest number at 61 and Bunyala Sub County lacking the least number at 29 doors of toilets. Overall, the sub county schools in Busia required 1168 doors of toilets in order to serve the learners population but had a percentage shortage to the

toilets required at 23.9%. Nambale Sub County had the highest percentage shortage of 29.8%, Teso South at 25.1% and Busia at 25.1%, Samia Sub County at 22.2%, Bunyala at 22.1%, Teso North at 21.9% and the least being Butula Sub County at 18.6%.

4.3.1 Relationship between development fund and the Number of Toilets in a school

The scatter plot for the relationship between development fund and the number of toilets in schools revealed the relationship as presented in Table 10 and Figure 4.

Table 10: Correlation between Development fund and the number of Toilets in schools

		DEVELOPMENT FUND	CURRENT TOTAL TOILETS
DEVELOPMENT FUND	Pearson Correlation	1	-.040
	Sig. (2-tailed)		.761
	N	60	60
CURRENT TOTAL TOILETS	Pearson Correlation	-.040	1
	Sig. (2-tailed)	.761	
	N	60	60

There was an insignificant relationship between the number of toilets in schools and the development funds charged per school. This was indicated by a Pearson's

correlation coefficient of 0.040 with a sig value of 0.761 against 0.05 level of significance. This is further illustrated by a scatterplot in Figure 4.

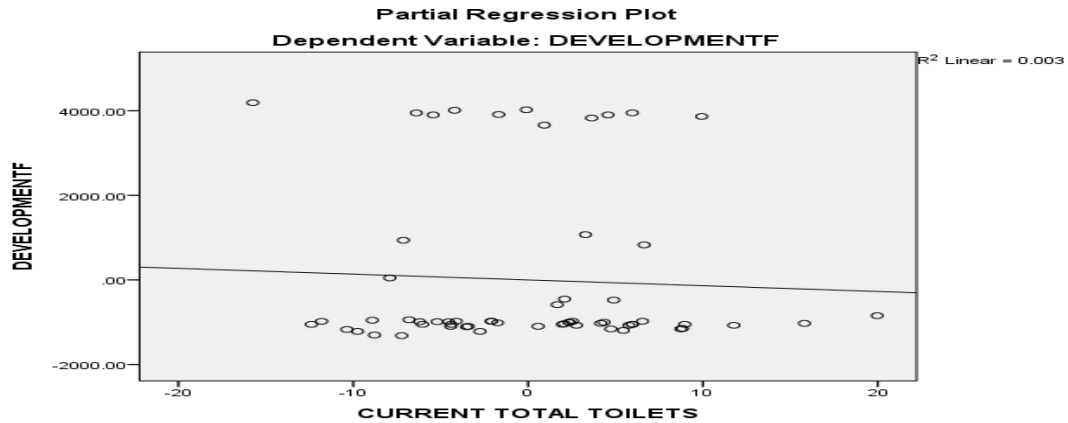


Figure 4: Relationship between the current total toilets and the development fund

Figure 4. illustrated a weak negative relationship between the development fund and the current number of toilets with squared variance of 0.003. This denoted that the development fund caused existence /availability of toilets by only 3%. Therefore the 97% is caused by other factors other than the development fund.

4.4 Influence of Development Fund Pricing guidelines on Quality of Education of Public Sub County schools in Busia County, Kenya.

Based on the data obtained and analyzed, the study found out that schools lacked 110(17.5%) classrooms, 117 (172%) laboratories and 279(23.9%) toilets. Therefore, there was pressure on the existing infrastructure which accommodated more than their capacities. Whereas the MOE quality guidelines advocate for a maximum of 45 learners in a classroom, at least 1 square meter station for each student in a laboratory, 1 door of toilet for 25 girls and 1 door of toilet for 30 boys, it was not the case in the sub county schools. This was due to the fact that most schools did not levy the parents' development funds because of the strict requirements that it demanded whereby the MOE had to authorize such a levy after getting consent from the parents. However, the schools that charged development funds had less shortage of infrastructure compared to those that did not. Most schools relied on CDF and government infrastructure funds which, were not given to all the schools.

5. Conclusion and Recommendations

5.1 Conclusion

There was an insignificant relationship between the number of classrooms in schools and the development funds charged per school with r value of 0.010; laboratories with r value of 0.040 and a weak negative relationship between development fund and the number of toilets with r value of -0.044.

5.2 Recommendations

The study recommends that the pricing guidelines offered to schools should include development fund vote head as primary component for financing infrastructural projects in schools.

Moreover, Repair Maintenance and Improvement fund (RMI) should be amalgamated with the development fund so as to have one vote head that can be used to take care of both.

The government should meanwhile continue with the infrastructure fund programme and CDF programmes

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